

PLAN OF MANAGEMENT

Natural Areas — Oyster Bay (West) Catchment



Adopted by: Sutherland Shire Council

Date: 27 June 2005 Minutes: FIN 275-05 Reference: CP/06/932023

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1 INTRODUCTION

1.1 BACKGROUND

The land management provisions of the Local Government Act, 1993 (The Act) provide Councils with the opportunity to move towards more positive land management practices with definite objectives for Council owned land. The Plan of Management identifies objectives and performance targets, means of achievement and assessment criteria, all of which will become accountable to the community. The Plan of Management allows Council to effectively control present and future use of public land within the local government area.

A Plan of Management is not the only document that governs the use and management of community land. Under the Act, community land is required to be used and managed in accordance with the following:-

- The Plan of Management applying to the land; and
- Any law which permits the use of land for a specific purpose, or otherwise regulates the use of the land. (This includes the Environmental Planning and Assessment Act and planning instruments made under the Act.

A Plan of Management should not be inconsistent with any environmental planning instrument applying to that land).

1.2 LAND TO WHICH THIS PLAN APPLIES

Land within the Oyster Bay (west) Catchment is located in the Sutherland Shire Council (Local Government Area). Oyster Bay (west) is located on the southern side of the Georges River and the catchment area ranges approximately from Oyster Bay Road in the south, Green Point Road in the west and Caravan Head Road in the north.

The Natural Areas within the Oyster Bay (west) Catchment are most commonly zoned 6(a) Public Open Space under the Sutherland Shire Council Local Environment Plan 2000 (SSLEP2000). The land is all classified as Community Land under the Act.

Table 1.2 1 lists the legal descriptions and addresses and land use zonings under SSLEP2006 of the reserves under consideration. Figure 1.2.2 provides a locality plan of the Oyster Bay (west) Catchment

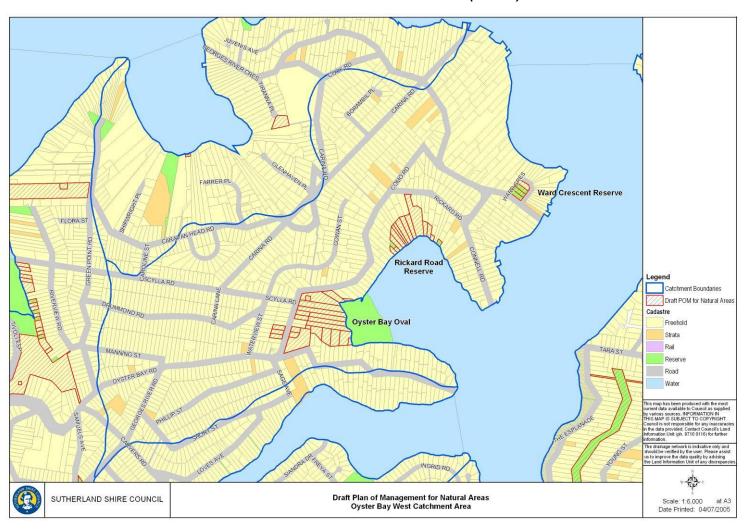
1.2.1 TABLE OF NATURAL AREAS OYSTER BAY (WEST)

Name of Reserve	Legal Description	Land Use Zoning SSLEP2006	Address
Oyster	Lot 55 DP 8118	Zone 13 Public Open	86R to 106R
Bay Oval	Pt Lot 59 DP8118	Space	Como Road, Oyster Bay
	Pt Lot 60 DP8118	Zone 13 Public Open Space	
	Pt Lot 61 DP8118	Zone 13 Public Open	
	Pt Lot 62 DP8118	Space	
	Lot C DP316717	Zone 13 Public Open Space	
	Pt Lot A DP403368	Zone 13 Public Open	
	Lot A DP411470	Space	
	Lot B DP411470	Zone 13 Public Open Space	
	Lot C DP411471	Zone 13 Public Open	
	Lot D DP411471	Space	
	Lot 1 DP505705	Zone 13 Public Open Space	
	Lot 2 DP505705	Zone 13 Public Open	
	Lot 2 DP 515144	Space	
	Lot 1 DP 571182	Zone 13 Public Open Space	
	Lot 2 DP 571182	Zone 13 Public Open	
	Lot 2 DP 617854	Space	
	Lot 1 DP 1130164	Zone 13 Public Open Space	
	Lot 54 DP 6797	·	
		Zone 13 Public Open Space	
		Zone 13 Public Open Space	
		Zone 13 Public Open Space	

Name of Reserve	Legal Description	Land Use Zoning SSLEP2006	Address
		Zone 13 Public Open Space	
		Zone 13 Public Open Space	
		Zone 13 Public Open Space	
		Zone 13 Public Open Space	
	Lot 19 DP 17645	Zone 13 Public Open	1R – 7 Ward
Ward	Lot 20 DP 17645	Space	Crescent, Oyster Bay
Crescent Reserve	Lot 21 DP 17645	Zone 13 Public Open Space	
	Lot 22 DP 17645	Zone 13 Public Open Space	
		Zone 13 Public Open Space	
Rickard	Lot 3 DP 521917	Zone 13 Public Open	8C – 36
Road Reserve	Lot 33 DP 567315	Space	Rickard Road, and
		Zone 14 Public Open Space Bushland	24A – 46R
	Lot 103 DP 585545	·	Como Road Oyster Bay
	Lot 203 DP 598730	Zone 14 & Zone 13	
	Lot 433 DP 628012	Zone 14 & Zone 13	
	Lot 203 DP 733320	Zone 14 & Zone 13	
	Lot 112 DP 739329	Zone 14 & Zone 13	
		Zone 14 & Zone 13	
	Lot 442 DP 747895	Zone 14 & Zone 13	
	Lot 22 DP 776190	Zone 14 Public Open	
	Lot 122 DP 785094	Space Bushland	
	Lot 394 DP 788599	Zone 14 & Zone 13	
Dlan of Mar		Ovster Ray (West) Catchment	Page 3

Name of Reserve	Legal Description	Land Use Zoning SSLEP2006	Address
	Lot 31 DP 792194	Zone 14 Public Open Space Bushland	
	Lot 404 DP 804531	Zone 14 & Zone 13	
	Lot 462 DP 1061769	Zone 14 Public Open Space Bushland	
		Zone 13 Public Open Space	

1.2.2 LOCALITY PLAN OF NATURAL AREAS OYSTER BAY (WEST)



1.3 STRUCTURE OF THE PLAN OF MANAGEMENT

Section 2 provides an overview of the legislative requirements for the preparation of a draft plan of management. This includes the relevant provisions of the Act and classification regimes to which the sites will be subject.

Section 3 outlines the community consultation process to identify issues and set values. The document will identify the core objectives for management of the sites and discuss the strategies to achieve and demonstrate the values that the community desires.

Sections 4, 5 & 6 will provide the following

- Description of the condition, features and facilities as at the date of the preparation of this document;
- proposes the categorisation of the natural features of the various sites,
- will provide a schedule of management strategies that can be developed from the Issues identified in Section 3, from the Community Consultation process.

Where Section 4 addresses Oyster Bay Oval, Section 5 covers Ward Crescent Reserve and Section 6 covers Rickard Road Reserve.

Section 7 states the purposes and scale for which the sites are allowed to be used

Section 8 will address the dynamics of the plan of management.

Section 9 Headed Implementing the Plan of Management discusses land management in to the future.

Section 10 provides appendices to the document, including maps, photography and relevant working reports from specialist council staff.

Plan of Management – Natural Areas – Oyster Bay (West) Catchment

2 LEGISLATIVE REQUIREMENTS

2.1 LEGISLATIVE REQUIREMENTS

The minimum requirements for a Plan of Management under the Act are that the plan must:

- categorise the land in accordance with s.36(4) and (5);
- · contain objectives for the management of the land;
- contain performance targets
- specify the means of achieving the objectives and performance targets;
- specify how the achievement of the objectives and performance targets is to be assessed (s.36(3));
- describe the condition of the land as at the date of the adoption of the plan of management;
- describe any buildings on the sites as at the date of adoption of the plan of management;
- describe the usage of all land and buildings covered in the plan of management as at the date of adoption;
- states the use for which the land will be allowed to be used, the scale and intensity of that use (s.36(3A)).
- Plans of management should not be inconsistent with any environmental planning instrument, applying to the land covered under a Plan of Management.

2.2 PURPOSE OF THE PLAN

Council land must be used and managed in accordance with a Plan of Management. Until a Plan of Management is adopted by Council the nature and use of the land must not be changed.

A Plan of Management provides a documented tool for the efficient management of community land. It helps to reconcile competing interests, identify priorities for allocation of resources and facilitate public understanding.

Periodic revision of a plan also enables changing social, economic and ecological conditions and new knowledge relevant to land management practices to be taken into account as they arise.

2.3 GENERAL DESCRIPTION

Section 36(4) of the Local Government Amendment (Community Land Management) Act 1998 state: all community land must be categorised as one or more of the following:

- A Natural Area (NA);
- A Sportsground (SG);
- A Park (PK);
- An Area of Cultural Significance (CS): and
- General Community Use (GC).

Section 36(5) of the Act states: land that is to be categorised as Natural Area is to be further categorised as one or more of the following:-

- Bushland (BU);
- Wetland (WE);
- Escarpment (ES);
- Watercourse (WA);
- Foreshore (FO); and/or
- a category prescribed by Sections 10 to 19 of the Local Government (General) Regulations, 1999.

Council has prepared generic plans of Management for Sportsgrounds, Parks, and General Community Use Areas and is in the process of drafting site specific plans of management for Natural Areas, Areas of Cultural Significance and other sites where appropriate.

2.4 GUIDELINES FOR CATEGORISATION OF LAND AS A NATURAL AREA

Subject to Part 3 Division 9 of the Local Government (General) Regulations 1999 land should be categorised as a natural area under s36(4) of the Act, if the land, whether or not in an undisturbed, state, possesses a significant geological feature, geomorphologic feature, landform ,representative system or other natural feature or attribute that would be sufficient to further categorise the land as bushland, wetland, escarpment, watercourse or foreshore under s36(5) of the Act

2.5 CATEGORISATION OF SITES

The objective of this Plan of Management is to identify sites in the Oyster Bay (west) Catchment suitable for categorisation as Natural Areas. Giving due deliberation to the guidelines, the sites to which this plan applies are outlined in Chapter 4 under Categorisation of Sites. Following are the Core objectives for the management of the classifications relevant to this Plan.

2.6 CORE OBJECTIVES

2.6.1 NATURAL AREAS

Section 36E of the Local Government Act1993 states that:

The core objectives for management of community land categorised as a natural area are:

- a) to conserve biodiversity and maintain ecosystem function in respect of the land, or the feature or habitat in respect of which the land is categorised as a natural area and
- b) to maintain the land, or that feature or habitat, in its natural state or setting, and
- c) to provide for the restoration and regeneration of the land, and
- d) to provide for community use of and access to the land in such a manner as will minimise and mitigate any disturbance caused by human intrusion, and
- e) to assist in and facilitate the implementation of any provisions restricting the use and management of the land that are set out in a recovery plan or threat abatement plan prepared under the Threatened Species Conservation Act 1995 or the Fisheries Management Act 1994."

2.6.2 BUSHLAND

Section 36J of the Local Government Act 1993 states that:

"The core objectives for management of community land categorised as bushland are:

- a) to ensure the ongoing ecological viability of the land by protecting the ecological biodiversity and habitat values of the land, the flora and fauna (including invertebrates, fungi and micro-organisms) of the land and other ecological values of the land, and
- b) to protect the aesthetic, heritage, recreational, educational and scientific values of the land, and
- c) to promote the management of the land in a manner that protects and enhances the values and quality of the land and facilitates public enjoyment of the land, and to implement measures directed to minimising or mitigating any disturbance caused by human intrusion, and
- d) to restore degraded bushland, and
- e) to protect existing landforms such as natural drainage lines, watercourses and foreshores, and

- f) to retain bushland in parcels of a size and configuration that will enable the existing plant and animal communities to survive in the long term, and
- g) to protect bushland as a natural stabiliser of the soil surface."

2.6.3 WETLAND

Section 36K of the Local Government Act 1993 states that:

"The core objectives for management of community land categorised as wetland are:

- a) to protect the biodiversity and ecological values of wetlands, with particular reference to their hydrological environment (including water quality and water flow), and to the flora, fauna and habitat values of the wetlands, and
- b) to restore and regenerate degraded wetlands, and
- c) to facilitate community education in relation to wetlands, and the community use of wetlands, without compromising the ecological values of wetlands."

2.6.4 ESCARPMENT

Section 36L of the Local Government Act 1993 states that: "The core objectives for management of community land categorised as an escarpment are:

- a) to protect any important geological, geomorphological or scenic features of the escarpment, and
- b) to facilitate safe community use and enjoyment of the escarpment."

2.6.5 WATERCOURSE

Section 36M of the Local Government Act states that:

"The core objectives for management of community land categorised as a watercourse are:

- a) to manage watercourses so as to protect the biodiversity and ecological values of the in stream environment, particularly in relation to water quality and water flows, and
- b) to manage watercourses so as to protect the riparian environment, particularly in relation to riparian vegetation and habitats and bank stability, and
- c) to restore degraded watercourses, and

d) to promote community education, and community access to and use of the watercourse, without compromising the other core objectives of the category."

2.6.6 FORESHORE

Section 36N of the Local Government Act states that:

"The core objectives for management of community land categorised as foreshore are:

- a) to maintain the foreshore as a transition area between the aquatic and the terrestrial environment, and to protect and enhance all functions associated with the foreshore's role as a transition area, and
- b) to facilitate the ecological sustainable use of the foreshore, and to mitigate impact on the foreshore by community use."

2.6.7 ADDITIONAL OBJECTIVES

Council has identified further objectives as outlined in Section 8 – Natural Area Management Strategies.

- a) To conserve biodiversity and maintain ecosystem function in respect of the land, or the features or habitat in respect of which the land is categorised as a natural area;
- b) To maintain the land, or that feature or habitat, in its natural state or setting;
- c) To provide for the restoration and regeneration of the land.

3 CONSULTATION PROCESS, ISSUES AND VALUES

3.1 OBJECTIVES

The objectives of the consultation program are based on council's Community Consultation Policy 2000, which include:

- building partnerships with residents and community groups, accepting the values these groups bring to the decision making process;
- a high quality, disciplined and consistent approach to consultation;
- a genuine exchange of information prior to decisions being made and bringing technical advisors and residents to find the best solutions;
- listening, respecting and valuing the views of others, ensuring feedback is provided to interested parties; and
- educating participants of how their submissions will be processed and of non-negotiable mandates or legislative requirements influencing Councils decision making.

3.2 OUTCOMES

The consultation process elicits the issues that are of importance to the local and wider community in the management of community land. This information is compiled and forms the framework to develop the management strategies applicable to the Natural Areas of the Oyster Bay Catchment under Section 8 of this plan.

4 OYSTER BAY OVAL

4.1 CONDITION OF LAND

Oyster Bay Oval is situated at the corner of Como and Oyster Bay Roads, Oyster Bay. The community land owned by Sutherland Shire Council covers an area of 2.9 hectares.

The topography of the central section of the reserve is relatively flat as a result of previous reclamation of the foreshore to accommodate the sportsground. Around the perimeter of the reserve the topography varies from 5 – 20% gradient, with the steepest gradients being at the southern and northern extremes of the reserve where there is a section of natural bush. The southern and western parts of the reserve are relatively level where a playground, park and car park are located.

There are two vegetation communities identified on the site being Sydney Sandstone Gully Forest and Mangrove Forest community in the narrow strip on the southern and western shoreline.

Fauna habitat is limited by the average structure of the vegetation and exposed nature of rocky outcrops and most significantly by the absence of a good fresh water source.

Please refer to the comprehensive Condition Report for Oyster Bay Oval under Appendix A

4.2 ACQUISITION HISTORY

Part Lots 59 – 62 DP8118 and Part Lot A DP403368 were resumed from private owners for the purpose of public recreation and notified by Government Gazette 75 of 24 June 1960.

Lots 53 & 53A in DP6797 were claimed by Council by Gazette Notification. However Titles have issued with the land consolidated under one title, being 1/1130164. Lot 54 DP6797, Lot 55 DP8118, Lot C DP316717, Lots A-B DP 411470, Lots C-D DP411471, Lots 1-2 DP505705, Lot 2 DP515144, Lot 2 DP571182 and Lot 2 DP617854 were compulsorily acquired over a 15-year period from private owners using funds allocated for the purpose of acquiring open space.

Lot 1 DP131636 was previously the eastern extension of Scylla Road, which was closed and now forms part of the reserve.

Lot 462 in DP 1061769 was acquired with funds allocated for open space, in 2004/5.

4.3 LEASES LICENSES AND OTHER ESTATES

4.3.1 LEASES LICENSES

No leases or licences have been or will be registered over the Natural Areas of the reserve.

4.3.2 OTHER ESTATES

In order to facilitate surrounding development Council permits drainage over its land. To this end council has establish the following land management standard:

Intended Use/Target	Means of	Manner of
Strategy/Objective	Achievement	Assessment
To facilitate drainage	Granting of Easements	Registration of
for the surrounding	to drain water that do	Easements to Drain
properties in	not impinge on natural	Water.
accordance with	areas.	
Section 47a of the		Inspection of
Local Government	Prevent erosion and	easements and
Amendment	changes to soil	surrounds for damage
(Community Land	conditions and water	to environment.
Management) Act 1998.	quality.	
To minimise impact on the environment of existing drainage easements.		Monitoring of site for erosion and changes in soil conditions and water quality
To minimise the		
financial burden on		
ratepayers in the		
provision and		
maintenance of natural		
areas.		

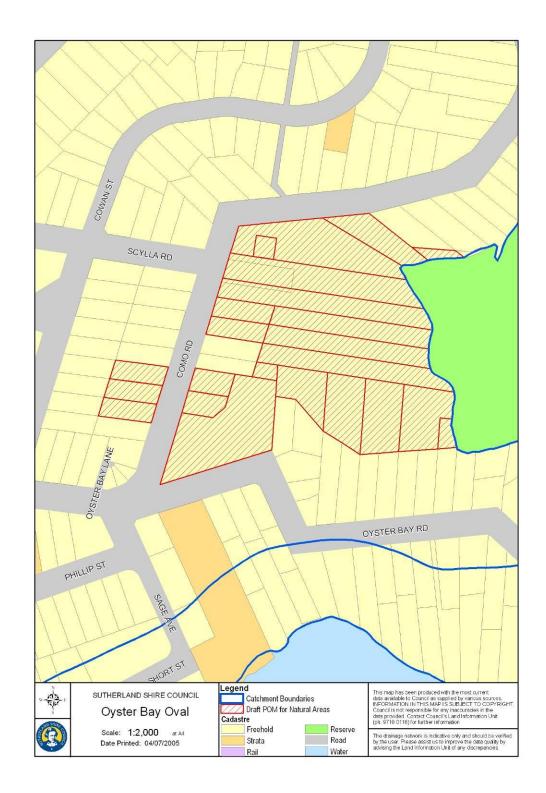
4.4 CATEGORISATION OF OYSTER BAY OVAL

The site has been categorised as a Natural Area, Sportsground and General Park under Section 36(4) of the Local Government Act 1993. The reserve contains features that require it to be further categorised as bushland and escarpment under Section 36(5) of the Act. The areas and associated buildings categorised as "Sportsground" and "Park" are covered by the Generic Plans of Management for Sportsgrounds and Park respectively. This Plan applies to that area categorised as "Natural Area".

4.4.1 TABLE OF CATEGORISATION

Name of Reserve	Categorisation
Oyster Bay Oval	Bushland
	Escarpment
	Foreshore

4.4.2 MAP OF CATEGORISATION OF OYSTER BAY OVAL



5 WARD CRESCENT RESERVE

5.1 CONDITION OF LAND

Ward Crescent Reserve is located on, and bounded by, Ward Crescent, Oyster Bay. It contains a children's playground, park area and some remnant bushland. The site is owned by Sutherland Shire Council and has a total area of 0.25 hectares.

The topography of the site is relatively flat with a gradient of 4% sloping towards the northeast. The site is bounded to the north and east by Ward Crescent, an unnamed lane to the west and Georges River Crescent to the south.

The vegetation of Ward Crescent Reserve is classified as Sydney Sandstone Gully Forest. There is a low diversity of plant species on the site with twelve (12) species recorded

Ward Crescent Reserve provides minor habitat opportunities for native fauna. The proximity of the site to residential areas increases the potential impacts to native fauna from domestic animals such as cats and dogs.

Please refer to the Ward Crescent Reserve Condition Report under Appendix B for comprehensive details.

5.2 ACQUISITION HISTORY

Most of the land has been transferred from private ownership in November 1956 for the purpose of public recreation. However council has acquired small parcels using S94 funds to fill in gaps.

5.3 LEASES LICENSES AND OTHER ESTATES

5.3.1 LEASE OR LICENSES

No leases or licences have been or will be registered over the Natural Areas of the reserve.

5.3.2 OTHER ESTATES

In order to facilitate surrounding development Council permits drainage over its land. To this end council has establish the following land management standard

Intended Use/Target	Means of	Manner of
Strategy/Objective	Achievement	Assessment
To facilitate drainage	Granting of Easements	Registration of
for the surrounding	to drain water that do	Easements to Drain
properties in	not impinge on natural	Water.
accordance with	areas.	
Section 47a of the		Inspection of
Local Government	Prevent erosion and	easements and
Amendment	changes to soil	surrounds for damage
(Community Land	conditions and water	to environment.
Management) Act 1998.	quality.	
To minimise impact on the environment of existing drainage easements.	quemy.	Monitoring of site for erosion and changes in soil conditions and water quality
To minimise the		
financial burden on		
ratepayers in the		
provision and		
maintenance of natural		
areas.		

5.4 CATEGORISATION WARD CRESCENT RESERVE

The site has been categorised as Park and Natural Area under section 36(4) of the Local Government Amendment (Community Land Management) Act 1998. The site contains features that require the area categorised as Natural Area to be further categorised as bushland under section 36(5) of the Act. The areas categorised as Park is covered by the generic Plan of Management for Parks. This Plan applies to that area categorised as 'natural area'.

5.4.1 TABLE OF CATEGORISATION

Name of Reserve	Categorisation	
Ward Crescent	Bushland	
Reserve		

5.4.2 MAP OF CATEGORISATION OF WARD CRESCENT RESERVE



6 RICKARD ROAD RESERVE

6.1 CONDITION OF LAND

Rickard Road Reserve is located near the intersection of Rickard and Como Roads. The reserve extends from Rickard Road to the bay. The property is owned by Sutherland Shire Council and has a total area of 1.36 hectares.

Rickard Road Reserve is situated on the shores of Oyster Bay with access gained via Rickard Road, Oyster Bay. The site is bounded to the east and west by residential areas.

The topography of the site is relatively flat with a gradient of 2.7% towards the bay.

The vegetation of Rickard Road Reserve is complex with four (4) communities present, being; Mangrove, Saltmarsh, Sydney Gully Sandstone and Casuarina Forest. However, the number of species represented within the nominated communities is low.

No regionally significant plants are recorded for the site. Details of all species present on this site can be found in the Biodiversity Assessment Sheets attached to this Plan as Appendix C.

The site provides a range of habitat opportunities for native fauna. The vegetation is of a complex structure with 4 communities present. The mudflats provide an important substrate for a variety of invertebrates including several crustaceans and molluscs. However, potential for fresh water dependent species is limited, as there is no permanent freshwater in the reserve.

Please refer to the Condition Report for Rickard Road Reserve under Appendix C for comprehensive details.

6.2 ACQUISITION HISTORY

Lot 3 DP521917, Lot 404 DP804531 and Lot 394 DP788599 were dedicated to the public as public reserves by their respective Deposited Plans.

The remaining properties, being Lot 33 DP567315, Lot 103 DP585545, Lot 203 DP598730, Lot 433 DP628012, Lot 203 DP733320, Lot 112 DP739329, Lot 442 DP747895, Lot 22 DP776190, Lot 122 DP785094, Lot 31 DP792194, were purchased as part of the Rickard Road, Oyster Bay Land Project for open space purposes.

6.3 LEASES LICENSES AND OTHER ESTATES

6.3.1 LEASES LICENSES

No leases or licences have been or will be registered over the Natural Areas of the reserve.

6.3.2 OTHER ESTATES

In order to facilitate surrounding development Council permits drainage over its land. To this end council has establish the following land management standard

Intended Use/Target Strategy/Objective	Means of Achievement	Manner of Assessment
To facilitate drainage	Granting of Easements	Registration of
for the surrounding	to drain water that do	Easements to Drain
properties in	not impinge on natural	Water.
accordance with	areas.	
Section 47a of the		Inspection of
Local Government	Prevent erosion and	easements and
Amendment	changes to soil	surrounds for damage
(Community Land	conditions and water	to environment.
Management) Act 1998.	quality.	
To minimise impact on the environment of existing drainage easements.		Monitoring of site for erosion and changes in soil conditions and water quality
To minimise the		
financial burden on		
ratepayers in the		
provision and		
maintenance of natural		
areas.		

6.4 CATEGORISATION OF RICKARD ROAD RESERVE

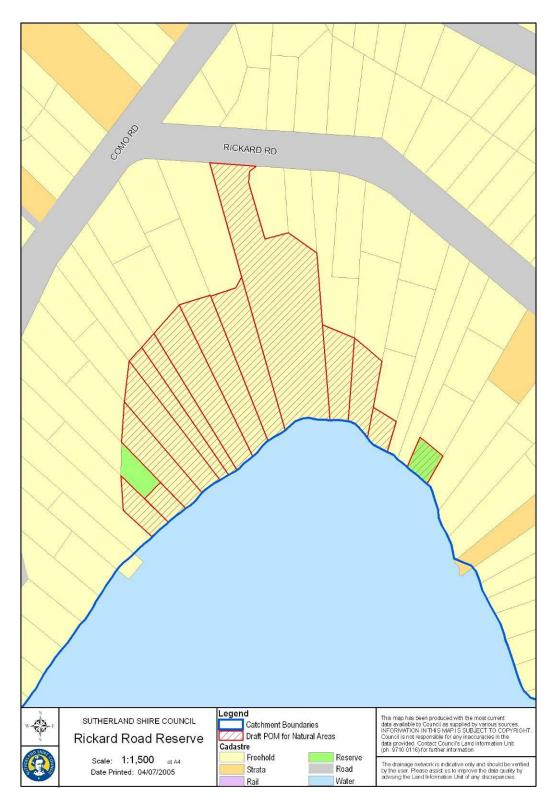
Rickard Road Reserve is bordered by approximately 160 lineal metres of foreshore. The reserve is within a Foreshore Scenic Protection Area as described in the Sutherland Shire Local Environment Plan 2000.

Vegetation on the subject site contributes to the scenic character of the foreshore in the area. The effects of any activity within the reserve that could adversely impact on Oyster Bay need to be considered.

6.4.1 TABLE OF CATEGORISATION.

Name of Reserve	Categorisation
Rickard Road	Bushland
Reserve	
	Foreshore

6.4.2 MAP OF CATEGORISATION OF RICKARD ROAD RESERVE.



7 ALLOWABLE USES

7.1 ALLOWABLE AND PROHIBITED USES

Subject to compliance with the Local Government Act 1993 and the core objectives for the community land, the following activities are expressly authorised:

- Lease, sub-lease, license, or hire the site for any activity or purpose with the consent of Council where community use and access to the site is only to take place in a manner that will minimise and mitigate any disturbance caused by such activity;
- ii. That all necessary Fire Control exercises by Council or its agents be authorised, eg, implementation of hazard reduction strategies, construction of fire trails, firebreaks, etc, and the management of fire regimes and fuel;
- iii. Construction and dedication of public roads;
- iv. Construction of buildings and facilities as approved by Council where such buildings or facilities can be shown to assist the core objectives of the management of the site;
- v. This Plan also details the leases, licences and other estates expressly authorised by this Plan. These are outlined under sub-sections 4.3, 5.3 & 6.3 "Leases, Licences and Other Estates".

vi.

Refer Table 7.1.2 for Allowable and Prohibited Uses by Sub Category.

7.1.1 TABLE OF ALLOWABLE AND PROHIBITED USES BY SUB CATEGORY

Category of Land	Allowable Uses	Prohibited or Undesirable Uses
Natural Areas - Bushland	Bushland regeneration works,	Public and private car parking
	Walking tracks	Leases & licenses
	Cycling tracks	Telecoms facilities
	Educational signage	
Natural Areas - Wetland	Wetland regeneration works	Public and private car parking
	Landscaping	Leases & licenses
	Environmental protection works	
	Pedestrian bridge/links	
	Educational signage	
	Water based activities	
Natural Areas –	Stabilisation works	Public and private car
Escarpment	Bush regeneration works	parking
		Leases & licenses
		Construction (except for any construction associated with allowable works)
		Demolition
Natural Areas – Watercourse	Pedestrian bridge/links over water	Public and private car parking
	Water based recreation	Leases & licenses
	Water quality regeneration works	Construction (except for any construction associated with allowable works)
	Waterways protection works	Demolition
Natural Areas – Foreshore	Stabilisation works Bush regeneration works	Public and private car parking
	Daon regeneration works	Leases & licenses
		Construction (except for any construction associated with allowable works)
		Demolition

8 MANAGEMENT STRATEGIES

This section of the document provides a framework for protection and management of the values identified through the consultation process and the core values stipulated in the Legislation.

The following table provide alphabetical listings of :

- the management issues,
- what the objectives are;
- the greater community's performance targets;
- the means of achieving the targets; and
- the manner of assessing our management strategies.

Refer to Table 8.1 for the Action Plan for Management Strategies. The table is comprehensive and covers values for all 3 nominated natural areas in the Oyster Bay Catchment.

8.1 ACTION PLAN FOR MANAGEMENT STRATEGIES

Management Issues	Objectives & Performance Targets	Means of Achievement	Manner of Assessment
Access Disability	Provide disability access where practical	Appropriate design complying with Australian Standards	Number of comments on ease of access.
Footpaths, Walking Trails, Boardwalks	Enable appropriately located walking trails/boardwalks, which contribute to the landscape	Clear identification of trails and walks via interpretive signs.	Extent of use by people with disabilities.
Pedestrian Vehicular	character of Natural Areas. Manage and facilitate pedestrian	Appropriate design and siting of trails and walks in accordance with Council's Codes, Policies and Regulations.	Impact of pedestrian access on Natural Areas. Appropriateness of footpaths,
Off road vehicles Bicycles	access with minimal impact on natural areas.	Appropriate design and siting of access points.	walking trails, boardwalks in Natural Areas.
	Prohibit the entry of unauthorised vehicles to Natural Areas.	Adequate signs, construction and maintenance.	Number of comments from the public.
	Enable access for maintenance, emergency service and patrol vehicles.	Regulatory signs. Use of traffic control devices, such as boom gates, barriers and bollards.	Degree of environmental damage from accessways and pedestrians
	Prohibit the entry of off road type motor vehicles.	Appropriate design of accessways not to impact on Natural Areas.	No unauthorised usage. Number of incidents of illegal or
	Allow mountain bikes only on designated tracks.	Use of regulatory signs Provision of effective barrier fencing	unauthorised vehicular entry. Number of comments from the public.
	Minimise the damage bikes may cause to natural areas.	Restrict cyclists to designated paths using regulatory signs.	Number of successful investigations and prosecutions.
			Number of reports of incidents concerning cyclists.

Management Issues	Objectives & Performance Targets	Means of Achievement	Manner of Assessment
Alcohol Consumption and/or Possession	Minimise the negative impacts of alcohol on and in natural areas.	The implementation of alcohol free zones when and where appropriate. Identification of problem areas.	Number of alcohol related incidents.
Animals Domestic Feral Agistment of stock animals	Allow dogs on leashes only under full control of owner/handler. Reports of removal of material. Number of ordinance investigations and prosecutions. Not permitted	Appropriate regulatory signs. Community education and involvement in monitoring. Community education on feral animals. Trapping and eradication. Regulatory signage	Comments about unsupervised animals. Comments about loose dogs & attacks. Impacts that feral animals have on native flora and fauna in natural areas. Incidence of complaints and regulation enforcement.
Bio-diversity Exotic plants Noxious weeds Habitat Protection Removal of Flora & Fauna Removal of bushrock/sand/soil	Ensure that bio-diversity is maintained or enhanced in Natural Areas. Maximise bio-diversity of flora and fauna in Natural Areas. Protect native and threatened species and their habitats. Minimise the impacts that may be caused by exotic flora and fauna on Natural Areas. Control and limit the existence of exotic flora and fauna within Natural Areas. Control feral animals within Natural	Protection to ensure the diversity of plant and animal life. Plan development and activities so as to minimise impact on Bio-diversity. Regulation of public access to sensitive habitats via pathway location. Education and awareness via interpretive signs. Implementation of Threatened Species Conservation Act 1995. Appropriate design and implementation of works within Natural Areas. Implementation of Noxious Weeds Act	Degree of bio-diversity in Natural Areas. The condition and survival of native species and their habitats Minimal presence of exotic flora and fauna. Elimination of problem exotic flora and fauna. The physical conditions of natural areas. Number of reported incidences of flora and fauna removed from sites.

Management Issues	Objectives & Performance Targets	Means of Achievement	Manner of Assessment
	Areas. Protect natural flora and fauna and their habitats in Natural Areas. Protection of native flora and fauna of Natural Areas. Prohibit the removal of bushrock/sand/soil from Natural Areas. Areas.	1993. Community education on exotic flora and fauna. Creating community awareness via interpretive signs. Compliance with Council's Codes, Policies and Regulations. Council approval for removal of flora and fauna. Imposition of fines. Compliance with Council's Codes, Policies and Regulations.	Reports of removal of material. Number of ordinance investigations and prosecutions.
Drainage Overland runoff Creek/Drainage Line/ Watercourse Maintenance	Allow for the control and regulation of stormwater flow quantities to and within Natural Areas. Minimise pollutant inputs into Council stormwater systems. Minimise the degree of polluted stormwater run-off entering creeks and drainage lines in natural areas. Minimise the impacts of creek line maintenance.	Appropriate selection and design, monitoring and maintenance of devices, such as detention basins, soak pits, gross pollutant traps, nutrient removal ponds and artificial wetlands. Inspections, cleaning and maintenance. Community education and awareness programs. Effective erosion and sediment control on construction and development sites. Report all surcharges and leakages of sewage. Monitoring and inspections. Cleaning and maintenance in	Quality in accordance with Council adopted guidelines for stormwater and run-off. Degree of weed infestation. Number of prosecutions under the Clean Waters Act 1970. Increased natural bio-diversity. Incidents of erosion and sedimentation requiring remedial works. Condition of creeks and drainage lines in natural areas. Degree of damage caused by

Management Issues	Objectives & Performance Targets	Means of Achievement	Manner of Assessment
		accordance with Council's maintenance schedule and works program. Manage weed infestation and creek and drainage line blockages. Regulate flow of drainage to minimise flooding. Environmentally responsible creek line maintenance techniques.	stormwater. Degree of sedimentation in creeks and drainage lines. Number of comments received by Council from residents. Degree of weed infestation. Loss of habitat.Loss of native flora. Degree of deviation from natural flow path.
Education and Research Scientific Research Environmental Education Bushcare Groups	Encourage and promote for scientific research to take place in Natural Areas to benefit the community Encourage natural areas to be used for environmental education purposes. Educate, liaise and encourage participation of the community on issues relating to the management of natural areas. Encourage community involvement in the management of natural areas.	Council approval. Ensure sustainable research techniques in Natural Areas. Ensure Council benefits from the scientific research. Notification to Council by groups' intentions and proposals for natural areas usage. Produce appropriate educational resources for schools and community groups. Interpretative signs where appropriate. The formation and operation of Bushcare Groups under the guidance of Council's Bushcare Officers.	Successful implementation. Increase in knowledge base within Council and community. Reports of damage by excessive use. Level of usage by groups. Level of achievement by Community in regard to involvement. Level of appropriate involvement of community. Level of achievement by the Bushcare Groups. Education of Bushcare Groups. Number of Bushcare

Management Issues	Objectives & Performance Targets	Means of Achievement	Manner of Assessment
			Groups/memberships.
Human Activities Noise Waste Management Vandalism	Manage excessive noise impacting natural areas & adjoining properties. Minimise the amount of rubbish entering Natural Areas. Control rubbish dumping in Natural Areas. Minimise impact of vandalism	Use of signage. Community education Use of appropriate control devices eg. gross pollutant traps. Imposition of fines for offenders. Regulatory signs. Community education on environmental impacts of rubbish dumping. Removal of dumped material Community education & involvement.	Comments collected on noise levels. Reported incidents of illegal dumping. Cost of clean up & rubbish collection. Amount of rubbish in Natural Areas. Restoration of site. Imposition of penalties
Human Heritage European Aboriginal Heritage	Preserve and protect the Council's Bush Regenerators. European heritage of Natural Areas. Preserve and protect the indigenous heritage and associated artefacts of Natural Areas.	Promote awareness and educate via interpretive signs. Minimise physical disturbance of sensitive areas. Promote awareness and educate via interpretive signs where appropriate. Minimise physical disturbance of sensitive areas. Notification to relevant authorities on the existence of heritage and artefact items.	The condition of natural heritage items and artefacts. Reports following inspections. Incidents of vandalism. The condition of natural heritage items and artefacts. Reports following inspections. Incidents of vandalism.
Recreational Opportunity	Maximise the opportunities for appropriate recreation within	Identification of appropriate and inappropriate activity.	Environmental degradation resulting from recreational

Management Issues	Objectives & Performance Targets	Means of Achievement	Manner of Assessment
Camping Hunting	environmental limitations. Maximise the quality of recreational experience in natural areas Prohibit camping in natural areas. Prohibit all forms of hunting in natural areas.	Identification of environmental limitations. Appropriate design siting and maintenance of the recreational setting within natural areas. Use of regulatory signs. Regulatory signs. Implementation of the National Parks & Wildlife Services Act 1995.	activity. Reported incidents of camping. Comments from the public of such activity.
Site Embellishments or Improvements Fencing Lighting Parking Signage Site Utility Services	Allow for appropriate safety/security fencing. Allow for appropriate lighting for security purposes. Exclude unauthorised and private parking within Natural Areas. Use of authorised regulatory signs. Prohibit permanent advertising signs. Allow suitable information, regulatory, identification and directional signs relating to Natural Areas. Allow for the installation of appropriately located and designed services where required.	Appropriate design and siting of fencing in accordance with Council's Codes, Policies and Regulations. Maintenance of fencing. Set appropriate illumination levels. Appropriate design and siting of lighting facility. Appropriate signs and enforcement of parking regulations Appropriate design and siting of signs in accordance with Council's Codes, Policies and Regulations. Development Consent where necessary. As approved by Council and Statutory Authorities.	Appropriately located and effective fencing. Repairs after monitoring of fencing. Number of comments from Natural Area users. Number of reports of unauthorised parking Assessment of the need for appropriate signs in Natural Areas. Facilities are adequately serviced, identified and located.

Management Issues	Objectives & Performance Targets	Means of Achievement	Manner of Assessment
		Registration of appropriate easements.	
Vegetation Environmental Weeds Tree and Bushland Vegetation Preservation Bushland Regeneration Seed Collection Noxious Weeds	Retain existing indigenous species in Natural Areas. Manage and protect existing species in Natural Areas. Minimise weed infestation and distribution and the associated impacts in Natural Areas. Minimise rubbish dumping in Natural Areas, eg. garden refuse. Minimise the impacts of run-off from adjoining lands. Manage, protect and control existing and future trees in Natural Areas. Protect natural flora and fauna and their habitats in Natural Areas. Preserve and enhance remnant bushland. Allow authorised seed collection from natural areas. Compliance with the Noxious Weeds Act 1993.	Identify species indigenous to the area. Use recognised suitable native species to revegetate Natural Areas. Restrict clearing of vegetation in accordance with Council's Tree and Bushland Preservation Order. Appropriate design of water quality control devices. Community education on the impacts of environmental weeds. Minimise nutrient loads and weed seed content of run-off through appropriate control Application of Council's Tree and Bushland Preservation Order. Application of correct horticultural and tree surgery techniques. Monitor tree age and health. devices. Regeneration of bushland where applicable under the guidance of Council's Bushcare Officers. Regulation of public access to sensitive habitats via pathway location.	Quality and health of vegetation in Natural Areas. Physical appearance of vegetation. Degree of infestation of environmental weeds. Condition of trees in Natural Areas. Number of breaches of Tree and Bushland Preservation Order. Quality of bushland in Natural Areas. The condition and survival of native species and their habitats. Number of suitably protected habitats. Number of unauthorised incidents of seed collection. Degree of compliance with Bush Regeneration Guidelines. Presence of noxious weeds in Natural Areas.
		Education and awareness via	Ivaluiai Albas.

Management Issues	Objectives & Performance Targets	Means of Achievement	Manner of Assessment
		interpretive signs.	
		Implementation of Threatened Species Conservation Act 1995.	
		Collections within recognised natural areas.	
		Collections in accordance with Bush Regeneration Guidelines.	
		Authorisation from appropriate Council officers.	
		Development and implementation of Noxious Weeds Eradication Program.	

9 IMPLEMENTATION OF THE PLAN OF MANAGEMENT

9.1 MANAGEMENT OF NATURAL AREAS

This Plan of Management establishes basic management objectives to be used as a guide for the management and protection of Natural Area sites within the Oyster Bay (west) catchment.

The means of achieving and assessing the performance targets relies on both council's resources and the support of the local and wider community.

9.2 MANAGEMENT INTO THE FUTURE

The issues and values that this document represents support the strategies presented in Our Shire Our Future, Shaping The Shire To 2030 for the ongoing management of Natural Areas in the Oyster Bay Catchment.

Periodic revision of this policy document will enables changing social, economic and ecological conditions as well as new knowledge of land management practices to be taken into consideration in the plan.

To ensure the objectives and strategies of the Plan of Management remain relevant and consistent with community expectations, this document is to be reviewed at the very least at 5 yearly intervals.

9.3 INVITATION TO THE COMMUNITY

This is your local area and Council is dependent on the input of the local and wider community for monitoring the community's natural resources.

Under the appendix to this document are flora and fauna counts. Councils Bushcare Manager invites you to contribute to the ongoing count in the Oyster Bay (west) Catchment - Natural Areas.

One of the primary objectives of designating areas of significant natural bounty as a Natural Area is to encourage community participation in education and conservation of biodiversity.

To this end individual s and groups are invited to start or join Bushcare in your local area. Once again, please contact Council's Bushcare Manager to participate.

10 APPENDICES

- A.
- Site Condition Report Oyster Bay Oval Site Condition Report Ward Crescent Reserve B.
- Site Condition Report Rickard Road Reserve C.

A. Site Condition Report Oyster Bay Oval

1. Site Description

Oyster Bay Oval is located at the corner of Como Road and Oyster Bay Road, Oyster Bay and comprises community land owned by Sutherland Shire Council with a total area of 2.9 hectares.

The site also consists of the following land, but which is not covered by the Plan:

Lot 1 DP571182, being owned by Sydney Water and having an area of 265 square metres.

Lot 7008 DP752064 being Crown Reserve R86543 and having an area of 1.9 hectares. Council was appointed trustee of this reserve by Government Gazette 38 of 22 March 1968.

Oyster Bay Oval is situated at the corner of Como and Oyster Bay Roads, Oyster Bay.

Part Lots 59 – 62 DP8118 and Part Lot A DP403368 were resumed from private owners for the purpose of public recreation and notified by Government Gazette 75 of 24 June 1960. Lot 54 DP6797, Lot 55 DP8118, Lot C DP316717, Lots A-B DP 411470, Lots C-D DP411471, Lots 1-2 DP505705, Lot 2 DP515144, Lot 2 DP571182 and Lot 2 DP617854 were compulsorily acquired over a 15-year period from private owners using funds allocated for the purpose of acquiring open space. Lot 1 DP131636 was previously the eastern extension of Scylla Road, which was closed and now forms part of the reserve.

The topography of the central section of the reserve is relatively flat as a result of previous reclamation of the foreshore to accommodate the sportsground. Around the perimeter of the reserve the topography varies from 5 - 20% with the steepest gradients being at the southern and northern extremes of the reserve where there is a section of natural bush. The southern and western parts of the reserve are relatively level where a playground, park and carpark are located.

Oyster Bay Oval is currently zoned 6(a) – Public Recreation with the exception of Lot 1 DP131636 which is zoned 5(a) Special Purposes, under the Sutherland Shire Local Environment Plan 2000.

2. Vegetation

There are two vegetation communities represented at Oyster Bay Oval Reserve. The Sydney Sandstone Gully Forest has an open canopy with a projected foliage cover of 30 – 50% and an average height of 20-25 metres. The dominant species include Red Bloodwood Eucalyptus gummifera, Sydney Red Gum Angophora costata, Bangalay Eucalyptus botryoides and Sydney Peppermint Eucalyptus piperita. The mid stratum is characterised by Hair-pin Banksia Banksia spinulosa, Blueberry Ash Elaeocarpus reticulatus, Black She-oak Allocasuarina littoralis, Cherry Ballart Exocarpus cupressiformis and Sydney Golden Wattle Acacia longifolia. Native grasses and herbaceous plants include

the Common Maidenhair Fern Adiantum aethiopicum, Poa Poa affinis, Spiny Mat-rush Lomandra longifolia, Pomax Pomax umbellata and Kangaroo Grass Themeda australis.

A Mangrove Forest Community is present as a narrow strip along the southern and eastern boundaries of the reserve. The mangroves have a canopy with a projected foliage cover of 70 – 100% and an average height of 2-5 metres. The dominant species here include Swamp She-oak Casuarina glauca and the Grey Mangrove Avicennia marina var. australasica. The mid stratum is absent with the lowest stratum dominated by Glasswort Sarcocornia guinqueflora.

A large portion of the site is utilised as a sportsground. The portion to which this plan applies is hatched blue.

Details of all species present on this site can be found in the Biodiversity Assessment Sheets attached to this Plan

3. Exotic Flora and Fauna

There are extensive areas of moderate to severe weed infestation associated with extensive dumping of garden waste and the spread of non-indigenous plants from adjoining residential areas. The average weed density for the reserve is estimated at 10-30%. Two noxious weeds are prevalent on the site. Pink Lantana Lantana camara, is prevalent in the mid-storey while the Rhus Tree Toxicodendron succedaneum is found occasionally. Environmental weeds that are prevalent in the lowest stratum include Blue Perrywinkle Vinca major, Fish Bone Fern Nephrolepsis cordifolia, Sailor-boy Daisy Osteospermum ecklornis and Veldt Grass Ehrhata erecta. This level of weed infestation generally responds well to bush regeneration techniques and would benefit from the establishment of a community Bushcare Group.

As the site is surrounded by residential properties, it is highly likely that domestic animals such as cats and dogs frequent the site.

4. Fauna Habitat

Oyster Bay Oval provides limited habitat opportunities for native fauna. The vegetation is of an average structure providing roosting, nesting and foraging potential for a variety of birds and mammals. There are limited tree hollows for habitation, although exposed rock outcrops provide minor habitat potential for reptiles.

The reserve forms part of a fragmented habitat. The reserve is linked to other fragments of Sydney Sandstone Gully Forest and wetlands located along the foreshore of Oyster Bay.

Potential for freshwater dependent species is limited as there is no permanent fresh water in the reserve. However, there are mangrove and mudflat habitats within, and extending beyond, the reserve which provides habitat for a variety of invertebrates and shorebirds. A breeding pair of mallards has been recorded at

the site. The adjacent mangroves increase the habitat significance of the reserve as some species may extend their habitat into the reserve.

5. Threatened Species

There are no threatened or regionally significant species recorded on this site.

6. Natural Features

6.1 Water

There are no water features within the reserve. There is, however, an inter-tidal canal adjoining the southern border of the reserve between a stormwater outlet and Oyster Bay.

6.2 Foreshore

Whilst the council owned portions of Oyster Bay Oval do not contain a foreshore boundary, the adjoining Crown Reserve is bounded by approximately 195 lineal metres of foreshore. Oyster Bay Oval is within a Foreshore Scenic Protection Area as described in the Sutherland Shire Local Environment Plan 2000. Vegetation on the subject site significantly contributes to the scenic character of the foreshore in the area.

6.3 Escarpments and Geological Features

Triassic Hawkesbury Sandstone is the dominant geological stratum and has influenced the soil, vegetation, fauna and landscape character of the site. There are minor sandstone outcrops located on the site, which may provide habitat potential for reptiles.

7. Cultural Significance

7.1 Aboriginal Heritage

To date, no evidence has been found of Aboriginal Heritage.

Prior to acquisition of the site, it was utilised by private owners who lived in the dwellings previously located on the site. The buildings were demolished following the Council's acquisition of the site for a sportsground.

8. Use of Land & Facilities and Environmental Impacts

8.1 Current Uses

Oyster Bay Oval is primarily used for the Sportsground, The scout hall and playground are covered under the General Community Use Plan of Management.

The natural area is used for the following activities:

- Informal pedestrian thoroughfare by users of the sportsground facilities and scout hall;
- Passive recreation.

There is a sealed carpark ancillary to the sportsground able to accommodate 30 – 40 vehicles located at the corner of Como and Oyster Bay Roads.

9. Community Involvement

The area categorised as "Natural Area" is adjacent to a focal point of community activities. However, there is no community involvement for the site with regards to the natural area and no Volunteer Bushcare Group exists for the site.

10. Environmental Impacts

Following is a summary of the most evident impacts affecting Oyster Bay Oval:

- Threat to the natural regeneration of the indigenous vegetation by weed invasion;
- Contribution to weed invasion through dumping of rubbish/garden waste which is a source of weed propagules and unwanted nutrients;
- Erosion of informal pedestrian access tracks;
- Creation of soil conditions which promote weed growth through stormwater run-off from surrounding areas;
- Clearing of mangrove vegetation.

Bio Diversity Reports

B. Site Condition Report Ward Crescent Reserve

1. Site Description

Ward Crescent Reserve is located at Ward Crescent, Oyster Bay and is comprised of Community owned by Sutherland Shire Council which has a total area of 0.25 hectares.

Ward Crescent Reserve is located on, and bounded by, Ward Crescent, Oyster Bay. It contains a children's playground, park area and some remnant bushland.

The properties were transferred from private ownership in November 1956 for the purpose of public recreation.

The topography of the site is relatively flat with a gradient of 4% sloping towards the northeast. The site is bounded to the north and east by Ward Crescent, an unnamed lane to the west and Georges River Crescent to the south.

The Ward Crescent Reserve is zoned 6(a) – Public Recreation under the Sutherland Shire Local Environment Plan 2000.

2. Vegetation

The vegetation of Ward Crescent Reserve is classified as Sydney Sandstone Gully Forest. The plant community has an open canopy with a projected foliage cover of 10-30% and an average height of 25-30 metres.

There is a low diversity of plant species on the site with twelve (12) species recorded. The dominant tree species include Bangalay Eucalyptus botryoides, Smooth-Barked Apple Angophora costata and Red Mahogany Eucalyptus resinifera. Both the mid and lowest strata have been cleared.

Details of all species present on this site can be found in the Biodiversity Assessment Sheets, following.

3. Fauna

Ward Crescent Reserve provides minor habitat opportunities for native fauna. The vegetation is of a very simple structure with limited tree hollows, which reduces the potential of the site for roosting, nesting and foraging potential. Escarpments and rock outcrops are absent, providing only minor habitat potential for reptiles. The site is relatively isolated from major vegetation corridors, again further reducing habitat potential for the site. While Ward Crescent Reserve is small and contains only a minor area of native vegetation, the remnant trees form a fragile link between scattered remnant vegetation on private land and along road corridors in the neighbourhood.

4. Threatened Species

There are no threatened species recorded for this site.

5. Exotic Flora and Fauna

There are no noxious weeds recorded for the site. Environmental weeds listed for the site include Asparagus Fern Protasparagus aethiopicus, Kikuyu Grass Pennisetum clandestinum and other mixed herbaceous weeds. A full list of exotic flora species is attached in the Biodiversity Assessment Sheets.

The proximity of the site to residential areas increases the potential impacts to native fauna from domestic animals such as cats and dogs.

6. Significant Natural Features

6.1 Water Features

There are no water features within Ward Crescent Reserve.

6.2 Foreshore

Ward Crescent Reserve does not contain any foreshore areas however, it forms part of the Foreshore Scenic Protection Area under the Sutherland Shire Local Environment Plan 2000.

6.3 Escarpments and Geological Features

Triassic Hawkesbury Sandstone is the dominant geological stratum present and has influenced the soil, vegetation, fauna and landscape character of the site. However, no escarpments or significant geological features exist in the reserve.

7. Cultural Significance

7.1 Aboriginal Heritage

To date, no evidence has been found of Aboriginal Heritage on the site.

7.2 European/Historic Heritage

To date, no evidence has been found of significant European Heritage on the site.

8. Use of Land & Facilities and Environmental Impacts

8.1 Current Uses

Ward Crescent Reserve is primarily used for park area and playground equipment situated on the site.

The area categorised as natural area is used for the following activities:

- Informal pedestrian thoroughfare by neighbouring residents.
- Passive recreation.

9. Community Involvement

The natural area of the site is adjacent to a focal point of local community activities with the children's playground located on the reserve. However, there is no community involvement addressing the natural area with no volunteer bush care group for this site.

10. Environmental Impacts

Following is a summary of the most evident environmental impacts affecting Ward Crescent Reserve:

Continued moving of the site removing the native understorey.

- Threat to natural regeneration of indigenous species through weed invasion.
- Contribution to weed invasion through dumping of rubbish/garden waste which is a source of weed propagules and unwanted nutrients.
- Reduction of aesthetic value of the site due to weed invasion.

Bio Diversity Reports to follow.

C. Site Condition Report Rickard Road Reserve

1. Site Description

Rickard Road Reserve is located near the intersection of Rickard and Como Roads. The reserve extends from Rickard Road to the bay and is comprised community land owned by Sutherland Shire Council with a total area of 1.36 hectares.

Rickard Road Reserve is situated on the shores of Oyster Bay with access gained via Rickard Road, Oyster Bay. The site is bounded to the east and west by residential areas.

Lot 3 DP521917, Lot 404 DP804531 and Lot 394 DP788599 were dedicated to the public as public reserves by their respective Deposited Plans. The remaining properties, being Lot 33 DP567315, Lot 103 DP585545, Lot 203 DP598730, Lot 433 DP628012, Lot 203 DP733320, Lot 112 DP739329, Lot 442 DP747895, Lot 22 DP776190, Lot 122 DP785094, Lot 31 DP792194, were purchased as part of the Rickard Road, Oyster Bay Land Project for Open Space Purposes.

The topography of the site is relatively flat with a gradient of 2.7% towards the bay.

2. Vegetation

The vegetation of Rickard Road Reserve is complex with four (4) communities present. However, the number of species represented within the communities is low with a total of (14) species recorded for the site.

The Mangrove community has a projected foliage cover of 70 – 100% with a canopy of 5-10 metres. The dominant tree species of this community include River Mangrove Aegiceras corniculatum and Grey Mangrove Avicennia marina var. australasica. The mid stratum is absent with the lowest stratum dominated by Sea Rush Juncus krausii.

The Saltmarsh community, which has limited distribution throughout the Shire, has a projected foliage cover of 10-30% with a canopy height of under 2 metres. There are no tree species present. The mid stratum is dominated by Common Reed Phragmites australis, with the lowest stratum dominated by Sand Couch Sporobolus virginicus, Knobby Club Rush Isolepis nodosus, Glasswort Sarcocornia quinqueflora and Sea Rush Juncus krausii.

The Sydney Sandstone Gully Forest has been reduced to only a few relict trees. The remaining trees have a projected foliage cover of less than 10% with a canopy height of 20-25 metres. The dominant tree species are Sydney Peppermint Eucalyptus piperita and Red Bloodwood Eucalyptus gummifera. The mid stratum is represented by Blueberry Ash Elaeocarpus reticulatus. The lowest stratum has been cleared and is mostly Kikuyu Grass.

The Casuarina Forest has a projected foliage cover of 70 – 100% with a canopy height of 15 – 20 metres. The dominant tree species is Swamp She-Oak

Casuarina glauca. The mid stratum is absent and Warrigal Cabbage Tetragonia tetragonoides and Kidney Weed Dichondra repens dominate the lowest stratum.

No regionally significant plants are recorded for the site. Details of all species present on this site can be found in the Biodiversity Assessment , following.

3. Fauna

The site provides a range of habitat opportunities for native fauna. The vegetation is of a complex structure with 4 communities present providing significant roosting, nesting and foraging potential. The site is also adjacent to Oyster Bay, which increases the reserve's potential for habitation by a range of shore birds. The mudflats provide an important substrate for a variety of invertebrates including several crustaceans and molluscs. However, as the site forms part of a fragmented vegetation corridor and has been cleared of most of its understorey, the potential for habitation is reduced. The site is also devoid of sandstone outcrops further reducing habitat potential for reptiles.

Potential for fresh water dependent species is limited, as there is no permanent freshwater in the reserve.

4. Threatened Species

No threatened or regionally significant flora or fauna species have been recorded for these sites.

5. Exotic Flora and Fauna

Areas of the reserve with saline conditions such as the mangrove and saltmarsh communities have very little weed invasion. Environmental weeds that can be found on the site are generally salt tolerant and include Buffalo Grass Stenotaphrum secundatum, Kikuyu Grass Pennisetum clandestinum, Asparagus Fern Protasparagus aethiopicus, and Morning Glory Ipomea indica. The encouragement of lawn into the saltmarsh community through mowing has reduced the area of this vegetation significantly.

The proximity of the sites to residential areas increases the potential impacts to native fauna from domestic animals such as cats and dogs.

6. Significant Features

6.1 Water Features

While there are no water features within the reserve, Oyster Bay is adjacent to the site.

6.2 Foreshore

Rickard Road Reserve is bordered by approximately 160 lineal metres of foreshore. The reserve is within a Foreshore Scenic Protection Area as described in the Sutherland Shire Local Environment Plan 2000. Vegetation on the subject site contributes to the scenic character of the foreshore in the area. The effects of any activity within the reserve that could adversely impact on Oyster Bay need to be considered.

6.3 Escarpments and Geological Features

Alluvial deposits of sand and silt and the accumulation of organic matter influences the soil, vegetation, fauna and landscape character of the site providing the substrate for the establishment of the mangroves and saltmarsh communities. Triassic Hawkesbury Sandstone is the dominant terrestrial geological stratum present though no escarpments or geological features are prominent.

7. Aboriginal Heritage

To date, no evidence has been found of Aboriginal Heritage on the site.

8. European/Historic Heritage

To date, no evidence has been found of significant European Heritage on the site.

9. Current Uses

Rickard Road Reserve is primarily used for the following purposes:

- Passive recreation
- Beaching and launching of small watercraft.
- Informal thoroughfare by adjacent residents.

10. Environmental Impacts

The most evident environmental impacts affecting Rickard Road Reserve are : Clearing of saltmarsh and mangrove communities.

Pollution including rubbish, nutrients, chemicals and sediment from stormwater run-off draining from roads and adjoining residential areas.

Threats to native fauna from domestic animals such as cats and dogs.

See Bio Diversity Reports.