

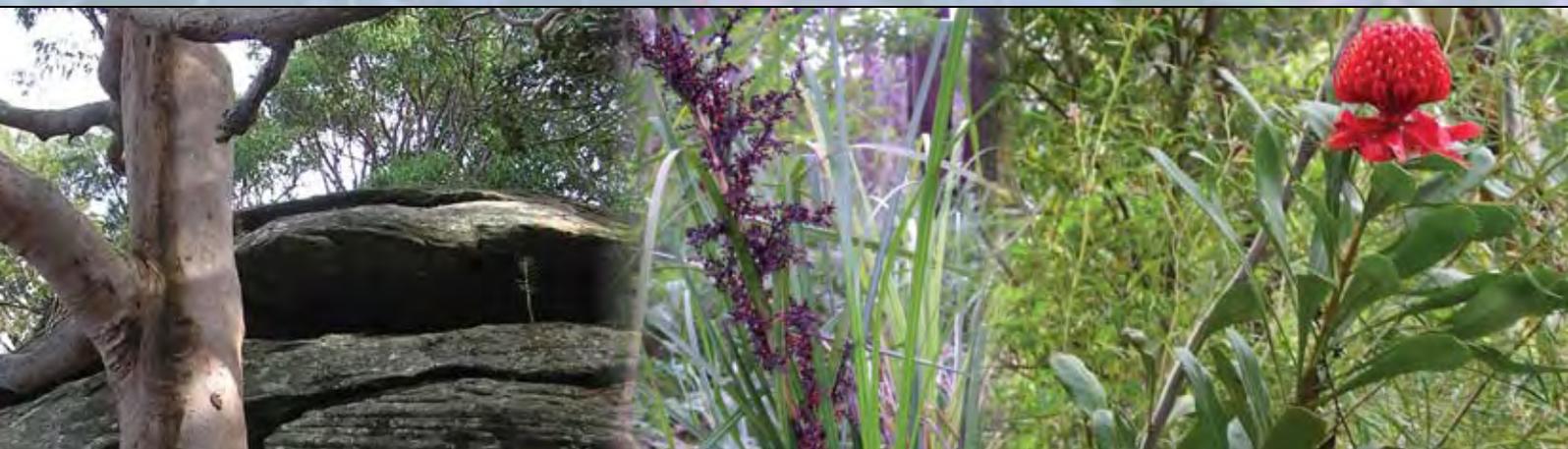


Warringah
Council

WARRINGAH COUNCIL

Threatened Bushland Reserves (Duffys Forest Ecological Community North)

June 2008



Plan of Management

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Plan of Management



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EXECUTIVE SUMMARY

Warringah Council has prepared plans of management for community and Crown bushland under its control supporting the endangered ecological community Duffys Forest. These reserves have been grouped into two plans, south and north, according to the geographical location of the reserves within Warringah. This plan, titled the Threatened Bushland Reserves (Duffys Forest Ecological Community North) Plan of Management covers the following five reserves:

1. Kinka Reserve (Crown Land)
2. Terrey Hills Oval (Crown Land)
3. Cooyong Road Reserve (Community Land)
4. Boronia Reserve (Community Land)
5. Oates Place Reserve (Community Land).

Duffys Forest Ecological Community (DFEC) is listed as an endangered ecological community on schedule 1 part 3 of the NSW *Threatened Species Conservation Act 1995 (TSC Act)* and a recovery plan required under the Act is in preparation. Some of the listed threats to the survival of DFEC include fragmentation, weed invasion facilitated by urban runoff and an inappropriate fire regime.

Values: The main value of the Reserves is for conservation of an endangered ecological community. Low-impact recreation (including horse riding at Kinka Reserve) is another value. The reserves also have aesthetic and scientific/ educational value.

Actions: The plan's actions and directions focus on protecting these values, with the ecological value of the bushland being the primary value. Council's primary management intention for the five reserves is to conserve and restore the DFEC through weed control, fencing, closure of selected tracks and revegetation. Because of the high conservation value of the bushland in these reserves this plan contains a management action for Council to request the Department of Lands to authorise a second reservation purpose of environmental protection in addition to the existing reservation for public recreation. Other actions include the rationalisation of tracks within the reserves and investigations into the future management of some adjoining examples of DFEC.

The implementation of this plan requires Council to undertake an annual review of each action. All actions within a plan of management are assessed against other areas of Council and final commitment to implementing an action is given once they appear in Council's Management Plan and other relevant documents.

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Threatened Bushland Reserves (DFEC North) Plan of Management

BACKGROUND

1. What is a Plan of Management?

A plan of management provides the framework for managing public land.

The *Local Government Act 1993* requires that Council prepare plans of management for all land classified as "Community Land". This classification means that the land is owned by Council and is managed for use by the community. Community land must be categorised in accordance with the *Local Government Act 1993*. A category describes the land and has a set of core objectives. All current and intended uses of the land must comply with the core objectives. Appendix 3 lists the core objectives applying to the categories of community land. There are 5 reserves in this plan, three of these are wholly owned by Council.

Warringah Council is responsible for two Crown Reserves in this area and has the responsibility to manage these reserves under the *Crown Lands Act, 1989*. This Plan of Management will ensure that Crown Land is used and managed in accordance with the purpose for which it has been reserved. It is not a statutory requirement for these reserves to be managed by a plan of management however Council has chosen to include these reserves to ensure all 5 reserves are strategically planned and managed.

Council has designated this plan as specific area plans of management in recognition of the operation of the *Threatened Species Conservation Act 1995*, and the importance of the land to the Warringah community in general.

This Plan of Management aims to provide a clear, concise and practical outline for the management of these five reserves. It also aims to assist Council in meeting its broader strategic goals and vision as set out in the 'Living Warringah' Strategic Plan (2005). The draft plan uses a values-based approach to land planning and management and aims to provide strategies that will protect and enhance community values for this land by addressing any issues threatening these values.

It aims to also satisfy the requirements of the *Local Government Act 1993* and the *Crown Lands Act 1989*.

2. What land does this Plan of Management apply to?

This plan of management applies to Kinka Reserve, Terrey Hills Oval, Cooyong Road Reserve, Boronia and Oates Place Reserves as identified on maps 1 and 2(a) – (e). Only land categorised as Natural Area: Bushland (Community land) or with a preferred use of Natural Area: Bushland (Crown Reserve) is covered by this Plan. Other land in these reserves (including land categorised as Sportsground or Playground) is dealt with in other Plans of Management.

Table 1 lists specific information relating to each parcel of land within this Plan of Management in the form of a table.

Land status and ownership

The Department of Lands owns the following reserves, both of which have been reserved for public recreation:

- Kinka Reserve
- Terrey Hills Oval

The other reserves are owned by Council and are classified as community land:

- Cooyong Road Reserve
- Boronia Reserve
- Oates Place Reserve

Map 1. Threatened Bushland Reserves (DFEC North) Locality Map

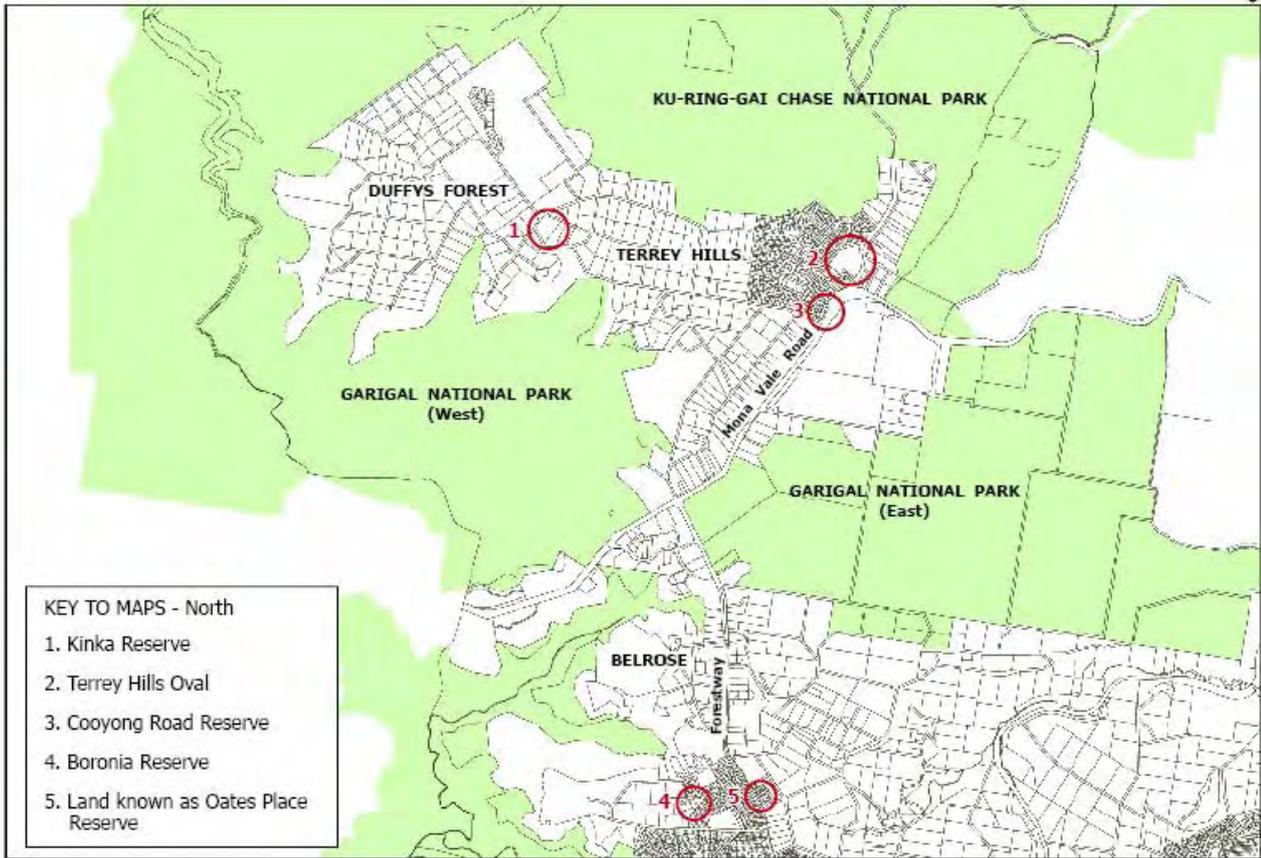
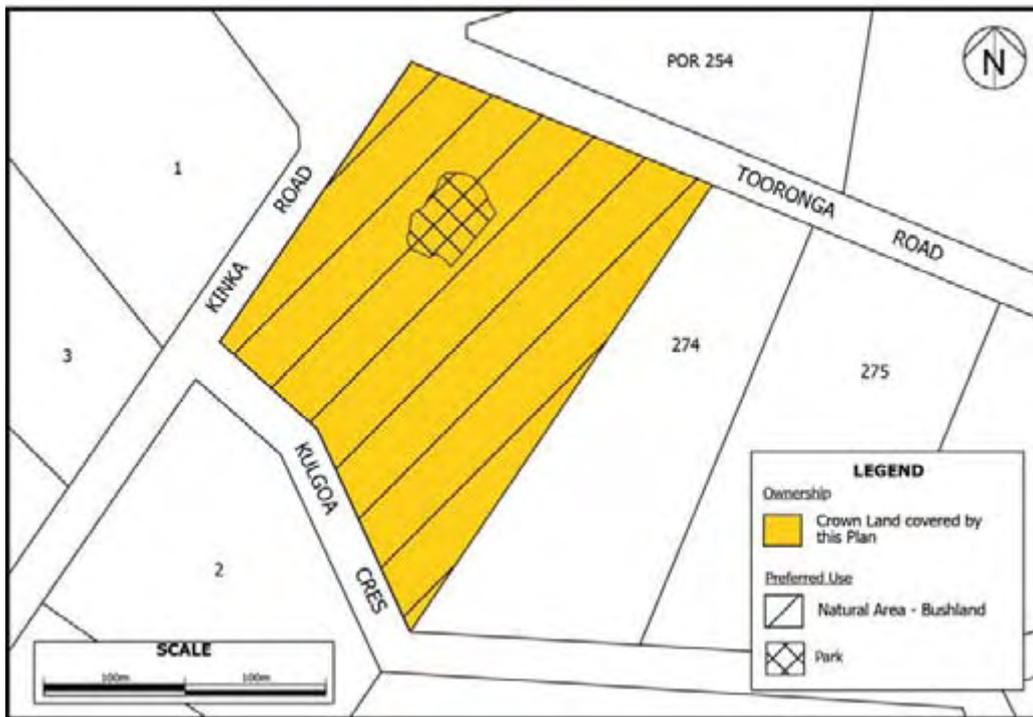


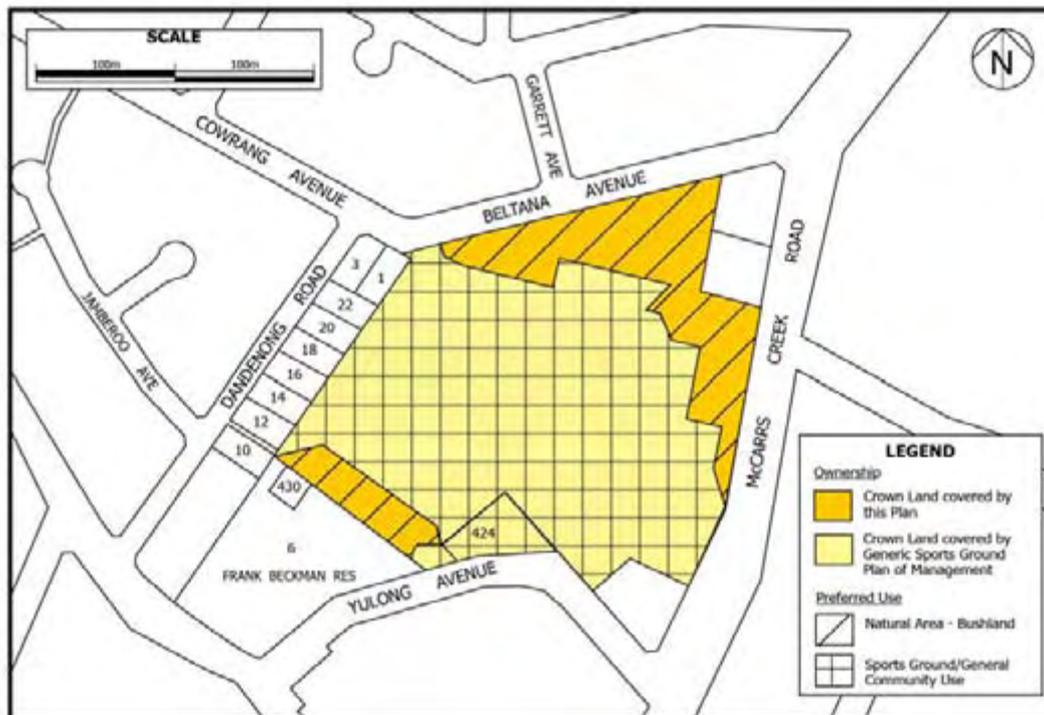
Table 1. Ownership, Status and Management of Land

Reserve Name	Address	Owner	Parcels			Crown Reservation Details	Community Land Category	Area-m ² (from GIS)
			Reg no	Lot no	DP no			
Kinka Reserve	Kinka Road, Terrey Hills	Department of Lands (Crown Reserve)	120A/6	7011	93764	Public Recreation Reserve R72313. Land reserved from sale on 13/06/1947. Reserved for purpose of public recreation 16/3/1962. Warringah Council appointed corporation to manage reserve trustee by govt gazette of 01/07/2005.	-	32,370
Terrey Hills Oval	Yulong Ave, Terrey Hills	Department of Lands (Crown Reserve)	6863/2	419	752017	Public Recreation Reserve R83752. Land reserved from sale 16/03/1962. Warringah Council appointed as trustee by government gazette of 01/06/1962.	-	56,560 (note 13,891 bushland covered by this plan only)
Cooyong Road Reserve (total area 2321m²)	Mona Vale Rd, Terrey Hills	Warringah Council (Community Land)	6861/3	2	1055888	-	Natural Area: Bushland	1534
			6861/2A	15	237301			897
Boronia Reserve (total area 2377m²)	Seena Place, Belrose	Warringah Council (Community Land)	6632/1A	19	237435	-	Natural Area: Bushland and Park	910
	Stratford Drive, Belrose		6632/1B	27	237267			1467 (approx. 734 covered by this plan only)
Oates Place Reserve	Forest Way, Belrose	Warringah Council (Community Land)	99/5	2	804702	-	Natural Area: Bushland	2922
			99/6	30	285490			791
								Total area 5.4 ha

Map 2(a) Kinka Reserve



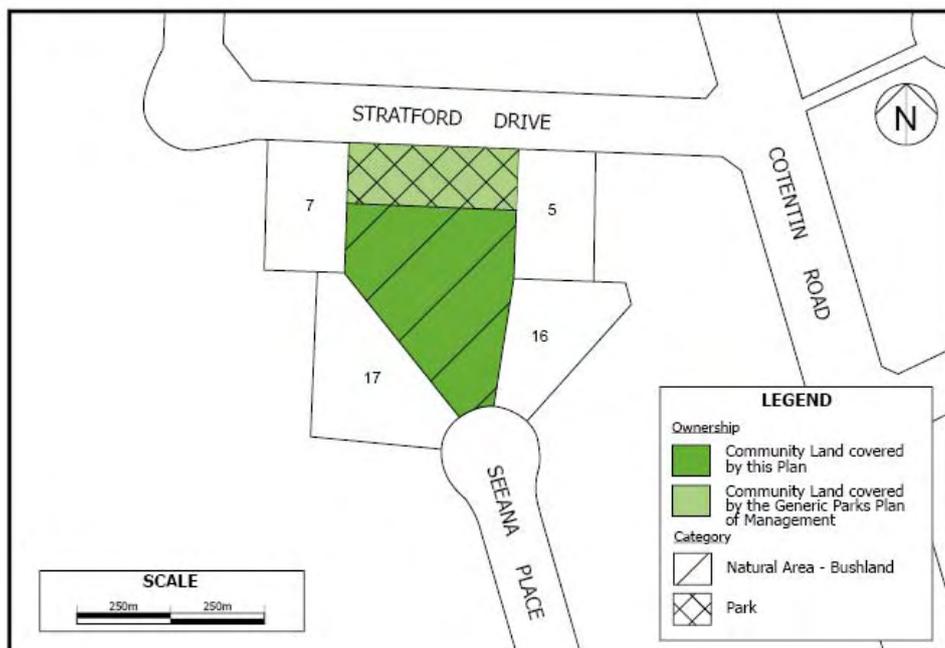
Map 2(b) Terrey Hills Oval



Map 2(c) Cooyong Road Reserve



Map 2(d) Boronia Reserve



Map 2(e) Oates Place Reserve



PREPARING THIS PLAN OF MANAGEMENT

3. What legislation is relevant to the development of this draft plan?

3.1 Crown Lands Act, 1989

Kinka Reserve and Terrey Hills Oval are Crown land reserved for public recreation under the Crown Lands Act 1989. For the purposes of the Act Council is a reserve trust manager.

Management of Crown land in accordance with the principles in Section 11 of the Crown Lands Act 1989 stresses the conservation of natural resources and their management in an ecologically sustainable manner while providing for appropriate opportunities for public use.

The CLA does not require managers to prepare a plan of management, unlike the Local Government Act, although the Minister may direct a plan to be prepared. Where a reserve trust manager, with the Minister's consent, prepares a plan of management, Section 112 of the CLA requires the plan to specify or deal with the following matters:

1. the condition of the reserve (including the condition of any buildings or other improvements on the reserve);
2. the existing use of the reserve (including the existing use of any buildings or other improvements on the reserve);
3. the nature and scale of the proposed additional purpose;
4. the nature, scale and term of any lease, licence or other arrangement that is intended to be granted or entered into in relation to the additional purpose;
5. any submissions made in relation to the draft plan as a result of the consultation process and public exhibition requirements under section 113.

Lands to which the Crown Lands Act 1989 applies are not subject to the classification requirements of the Local Government Act 1993 and appropriate uses are determined by the public purpose nominated for the land. This means that the land must provide a public

benefit and all use, development and agreements must be acceptable under the stated public purpose.

All of the Crown Land within this Plan of Management has been reserved for the purpose of 'public recreation'.

A Crown reserve can have an additional purpose declared where there are competing interests, such as bushland (environment protection) and recreation (usually the primary purpose).

To provide consistent management within a plan of management Council has adopted the view that lands owned by the Crown will also be treated as categorised. However the 'Public Purpose' of the reserve is the basis for planning and management of all Crown Reserves and all land use must either support or be ancillary to the public purpose.

Further information relating to the management of Crown land is included in Appendix 3.

3.2 Local Government Act, 1993

Cooyong, Boronia and Oates Place Reserves are classified as community land under the Local Government Act 1993. Under this Act and the Local Government Amendment (Community Land Management) Act 1998 Councils must prepare and adopt plans of management for all community land.

Such a plan must identify

- The category of the land
- The objectives and performance targets of the plan with respect to the land (strategies)
- The means by which these strategies will be achieved (actions)
- The methods which will be used to assess whether the strategies are being achieved.

The plan must also include a description of the condition and use of the land and of any buildings or other improvements on the land, at the date of the adoption of the plan. The purpose for permitted uses and further development of the land or improvement to buildings should be also specified by the plan.

Kinka, Terrey Hills Oval, Boronia and Oates Place Reserves are identified in a preliminary draft Duffys Forest Endangered Ecological Community Draft Recovery Plan and Terrey Hills Oval, and Oates Place Reserve are identified in the Recovery Plan for *Grevillea caleyi* (2004). The Local Government Act 1993 requires that a plan of management prepared for community land affected by a recovery plan prepared under Part 4 of the Threatened Species Conservation Act 1995 should apply only to that area of land and no other areas of land. The plan of management must categorise the land affected by a recovery plan as natural area and take account of Council's obligations under the recovery plan.

Further information relating to the management of community land is included in Appendix 3.

3.3 Categorisation of land within the DFEC Bushland Reserves (North)

The Local Government Act requires that all community land be categorised. A category describes the land and has a set of core objectives. All current and future uses of the land must comply with the core objectives. The categories given to the reserves in this Plan of Management are: Natural Area: Bushland, Park and Sportsground. A description of each of these categories and their core objectives are listed in Appendix 3.

A combination of categories may be used for one parcel of land. Maps 2(c) to 2(e) outline the categories proposed in these reserves.

3.4 Instruments made under the Environmental Planning and Assessment Act 1979

State Environmental Planning Policy (Infrastructure) 2007 applies to these reserves. This policy facilitates the delivery of public infrastructure. In particular, it specifies a range of developments that can be carried out by or on behalf of a public authority and which do not require development consent on parks and other public reserves. This includes development carried out by Council and by other public authorities. The range of development includes outdoor recreational facilities, landscaping, amenity facilities, and environmental management works, among others. Because of the presence of threatened species, any proposal on these reserves will still be subject to an environmental assessment under Part 5 of the Environmental Planning and Assessment Act.

If there is an inconsistency between this Policy and any other environmental planning instrument, (i.e the *Warringah Local Environmental Plan 2000*) whether made before or after the commencement of this Policy, this Policy prevails to the extent of the inconsistency except in the circumstances as detailed in Clause 8 - Relationship to other environmental planning instruments of SEPP (Infrastructure) 2007.

3.5 NSW Threatened Species Conservation Act 1995 and the Threatened Species Legislation Amendment Act 2004

Duffys Forest Endangered Ecological Community and *Grevillea caleyi* are listed on Schedule 1 of the NSW Threatened Species Conservation Act 1995 (TSC Act). In accordance with the Act a recovery plan has been prepared for *Grevillea caleyi* and a draft plan is in preparation for DFEC. The TSC Act requires that a public authority must take any appropriate measures available to implement actions included in a recovery plan for which it has agreed to be responsible. Public authorities and councils identified as responsible for the implementation of recovery plan actions are required by the TSC Act to report on measures taken to implement those actions. In addition, the Act specifies that public authorities must not make decisions that are inconsistent with the provisions of a recovery plan.

The Threatened Species Legislation Amendment Act 2004 identifies a new approach for planning and implementing actions to recover threatened native plants and animals in NSW. Priority Action Statements (PAS) containing prioritised recovery and threat abatement strategies will be adopted for each threatened species. This new approach streamlines the management of threatened species as it recognises that many threatened species are affected by a combination of the same threats. Individual recovery plans will continue to be prepared for threatened species with more complex management requirements. Actions from existing recovery plans, including the one being developed for DFEC and the one for *Grevillea caleyi*, will be incorporated as recovery strategies in the new PAS.

4. Values

4.1 Community Views

A number of recent consultation exercises and surveys have been drawn upon to identify the values attached to these reserves. In particular, the results of Warringah's 2005 'State of the Environment' survey indicate that a high proportion of the community (89%) are concerned 'a great deal' or 'a fair amount' about environmental problems. The 2007 'Warringah Community Survey' showed that the environment is one of the three major 'top-of-mind' issues of concern identified for Warringah over the next 5 – 10 years. More specifically, caring for bush areas was mentioned among the top environmental concerns.

As well as drawing on these surveys, consultation with relevant community members and groups was carried out to identify values and any issues associated with these areas. In addition to the consultation surveys above, Council also:

- Consulted Council staff
- Researched previous community correspondence and relevant information
- Consulted relevant agencies and government bodies
- Commissioned a detailed bushland and infrastructure survey of each reserve

- Researched relevant Council studies and documentation

4.2 Community Values

This plan takes a values-based approach to land use planning and management. This approach allows the key values, role and purpose to be identified so that they may be protected and enhanced. Values can simply be described as “what is important about a place” (DLWC & Manidis Roberts, 1996).

The consultation process has confirmed that these reserves are considered to be a valuable resource. The primary value of these reserves is the conservation of an endangered plant and vegetation community. As well as being a value this is also a legislative responsibility, as outlined above. Council is legally bound to manage these reserves for the conservation of DFEC and *Grevillea caleyi*.

Other values of these reserves include: the link they may provide in a local wildlife corridor, and passive or low key recreation opportunities. They also have incidental aesthetic and educational value as a result of their natural bushland.

4.3 Duffys Forest Ecological Community

Duffys Forest Ecological Community (DFEC) is listed as an endangered ecological community on schedule 1 part 3 of the *NSW Threatened Species Conservation Act 1995* (TSC Act) and a recovery plan required under the Act is in preparation. An endangered ecological community is likely to become extinct in nature unless circumstances and factors threatening its survival cease to operate. All plant and animal species occurring within an endangered ecological community are protected under the TSC Act. Some of the listed threats to the survival of DFEC particularly relevant to Warringah are fragmentation of bushland, weed invasion facilitated by urban runoff and an inappropriate fire regime.

The recovery plan is being prepared by the Department of Environment and Climate Change (DECC) in consultation with the Ku-ring-gai and Northern Beaches Threatened Species Working Group which includes representatives from Council, the community and other land managers. Relevant management actions in the preliminary draft recovery plan have been incorporated as management actions in this document. The Working Group has also prepared a number of relevant draft guidelines relating to the management of DFEC remnants.

The Warringah local government area is the main stronghold (87%) for remaining examples of DFEC. The estimated original extent of DFEC was about 1500ha; today, 240ha (16%) remains in a highly fragmented distribution. DFEC occurs on the lateritic soils of shale lenses on ridgetops, plateaus and upper slopes in Hawkesbury sandstone geology. The natural vegetation of much of this area has made way for iron stone quarries, major road corridors such as Forest Way and Mona Vale Road and urban development.

There are two primary forms of DFEC distinguished by the main tree species. Silvertop Ash-Brown Stringybark Forest is the most common form, the rarer form, Blackbutt-Turpentine Forest is generally taller and associated with deeper soils. Kinka Reserve, Terrey Hills Oval, Cooyong Road Reserve, Boronia Reserve and Oates Place Reserve all support the most common form of DFEC. Despite the generally poor condition of DFEC remnants in Warringah’s reserves, it has extremely high biodiversity values. This is because DFEC is the habitat for a number of rare and threatened plant species and forms part of Warringah’s mapped vegetation corridors network linking core bushland areas.

4.4 *Grevillea caleyi*

The plant, *Grevillea caleyi* is listed as endangered on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and endangered on Schedule 1 of the TSC Act. A Recovery Plan was adopted for *Grevillea caleyi* in 2004, however a draft plan has been existence since 1995. A Recovery Team comprising relevant land management and research interests has been implementing recovery actions in the draft Plan since that time. Accordingly many of the *Grevillea caleyi* sites, including the reserves covered in the

Threatened Bushland Reserves (DFEC North) Plans of Management have been under a program of active management for a number of years.

Grevillea caleyi is a handsome medium to tall shrub with soft hairy divided leaves and dark burgundy-red toothbrush flowers which bloom in late Winter and early Spring. Populations of this plant occur almost exclusively in DFEC in a restricted distribution centered on the suburb of Terrey Hills. Approximately 800ha of suitable habitat once existed, however today 85% of this area has been cleared and *Grevillea caleyi* occupies 7ha within 26 known sites on a combination of land ownership. These sites are small, fragmented and highly disturbed. The main threats to the sites are weeds, rubbish dumping, uncontrolled recreational use and inappropriate fire regimes.

Fire management is crucial to the survival of this plant; if a site is burnt too frequently the species may be eliminated, however fire is important to seedling recruitment. The Recovery Plan for *Grevillea caleyi* contains guiding principles for fire management practices which must be considered in the management of each site.

Terrey Hills Oval, Cooyong Road Reserve, and Oates Place Reserve support populations of *Grevillea caleyi*.

5. Council's management goals

In 2005 Council developed the "Living Warringah" Strategic Plan, which set Council's vision:

Warringah – A vibrant community, improving our quality of life by living in balance with our special bush and beach environment

To be able to achieve such a vision a series of goals were developed in four main areas. The following goals are relevant to the urban bushland reserves covered by this Plan and provide direction for the Plan:

- **Living Environment Goal 1.** To maintain the diversity of natural environments at their current levels or better.
- **Living Spaces Goal 2:** To provide recreational access to natural areas while ensuring the sustainability of the natural environment.

CURRENT CONDITION AND USE OF THE RESERVES

6. Kinka Reserve (CROWN LAND)

6.1 Background and Use of Land and Structures

Kinka Reserve is a Crown reserve managed by Warringah Council located in Terrey Hills. Most of the reserve area is bushland in good condition comprising of DFEC and another vegetation community, Sydney sandstone gully forest - a form of vegetation which is widespread in Warringah. Since 2003, Council has overseen contract bush-regeneration work in the reserve comprising primarily of weed control.

A study of Council's historical aerial photos reveals that the bushland of Kinka Reserve was intact in 1956 but by 1965 a square shape of vegetation had been cleared within the interior of the reserve. In 1972 there was evidence of tracks and small structures within the open area, possibly used as a horse-riding arena, but by 1986 these were absent and the area appeared to be naturally regenerating.

One of the present uses of this reserve is as an informal arena where local horse riders meet in the cleared area before commencing a trail ride in the surrounding bushland. In 2004 a development application by Council was approved for the revegetation of bushland on approximately half the cleared area and stabilisation of the remaining area to sustain low-key horse riding. The revegetation will be accomplished using a technique called soil seedbank translocation. This technique involves the careful excavation of 5-10cm of topsoil from a DFEC site approved for development, which is then spread over the site to be revegetated. Vegetation cut from the donor (development) site is burnt on the spread topsoil to promote germination of the seed stored in the soil.

There has been considerable public input into the management options at Kinka Reserve. A draft Plan of Management for this reserve was prepared and exhibited in 2006, and a public meeting and Public Hearing were held.

Kinka Reserve is an important Council bushland reserve as it supports a relatively undisturbed remnant of DFEC. Actions in the plan of management include rationalisation of the track system in the reserve, implementing the revegetation process and upgrading the remainder of the cleared area to accommodate horse-riding activity without damaging the adjacent DFEC. The primary values of the reserve are conservation of an endangered vegetation community, the link it provides in a local wildlife corridor and low key recreation opportunities, in particular horse-riding for the local community.

6.2 Condition of Kinka Reserve

Condition Indicator	Brief Description Of Condition Of Land Requiring Management Response
Vegetation health (Map 3a)	This reserve has experienced a number of disturbances in the past, including clearance of a large section in the centre. Overall the bushland is in good condition with a healthy tree canopy.
Weed infestation	Weed infestation is mainly restricted to the edges. The northern and north-western edges have some weeds present due mainly to dumping, while the southern edge of the reserve has suffered greatly from dumping and runoff and nutrient contamination from a past plant nursery and horse activities surrounding the reserve. Major weed species present are Lantana, Honeysuckle, Fishbone Fern, Blackberry, <i>Lilium formosanum</i> , and various annual weeds.
Potential threats to this reserve	<p>Key Threatening Processes (Listed under Schedule 3 of the Threatened Species Conservation Act 1995):</p> <ul style="list-style-type: none"> • High Frequency Fire • Infection of Native Plants by <i>Phytophthora cinnamomi</i> (a fungus) • The Removal of Dead Wood, Dead Trees and Logs • Habitat loss and degradation • Pathogens and disease • Altered soil nutrient levels • Altered hydrological and fire regimes • Invasion by exotic plants • Recreational use – bicycles, motorbikes, excessive pedestrian use and horse-riding outside of the designated central area of the reserve • Over-collection of native seed resource • Physical damage from illegal access, dumping, tree removal, encroachments
Encroachments (Map 3b)	Encroachment currently being addressed by Council on the southern boundary consisting of storage of building materials in reserve and road reserve.
Erosion	Erosion is minimal

Preparation for soil translocation works and upgrading of the horse riding area at Kinka Reserve



Geebung (Persoonia levi) at Kinka Reserve



6.3 Vegetation Condition and Significant Features of Kinka Reserve

The following tables describe the map on the facing page. The information in the tables is taken from Warringah Council's Natural Area Survey see Appendix 4(1) and an assessment of bushland condition developed and trialed specifically on bushland sites in Warringah, see Appendix 4(5).

Vegetation Communities			
Map Symbol*	Sydney Vegetation Map Unit**	Warringah Vegetation Community	Conservation Significance
LL	9sf. Duffys Forest	Silvertop Ash-Brown Stringybark Forest	Threatened in NSW
GG	10ag Sydney Sandstone Gully Forest (part)	Peppermint-Angophora Forest	Local Habitat
Z	NA	Highly Disturbed Vegetation	Local Habitat

*(Smith & Smith 2005) See Appendix 1 for further details

** (Benson and Howell 1994)

Known Significant Features		
Feature Type	Common Name	Notes
<i>Angophora crassifolia</i>		Plant, rare in Australia
<i>Lomandra brevis</i>		Plant, rare in Australia
<i>Chionochoa pallida</i>		Plant, threatened in northern Sydney
<i>Deyeuxia decipiens</i>		Plant, threatened in northern Sydney
<i>Eucalyptus capitellata</i>	Brown Stringybark	Plant, threatened in northern Sydney
<i>Persoonia isophylla</i>		Plant, threatened in northern Sydney
<i>Grevillea speciosa</i>		Plant, biogeographically significant
<i>Phyllota grandiflora</i>		Plant, biogeographically significant

Overall Interpretation of Bushland Condition		
Resilience rating	Bushland condition	Intervention required
Good	Native community healthy Virtually weed free	None, passive or minimal <i>Prevention of future impacts.</i>
Fair	Minor infestation with weeds	Low <i>Removal of impacts.</i> <i>Removal of low to medium levels of weeds.</i>
Poor	Severe infestation with weeds and regeneration of native species being suppressed. Ground layer of native species still present	Medium <i>Removal of impacts.</i> <i>Removal of weeds. Additional "kick start to promote regeneration"</i>
Non-resilient	Bushland replaced totally by weed species	High initial input with regular maintenance. <i>Revegetation required.</i>

Map 3(a) Kinka Reserve: Vegetation Communities and Bushland Condition (Resilience)



6.4 Infrastructure, Encroachments and Tracks

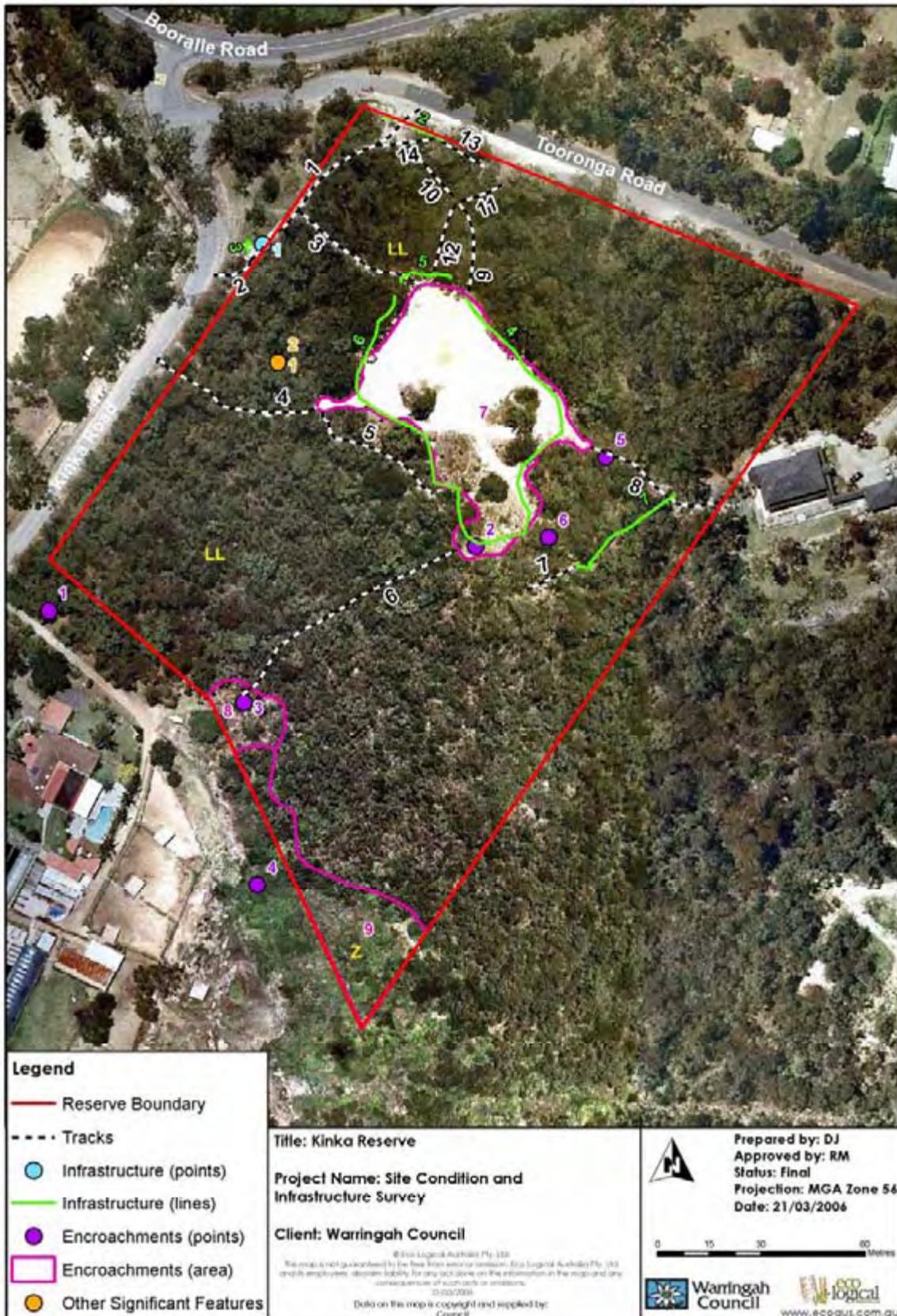
The following tables describe the map on a following page. The information in the tables summarises the results of a detailed infrastructure survey and track assessment undertaken for Warringah Council by consultants

Infrastructure - Points			
Map ID	Type	Condition	Notes
1	Drainage Structure	Good	Hydrant
Infrastructure - Lines			
Map ID	Type	Condition	Notes
2	Fence	Good	Rock barriers used as access control structures.
3			
4	Sediment fence	Good	Used around the large cleared area in the middle of the reserve. Stops further encroachment into existing bushland.
5			
6			
7	Fence	Good	Wire fence with star pickets- possible encroachment as leads to neighboring property bounding vegetable garden

Encroachments- Points			
Map ID	Type	Impact	Notes
1	Dumping	Low	Rock and building material dumping site.
2	Disturbed area	Low	Weed invasion- large patch of whiskey grass at end of formed track
3	Disturbed area	Moderate	Weed invasion. Has the potential to spread downhill.
4			
5	Other	High	Three strands of wire strung between trees across track to stop people passing onto private land. The wire is strung within the reserve. Possible safety issue for horse or trail bikes
6			
Encroachments- Area			
Map ID	Type	Impact	Notes
7	Cleared area	Low	Large area of cleared land used by horse and trail bike riders. Sediment fence should restrict encroachment and prevent spread of clearing and disturbance.
8	Cleared area	Moderate	Cleared area and weed invasion.
9	Disturbed area	Moderate	Weed invasion downhill from neighboring property. Without control it may continue to spread downhill.

Tracks (see Appendix 2 for description of condition class)			
Map ID	Condition Class	Length (m)	Notes
1	2	60	Old vehicle track, heavily used route, and drainage line
2	3	9	Informal trample track, short-cut/"desire line"
3	2	40	Closed vehicle track
4	2	60	Closed vehicle track
5	3	40	Overgrown vehicle track
6	3	75	Recent hazard reduction burn hand-tool line
7	3	15	Informal trample track
8	2	40	Closed vehicle track
9	2	25	Closed vehicle track
10	2	20	Closed vehicle track
11	2	25	Closed vehicle track
12	3	25	Cleared footpad link, informal link track
13	3	15	Informal trample/short-cut track
14	3	8	Footpad, short-cut/"desire line"

Map 3(b). Kinka Reserve: Management Issues



7. Terrey Hills Oval (CROWN LAND)

7.1 Background and Use of Land and Structures

It is likely that the land occupied by the playing fields is a former laterite quarry, a common landuse on the ironstone rich soils characteristic of DFEC. The main bushland area is isolated into two sections by a scout hall. Both sections are small, disturbed and fragmented by numerous tracks, however the southern section is in significantly better condition. The 10m wide road reserve on the western side of McCarrs Creek Road is managed by Council as a part of the southern section of the reserve and supports much of the population of the endangered plant, *Grevillea caleyi*. Despite disturbance from heavy recreational use, the *Grevillea caleyi* plants in this section are healthy and producing fruit. For the past 10 years Council has been undertaking a restoration program under the guidance of the *Grevillea caleyi* Recovery Team focussing mainly on the southern bushland section. This has included the erection of fencing to manage access.

The BMX bike use of the northern section of the bushland has extended significantly beyond the original circuit track constructed by the local scout community in the early 1980s. In 2003 Council proposed to fence off this section to exclude BMX bike riding and commence bushland restoration work. Council was concerned at the high level of mound construction, pit excavation and vegetation clearance taking place resulting in unacceptable safety risks to children riding in the area and significant damage to bushland including the habitat for the threatened plant *Grevillea caleyi*.

The Ku-ring-gai and Northern Beaches Threatened Species Working Group supported the fencing proposal but the public consultation process generated a number of concerns and objections from the local community. To respond to these concerns, a meeting was held between senior Council representatives and concerned local residents. At the meeting Council's Administrator indicated that Council would be willing to look at a smaller track on the edge of the bush. Such a proposal would require the community to establish an organisation to take care of the facility and supervise its maintenance.

Council staff identified an area of degraded bushland where the formalisation of a BMX bike riding area would not result in an unacceptable impact on the conservation values of the reserve. A draft plan for a track and associated infrastructure was submitted for Council's consideration. The plan had the endorsement of the Terrey Hills Progress Association, sporting groups that use Terrey Hills Oval and the Scouting Association which manages a scout hall on land adjacent to the area. Details about the funding and administration of the track have not been discussed and to date the proposal has not progressed any further. Another meeting was held between community representatives and Council staff in late 2005 as a part of the public consultation process for this Plan of Management.

Council has carried out short term works to remove dangerous jumps and repair damage to the reserve from previous BMX bike activity on two occasions. In response to continuing damage to threatened species habitat and public liability concerns, this plan of management authorises the fencing of parts of the northern section of bushland.

The plan of management has categorised the proposed BMX bike riding area (see Maps 2(b) and 9) as Sportsground; to allow for the future construction and management of a BMX bike trail under the Generic Sportground Plan of Management. The plan also includes a management action to investigate the future management of the bushland owned by the Scout Association to protect its conservation value as threatened species habitat.

The primary values of the bushland covered under this plan are conservation of an endangered vegetation community and an endangered plant and the link it provides in a local wildlife corridor.

The remainder of the Reserve, consisting of playing fields, tennis and basket-ball courts, car parking and associated uses, will be managed in accordance with the principles and actions in the Generic Sportsground Plan of Management and the General Community Use Plan of Management, as indicated on map 2(b).

7.2 Condition of Bushland at Terrey Hills Oval

Condition Indicator	Brief Description Of Condition Of Land Requiring Management Response.
Vegetation health (Map4a)	A substantial proportion of this reserve is in only fair condition because of vegetation clearance and a history of disturbance related to the BMX track in the north-western section. The tree canopy is generally healthy. The southern section is mixed weed and native shrubs that appears to have regenerated after the creation of the sportsground.
Fauna	Signs of bandicoot digging activity have been noted. This is probably the Long-Nosed Bandicoot.
Weed infestation	Weed infestation is mainly restricted to disturbed areas in the northern and southern sections. Major weed species present are Lantana, Honeysuckle, Senna and Small Leaved Privet.
Potential threats to this reserve	<p>Key Threatening Processes (Listed under Schedule 3 of the Threatened Species Conservation Act 1995):</p> <ul style="list-style-type: none"> • Clearing of Native Vegetation • High Frequency Fire • Infection of Native Plants by <i>Phytophthora cinnamomi</i> • The Removal of Dead Wood, Dead Trees and Logs • Habitat loss and degradation • Pathogens and disease • Altered soil nutrient levels • Altered hydrological and fire regimes • Invasion by exotic plants • Recreational use – motorbikes, excessive pedestrian use, inparticular BMX activity • Over-collection of native seed resource • Physical damage from illegal access, dumping, tree removal, encroachments
Encroachments (Map 4b)	No encroachments of note.
Erosion	Erosion is minimal

A Grevillea caleyi plant in flower at Terrey Hills Oval



Unsafe mounds constructed at Terrey Hills Oval for BMX bike riding.



7.3 Vegetation Condition and Significant Features of Terrey Hills Oval:

The following tables describe the map on the facing page. The information in the tables is taken from Warringah Council's Natural Area Survey see Appendix 4(1) and an assessment of bushland condition developed and trialed specifically on bushland sites in Warringah, see Appendix 4(5).

Vegetation Communities found in Reserve			
Map Symbol*	Sydney Vegetation Map Unit**	Warringah Vegetation Community	Conservation Significance
LL	9sf. Duffys Forest	Silvertop Ash-Brown Stringybark Forest	Threatened in NSW
Z	NA	Highly Disturbed Vegetation	Local Habitat

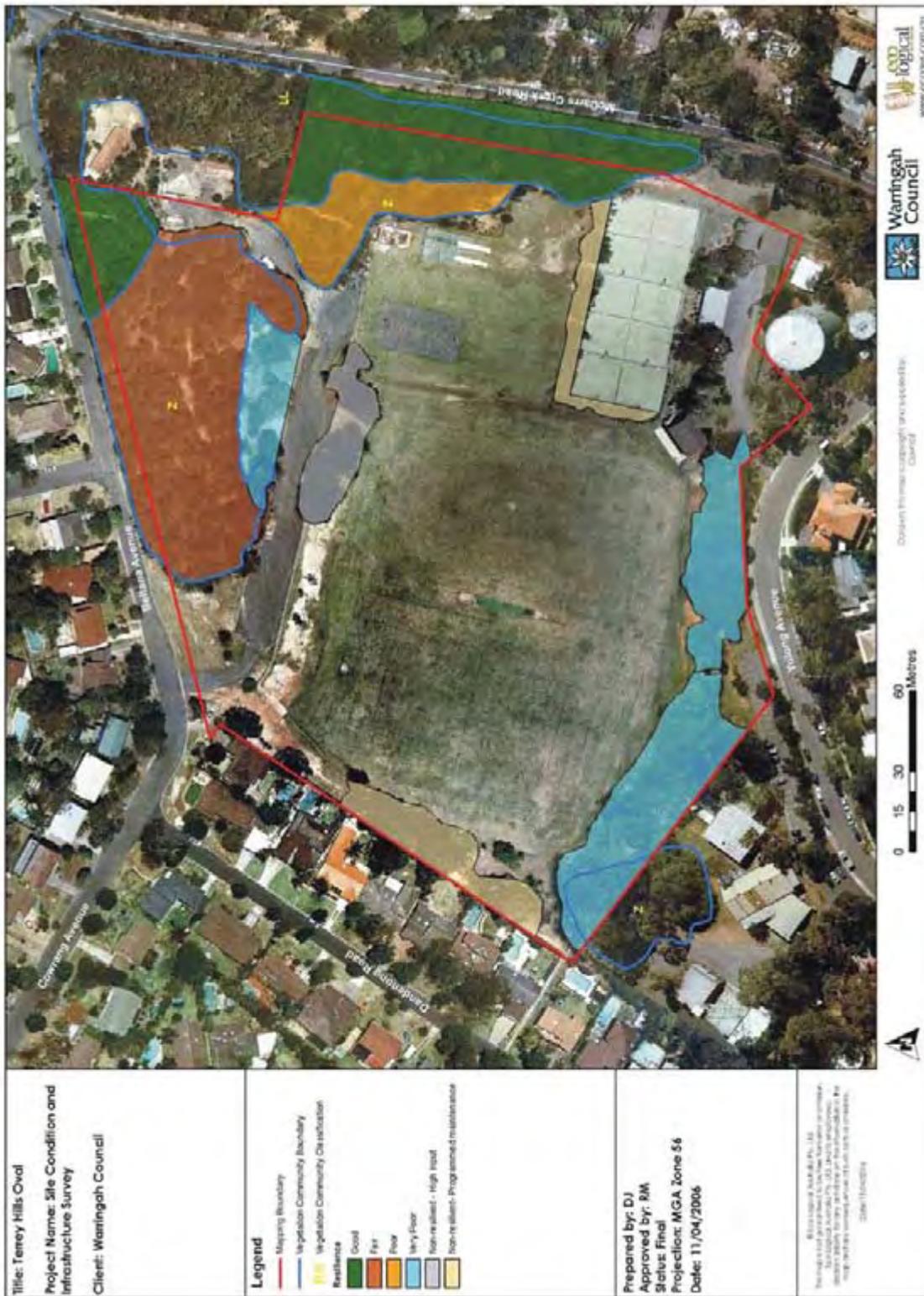
*(Smith & Smith 2005) See Appendix 1 for further details.

** (Benson and Howell 1994)

Known Significant Features		
Feature Type	Common Name	Notes
<i>Grevillea caleyi</i>		Plant, threatened in Australia
<i>Pimelea curviflora</i> var <i>curviflora</i>		Plant, threatened in Australia
<i>Tetradlea glandulosa</i>		Plant, threatened in Australia
<i>Eucalytus capitellata</i>	Brown Stringybark	Plant, threatened in northern Sydney
<i>Persoonia isophylla</i>		Plant, threatened in northern Sydney
<i>Phyllota grandiflora</i>		Plant, biogeographically significant

Overall Interpretation of Bushland Condition		
Resilience rating	Bushland condition	Intervention required
Good	Native community healthy Virtually weed free	None, passive or minimal <i>Prevention of future impacts.</i>
Fair	Minor infestation with weeds	Low <i>Removal of impacts.</i> <i>Removal of low to medium levels of weeds.</i>
Poor	Severe infestation with weeds and regeneration of native species being suppressed. Ground layer of native species still present	Medium <i>Removal of impacts.</i> <i>Removal of weeds. Additional "kick start to promote regeneration"</i>
Very poor	Bushland virtually replaced with weed species and/or Only mature specimens of highest stratum remain and no seedlings or sapling present due to infestation of understorey by weed species.	Medium to high <i>Ability of system to recover is lost or seriously limited.</i> <i>Definitely needs a "kick start" or may require reconstruction of approximate original system.</i>
Non-resilient	Bushland replaced totally by weed species	High initial input with regular maintenance. <i>Revegetation required.</i>

Map 4(a) Terrey Hills Oval: Vegetation Communities and Bushland Condition (Resilience)



7.4 Infrastructure, Encroachments and Tracks

The following tables describe the map on a following page. The information in the tables summarises the results of a detailed infrastructure survey and track assessment undertaken for Warringah Council by consultants

Infrastructure- Points			
Map ID	Type	Condition	Notes
1	Sign and bin	Good working order	
2	Gate	Good working order	Vehicle access gate at northern end of reserve.
3	Sign	Good working order	
4	Drainage Structure	Good working order	Drain under driveway at northern entrance to park.
5	Sign	Good working order	
6			
7	Stairs	Good working order	Stairs on southern edge of reserve. Provides access to parking area.
8	Fence	Good working order	Wire fence to restrict access. Prevents people entering former quarry site. Bollards.
9			
10			
11	Telegraph/Light pole	Good working order	
12	Sewage man hole	Good working order	Sewage manhole next to club house.
13	Gate	Good working order	Vehicle access gate at southern end of reserve.
14	Sign, flag pole and bollards	Good working order	Sign, flag pole and bollards were all in close proximity to each other.
15	Sign	Good working order	'Terrey Hills Playing Field' sign.
16	Water meter	Good working order	
17	Tap	Good working order	
18	Fence	Good working order	Bollards.
19	Stairs	Good working order	Stairs on western edge of reserve. Provides access to a right of way.
20	Fence	Good working order	Bollards to control access on track.
Infrastructure - Lines			
Map ID	Type	Condition	Notes
21	Fence	Good working order	Fence between reserve and neighbouring houses.
22	Fence	Good working order	Fence separating Scout Hall from the reserve.
23	Gate	Good working order	Gate leading to the Scout Hall in the north of the reserve.
24	Fence	Good working order	Log fence delineates edge of formed track. Also provides border to small drop off track.
25	Fence	Good working order	Log fence along edge of bushland.
26	Fence	Good working order	Bollards and log fence to restrict vehicle access to ovals.

Infrastructure - Area			
Map ID	Type	Condition	Notes
27	Managed ground	Good working order	Area of lawn managed by Council (around parking area).
28	Parking area	Good working order	Parking area in northern area of reserve.
30	Parking area	Good working order	Parking area for tennis courts at southern end of reserve.
31	Parking area	Good working order	Parking area at south eastern side of reserve.
32	Managed ground	Good working order	Area of lawn managed by council (around parking area).
33	Stairs	Good working order	Stairs from parking area to playing fields.
34	Managed ground	Good working order	Area of lawn managed by council (area in east of reserve).
Infrastructure - Lines			
Map ID	Type	Condition	Notes
44	Fence	Good working order	Bollards, access control structure to ensure cars do not drive on grassed areas.
45			

Encroachments - Area			
Map ID	Type	Impact	Notes
1	Cleared area	Low	Cleared area next to northern parking area. Borders area of Duffys Forest near informal BMX track. May continue to encroach.
2	Disturbed area	Low	Area of disturbance near cricket nets. Occurs in area already mapped as "Highly Disturbed". Several trees have been uprooted. Area is fenced off to aid recovery.
3	Cleared area	Low	Very small area at end of parking area near informal BMX track. Encroachment actually in scout hall grounds.
4	Cleared area	Low	Small encroachment next to southern parking area. Bushland resilience rated as very poor, and small nature of encroachment should not extend too far.
5	Disturbed area	High	Informal BMX track weaves its way through the Duffys Forest community in the north of the reserve. Causes high amounts of disturbance on the EEC through building of new tracks and bike/pedestrian traffic.

Tracks (see Appendix 2 for description of condition class)			
Map ID	Condition Class	Length (m)	Notes
1	2	25	Link west to carpark, well defined and cleared track
2	3	35	Banked semi-circular track at western end of main BMX circuit, very well defined and cleared, substantial earthworks and modifications
3	3	25	North-west track of main BMX circuit, very well-defined and wide-clearance track, some earthworks and modifications
4	3	40	North-east track of main BMX circuit, very well defined track, with minor earthworks and modifications, and wide vegetation clearance.
5	3	70	Southside track of main BMX circuit, well-defined track, with substantial earthworks and modifications and constructed mounds/jumps and fill.
6	3	15	Banked semi-circular track at eastern end of main BMX circuit very well-defined track, with substantial earthworks and modifications
7	3	30	Link north to Beltana Avenue access point and “desire line”/short-cut, well-defined track and drainage line
8	3	13	Link south-east to carpark access point and short-cut/“desire line”, defined pad and wide vegetation clearing
9	3	15	Link south-east to carpark access point and short-cut/“desire line”, defined narrow pad
10	3	15	Internal link track, short-cut and “challenge” up/over old fill site, defined pad and indistinct trample track
11	3	10	Internal link track short-cut and link track between main southern and northern BMX tracks
12	3	15	Internal link track short-cut and link track between main southern and northern BMX tracks
13	3	20	Internal link track old short-cut and link track between main southern and northern BMX tracks
14	3	45	Main north-south BMX track well-defined track, with substantial earthworks and modifications, mounds/jumps and excavation/scarps, and wide vegetation clearance
15	3	20	Internal link track well-defined narrow track, with minor banking/mounding
16	3	40	Major internal link track well-defined track, with substantial earthworks and modifications, large cleared area with mounds/jumps and excavation, wide vegetation clearance but partially blocked by fallen tree (at present May 2005)
17	3	9	Internal link track well-defined track with worn central pad
18	3	8	Internal link track) defined steep narrow track and drainage line, with narrow vegetation clearance
19	3	15	Internal dead-end track) partially defined track then indistinct route and dead end, with wide vegetation clearance
20	3	15	Link north to Beltana Avenue access point and “desire line”/short-cut, well-defined steep track and drainage line, with wide vegetation clearance
21	3	13	Internal link track old but defined short-cut and access
22	3	12	Link south-east to carpark access point and short-cut/“desire line”, well-defined track with clear worn pad
23	3	40	Internal link track, and possible old vehicle access defined, but in places indistinct, track

Tracks (see Appendix 2 for description of condition class)			
Map ID	Condition Class	Length (m)	Notes
24	3	30	Link north to Beltana Avenue access point and “desire line”/short-cut, defined track and drainage line, along fence line
25	3	20	Internal track - defined bush track narrowing to trample track
26	3	15	Internal link track, well-defined with wide cleared surface between two fence lines
27	3	30	Link east to McCarrs Creek Road access point and “desire line”/short-cut, well-defined track and drainage line, with mostly wide vegetation clearance
28	3	25	North end of main eastern spine track, well-defined with cleared pad and mostly wide vegetation clearance
29	3	85	South end of main eastern spine track - defined bush track with cleared or trampled pad and vegetation clearance
30	3	15	Internal dead-end track - defined bush track narrowing to become indistinct before dead-end
31	3	6	Internal dead-end track - defined bush track to abrupt dead-end above low laterite cutting/scarp
32	3	10	Link track west to oval - well-defined bush track
33	3	35	Internal loop/exploratory track - defined bush track with trample pad, and vegetation clearance
34	3	14	Link track, oval to McCarrs Creek Road – well-defined track, with established pad and good vegetation clearance, mostly off reserve
35	3	11	Link track, oval to Yulong Avenue carpark, access point and short-cut/“desire line”, indistinct/wide worn pad and sheet erosion
36	3	15	Link track, oval to rear of Community Centre - access point and “desire line”/short-cut, well-defined bush track and vegetation clearance
37	2	20	Internal link track, west from Community Centre - wide track, possible old vehicle access, with well-defined cleared pad and wide vegetation clearance
38	3	30	Link track, south-west to Seniors & Youth Centre well-defined bush track, mostly off reserve
39	3	15	Link track north to oval, defined bush track, with vegetation clearance, on slope
40	3	35	Link track, west to path to Dandendong Road - well-defined bush track, with vegetation clearance

Map 4(b) Terrey Hills Oval: Management Issues



8. Cooyong Road Reserve (COMMUNITY LAND)

8.1 Background and Use of Land and Structures

Cooyong Road Reserve is a very small strip of land located between RTA land on Mona Vale Rd and residential development in Terrey Hills. Council has been undertaking a restoration program under the guidance of the *Grevillea caleyi* Recovery Team on the RTA land in the vicinity of the reserve for ten years and has recently extended the program in 2004 to include Cooyong Road Reserve.

The former DFEC bushland in Cooyong Road Reserve is so degraded that it cannot currently be classified as a vegetation community, however Council believes that a carefully implemented program of bush regeneration utilising planned ecological burns is likely to restore the site to a representative example of DFEC. The site is also potential *Grevillea caleyi* habitat as evidenced by the recent germination of a number of plants in response to the restoration program.

8.2 Condition of Cooyong Road Reserve

Condition Indicator	Brief Description Of Condition Of Land Requiring Management Response.
Vegetation health (Map5a)	A substantial proportion of this reserve is in poor to very poor condition resulting from a history of disturbance. The tree canopy is dominated by Cedar Wattle, <i>Acacia elata</i> , which, while native, has proliferated due to the long absence of fire in the reserve.
Weed infestation	Weed infestation occurs throughout the reserve. Major weed species present are Lantana, Honeysuckle, Fishbone Fern and Small Leaved Privet, <i>Aristea ecklonii</i> and Tradescantia.
Potential threats to this reserve	Key Threatening Processes (Listed under Schedule 3 of the Threatened Species Conservation Act 1995): <ul style="list-style-type: none"> • High Frequency Fire • Infection of Native Plants by <i>Phytophthora cinnamomi</i> (a fungus) • The Removal of Dead Wood, Dead Trees and Logs • Habitat loss and degradation • Pathogens and disease • Altered soil nutrient levels • Altered hydrological and fire regimes • Invasion by exotic plants • Recreational use – bicycles, motorbikes, excessive pedestrian use and horse-riding outside of the designated central area of the reserve • Over-collection of native seed resource • Physical damage from illegal access, dumping, tree removal, encroachments
Encroachments	A large encroachment comprising lawns and landscape plantings occurs at the rear of adjacent residential properties on the western boundary of the reserve. The reserve also suffers from dumping of vegetation.
Erosion	Erosion is minimal

8.3 Vegetation Condition and Significant Features of Cooyong Road Reserve:

The following tables describe the map on the facing page. The information in the tables is taken from Warringah Council's Natural Area Survey see Appendix 4(1) and an assessment of bushland condition developed and trialed specifically on bushland sites in Warringah, see Appendix 4(5).

Vegetation Communities			
Map Symbol*	Sydney Vegetation Map Unit**	Warringah Vegetation Community	Conservation Significance
Z	NA	Highly Disturbed Vegetation	Local Habitat

*(Smith & Smith 2005) See Appendix 1 for further details.

** (Benson and Howell 1994)

Known Significant Features		
Feature Type	Common Name	Notes
<i>Grevillea caleyi</i>		Plant, threatened in Australia

Overall Interpretation of Bushland Condition		
Resilience rating	Bushland condition	Intervention required
Good	Native community healthy Virtually weed free	None, passive or minimal <i>Prevention of future impacts.</i>
Fair	Minor infestation with weeds	Low <i>Removal of impacts. Removal of low to medium levels of weeds.</i>
Poor	Severe infestation with weeds and regeneration of native species being suppressed. Ground layer of native species still present	Medium <i>Removal of impacts. Removal of weeds. Additional "kick start to promote regeneration"</i>
Very poor	Bushland virtually replaced with weed species and/or Only mature specimens of highest stratum remain and no seedlings or sapling present due to infestation of understorey by weed species.	Medium to high <i>Ability of system to recover is lost or seriously limited. Definitely needs a "kick start" or may require reconstruction of approximate original system.</i>
Non-resilient	Bushland replaced totally by weed species	High initial input with regular maintenance. <i>Revegetation required.</i>

NOTE: There is no infrastructure, encroachment and track survey for this reserve.

Map 5(a) Cooyong Road Reserve: Vegetation Communities and Bushland Condition (Resilience)



9. Boronia Reserve (COMMUNITY LAND)

9.1 Background and Use of Land and Structures

Boronia Reserve is a small reserve in Belrose. Approximately two-thirds of the reserve is managed as a local neighbourhood park with mown grass and playground equipment. The remaining area is managed as DFEC bushland and is the focus of an ongoing bushland restoration program. Although the size of the bushland remnant is small, the bushland is in surprisingly good condition, due in part to the work of a volunteer bush-regenerator working under the guidance of Council for the past ten years under the 'Friends of the Bush' program. Council has employed professional bush regenerators to work in the reserve since 2003.

Healthy DFEC trees with surrounding understorey vegetation occur within part of the park area of the reserve. It is likely that if mowing ceased around the trees DFEC would regenerate in this area, assisted by a minimal amount of weed control. The management plan proposes to extend the bushland boundary to incorporate some of the park area without unduly compromising the recreational value of the park (see Map 11 Boronia Reserve: management Intent) The primary values of the reserve are conservation of an endangered vegetation community and passive recreation.

9.2 Condition of Boronia Reserve

Condition Indicator	Brief Description Of Condition Of Land Requiring Management Response.
Vegetation health (Map 6a)	Over half of this reserve is mown lawn with the remainder made up of remnant bushland. The mown lawn area has a good tree cover with small understorey remnants existing around the bases of some trees. The bushland is in good condition with a healthy tree canopy. Continued dumping of leaf litter into the bushland may reduce regeneration of seedlings.
Weed infestation	Weed infestation in the bushland area is minimal, mainly comprising annual weeds and Formosan Lily (<i>Lilium formosanum</i>).
Potential threats to this reserve	Key Threatening Processes (Listed under Schedule 3 of the Threatened Species Conservation Act 1995): <ul style="list-style-type: none"> • High Frequency Fire • Infection of Native Plants by <i>Phytophthora cinnamomi</i> (a fungus) • The Removal of Dead Wood, Dead Trees and Logs • Habitat loss and degradation • Pathogens and disease • Altered soil nutrient levels • Altered hydrological and fire regimes • Invasion by exotic plants • Recreational use – bicycles, motorbikes, excessive pedestrian use • Over-collection of native seed resource • Physical damage from illegal access, dumping, tree removal, encroachments
Encroachments (Map 6b)	There is no evidence of encroachment into Boronia Reserve.
Erosion	Erosion is minimal

***Boronia ledifolia* in flower, a native shrub after which Boronia Reserve was named.**



Boundary of Boronia Reserve looking towards the Park area



9.3 Vegetation Condition and Significant Features of Boronia Reserve:

The following tables describe the map on the facing page. The information in the tables is taken from Warringah Council's Natural Area Survey see Appendix 4(1) and an assessment of bushland condition developed and trialed specifically on bushland sites in Warringah, see Appendix 4(5).

Vegetation Communities			
Map Symbol*	Sydney Vegetation Map Unit**	Warringah Vegetation Community	Conservation Significance
LL	9sf. Duffys Forest	Silvertop Ash-Brown Stringybark Forest	Threatened in NSW
Z		Highly Disturbed Vegetation	Local Habitat

*(Smith & Smith 2005) See Appendix 1 for further details.

** (Benson and Howell 1994)

Overall Interpretation of Bushland Condition		
Resilience rating	Bushland condition	Intervention required
Good	Native community healthy Virtually weed free	None, passive or minimal <i>Prevention of future impacts.</i>
Fair	Minor infestation with weeds	Low <i>Removal of impacts.</i> <i>Removal of low to medium levels of weeds.</i>
Poor	Severe infestation with weeds and regeneration of native species being suppressed. Ground layer of native species still present	Medium <i>Removal of impacts.</i> <i>Removal of weeds. Additional "kick start to promote regeneration"</i>
Very poor	Bushland virtually replaced with weed species and/or Only mature specimens of highest stratum remain and no seedlings or sapling present due to infestation of understorey by weed species.	Medium to high <i>Ability of system to recover is lost or seriously limited.</i> <i>Definitely needs a "kick start" or may require reconstruction of approximate original system.</i>
Non-resilient	Bushland replaced totally by weed species	High initial input with regular maintenance. <i>Revegetation required.</i>

Map 6(a) Boronia Reserve: Vegetation Communities and Bushland Condition (Resilience)



9.4 Infrastructure, Encroachments and Tracks

The following tables describe the map on the facing page. The information in the tables summarises the results of a detailed infrastructure survey and track assessment undertaken for Warringah Council by consultants

Infrastructure - Points			
Map ID	Type	Condition	Notes
1	Sign	Good working order	Boronia Reserve sign
2	Other	Good working order	Seat
3	Other	Good working order	Play equipment
4			
5			
6	Other	Good working order	Play equipment
7	Sign	Good working order	Boronia Reserve sign
8	Other	Good working order	Concrete entry path to reserve
Infrastructure- Areas			
Map ID	Type	Condition	Notes
9	Managed Ground	Good working order	Managed ground with play equipment etc

Tracks (see Appendix 2 for description of condition class)			
Track	Condition Class	Length (m)	Notes
1	2	7	Wide and well-used bush pathway linking playground and Stratford Drive with Seeana Place, through bushland southern area of reserve.
2	2	32	(Bitumen ramp as part of park access and local short-cut/link) continues north as track 1, wide bitumen ramp off south end of reserve dropping down to Seeana Place

Map 6(b) Boronia Reserve: Management Issues



<p>Legend</p> <ul style="list-style-type: none"> — Reserve Boundary - - - Tracks ● Infrastructure (points) Infrastructure (area) 	<p>Title: Boronia Reserve</p> <p>Project Name: Site Condition and Infrastructure Survey</p> <p>Client: Warringah Council</p> <p><small>© Eco Logical Australia Pty Ltd This map is not guaranteed to be free from errors or omissions. Eco Logical Australia Pty Ltd and its employees accept no liability for any loss or damage on the information in this map and are not responsible for any act or omission. 2009/2010 Data on this map is copyright and supplied by Council.</small></p>	<p>Prepared by: DJ Approved by: RM Status: Draft Projection: MGA Zone 56 Date: 29/03/2006</p> <p></p> <p></p> <p> </p> <p>www.ecoaus.com.au</p>
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10. Oates Place Reserve (COMMUNITY LAND)

10.1 Background and Use of Land and Structures

Forest Way Buffer (no7), otherwise known as Oates Place Reserve is a small, narrow strip of land located between Forest Way and a residential subdivision in Belrose. The reserve supports DFEC and one of the southern-most populations of *Grevillea caleyi*. The reserve has been worked for the past 10 years as part of a *Grevillea caleyi* restoration program overseen by the Recovery Team however, it is unlikely that its condition will improve beyond “fair” due to its small size and isolation from other bushland areas. An ecological burn was undertaken in the autumn of 2006.

The plan of management recommends that Council investigate the closure of the adjacent unmade road reserve and incorporate it into Oates Place Reserve. The inclusion of this degraded bushland into the annual *Grevillea caleyi* restoration program will improve the long-term viability of the reserve, and increase the amount of DFEC and potential *Grevillea caleyi* habitat in reservation. Another action in the plan is to distinguish the reserve with a more significant name, “Caley Reserve” in recognition of the endangered population of plants found there.

10.2 Condition of Oates Place Reserve

Condition Indicator	Brief Description Of Condition Of Land Requiring Management Response.
Vegetation health (Map7a)	This is a long thin roadside reserve. Small sections of this reserve have been disturbed in the past as a result of construction activities. These areas are regenerating well. The bushland is in fair condition with a healthy tree canopy. The recent ecological burn may help increase the sustainability of the reserve.
Weed infestation	Weed infestation is fairly low. Major weed species present are Lantana, Coreopsis and herbaceous annuals.
Potential threats to this reserve	Key Threatening Processes (Listed under Schedule 3 of the Threatened Species Conservation Act 1995): <ul style="list-style-type: none"> • High Frequency Fire • Infection of Native Plants by <i>Phytophthora cinnamomi</i> (a fungus) • The Removal of Dead Wood, Dead Trees and Logs • Habitat loss and degradation • Pathogens and disease • Altered soil nutrient levels • Altered hydrological and fire regimes • Invasion by exotic plants • Recreational use – bicycles, motorbikes, excessive pedestrian use • Over-collection of native seed resource • Physical damage from illegal access, dumping, tree removal, encroachments
Encroachments (Map 7b)	No encroachments of note.
Erosion	Erosion is minimal

Degraded bushland in the adjacent unmade road reserve at Oates Place Reserve



An ecological burn undertaken in Oates Place Reserve Autumn 2006



10.3 Vegetation Condition and Significant Features of Oates Place Reserve:

The following tables describe the map on the facing page. The information in the tables is taken from Warringah Council's Natural Area Survey see Appendix 4(1) and an assessment of bushland condition developed and trialed specifically on bushland sites in Warringah, see Appendix 4(5).

Vegetation Communities			
Map Symbol*	Sydney Vegetation Map Unit	Warringah Vegetation Community	Conservation Significance
LL	9sf. Duffys Forest	Silvertop Ash-Brown Stringybark Forest	Threatened in NSW

*(Smith & Smith 2005) See Appendix 1 for further details.

** (Benson and Howell 1994)

Known Significant Features		
Feature Type	Common Name	Notes
<i>Grevillea caleyi</i>		Plant, threatened in Australia
<i>Pimelea curviflora var curviflora</i>		Plant, threatened in NSW
<i>Persoonia isophylla</i>		Plant, threatened in northern Sydney
<i>Grevillea speciosa</i>		Plant, biogeographically significant
<i>Phyllota grandiflora</i>		Plant, biogeographically significant

Overall Interpretation of Bushland Condition		
Resilience rating	Bushland condition	Intervention required
Good	Native community healthy Virtually weed free	None, passive or minimal <i>Prevention of future impacts.</i>
Fair	Minor infestation with weeds	Low <i>Removal of impacts.</i> <i>Removal of low to medium levels of weeds.</i>
Poor	Severe infestation with weeds and regeneration of native species being suppressed. Ground layer of native species still present	Medium <i>Removal of impacts.</i> <i>Removal of weeds. Additional "kick start to promote regeneration"</i>
Very poor	Bushland virtually replaced with weed species and/or Only mature specimens of highest stratum remain and no seedlings or sapling present due to infestation of understorey by weed species.	Medium to high <i>Ability of system to recover is lost or seriously limited.</i> <i>Definitely needs a "kick start" or may require reconstruction of approximate original system.</i>
Non-resilient	Bushland replaced totally by weed species	High initial input with regular maintenance. <i>Revegetation required.</i>

Map 7 (a) Oates Place Reserve: Vegetation Communities and Bushland Condition (Resilience)



Legend

- Reserve Boundary
- Vegetation Community Boundary
- LL Vegetation Community Classification

Resilience

- Fair

Title: Lots 2 & 30 Forest Way DP 804702 (adjacent to Oates Place, Belrose)

Project Name: Site Condition and Infrastructure Survey

Client: Warringah Council

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Prepared by: DJ
Approved by: RM
Status: Final
Projection: MGA Zone 56
Date: 11/04/2006

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10.4 Infrastructure, Encroachments and Tracks

The following tables describe the map on the facing page. The information in the tables summarises the results of a detailed infrastructure survey and track assessment undertaken for Warringah Council by consultants.

Infrastructure - Lines			
Map ID	Type	Condition	Notes
1	Fence	Good	Fence between neighboring property and reserve. In many cases the fence does not match cadastral boundary of the reserve.
2	Fence	Good	Log fence retaining built up area at edge of reserve. Photo taken at north western end of fence

Encroachments - Points			
Map ID	Type	Impact	Notes
1	Disturbed area	Low	Some weed invasion, especially Formosan Lily mainly from dumping of building materials during recent works on neighboring property

Map 7(b) Oates Place Reserve: Management Issues



Legend

- Reserve Boundary
- Infrastructure (lines)
- Encroachments (points)

Title: Lots 2 & 30 Forest Way DP 804702 (adjacent to Oates Place, Belrose)

Project Name: Site Condition and Infrastructure Survey
 Client: Warringah Council

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THE MANAGEMENT OF THE RESERVES

11. What are Council's Intentions for the Future Use of the Land and what Activities are Approved for the Land?

Council's primary management intention for the five reserves in the Threatened Bushland Reserves (DFEC North) Plan of Management is to conserve and restore the endangered ecological community, Duffys Forest and populations of the endangered plant *Grevillea caleyi* while providing for recreation and education opportunities which do not compromise the ecological integrity of the reserves.

11.1 Future Use, Development and Approved Activities for the Land

Council will conserve DFEC in the reserves by continuing restoration of the degraded areas of DFEC and degraded areas of other vegetation communities adjacent to DFEC (buffers) in the reserves. Restoration works will entail weed control, fencing, closure of selected tracks and in the most degraded (non-resilient) areas, revegetation with endemic plants with local provenance. Revegetation techniques may include translocation of the soil seedbank in accordance with guidelines adopted by the Department of Environment and Conservation for Duffys Forest.

Selected tracks within Kinka Reserve, Terrey Hills Oval and Boronia Reserve will be upgraded. An area of degraded bushland at Terrey Hills Oval has been designated as a site for the formalisation of a BMX bike riding track for younger riders. The track would be developed and managed by the community. A designated area within Kinka Reserve will be managed for horse riding and an adjacent area revegetated using soil seedbank translocation. Options to enlarge the area of Kinka and Oates Place Reserves through the closure of adjacent unmade road reserves will be investigated and natural regeneration will be encouraged in part of the adjacent mown park to extend the DFEC bushland of Boronia Reserve.

11.2 Council's Response to the Public Hearing Report

Appendix 5 contains the report of a public hearing held on 24 May 2007. It contains recommendations on the matters raised at that meeting. These recommendations are provided for Council consideration in the finalisation of the plan. All recommendations that relate to this Plan of Management have been incorporated into the plan with the exception of the recommendation about the BMX riding area at Terrey Hills Oval. The Public Hearing Report recommended a larger area be set aside for BMX riding. However, Council has elected to retain the action that was in the draft plan, that is, to set aside only the area of very poor bushland for BMX riding. This approach is also favoured by DECC because the area in question has value as bushland to protect DFEC and *G. caleyi* habitat.

12. Management Actions

Council's management intent is shown on Maps 8, 9, 10, 11 and 12 and is detailed in the actions tables following each map.

12.1 Implementation

Actions in this Plan of Management will be assessed on a yearly basis for inclusion in Council's Management Plan.

It should be recognised that the commencement and completion of these management actions depends on available Council resources and funding. As such projects and actions identified in this Plan of Management must be assessed against the other priorities of Council. Commitment to implementing particular actions is given once these actions appear in Council's Management Plan and related annual planning documents (such as the Capital Expenditure Program). As priorities change, actions may need to be altered, given another priority or even rejected through a formal review process.

What do the priorities mean?

The actions have been given priorities as the Plan of Management contains a very large list of actions and Council does not have the resources to undertake all of them immediately.

- **High (H)** – Actions with high priority are to be considered in Council's funding processes annually until they can be resourced, then included in the Management Plan and relevant unit's 'Business Plan' each year until completed.
- **Medium (M)** – These actions are to be reviewed by the responsible Council Unit each year as to their current importance. This will be based on completion of previous actions and any new directions. When relevant these actions will be considered for capital expenditure and/ or placement in the relevant plans. They should be implemented within the life of this Plan.
- **Low (L)** – These actions are important and are necessary for the overall management and improvement of these Reserves. However they may not be allocated appropriate resources until they are formally reviewed as being of a higher importance or until resources are available for such actions. Relevant Council Units are to consider including these actions in their Business Plans each year.

12.2 Action Tables

The Local Government Act 1993 describes a set of "core objectives" for each category and it is a requirement under the Act that the Plan of Management describes how each of the core objectives will be achieved. The following maps and actions tables have been developed to address the objectives of the Natural Area – Bushland category. The tables also indicate how Council will be able to assess whether the objectives have been met.

Action Tables Abbreviations	
DECC	State Department of Environment and Climate Change
TSC Act	<i><u>Threatened Species Conservation Act 1995</u></i>
DFEC	Duffys Forest Endangered Ecological Community
B&B	Bushland and Biodiversity
PDS	Planning and Development Services
COMPLIANCE	Compliance Services
CATCHMENT	Catchment Management Team
AI	Asset Information
PRF	Parks, Reserves and Foreshores
S&P	Strategy and Policy Team
SP	Strategic Planning Team
RFS	Rural Fire Service
Env Ed	Environmental Education Team

Map 8 Kinka Reserve: Management Intent



30. Trails 1,2,13 and 14 relocated to road reserve, subject to road safety considerations.

13. Rehabilitate portion of open area in accordance with approved Development Application and soil translocation guidelines in Duffys Forest R.P.

23. Investigate opportunities to close Kulgoa Crescent Road reserve to the South-West and transfer as community land to Council.

12.3 Action Table for Kinka Reserve

KINKA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Value: Integrity and sustainability of the reserve				
Objective:	Ensure reserves are managed in a way that does not conflict with identified values and the interests of future generations are protected			
Means of Assessment:	Regular assessment of bushland and track condition against baseline			
Reserves protected from activities that will degrade or reduce the viability of the site and genetic integrity of flora protected	1) Identify boundaries with adjacent private lands and mark clearly on the ground	High	\$3 500	B&B
	2) Remove, rehabilitate and prevent encroachments from adjacent land as required	High	\$2 000	B&B, COMPLIANCE
	3) Minimise disturbance and address illegal activities (including rubbish and vegetation dumping)	High	Staff time	B&B, COMPLIANCE
	4) Ensure the collection of all seed and propagules from areas covered by the TSC Act is licensed by the DECC. Council will develop licencing conditions for the collection of seed and propagules from non-threatened bushland areas	High	Staff time	B&B
	5) Implement recommendations of DFEC preliminary draft Recovery Plan, and report by Kate Low and Associates and J. Harkin Consulting (see Appendix 4(4))	High	Staff time	B&B

KINKA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Reliable monitoring of management actions and reserve condition	6) Establish and document baseline conditions and monitoring points to measure management effectiveness	High	Staff time	B&B, S&P
	7) Link monitoring to any contracts and management actions by way of appropriate briefs and project plans	High	Staff time	B&B
Value: Biodiversity				
Objective:	Manage the Reserve's scenic, environmental and recreational values to promote ecologically sustainable management practices			
Means of Assessment:	Regular assessment of bushland condition against baseline			
Management consistent with the values of the reserve and the Duffys Forest preliminary draft Recovery Plan	8) Approach the Department of Lands to authorise dual reservation purposes of Public Recreation and Environmental Protection	Medium	Staff time	S&P
	9) Allow only activities consistent with this plan of management and the preliminary draft Duffys Forest Recovery Plan	As required	Staff time	B&B
	10) Ensure the Natural Area Survey is regularly updated to provide best available information and practices for reserve planning and management	High	Staff time	B&B
Integrated planning to ensure no conflict of goals and outcomes	11) Integrate conservation planning with other management planning and maintenance programs undertaken by Council and where possible other land management agencies and utilities	High	Staff time	B&B

KINKA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Recover original ecological processes	12) <ul style="list-style-type: none"> • Consolidate all areas of good resilience • Restore areas of DFEC of fair resilience to good resilience • Regenerate buffers to DFEC • In non-resilient areas control noxious and environmental weeds and encourage natural regeneration and undertake revegetation if required 	Ongoing	\$6 500 pa.	B&B
Implement development application No. 2004 /0500	13) Rehabilitate portion of open area in accordance with approved development application and soil seedbank translocation guidelines recommended by DECC	Medium	Initial costs met by developer Concurrence funds	B&B
	14) Clearly delineate the area to be rehabilitated from the adjoining recreation area with a wooden barrier or similar protection structure	Medium	\$1,500	B&B
Objective:	Maintain the biodiversity of the land			
Means of Assessment:	Regular fauna survey/observations Regular audit of feral animal activity Pre and post fire monitoring Regular assessment of bushland condition against baseline			

KINKA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Management of native fauna	15) Declare reserve as Wildlife Protection Area under Companion Animals Act (1998)	High	\$750 signage As required	B&B
	16) Undertake feral animal control as required	High/Ongoing	Staff time \$1000 pa.	B&B
	17) Undertake fauna survey and develop fauna list for reserve with appropriate conservation actions	Medium	\$2500	B&B
Management of appropriate fire regimes	18) Undertake ecological burns to maintain the appropriate fire regime for the endangered ecological community present within the reserve. Council will undertake review of environmental factors prior to ecological burns	Ongoing	Staff time	B&B, RFS
Management of noxious weeds	19) Control noxious weeds within the reserve and on the reserve boundaries as required	High	Staff time and as part of bush regeneration contract	B&B
Value: Biological corridors and linkages				

KINKA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Objective: plant	Bushland in parcels of a size and configuration (individually and collectively) that will enable the existing			
	and animal communities to survive in the long term			
Means of Assessment:	Regular update of Council's Natural Area Survey			
	Regular assessment of bushland condition against baseline			
	Regular fauna survey/observations			
Ensure planning and management for priority 3 corridor status (Smith and Smith 2005)	20) Maintain and improve corridor habitat when undertaking reserve restoration works and in assessment of development proposals in parts of corridor adjacent to reserve	As required	Staff time	B&B
Promote opportunities to acquire, or sympathetic management of, adjoining lands	21) Minimise the adverse impact of activities and development on land adjacent to the reserve through appropriate development, planning controls and guidelines	As required	Staff time	B&B, PDS, SP
	22) Develop guidelines to offset loss of threatened habitat associated with development and activities on adjacent land and within the reserve on an enduring and "like or better" basis	As required	Staff time	B&B, SP, S&P
	23) Investigate opportunities to close Kulgoa Crescent Road reserve to the south-west and transfer as community land to Council	As required	As required	AI, B&B

KINKA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
	24) Identify opportunities to conserve buffer zones and significant habitat on adjacent land through agreements with property owners	As required	As required	B&B, SP, S&P
Value: Educational research and community awareness				
Objective:	Management that identifies, promotes and protects the educational and scientific values of the lands			
Means of Assessment:	Update of Council's General Community Perception of the Environment Survey			
	Level of use of reserves for recreational and educational activities			
Promote best management practice and community awareness of the conservation requirements of threatened species	25) Allow and assist agencies and educational institutions to carry out management-related research in reserves	As required	Staff time	B&B, ENV ED
	26) Educate and encourage the involvement of adjacent residents, Bushfire Brigades, recreational users and the local community in the conservation of DFEC	As required	Staff time	B&B, ENV ED
	27) Develop an educational program incorporating on-site signage to promote community awareness of the soil translocation project on the rehabilitation site	Medium (following completion of site rehabilitation)	Staff time \$3 000	B&B, ENV ED
Value: Recreation/access				

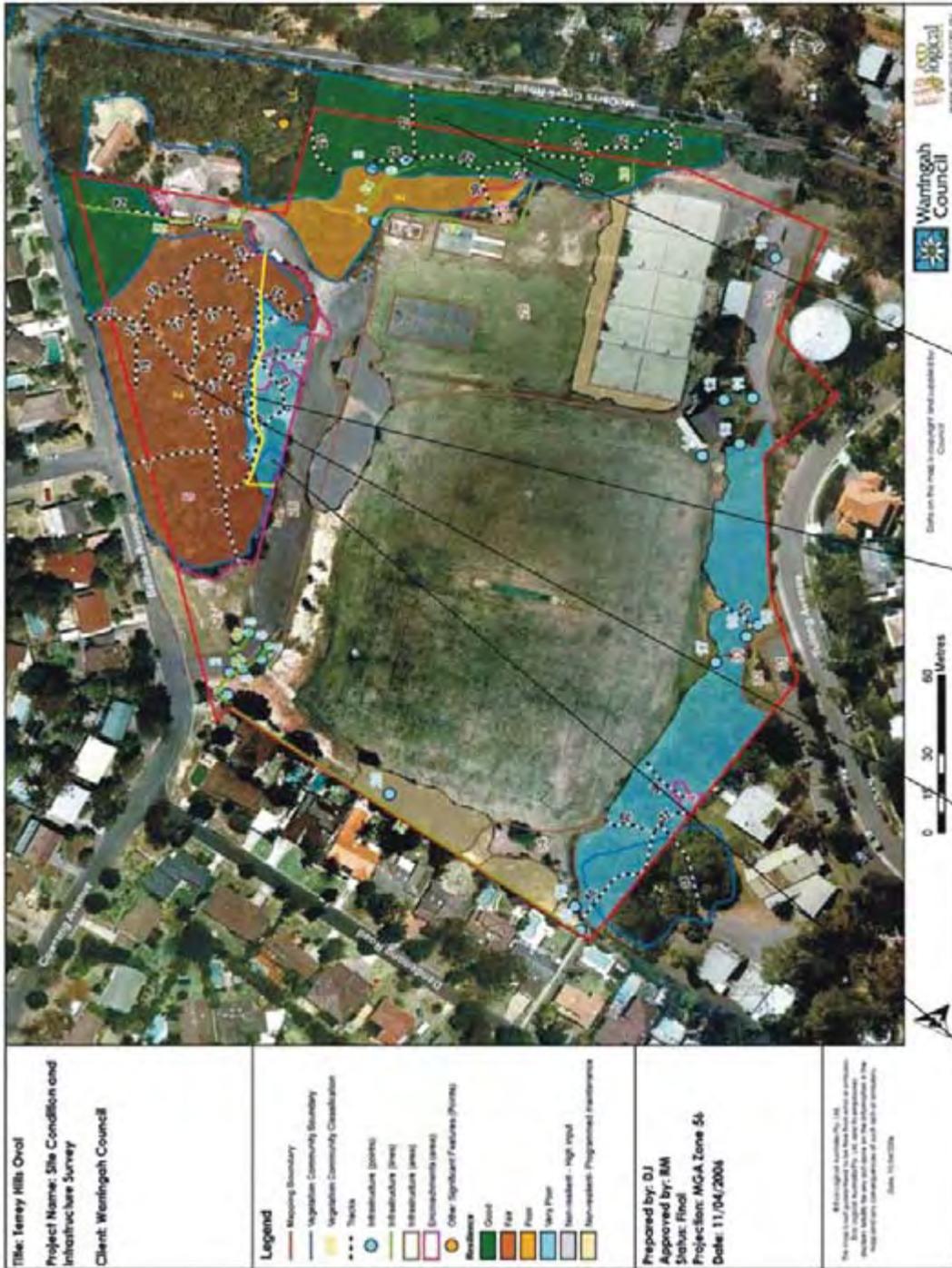
KINKA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Objective: land,	Facilities and opportunities that promote public enjoyment and appreciation of the values and quality of the			
	and that protects and enhances those values			
Means of Assessment:	Regular assessment of track condition against baseline			
Sustainable recreation facilities	28) Trails 4, 5, 6, 7, 8, 10 and 12 closed	High	\$5 000	B&B
	29) Trails 3, 9, and 11, upgraded and stabilised to allow for horse-riding	High	\$7 000	B&B
	30) Trails 1,2,13 and 14 relocated to road reserve and upgraded to allow for horse-riding subject to road safety considerations	High	\$5 000	B&B
	31) Provide opportunities for continuing informal horse and pony related activities on the cleared area of the site including the construction of hitching rails on the Toorong Rd boundary and elsewhere in the reserve.	High	As required	B&B
	32) Construct a walking trail with interpretive signage around the perimeter of the open area and rehabilitation area as a part of the development application works.	Medium	\$21 000	B&B, ENV ED
	33) Provide opportunities for other types of passive recreational use of the reserve such as the construction of seating at the reserve entrance and elsewhere in the reserve.	Medium	As required	B&B

KINKA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Value: Scenic/aesthetic				
Objective:	Land, and its features and habitats, retained in its natural state and setting			
Means of Assessment:	Regular assessment of bushland and track condition against baseline			
Protect psychological and social values of reserve	34) Recognise and take into account visual significance when planning and designing facilities and opportunities in the reserve	Ongoing	Staff time	B&B
Value: Environment protection				
Objective:	Protect existing landforms such as natural drainage lines, watercourses and foreshores			
Means of Assessment:	Regular audit of implementation of Council's Environmental Management Plan			
Procedures and development control processes that protect the reserve	35) Enforce environmental protection legislation and ensure all necessary environmental assessment and protection requirements fulfilled including conditions in work contracts	High	Staff time	B&B, CATCHMENT, COMPLIANCE
Objective:	Measures directed to minimising or mitigating any disturbance caused by human intrusion			
Means of Assessment:	Regular audit of implementation of Council's Environmental Management Plan			
	Regular assessment of bushland condition against baseline			
Ensure activities do not damage the reserve	36) Implement appropriate site management conditions for reserve improvement activities and ensure temporary structures are removed at completion of works	High	Staff time	B&B

KINKA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
	37) Monitor all activities in reserves and respond as required to protect area	High/Ongoing	Staff time	B&B
	38) Consult with neighbours and stakeholders about site management works undertaken by Council	High/Ongoing	Staff time	B&B
Value: Bushfire hazard management				
Objective:	To protect life and property from bushfire hazard			
Means of Assessment: Plan	Regular audit of reserve bush fire hazard against Warringah Pittwater District Bush Fire Risk Management and bush fire prone land map			
Protect local community from bushfire hazard while maintaining environmental values of the reserve	39) Undertake hazard reduction activities including hazard reduction burns and manual fuel removal as appropriate. Council will undertake review of environmental factors prior to hazard reduction burns	Ongoing	Staff time	RFS, B&B

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Map 9 Terrey Hills Oval: Management Intent



Title: Terrey Hills Oval
Project Name: Site Condition and Infrastructure Survey
Client: Warringah Council

- Legend**
- Mapping Boundary
 - Vegetation Community Boundary
 - Vegetation Community Classification
 - Tracks
 - Infrastructure (point)
 - Infrastructure (line)
 - Infrastructure (area)
 - Discontinuities (area)
 - Other Significant Features (Point)
 - Resilience
 - Good
 - Fair
 - Poor
 - Very Poor
 - Non-resilient - High Input
 - Non-resilient - Programmed Intervention

Prepared by: DJ
Approved by: RM
Status: Final
Projection: MGA Zone 56
Date: 11/04/2008

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- 14. Exclude bike-riding activity from all bushland except for very poor or non-resilient areas as identified and approved by Council.
- 15. Rehabilitate bushland areas impacted by bike-riding activity
- Proposed fenced BMX bike facility
- 26. Identify opportunities to conserve buffer zones and significant habitat on adjacent land such as road reserves.

12.4 Action Table for Terrey Hills Oval

TERREY HILLS OVAL				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Value: Integrity and sustainability of the reserve				
Objective:	Ensure reserves are managed in a way that does not conflict with identified values and the interests of future generations are protected			
Means of Assessment:	Regular assessment of bushland and track condition against baseline			
Reserves protected from activities that will degrade or reduce the viability of the site	1) Boundaries with adjacent land occupied by scout hall identified and marked clearly on the ground	High	\$1,000	B&B
	2) Minimise disturbance and address illegal activities (including rubbish and vegetation dumping)	High	As required	B&B, COMPLIANCE
	3) Ensure the collection of all seed and propagules from areas covered by the TSC Act is licensed by the DECC. Council will develop licencing conditions for the collection of seed and propagules from non-threatened bushland areas	High	Staff time	B&B
	4) Implement recommendations of preliminary draft t DFEC Recovery Plan, and report by Kate Low and Associates and J. Harkin Consulting (see Appendix 4(4))	High	Staff time Costed elsewhere	B&B
Reliable monitoring of management actions and reserve condition	5) Establish and document baseline conditions and monitoring points to measure management effectiveness	High	Staff time	B&B, S&P

TERREY HILLS OVAL				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
	6) Link monitoring to any contracts and management actions by way of appropriate briefs and project plans	High	Staff time	B&B
Value: Biodiversity				
Objective:	Manage the reserve's scenic, environmental and recreational values to promote ecologically sustainable management practices			
Means of Assessment:	Regular assessment of bushland condition against baseline			
Management consistent with the values of the reserve and the <i>Grevillea caleyi</i> and preliminary draft Duffys Forest Recovery Plans	7) Approach the Department of Lands to authorise dual reservation purposes of Recreation and Environmental Protection	Medium	Staff time	S&P
	8) Allow only activities in the plan of management and the <i>Grevillea caleyi</i> and Duffys Forest Recovery Plans	As required	Staff time	B&B
	9) Ensure the Natural Area Survey is regularly updated to provide best available information and practices for reserve planning and management	High	Staff time As required	B&B
Integrated planning to ensure no conflict of goals and outcomes	10) Integrate conservation planning with other management planning and maintenance programs undertaken by Council and where possible other land management agencies and utilities or volunteer groups	High	Staff time	B&B

TERREY HILLS OVAL				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Recover original ecological processes	11) <ul style="list-style-type: none"> • Consolidate all areas of good resilience • Restore areas of DFEC of fair resilience to good resilience • Regenerate buffers to DFEC • In non-resilient areas control noxious and environmental weeds and encourage natural regeneration and undertake revegetation if required 	Ongoing	\$8,500 pa. (additional restoration works costed as part of trail closures)	B&B
	12) Erect timber fencing to restrict access to areas of high conservation value	High	\$17,500	B&B
	13) Reduce the asphalt area at the entrance to the Scout Hall without reducing its function	Medium	\$2,500	B&B
Minimise bike-riding impacts	14) Exclude bike-riding activity from all bushland except for very poor or non-resilient areas as identified and approved by Council	High	See action 31	B&B
	15) Rehabilitate bushland areas impacted by bike-riding activity	High	See action 31	B&B
	16) Allow local community interested in BMX riding to pursue proposal to fund, construct, maintain and insure a Council approved BMX track in designated area	Medium	Uncosted	B&B

TERREY HILLS OVAL				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Objective:	Maintain the biodiversity of the land			
Means of Assessment:	Regular fauna survey/observations Regular audit of feral animal activity Pre and post fire monitoring Regular assessment of bushland condition against baseline			
Management of native fauna	17) Declare reserve as Wildlife Protection Area under Companion Animals Act (1998)	High	\$750 signage As required	B&B
	18) Undertake feral animal control as required	High/Ongoing	Staff time \$1000 pa.	B&B
	19) Undertake fauna survey and develop fauna list for reserve with appropriate conservation actions	Medium	Staff time	B&B
Management of appropriate fire regimes	20) Undertake ecological burns to maintain the appropriate fire regime for the endangered ecological community present within the reserve. Council will undertake review of environmental factors prior to ecological burns	Ongoing	Staff time	B&B/RFS
Management of noxious weeds	21) Control noxious weeds within the reserve and on the reserve boundaries as required	High	Staff time and as part of bush regeneration contract	B&B

TERREY HILLS OVAL				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Value: Biological corridors and linkages				
Objective:	Bushland in parcels of a size and configuration (individually and collectively) that will enable the existing plant and animal communities to survive in the long term			
Means of Assessment:	Regular update of Council's Natural Area Survey Regular assessment of bushland condition against baseline Regular fauna survey/observations			
Ensure planning and management for priority 3 corridor status (Smith and Smith 2005)	22) Maintain and improve corridor habitat when undertaking reserve restoration works and in assessment of development proposals in parts of corridor adjacent to reserve	As required	Staff time	B&B
Promote opportunities to acquire, or sympathetic management of, adjoining lands	23) Minimise the adverse impact of activities and development on land adjacent to the reserve through appropriate development conditions, planning controls and guidelines	As required	Staff time	B&B, PDS, SP
	24) Develop guidelines to offset loss of threatened habitat associated with development and activities on adjacent land and within the reserve on an enduring and "like or better" basis	As required	Staff time	B&B, SP, S&P
	25) Investigate opportunities to reserve and manage threatened bushland on the land occupied by the scout hall, through enlargement of reserve area, conservation agreement, or other measure	Medium	As required	AI, B&B

TERREY HILLS OVAL				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
	26) Identify opportunities to conserve buffer zones and significant habitat on adjacent land such as road reserves	As required	As required	B&B, SP, S&P
Value: Educational research and community awareness				
Objective:	Management that identifies, promotes and protects the educational and scientific values of the lands			
Means of Assessment:	Update of Council's General Community Perception of the Environment Survey			
	Level of use of reserves for recreational and educational activities			
Promote best management practice and community awareness of the conservation requirements of threatened species	27) Allow and assist agencies and educational institutions to carry out management-related research in reserves	As required	Staff time	B&B, ENV ED
	28) Educate and encourage the involvement of adjacent residents, Bushfire Brigades, recreational users and the local community in the conservation of DFEC	As required	Staff time	B&B, ENV ED
	29) Develop an educational program incorporating on-site signage	High	Staff time \$3,000	B&B, ENV ED
Value: Recreation/access				
Objective:	Facilities and opportunities that promote public enjoyment and appreciation of the values and quality of land, and that protects and enhances those values			
Means of Assessment:	Regular assessment of track condition against baseline			

TERREY HILLS OVAL				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Sustainable recreation facilities	30) Close trails: 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 30, 31, 35, 37, 38, 39, and 40 Partially close trails: 22, 25, 29, 33, and 34	High	\$19,000	B&B
	31) Upgrade and stabilise trails: 1, 2, 5, 14, 23, 24, 26, 27, 28, 32 and 36 Partially upgrade and stabilise trails: 22, and 29	High	\$26,000	B&B
	32) Erect interpretive/compliance signage	High	\$4,000	B&B, ENV ED
	33) Seek co-operation from relevant land owners to close trails: 7, 20, 25, 29, 33, 34 where outside of reserve or within road reserve	High	Staff time	B&B
	34) Council approved bike riding accommodated only in designated area (see action 16)	As required	As required	B&B
Value: Scenic/aesthetic				
Objective:	Land, and its features and habitats, retained in its natural state and setting			
Means of Assessment:	Regular assessment of bushland and track condition against baseline			
Protect psychological and social values of reserve	35) Recognise and take into account visual significance when planning and designing facilities and opportunities in reserves	Ongoing	Staff time	B&B/S&P
Value: Environment protection				

TERREY HILLS OVAL				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Objective:	Protect existing landforms such as natural drainage lines, watercourses and foreshores			
Means of Assessment:	Regular audit of implementation of Council's Environmental Management Plan			
Procedures and development control processes that protect the reserve	36) Enforce environmental protection legislation and ensure all necessary environmental assessment and protection requirements fulfilled including conditions in work contracts	High	Staff time	B&B CATCHMENT, COMPLIANCE
Objective:	Measures directed to minimising or mitigating any disturbance caused by human intrusion			
Means of Assessment:	Regular audit of implementation of Council's Environmental Management Plan			
	Regular assessment of bushland condition against baseline			
Ensure activities do not damage the reserve	37) Implement appropriate site management conditions for reserve improvement activities and ensure temporary structures are removed at completion of works	High	Staff time	B&B
	38) Monitor all activities in reserves and respond as required to protect area	High/Ongoing	Staff time	B&B
	39) Consult with neighbours and stakeholders about site management works undertaken by Council	High/Ongoing	Staff time	B&B
Value: Bushfire hazard management				

TERREY HILLS OVAL				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Objective:	To protect life and property from bushfire hazard			
Means of Assessment:	Regular audit of reserve bush fire hazard against Warringah Pittwater District Bush Fire Risk Management Plan and bush fire prone land map			
Protect local community from bushfire hazard while maintaining environmental values of the reserve	40) Undertake hazard reduction activities including hazard reduction burns and manual fuel removal as appropriate. Council will undertake review of environmental factors prior to hazard reduction burns	Ongoing	Staff time	RFS/B&B

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11. Restore areas of DFEC of fair resilience to good resilience. Regenerate buffers to DFEC. In non-resilient areas control noxious weeds, environmental weeds and inappropriate native trees and encourage natural regeneration and undertake revegetation if required

17. Formally approach the RTA for Council control for threatened vegetation management purposes of the RTA road reserve area on the northern side of Mona Vale Rd between Cooyong Rd and Kanangra Avenue

12.5 Action Table Cooyong Road Reserve

COOYONG ROAD RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Value: Integrity and sustainability of the reserve				
Objective:	Ensure reserves are managed in a way that does not conflict with identified values and the interests of future generations are protected			
Means of Assessment:	Regular assessment of bushland and track condition against baseline			
Reserves protected from activities that will degrade or reduce the viability of the site	1) Identify boundaries with adjacent private lands and mark clearly on the ground	High	\$1,000	B&B
	2) Remove, rehabilitate and prevent encroachments from adjacent land as required	High	\$5 000	B&B, COMPLIANCE
	3) Minimise disturbance and address illegal activities (including rubbish and vegetation dumping)	High	Staff time	B&B, COMPLIANCE
	4) Ensure the collection of all seed and propagules from areas covered by the TSC Act is licensed by the DECC. Council will develop licencing conditions for the collection of seed and propagules from non-threatened bushland areas	High	Staff time	B&B
Reliable monitoring of management actions and reserve condition	5) Establish and document baseline conditions and monitoring points to measure management effectiveness	High	Staff time	B&B, S&P
	6) Link monitoring to any contracts and management actions by way of appropriate briefs and project plans	High	Staff time	B&B
Value: Biodiversity				

COOYONG ROAD RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Objective:	Manage the reserve's scenic, environmental and recreational values to promote ecologically sustainable management practices			
Means of Assessment:	Regular assessment of bushland condition against baseline			
Management consistent with the values of the reserve and the <i>Grevillea caleyi</i> and preliminary draft Duffys Forest Recovery Plans	7) Allow only activities consistent with the plan of management and <i>Grevillea caleyi</i> and preliminary draft Duffys Forest Recovery Plans	As required	Staff time	B&B
Protect habitats and land systems	8) Ensure the Natural Area Survey is regularly updated to provide best available information and practices for reserve planning and management	High	Staff time	B&B
Integrated planning to ensure no conflict of goals and outcomes	9) Integrate conservation planning with other management planning and maintenance programs undertaken by Council and where possible other land management agencies and utilities and volunteer groups	High	Staff time	B&B
Recover original ecological processes	10) <ul style="list-style-type: none"> • Restore areas of DFEC of fair resilience to good resilience • Regenerate buffers to DFEC • In non-resilient areas control noxious weeds, environmental weeds and inappropriate native trees and encourage natural regeneration and undertake revegetation if required 	Ongoing	\$3,500 pa. (within reserve) \$5,000 (outside of reserve)	B&B

COOYONG ROAD RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
	12) Remove exotic trees and <i>Acacia elata</i> trees. Selectively remove <i>Pittosporum undulatum</i> plants.	High	\$10,000	B&B
Objective:	Maintain the biodiversity of the land			
Means of Assessment:	Regular fauna survey/observations			
	Regular audit of feral animal activity			
	Pre and post fire monitoring			
	Regular assessment of bushland condition against baseline			
Management of appropriate fire regimes	13) Undertake ecological burns to maintain the appropriate fire regime for the endangered ecological community present within the reserve. Council will undertake review of environmental factors prior to ecological burns	Ongoing	Staff time \$1500 Traffic Control	B&B, RFS
Management of noxious weeds	14) Control noxious weeds within the reserve and on the reserve boundaries as required	High	Staff time or as part of contract bush regeneration	B&B
Value: Biological corridors and linkages				

COOYONG ROAD RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Objective: and	Bushland in parcels of a size and configuration (individually and collectively) that will enable the existing plant			
	animal communities to survive in the long term			
Means of Assessment:	Regular update of Council's Natural Area Survey			
	Regular assessment of bushland condition against baseline			
	Regular fauna survey/observations			
Promote opportunities to acquire, or sympathetic management of, adjoining lands	15) Minimise the adverse impact of activities and development on land adjacent to the reserve through appropriate development conditions, planning controls and guidelines	As required	Staff time	B&B, PDS, SP
	16) Develop guidelines to offset loss of threatened habitat associated with development and activities on adjacent land and within the reserve on an enduring and "like or better" basis	As required	Staff time	B&B, SP, S&P
	17) Formally approach the RTA for Council control and resources (for threatened vegetation management purposes) of the RTA road reserve area on the northern side of Mona Vale Rd between Cooyong Rd and Kanangra Avenue	High	Staff time	B&B, AI
	18) Identify opportunities to conserve buffer zones and significant habitat on adjacent land through agreements with property owners	As required	As required	B&B, SP, S&P

COOYONG ROAD RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Value: Educational research and community awareness				
Objective:	Management that identifies, promotes and protects the educational and scientific values of the lands			
Means of Assessment:	Update of Council's General Community Perception of the Environment Survey			
	Level of use of reserves for recreational and educational activities			
Promote best management practice and community awareness of the conservation requirements of threatened species	19) Allow and assist agencies and educational institutions to carry out management-related research in reserves	As required	Staff time	B&B, ENV ED
	20) Educate and encourage the involvement of adjacent residents, Bushfire Brigades, recreational users and the local community in the conservation of DFEC and <i>Grevillea caleyi</i>	As required	Staff time	B&B, ENV ED
Value: Scenic/aesthetic				
Objective:	Land, and its features and habitats, retained in its natural state and setting			
Means of Assessment:	Regular assessment of bushland and track condition against baseline			
Protect psychological and social values of reserve	21) Recognise and take into account visual significance when planning and designing facilities and opportunities in reserves	Ongoing	Staff time	B&B, S&P
Value: Environment protection				
Objective:	Protect existing landforms such as natural drainage lines, watercourses and foreshores			
Means of Assessment:	Regular audit of implementation of Council's Environmental Management Plan			

COOYONG ROAD RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Procedures and development control processes that protect the reserve	22) Enforce environment protection legislation and ensure all necessary environmental assessment and protection requirements fulfilled including conditions in work contracts	High	Staff time	B&B, CATCHMENT, COMPLIANCE
Objective:	Measures directed to minimising or mitigating any disturbance caused by human intrusion			
Means of Assessment:	Regular audit of implementation of Council's Environmental Management Plan			
	Regular assessment of bushland condition against baseline			
Ensure activities do not damage the reserve	23) Implement appropriate site management conditions for reserve improvement activities and ensure temporary structures area removed at completion of works	High	Staff time	B&B
	24) Monitor all activities in reserve and respond as required to protect area	High/Ongoing	Staff time	B&B
	25) Consult with neighbours and stakeholders about site management works undertaken by Council	High/Ongoing	Staff time	B&B
Value: Bushfire hazard management				
Objective:	To protect life and property from bushfire hazard			
Means of Assessment:	Regular audit of reserve bush fire hazard against Warringah Pittwater District Bush Fire Risk Management Plan and bush fire prone land map			
Protect local community from bushfire hazard while maintaining environmental values of the reserve	26) Undertake hazard reduction activities including hazard reduction burns and manual fuel removal as appropriate. Council will undertake review of environmental factors prior to hazard reduction burns	Ongoing	Staff time, \$1500 traffic control	RFS/B&B

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13. Extend bushland boundary by approximately 16m northwards to incorporate a portion of the park

23. Trail 1 upgraded and stabilised

19. Identify opportunities to conserve buffer zones and establish links to significant habitat on adjacent land owned by NSW Electricity

12.6 Action Table for Boronia Reserve

BORONIA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Value: Integrity and sustainability of the reserve				
Objective: future	Ensure reserve is managed in a way that does not conflict with identified values and the interests of generations are protected			
Means of Assessment:	Regular assessment of bushland and track condition against baseline			
Reserves protected from activities that will degrade or reduce the viability of the site	1) Identify boundaries with adjacent private lands and mark clearly on the ground	High	Staff time	B&B
	2) Remove, rehabilitate and prevent encroachments as required	High	As required	B&B, COMPLIANCE
	3) Minimise disturbance and address illegal activities (including rubbish and vegetation dumping)	High	Staff time	B&B, COMPLIANCE
	4) Ensure the collection of all seed and propagules from areas covered by the TSC Act is licensed by the DECC.	High	Staff time	B&B
	5) Implement recommendations of preliminary draft DFEC Recovery Plan, and report by Kate Low and Associates and J. Harkin Consulting (see11(4))	High	Staff time	B&B

BORONIA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Reliable monitoring of management actions and reserve condition	6) Establish and document baseline conditions and monitoring points to measure management effectiveness	High	Staff time	B&B, S&P
	7) Link monitoring to any contracts and management actions by way of appropriate briefs and project plans	High	Staff time	B&B
Value: Biodiversity				
Objective: sustainable	Manage the reserve's scenic, environmental and recreational values to promote ecologically management practices			
Means of Assessment:	Regular assessment of bushland condition against baseline			
Management of the bushland area consistent with the values of the Reserve and the preliminary draft Duffys Forest Recovery Plan	8) Allow only activities consistent with this plan of management and the preliminary draft Duffys Forest Recovery Plan	As required	Staff time	B&B
	9) Ensure the Natural Area Survey is regularly updated to provide best available information and practices for reserve planning and management	High	Staff time	B&B
Management of the park and playground area consistent with the actions in the Playground Strategy and Generic Parks Plan of Management	10) Ensure recreational use of park does not degrade values of bushland	As required	Staff time	PRF

BORONIA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Integrated planning to ensure no conflict of goals and outcomes	11) Integrate conservation planning with other management planning and maintenance programs undertaken by Council and where possible other land management agencies and utilities or volunteer groups	High	Staff time	B&B
Recover original ecological processes	12) <ul style="list-style-type: none"> • Consolidate all areas of good resilience • Regenerate buffers to DFEC 	Ongoing	\$3,000 pa.	B&B
	13) Extend bushland boundary by approximately 16m northwards to incorporate a portion of the park	Medium	\$1,200 (edging) \$2,500 pa	B&B
Objective:	Maintain the biodiversity of the land			
Means of Assessment:	Regular fauna survey/observations			
	Regular audit of feral animal activity			
	Pre and post fire monitoring			
	Regular assessment of bushland condition against baseline			
Management of native fauna	14) Undertake feral animal control as required	Ongoing	Staff time	B&B

BORONIA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Management of appropriate fire regimes	15) Undertake ecological burns to maintain the appropriate fire regime for the endangered ecological community present within the reserve. Council will undertake review of environmental factors prior to ecological burns	Ongoing	Staff time	B&B/RFS
Management of noxious weeds	16) Control noxious weeds within the reserve and on the reserve boundaries as required	High	Staff time or part of bush-regeneration contract	B&B
Value: Biological corridors and linkages				
Objective: existing	Bushland in parcels of a size and configuration (individually and collectively) that will enable the			
	plant and animal communities to survive in the long term			
Means of Assessment:	Regular update of Council's Natural Area Survey			
	Regular assessment of bushland condition against baseline			
	Regular fauna survey/observations			
Promote opportunities to acquire, or sympathetic management of, adjoining lands	17) Minimise the adverse impact of activities and development on land adjacent to the reserve through appropriate development conditions, planning controls and guideline	As required	Staff time	B&B, PDS, SP

BORONIA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
	18) Develop guidelines to offset loss of threatened habitat associated with development and activities on adjacent land and within the reserve on an enduring and “like or better” basis	As required	Staff time	B&B, SP, S&P
	19) Identify opportunities to conserve buffer zones and establish links to significant habitat on adjacent land owned by NSW Electricity through agreements with NSW Electricity	As required	As required	B&B, SP, S&P
Value: Educational research and community awareness				
Objective:	Management that identifies, promotes and protects the educational and scientific values of the lands			
Means of Assessment:	Update of Council’s General Community Perception of the Environment Survey			
	Level of use of reserves for recreational and educational activities			
Promote best management practice and community awareness of the conservation requirements of threatened species	20) Allow and assist agencies and educational institutions to carry out management-related research in reserves	As required	Staff time	B&B, ENV ED
	21) Educate and encourage the involvement of adjacent residents, Bushfire Brigades, recreational users and the local community in the conservation of DFEC	As required	Staff time	B&B, ENV ED
	22) Develop an educational program incorporating on-site signage to promote community awareness of the endangered ecological community	Medium	Staff time \$1500	B&B, ENV ED

BORONIA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Value: Recreation/access				
Objective:	Facilities and opportunities that promote public enjoyment and appreciation of the values and quality of the land, and that protects and enhances those values			
Means of Assessment:	Regular assessment of track condition against baseline			
Sustainable recreation facilities	23) Trail 1 upgraded and stabilised	High	\$3,000	B&B
Value: Scenic/aesthetic				
Objective:	Land, and its features and habitats, retained in its natural state and setting			
Means of Assessment:	Regular assessment of bushland and track condition against baseline			
Protect psychological and social values of reserve	24) Recognise and take into account visual significance when planning and designing facilities and opportunities in reserves	Ongoing	Staff time	B&B/S&P
Value: Environment protection				
Objective:	Protect existing landforms such as natural drainage lines, watercourses and foreshores			
Means of Assessment:	Regular audit of implementation of Council's Environmental Management Plan			
Procedures and development control processes that protect the reserve	25) Enforce environment protection legislation and ensure all necessary environmental assessment and protection requirements fulfilled including conditions in work contracts	High	Staff time	B&B CATCHMENT, COMPLIANCE

BORONIA RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Objective:	Measures directed to minimising or mitigating any disturbance caused by human intrusion			
Means of Assessment:	Regular audit of implementation of Council's Environmental Management Plan			
	Regular assessment of bushland condition against baseline			
Ensure activities do not damage the reserve	26) Appropriate site management conditions for reserve improvement activities All temporary structures removed at completion of works	High	Staff time	B&B
	27) Monitor all activities in reserves and respond as required to protect area	High/Ongoing	Staff time	B&B
	28) Consult with neighbours and stakeholders about site management works undertaken by Council	High/Ongoing	Staff time	B&B
Value: Bushfire hazard management				
Objective:	To protect life and property from bushfire hazard			
Means of Assessment:	Regular audit of reserve bush fire hazard against Warringah Pittwater District Bush Fire Risk Management Plan and bush fire prone land map			
Protect local community from bushfire hazard while maintaining environmental values of the reserve	29) Undertake hazard reduction activities including hazard reduction burns and manual fuel removal as appropriate. Council will undertake review of environmental factors prior to hazard reduction burns	Ongoing	Staff time	RFS/B&B

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12.7 Action Table Oates Place Reserve

OATES PLACE RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Value: Integrity and sustainability of the reserve				
Objective:	Ensure reserves are managed in a way that does not conflict with identified values and the interests of future generations are protected			
Means of Assessment:	Regular assessment of bushland and track condition against baseline			
Reserves protected from activities that will degrade or reduce the viability of the site	1) Identify boundaries with adjacent private lands and mark clearly on the ground	High	As required	B&B
	2) Remove, rehabilitate and prevent encroachments from adjacent land as required	High	As required	B&B, COMPLIANCE
	3) Minimise disturbance and address illegal activities (including rubbish and vegetation dumping)	High	Staff time	B&B, COMPLIANCE
	4) Ensure the collection of all seed and propagules from areas covered by the TSC Act is licensed by the DECC	High	Staff time	B&B
	5) Implement recommendations of <i>Grevillea caleyi</i> and preliminary draft DFEC Recovery Plans, and report by Kate Low and Associates and J. Harkin Consulting (see Appendix 4(4))	High	Staff time	B&B
Reliable monitoring of management actions and reserve condition	6) Establish and document baseline conditions and monitoring points to measure management effectiveness	High	Staff time	B&B, S&P
	7) Link monitoring to any contracts and management actions by way of appropriate briefs and project plans	High	Staff time	B&B

OATES PLACE RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Value: Biodiversity				
Objective:	Manage the reserve's scenic, environmental and recreational values to promote ecologically sustainable management practices			
Means of Assessment:	Regular assessment of bushland condition against baseline			
Management consistent with the values of the reserve and the <i>Grevillea caleyi</i> and preliminary draft Duffys Forest Recovery Plans	8) Allow only activities consistent with the plan of management and the <i>Grevillea caleyi</i> and preliminary draft Duffys Forest Recovery Plans	As required	Staff time	B&B
Protect habitats and land systems	9) Ensure the Natural Area Survey is regularly updated to provide best available information and practices for reserve planning and management	High	Staff time	B&B
Integrated planning to ensure no conflict of goals and outcomes	10) Integrate conservation planning with other management planning and maintenance programs undertaken by Council and where possible other land management agencies and utilities or volunteer groups	High	Staff time	B&B
Recover original ecological processes	11) Undertake program of bush regeneration throughout reserve concentrating on weeds adjacent to urban boundary	Ongoing	\$1500 pa	B&B
	12) Extend bush regeneration program to incorporate bushland on road reserve to the south if road closure proceeds (see management action 17).	High	Est \$1500 pa	B&B

OATES PLACE RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Objective:	Maintain the biodiversity of the land			
Means of Assessment:	Regular fauna survey/observations Regular audit of feral animal activity Pre and post fire monitoring Regular assessment of bushland condition against baseline			
Management of appropriate fire regimes	13) Undertake ecological burns to maintain the appropriate fire regime for the endangered ecological community present within the reserve. Council will undertake review of environmental factors prior to ecological burns	Ongoing	Staff time \$1500 Traffic Control	B&B, RFS
Management of noxious weeds	14) Control noxious weeds within the reserve and on the reserve boundaries as required	High	Staff time or as part of contract bush regeneration	B&B
Value: Biological corridors and linkages				
Objective: and	Bushland in parcels of a size and configuration (individually and collectively) that will enable the existing plant			
	animal communities to survive in the long term			
Means of Assessment:	Regular update of Council's Natural Area Survey Regular assessment of bushland condition against baseline Regular fauna survey/observations			

OATES PLACE RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Promote opportunities to acquire, or sympathetic management of, adjoining lands	15) Minimise the adverse impact of activities and development on land adjacent to the reserve through appropriate development conditions, planning controls and guidelines	As required	Staff time	B&B, PDS, SP
	16) Develop guidelines to offset loss of threatened habitat associated with development and activities on adjacent land and within the reserve on an enduring and “like or better” basis	As required	Staff time	B&B, SP, S&P
	17) Investigate opportunities to close road reserve to the south and transfer as community land to Council	High	Staff time	B&B, AI
	18) Identify opportunities to conserve buffer zones and significant habitat on adjacent land through agreements with property owners	As required	As required	B&B, SP, S&P
Value: Educational research and community awareness				
Objective:	Management that identifies, promotes and protects the educational and scientific values of the lands			
Means of Assessment:	Update of Council’s General Community Perception of the Environment Survey			
	Level of use of reserves for recreational and educational activities			
Promote best management practice and community awareness of the conservation requirements of threatened species	19) Prepare proposal to NSW Geographical Names Board to rename reserve “ <i>Grevillea caleyi</i> Reserve”	Medium	Staff time	AI.
	20) Allow and assist agencies and educational institutions to carry out management-related research in reserves	As required	Staff time	B&B, ENV ED

OATES PLACE RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
	21) Educate and encourage the involvement of adjacent residents, Bushfire Brigades, recreational users and the local community in the conservation of DFEC and <i>Grevillea caleyi</i>	As required	Staff time	B&B, ENV ED
Value: Scenic/aesthetic				
Objective:	Land, and its features and habitats, retained in its natural state and setting			
Means of Assessment:	Regular assessment of bushland and track condition against baseline			
Protect psychological and social values of reserve	22) Recognise and take into account visual significance when planning and designing facilities and opportunities in reserve	Ongoing	Staff time	B&B, S&P
Value: Environment protection				
Objective:	Protect existing landforms such as natural drainage lines, watercourses and foreshores			
Means of Assessment:	Regular audit of implementation of Council's Environmental Management Plan			
Procedures and development control processes that protect the reserve	23) Enforce environment protection legislation and ensure all necessary environmental assessment and protection requirements fulfilled including conditions in work contracts	High	Staff time	B&B, CATCHMENT, COMPLIANCE
Objective:	Measures directed to minimising or mitigating any disturbance caused by human intrusion			
Means of Assessment:	Regular audit of implementation of Council's Environmental Management Plan			
	Regular assessment of bushland condition against baseline			

OATES PLACE RESERVE				
Strategies	Management Actions	Priority	Resources Estimation	Responsibility
Ensure activities do not damage the reserve	24) Implement appropriate site management conditions for reserve improvement activities and ensure temporary structures area removed at completion of works	High	Staff time	B&B
	25) Monitor all activities in reserve and respond as required to protect area	High/Ongoing	Staff time	B&B
	26) Consult with neighbours and stakeholders about site management works undertaken by Council	High/Ongoing	Staff time	B&B
Value: Bushfire hazard management				
Objective:	To protect life and property from bushfire hazard			
Means of Assessment:	Regular audit of reserve bush fire hazard against Warringah Pittwater District Bush Fire Risk Management Plan and bush fire prone land map			
Protect local community from bushfire hazard while maintaining environmental values of the reserve	27) Undertake hazard reduction activities including hazard reduction burns and manual fuel removal as appropriate. Council will undertake review of environmental factors prior to hazard reduction burns	Ongoing	Staff time, \$1500 traffic control	RFS/B&B

13 Leases, Licences and Other Estates

13.1 Community Lands

In accordance with Section 46A of the Local Government Act 1993 a plan of management is to specify in relation to Community Land any purpose for which a lease, licence or other estate may be granted. This section of the Plan of Management describes the leases, licences and other estates permitted on the land covered by this Plan.

The Local Government Act requires Council to consider what activities may require granting of a lease, licence or other estate during the life span of a plan of management. These activities may be short or long term and the authorisation is intended to allow occasional events and to promote the multiple uses of community facilities and resources. The authorisation allows for the consideration, and granting if appropriate, of the prescribed activity. Development must also be in accordance with the *Local Government Act 1993* and the Warringah Local Environment Plan 2000. The following section provides information regarding existing lease and licences, restrictions to activities and authorisations of licences and other estates considered appropriate for the land covered by this Plan.

13.2 Crown lands

Section 102 and 102A of the Crown Lands Act 1989 authorises a reserve trust to enter into leases and licences for reserves under their management, subject to Ministerial consent in most cases. Such leases and licences must be in accord with any dedication or purpose that applies to the land.

Under Section 122 of the Crown Lands Act 1989 reserve trusts must report on activities on the reserve, as detailed in Clause 33 of the Crown Lands regulation, and maintain financial records.

13.3 Existing leases and licences or other estates

Council has no record of valid current leases or licences for any of these reserves.

Licences & Other Estates Authorised for the lands included in the Urban Bushland Reserves Plan of Management

Purpose of Licence or other Estate	Additional Conditions of licences or other estates
This Plan of Management expressly authorises the granting of a licence or other estate for the purpose of recreational, community, educational or scientific activities. This authorisation may include activities such as: <ul style="list-style-type: none">• Recreational activities• Scientific research/ data collection• Educational activities	The undertaking of the activity authorised by the licence or other estate must not compromise the purpose of the reserve (if Crown Reserve) or the core objectives of the category of the land (if Community Land).

14 Authorised Development

In accordance with the Local Government Act, 1993, Council must expressly authorise any proposed buildings and improvements on the land. This authorisation within a plan of Management gives 'in principle' support for an activity to proceed to the Development Assessment stage. This plan **does not grant consent**. In particular, this plan authorises the following developments:

- Bush regeneration works in all reserves, including soil seedbank translocation.

- Management of tracks and access as appropriate within reserves – this includes track closure, track realignment/ remediation and track construction.
- Construction of park benches, bubblers, etc as appropriate in reserves to enhance recreational use without compromising bushland values.
- Erection of signage in reserves as outlined in action table – this includes entry signs and interpretive signs.

Appendix 1: Vegetation Communities

Northern Hinterland Wet Sclerophyll Forests

Silvertop Ash-Brown Stringybark Forest –Belrose

Description: Open-forest or woodland, typically the former, with a mixed and varying tree species composition (Photo 3). The main tree species are *Angophora costata* (Sydney Red Gum), *Corymbia gummifera* (Red Bloodwood), *Eucalyptus capitellata* (Brown Stringybark) and *E. sieberi* (Silvertop Ash). *Eucalyptus haemastoma* (Broad-leaved Scribbly Gum) is also frequently present, but always in low numbers. Common understorey species are *Acacia myrtifolia*, *Austrostipa pubescens*, *Banksia serrata*, *B. spinulosa*, *Billardiera scandens*, *Boronia pinnata*, *Bossiaea obcordata*, *Cassytha pubescens*, *Ceratopetalum gummiferum*, *Comesperma ericinum*, *Cyathochaeta diandra*, *Dianella caerulea*, *Dillwynia retorta*, *Entolasia stricta*, *Epacris pulchella*, *Gonocarpus teucroides*, *Grevillea buxifolia*, *Grevillea linearifolia*, *Hakea sericea*, *Hibbertia bracteata*, *Imperata cylindrica*, *Lasiopetalum ferrugineum*, *Lepidosperma laterale*, *Leptospermum trinervium*, *Lindsaea linearis*, *Lomandra obliqua*, *Lomandra multiflora*, *Lomatia silaifolia*, *Micrantheum ericoides*, *Patersonia glabrata*, *P. sericea*, *Persoonia levis*, *P. pinifolia*, *Phyllanthus hirtellus*, *Platysace linearifolia*, *Pteridium esculentum*, *Pultenaea tuberculata*, *Tetrarrhena juncea*, *Xanthorrhoea media* and *Xanthosia tridentata*.

Habitat: Associated with shale lenses in Hawkesbury Sandstone, usually where these form ridgetop cappings over the sandstone. Thus the community is usually found upslope of Hawkesbury Sandstone communities such as Bloodwood-Scribbly Gum Woodland and Angophora-Peppermint Forest. However, it may also occur in a mid-slope band, where a shale lens outcrops between sandstone layers. Soils are slightly more fertile and have a higher clay content than normal Hawkesbury Sandstone ridgetop soils. They are typically lateritic, characterised by the presence of ironstone gravel. Rock outcrops are normally absent except on the fringes of the community.

Warringah distribution: Occurs in scattered sites from Duffys Forest to North Balgowlah.

Silvertop Ash-Brown Stringybark Forest –Belrose



Significance: This community is the typical form of the Duffys Forest Ecological Community, which is listed as an endangered ecological community in NSW (NSW Scientific Committee 2002). It supports at least five threatened plant species (*Epacris purpurascens* var.

purpurascens, *Grevillea caleyi*, *Persoonia hirsuta*, *Pimelea curviflora* var. *curviflora* and *Tetratheca glandulosa*), three rare species (*Amperea xiphoclada* var. *papillata*, *Angophora crassifolia* and *Lomandra brevis*), 21 species threatened in northern Sydney (*Acacia binervata*, *A. terminalis* ssp. *aurea*, *Baumea nuda*, *Blandfordia grandiflora*, *Deyeuxia decipiens*, *D. quadriseta*, *Dichondra* species A, *Eucalyptus capitellata*, *Gahnia radula*, *Joycea pallida*, *Lepidosperma elatius*, *Leptospermum continentale*, *Logania pusilla*, *Lomandra confertifolia* ssp. *pallida*, *Opercularia diphylla*, *Persoonia isophylla*, *Prasophyllum brevifolium*, *Prostanthera denticulata*, *Prostanthera* sp. 'Manly Dam', *Pultenaea hispidula* and *P. scabra* var. *biloba*), and one species threatened in Warringah (*Gompholobium pinnatum*). The undescribed species, *Prostanthera* sp. 'Manly Dam', is only known from this community in the Warringah and Manly Local Government Areas, and probably warrants recognition as a threatened species. The Duffys Forest Ecological Community has been extensively cleared for urban development. Only about 16% of its total original extent now remains, and the majority (87%) is in the Warringah LGA (Smith and Smith 2000a). There is about 184.1 ha of Silvertop Ash-Brown Stringybark Forest in the Warringah LGA, representing an estimated 21% of its original extent in the LGA (Smith and Smith 2005b). About 79.1 ha (43%) is outside the national parks. **Threatened in New South Wales**

Sydney Coastal Dry Sclerophyll Forests

Peppermint-Angophora Forest

Description: Open-forest, sometimes woodland, in which the main tree species are *Angophora costata* (Sydney Red Gum), *Corymbia gummifera* (Red Bloodwood), *Eucalyptus piperita* (Sydney Peppermint) and *E. sieberi* (Silvertop Ash) (Photo 11). Common understorey species are *Acacia terminalis*, *A. suaveolens*, *Actinotus minor*, *Banksia ericifolia*, *B. serrata*, *B. spinulosa*, *Bauera rubioides*, *Billardiera scandens*, *Boronia pinnata*, *Callicoma serratifolia*, *Cassytha pubescens*, *Caustis flexuosa*, *Ceratopetalum gummiferum*, *Cyathochaeta diandra*, *Dampiera stricta*, *Dianella caerulea*, *Dillwynia retorta*, *Dodonaea triquetra*, *Entolasia stricta*, *Epacris pulchella*, *Gahnia erythrocarpa*, *Gleichenia dicarpa*, *Gonocarpus teucroides*, *Grevillea buxifolia*, *G. linearifolia*, *Hakea teretifolia*, *Lambertia formosa*, *Lepidosperma laterale*, *Leptospermum polygalifolium*, *L. trinervium*, *Lepyrodia scariosa*, *Lomandra longifolia*, *Lomatia silaifolia*, *Micrantheum ericoides*, *Patersonia glabrata*, *P. sericea*, *Persoonia levis*, *P. pinifolia*, *Pimelea linifolia*, *Platysace linearifolia*, *Pteridium esculentum*, *Pultenaea daphnoides*, *P. stipularis*, *Smilax glycyphylla*, *Tetrarrhena juncea*, *Xanthorrhoea media*, *Xanthosia pilosa* and *X. tridentata*.

Habitat: Gullies and sheltered slopes on Hawkesbury Sandstone. Sandstone outcrops are frequent.

Warringah distribution: Widespread.

Significance: A common community in Warringah, well represented in both Ku-ring-gai Chase and Garigal National Parks. Supports at least five rare plant species (*Angophora crassifolia*, *Darwinia procera*, *Eucalyptus luehmanniana*, *Hibbertia nitida* and *Lomandra brevis*), and 14 species threatened in northern Sydney (*Amyema pendulum*, *Blechnum minus*, *Deyeuxia decipiens*, *Eucalyptus capitellata*, *E. scias*, *Gahnia radula*, *Juncus pallidus*, *Lepidosperma elatius*, *Lycopodiella cernua*, *Ophioglossum lusitanicum*, *Prostanthera denticulata*, *Utricularia australis*, *U. uliginosa* and *Xanthorrhoea minor*). Some sites provide potentially important habitat for threatened fauna species such as the Red-Crowned Toadlet (*Pseudophryne australis*), Giant Burrowing Frog (*Heleioporus australiacus*), Glossy Black-Cockatoo (*Calyptorhynchus lathami*), Powerful Owl (*Ninox strenua*) and Spotted-tailed Quoll (*Dasyurus maculatus*). There is about 2380.2 ha of Peppermint-Angophora Forest in the Warringah Local Government Area, representing an estimated 69% of its original extent (Smith and Smith 2005b). About 544.5 ha (23%) is outside the national parks.



Peppermint-Angophora Forest –Forestville

Appendix 2: Track and Trail Classifications

Derived and simplified from:

Australian Standard (AS) 2156.1-2001 Walking Tracks, Part 1: Classification and Signage; and

Australian Standard (AS) 2156.2-2001 Walking Tracks, Part 2: Infrastructure Design.

Class 1

“Accessible Pathway” or “All Access Path”

AS 2156.1-2001 Overview – “Opportunity for large numbers of visitors, including those with reduced mobility, to undertake walks which are provided with a high level of interpretation and facilities. Users can expect abundant opportunities to learn about the natural environment through interpretive signs or brochures. Users can expect frequent encounters with others.”

Key track condition parameters:

- High standard, well-maintained and well-cleared pathway or track
- 1,200mm wide or greater
- Grades of less than 1:14 (4°) with no steps – unless alternative ramp access provided
- Hard-surfaced improved track – suitable for wheelchairs, and preferably slip-resistant
- Thoroughly signposted – at all intersections and reassurance direction marking en-route
- Often with regular high-standard facilities – seating, shelters, barriers, lookouts/attractions, and interpretation

Visitor experience requirements and hazards:

- No experience required
- Minimal hazards, regularly maintained as safe for use

Colloquial description - “wheelchair” standard path, “a path for everyone”

Class 2

“Walkway” or “Graded Path”

AS 2156.1-2001 Overview – “Opportunity for large numbers of visitors to walk easily in natural environments which are provided with a moderate to high level of interpretation and facilities. Users can expect to learn about the natural environment with moderate to abundant opportunities to learn through interpretive signs or brochures. Users can expect frequent encounters with others.”

Key track condition parameters:

- Well-maintained and well-cleared pathway or track
- 900mm wide or greater
- Grades of less than 1:10 (6°), limited use of steps
- Modified or hardened track surfaced, usually using imported materials
- Well signposted – at all intersections as a minimum
- Regular facilities – seating, shelters, barriers, lookouts/attractions, and interpretation

Visitor experience requirements and hazards:

- No experience required, all fitness levels
- Few hazards, maintained as safe for use

Colloquial description - “thong or sandal” standard track, “footpath”, “no experience necessary”

Class 3

“Major Track (Modified Surface)” or “Walking Track”

AS 2156.1-2001 Overview – “Opportunity for visitors to walk in slightly modified natural environments requiring a moderate level of fitness and where the provision of interpretation and facilities is not common. Users can expect opportunities to observe and appreciate the natural environment with limited provision of interpretive signage. Users can expect occasional encounters with others.”

Key track condition parameters:

- Well-delineated and mostly well-cleared track, occasional intrusion or obstacle
- Variable width, usually less than 1,200mm wide
- Grades generally less than 1:10 (6°), but may be steeper than this over short distances, steps as/where required
- Generally a modified track surface using in-situ material, sections may be hardened and use imported materials
- Signposted – at intersections and decision-points
- Limited facilities – seating, barriers, interpretation and low-key improvements

Visitor experience requirements and hazards:

- No bushwalking experience required, moderate fitness levels needed
- Occasional natural hazards – steep slopes, unstable surfaces, minor water crossings
- Users responsible for their own safety

Colloquial description - “runners” or “sandshoe” standard track, “an easy bushwalk”

Class 4

“Minor Track (Natural Surface)” or “Hiking Track”

AS 2156.1-2001 Overview – “Opportunity for visitors to explore and discover relatively undisturbed natural environments along defined and distinct tracks with minimal (if any) facilities. Users can expect opportunities to observe and appreciate the natural environment without the provision of interpretive signage. Users can expect opportunities for solitude with few encounters with others.”

Key track condition parameters:

- Distinct track but with limited modification to ground surface and largely of in-situ material, cleared track but regular intrusions and obstacles
- Variable width, generally a narrow but distinct track or footpad
- Grades variable, may be steep in sections (up to set environmental and management constraints), steps may be common and informal or natural
- Generally an unmodified track surface of in-situ material
- Minimal signposting
- Usually no facilities – except for safety and environmental protection

Visitor experience requirements and hazards:

- Bushwalking experience required, as well as moderate levels of specialised skills (such as navigation ability)
- Regular natural hazards
- Users responsible for their own safety and require a degree of self-reliance

Colloquial description - “boot” standard track, “a hard bushwalk”

Class 5

“Footpad” or “Trail”

AS 2156.1-2001 Overview – “Opportunity for visitors with advanced outdoor knowledge and skills to find their own way along often indistinct tracks in remote locations. Users can expect frequent opportunities for solitude with few encounters with others.”

Key track condition parameters:

- Limited modification to the natural ground surface with track indistinct in places, minimal clearing and frequent intrusions and obstacles
- Variable width, generally a narrow and, in places, indistinct footpad
- Grades variable, may include steep sections of natural surfaces
- Unmodified track surface of in-situ material
- Minimal signposting – management purposes only
- Usually no facilities – except for specific safety and environmental considerations

Visitor experience requirements and hazards:

Considerable bushwalking experience and advanced outdoor skills required, as well as a degree of specialised capability (such as navigation ability) and aids (maps and navigation equipment)

Frequent natural hazards

Users responsible for their own safety and need to be self-reliant, especially regarding emergency first-aid

Colloquial description - “boot and experience” standard track, “a map and compass bushwalk”

Class 6

“Route” or “Untracked”

AS 2156.1-2001 Overview – “Opportunity for highly experienced walkers to explore remote and challenging natural areas without reliance on managed tracks. Users can expect extended periods of solitude with few encounters with others.”

Key track condition parameters:

- No marked track or footpad, no modification to the natural environment (for walkers)
- Grades variable, may include regular steep sections of natural surfaces or challenging terrain
- Generally no signposting
- Generally no facilities

Visitor experience requirements and hazards:

- Extensive bushwalking experience, as well as high levels of specialised skills (notably navigation ability) and aids (maps and navigation equipment)
- Frequent natural hazards and potentially difficult terrain
- Users responsible for their own safety and need to be self-reliant, especially regarding emergency first-aid

Colloquial description - “untracked country”, “wilderness walking”

Appendix 3 Legislation and Statutory Requirements

1. Local Government Act (1993) - Management of Community Land

What are the principles of community land management?

All land owned by Council must be managed in accordance with the *Local Government Act 1993*, including the *Community Land Management Amendment Act 1998*. The Act requires that councils must classify public land as “operational” or “community” and that plans of management must be prepared for Community Land. The ways in which Community Land can be used and managed are strictly governed in accordance with an adopted plan of management and any law permitting the use of the land for a specified purpose or otherwise regulating the use of the land.

Under legislative requirements of the *Local Government Act 1993*, section 36 (a) – (n), councils must prepare and adopt plans of management for all Community Land. A Plan may apply to one or more areas of Community Land, providing all the Act’s requirements are fulfilled.

The Act states that the Plan must identify the following:

- The category of the land
- The objectives and performance targets of the plan with respect to the land
- The means by which Council proposes to achieve the plan’s objectives and performance targets
- The manner in which Council proposes to assess its performance with respect to the plan’s objectives and performance targets

Categorisation of community land

The Local Government Act requires that all Community Land be categorised. There are core objectives for each category. All current and intended uses of the land must comply with the core objectives.

A combination of categories may be used for one parcel of land. Accordingly, this Plan of Management has identified the following categories for these bushland reserves:

- Park
- Sportsground
- Natural Area
 - Natural Area: Bushland

The definitions of each of the categories relevant to this Plan of Management are provided below as described in the Local Government (General) Regulation 1999:

(a) Park

Land that is, or is proposed to be, improved by landscaping, gardens or the provision of non-sporting equipment and facilities for use mainly for recreational, social, educational and cultural pursuits that do not unduly intrude on the peaceful enjoyment of the land by others.

(b) Sportsground

Land is used or proposed to be used primarily for active recreation involving organised sports or the playing of outdoor games.

(c) Natural Area

Land which, whether or not in an undisturbed state, possesses a significant geological feature, geomorphological 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. Community Land that has been declared critical habitat or which is directly affected by a recovery plan or threat abatement plan under the Threatened Species Conservation Act 1995 or the Fisheries Management Act 1994 must be categorised as a natural area.

Natural Area: Bushland

Land that contains primarily native vegetation and that vegetation is:

- The natural vegetation or a remainder of the natural vegetation of that land
- Is still representative of the structure and/or floristics of the natural vegetation in the locality

Core Objectives of Community Land

(d) 36E Core objectives for management of Community Land categorised as a natural area

- 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
- To maintain the land, or that feature or habitat, in its natural state and setting
- To provide for the restoration and regeneration of the land
- 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
- 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

(e) 36F Core objectives for management of Community Land categorised as a sportsground

- To encourage, promote and facilitate recreational pursuits in the community involving organised and informal sporting activities and games
- To ensure that such activities are managed having regard to any adverse impact on nearby residences

(f) 36G Core objectives for management of Community Land categorised as a park

- To encourage, promote and facilitate recreational, cultural, social and educational pastimes and activities
- To provide for passive recreational activities or pastimes and for the casual playing of games
- To improve the land in such a way as to promote and facilitate its use to achieve the other core objectives for its management

(g) 36J Core objectives for management of Community Land categorised as bushland

- 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

- To protect the aesthetic, heritage, recreational, educational and scientific values of the land
- 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
- To restore degraded bushland
- To protect existing landforms such as natural drainage lines, watercourses and foreshores
- 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
- To protect bushland as a natural stabiliser of the soil surface

What dealings can a Council have in Community Land?

Council has no power to sell, exchange or otherwise dispose of Community Land, except for the purpose of enabling that land to become, or to be added to, a Crown Reserve or land reserved or dedicated under the National Parks and Wildlife Act 1974

Council may grant a lease or licence on Community Land, but only in accordance with the Local Government Act 1993. A Council may grant any other estate in Community Land to the extent permitted by the Local Government Act 1993

2. Crown Lands Act 1989 – Management of Crown Land

Requirements of the *Crown Lands Act, 1989*

■ The Crown Lands Act, 1989 is the principle Act in NSW controlling the management and use of Crown Land. Plans of Management are instruments prepared under the Act to implement the objectives of the Act. The requirements of the Act in relation to the preparation of plans of management are set out in this section.

Objects of the Act

- Section 10 of the Crown Lands Act, 1989 sets out the objects of the Act as follows:
 - *The objects of this Act are to ensure that Crown land is managed for the benefit of the people of New South Wales and in particular to provide for:*
 1. a proper assessment of Crown land,
 2. the management of Crown land having regard to the principles of Crown land management contained in this Act,
 3. the proper development and conservation of Crown land having regard to those principles,
 4. the regulation of the conditions under which Crown land is permitted to be occupied, used, sold, leased, licensed or otherwise dealt with,
 5. the reservation or dedication of Crown land for public purposes and the management and use of the reserved or dedicated land, and
 6. the collection, recording and dissemination of information in relation to Crown land.

What is “Public Purpose”?

It is an essential requirement in preparing a plan of management 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. The *Crown Lands Act 1989* provides for the reservation and dedication of Crown land for a range of public purposes including: Access, Community Purposes, Environmental Protection, Heritage Purposes and Public Recreation. The schedule of Public Purposes continues to be revised and amended and includes a number of other items. Each of the Crown Reserves in this Plan are reserved for Public Recreation.

Principles of Crown Reserve management

Section 11 of the *Crown Lands Act 1989* provides a set of principles for Crown land management as follows.

- Environmental protection principles be observed in relation to the management and administration of Crown land
- The natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible.
- Public use and enjoyment of appropriate Crown land be encouraged.
- Where appropriate, multiple use of Crown land be encouraged.
- Where appropriate, Crown land should be used and managed in such a way that both the land and its resources are sustained in perpetuity.
- Crown land be occupied, used, sold, leased, licensed or otherwise dealt with in the best interests of the State consistent with the above principles.

- Furthermore, when preparing a plan of management for Crown land, the trust manager must comply with the following requirements of the *Crown Lands Act 1989*:
 - direction of the Minister or request by Trust for plan of management preparation;
 - drafts circulated for comment
 - exhibition of draft Plan
 - draft Plan exhibition notices provided
- With the following outcomes:
 - the Minister shall consider timely comment
 - Ministerial adoption of the Plan
 - Trust must follow the Plan and
 - all operations must be in accordance with it

Leasing and licenses

- Section 102 of the Act establishes requirements for the sale, lease or licensing of Crown land. Land can not be sold, leased or a licence issued without the approval of the Minister. Section 102A provides that the Trustee may lease or issue a licence for reserved land where the Minister has approved the Trustee to do so.
- Section 108 also enables licenses to be issued for temporary purposes.

Proceeds from Crown land

- Section 106 of the Act 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.

Requirements for Plans of Management

Section 112 enables Plans of Management to be prepared for Crown reserves either by the Minister or by the reserve trust. Section 113 establishes requirements for referrals, public display and submissions. This Plan of Management has been prepared in draft by Council in accordance with the requirements of sections 112 and 113.

Section 114 provides for the adoption of a Plan of Management by Council. Once a Plan of Management is adopted, no operations may be undertaken on or in relation to the reserve unless they are in accordance with the plan.

Reporting

Section 122 establishes requirements for reserve trusts to report to the Minister, as required by the Regulations.

3. Other Relevant Legislation

Note that this list is not exhaustive

<i>Environmental Planning and Assessment Act 1979</i>	5A: whether there is likely to be a significant effect on threatened species, populations or ecological communities, or their habitats (the 'seven part test'), 111 Duty to consider environmental impact
<i>National Parks and Wildlife Act 1974</i>	118A: Harming or picking threatened species, endangered populations or endangered ecological communities 118D: Damage habitat of threatened species, endangered population or endangered ecological community
<i>Rural Fires Act 1997</i>	63: Council has a duty to take the notified steps (if any) and any other practicable steps to prevent the occurrence of bush fires on, and to minimise the danger of the spread of a bush fire on or from land under its control
<i>Rural Fires and Environmental Assessment Legislation Amendment Bill 2002</i>	Schedule 3 contains a number of amendments to the Rural Fires Act 1997 designed to ensure that bush fire hazard reduction work necessary to more fully protect persons, property and the environment against the dangers that may arise from bush fires is carried out. This includes the requirement of Councils to prepare a map that shows all land identified by the Commissioner of the NSW Rural Fire Service as bush fire prone land; that public authorities report to the Commissioner about their bush fire hazard reduction work and to streamline the approval process for the carrying out of managed bush fire hazard reduction work in accordance with a bush fire environmental assessment code.
<i>Noxious Weeds Act 1993</i>	Part 3 Noxious weed control on land Clause 14 Local control authorities must control noxious weeds on land occupied by them (1) A local control authority (Council) must control noxious weeds on land occupied by the authority, as required under the control category or categories specified in relation to the weeds concerned.
<i>Rural Lands Protection Act 1998</i>	Part 11 allows Council to control which have been declared as a pest under a pest control order
<i>Companion Animals Act 1998</i>	Parts 3 and 4 allow Council to prohibit cats and dogs from a reserve (wildlife protection area) for the purposes of the protection of wildlife
<i>Local Government Act 1993</i>	Chapter 16 Offences, Part 2 Public Places, Section 629: A person who, without lawful excuse, wilfully or negligently injures, damages or unnecessarily disturbs or removes any plant, animal, rock or soil in a public place is guilty of an offence.

APPENDIX 4 Previous Studies of the Land and other Background Information

(1) Warringah Natural Area Survey: Vegetation Communities and Plant Species

Report prepared for Warringah Council - Smith, Peter and Smith, Judy (2005)

The Warringah Natural Area Survey surveyed and mapped the native vegetation of the Warringah Local Government Area outside Ku-ring-gai Chase and Garigal National Parks. Thirty-seven native vegetation communities were distinguished, thirteen of which do not appear to be represented in either of the two national parks. Fifteen of the communities are threatened in NSW i.e. they form part of endangered ecological communities listed in the Threatened Species Conservation Act (1995). Three forms of DFEC distinguished by their dominant tree species were identified in the survey:

- Silvertop Ash-Brown Stringy Bark Forest (79.1ha)
- Blackbutt-Turpentine Forest (19.3ha) and
- Angophora-White Mahogany Forest (2.9ha).

A little over 15ha of Silvertop Ash-Brown Stringy bark Forest is conserved within nine Council reserves; seven of these reserves are covered in the Threatened Bushland Reserves Plans of Management (DFEC South and North). Only 0.76ha of Blackbutt-Turpentine Forest is conserved in Kens Road and Orange Grove Reserves, whilst the only example of Angophora-White Mahogany Forest is unreserved.

(2) Warringah Natural Area Survey: Vegetation History and Wildlife Corridors

Report prepared for Warringah Council - Smith, Peter and Smith, Judy (2005)

This Report draws upon the vegetation community survey and mapping to estimate the distribution of native vegetation types in the Warringah Local Government Area prior to European Settlement in comparison with their present distribution. The report also identifies existing and potential wildlife corridors linking larger bushland remnants in Warringah. The report provides the following estimates for DFEC vegetation communities:

- 21% of Silvertop Ash-Brown Stringybark Forest remains with 14% in reservation
- 10% of Blackbutt-Turpentine Forest remains with 1% in reservation and
- 100% of Angophora-White Mahogany Forest remains, with none in reservation.

Existing and potential wildlife corridors were mapped and prioritised according to their importance to ground fauna moving between core bushland areas. Council has not yet developed strategies to protect and enhance wildlife corridors for each of the three priorities. Blinking Light, and Madison Reserves are located in a priority one corridor and Kens Road, Orange Grove and Prahara Avenue Reserves are located in a priority three corridor.

(3) Survey of the Duffys Forest Vegetation Community

Report to the National Parks and Wildlife Service and Warringah Council - Smith, Peter and Smith, Judy (November 2000)

This survey classified and rationalised the previous mapping of all known occurrences of Duffys Forest vegetation community in the Sydney Basin region. Each mapped remnant was assessed in terms of its structure, floristics, vegetation condition, specific threats, land tenure and current management activities. Information from this report was used to revise the final determination for DFEC under the TSC Act 1995

(4) Assessment of Bushland Condition for Duffys Forest Vegetation Community Remnants Owned or Managed by Warringah Council

Report Prepared by Kate Low and Associates and J. Harkin Consulting (September 2001)

This report assessed the bushland condition of and identified threats to selected Council Reserves supporting DFEC. Management recommendations were made to address the threats and direct ongoing bushland management works. Council has been implementing these recommendations and a number have been included in the management action tables of these Plan.

(5) Development of an Assessment of Bushland Condition/Site Resilience and Review of Bush Regeneration Record Keeping Format for Warringah Council.

Report prepared by Michael Clark: Ecological Restoration Company (1999)

This report reviewed bushland condition/site resilience assessments used by a range of organisations and developed an assessment that best suited the characteristics of Warringah's bushland. The assessment was trialed on a variety of bushland management project sites and subsequently refined. The report also standardised a bush regeneration record keeping format for use in regular reporting on the progress of bush-regeneration contracts.

(6) Mapping and Reports for Warringah Council.

Reports prepared by EcoLogical Australia (2006)

These reports and maps were prepared for each reserve in this Plan of Management, and include the vegetation condition and infrastructure and encroachment maps reproduced in this plan.

APPENDIX 5 REPORT OF THE PUBLIC HEARING

REPORT TO WARRINGAH COUNCIL

**THREATENED BUSHLAND RESERVES (DUFFYS FOREST ECOLOGICAL COMMUNITY)
- NORTH & SOUTH -**

PROPOSED PLANS OF MANAGEMENT

Report on a Public Hearing

Held in Accordance with the Provisions of Section 40A of the
Local Government Act 1993

Prepared by

Peter Walsh
(MBA, DipUrbRegPl, BSurv, FPIA)
Independent Chairperson

July 2007

1. INTRODUCTION

Warringah Council (Council) is in the process of preparing two Plans of Management for certain lands within the local government area (LGA). Plans of Management (PoMs) provide the framework for managing certain types of public land. Each of the proposed PoMs cover a number of distinct reserves which support the endangered *Duffys Forest* ecological community (DFEC). One plan covers the reserves within the northern parts of the LGA, the other plan covers reserves in the south.

The proposed PoMs have been placed on public exhibition as drafts and comments have been invited. Below the two plans are named, and the individual reserves which they cover are cited:

- *Plan of Management - Threatened Bushland Reserves (Duffys Forest Ecological Community North)*, covering:
 - Kinka Reserve, Terrey Hills
 - Terrey Hills Oval, Terrey Hills
 - Cooyong Road Reserve, Terrey Hills
 - Boronia Reserve, Belrose
 - Oates Place Reserve, Belrose.

- *Plan of Management - Threatened Bushland Reserves (Duffys Forest Ecological Community South)*, covering:
 - Blinking Light Reserve, Frenchs Forest
 - Madison Way Reserve, Allambie Heights
 - Orange Grove Reserve, Belrose
 - Kens Road Reserve, Belrose
 - Prahran Avenue Reserve, Belrose.

Council is proposing to use the PoMs to *categorise* the subject lands, under the *Local Government Act 1993* (LG Act). The LG Act's categories are intended to describe the character of the community land, and nominate a set of aligned *core objectives*. Land use and activities undertaken in any categorised community land must comply with the relevant core objectives as nominated in the Act.

In instances where a PoM is proposed which would have the effect of categorising, or changing the category of community land, a public hearing is required under section 40A of the Act.

Section 47G(2) of the Act provides as follows:

The person presiding at a public hearing must not be:

- a) a councillor or employee of that council holding the public hearing, or*
- b) a person who has been a councillor or employee of that council at any time during the 5 years before the date of his or her appointment.*

In accordance with the above provisions I was subsequently appointed as independent chair for the public hearing. This document is intended to comprise the report of the public hearing.

2. THE HEARING

The hearing was held during the evening of 24 May 2007 within rooms at Terrey Hills Community Centre. The following members of the community were in attendance.

Name	Representing
Andrew Sutcliff	Friends of the Bush Terry Hills Oval
Sally White	North Shore Horse & Pony Association
Sarah Cliff	On behalf of Paul Boxall ¹
Pat Mullin	Terrey Hills Progress Association
Mary Newlinds	Duffys Forest Residents Association
Ann Sharp	Save Manly Dam Committee
Cynthia Patton	Belrose Rural Community Association
Ron Patton	Belrose Rural Community Association
Conny Harris	Friends of Bush DFEC Recovery Plan
Mary Armstrong	Belrose Rural Community Association
Elaine Muller	Terrey Hills Progress Association

Jennie Powell and Daniel Lovett from Warringah Council were also in attendance.

The hearing was opened by the chairperson and a brief summary of the purpose of the hearing was provided. The format of the hearing was described. The format provided for a submission from Council which outlined the content of the draft PoMs, followed by submissions and questions from attendees. There was an initial focus on the overall content of the draft PoMs. Then plan content for specific reserves was considered individually.

3. SUBMISSIONS

3.1 Overview of Draft PoMs

Council's Submission

Ms Powell presented Council's submission with support from Mr Lovett. Ms Powell provided an overview of the PoMs for reserves in the north and then south in turn. In all cases the intent of the draft PoMs is to identify and categorise land as *bushland*. Ms Powell indicated that lands not seen as suitable for this category have been or will be set aside for inclusion in an alternative PoM. There was also some initial discussion on Council's draft *Bushland Policy*. The *Bushland Policy* provides a broad framework for bushland conservation and management within public and private lands in the LGA. While this policy has also been recently on exhibition it was established that the *Bushland Policy* is not the specific subject area of this public hearing.

Ms Powell described the format of the PoMs and their three component parts, comprising:

- Background information including in regard to the community land categories and core objectives
- Current conditions and use of each reserve, including vegetation condition, significant features, infrastructure, encroachments and tracks
- Management of the reserves, including a schedule of management actions for each of the reserves including prioritisation and responsibilities.

¹ As indicated on attendance sheet.

At the conclusion of Ms Powell's introductory remarks a number of persons commended Council on the quality and content of the plans. A number of questions were also raised:

3.1.1 Relationship of PoMs to DA Processes

Mr Patton and the written submission from the Belrose Rural Community Association raised a concern regarding the integration of PoMs with the statutory development control framework under the Environmental Planning and Assessment Act, 1979 (EPA Act), and saw a possibility that the PoM content could be missed in the assessment of a development application (DA). He suggested the need for stronger linkages and wording in the PoM to require consideration in DA matters. It was further suggested that with the review of the LEP more fulsome consideration of PoMs under the LG Act should be considered.

Comment and Recommendation

It is agreed that PoMs should be matters for consideration in the assessment of DAs within the reserves. There is also value in the PoMs being matters for consideration in the assessment of DAs for adjacent lands. This is particularly the case here where the PoMs are dealing with an endangered ecological community. Clause 52 of Warringah LEP 2000 (WLEP 2000) already includes requirements for proposals to be conscious of the relationship with bushland reserves:

52 Development near parks, bushland reserves and other public open spaces

Development adjacent to parks, bushland reserves and other public open spaces, including land reserved for public open space, is to complement the landscape character and public use and enjoyment of that land.

In particular:

- *where appropriate, housing is to front public open spaces,*
- *public access to public open spaces is to be maximised,*
- *buildings are to be located to provide an outlook to public open spaces, without appearing to privatise that space,*
- *development is to provide a visual transition between open space and buildings including avoiding abutting public open spaces with back fences,*
- *views to and from public open spaces are to be protected, and*
- *buffers for bushfire protection are to be provided on private land and not on public land.*

If public open space or land reserved for public open space contains bushland, development on that land is not to threaten the protection or preservation of the bushland.

Note. The protection or preservation of bushland may be threatened by a number of direct and indirect processes, including the erosion of soils, the siltation of streams and waterways and the spread of weeds and exotic plants within the bushland.

(Our emphasis.)

In this instance, the provision at clause (cl) 52 of WLEP 2000, underlined, provide a statutory reference point (ie a DA would need to be assessed against the (relevant) provisions in an LEP. The provision as stated would be sufficient for dealing with DAs on public open space or reserves. However cl 52 does not seem to directly concern itself with threats to the preservation of bushland imposed by development adjacent to the parks. There are other provisions which can do so (eg provisions of the Protection of the Environment Operations Act (PoEO Act). Council's interests in the protection of the endangered communities from such threats are clear from the draft PoMs and draft Bushland Policy). It seems to me warranted that consideration of these endangered ecological communities be given with DAs and this be systemic rather than dependent on individuals or informal communication. It is even possible that offset arrangements, such as that which may be provided through *planning agreements* under Division 6 of the EPA Act,

may provide some more beneficial outcomes in terms of the resourcing or management of the implementation the proposed actions within PoMs. Significant scale development projects near to bushland reserves would be more likely possibilities for such opportunities. Whether any statutory reference is within an LEP or DCP (under the necessary revised planning regime) is a matter for Council administration. However it would be relatively straightforward to expand the underlined subclause at cl52 to refer to development on “adjacent land”, along with development within the reserves themselves.

Recommendation: *With the revisions to Council’s statutory planning framework, or prior if practicable, provisions be made which include direct reference to PoMs as a component of the assessment of DAs on land in the vicinity of the threatened bushland reserves, either within LEP or future DCP controls. In the interim a practice note be prepared jointly by Councils Land Management and Development Assessment professionals to inform DA assessment staff of the existence of PoMs and their application in the assessment of DAs with potential to threaten bushland, and their relevance to the achievement of the intent of cl52.*

3.1.2 Volunteer Groups

A number of submissions raised the importance of the input of volunteer groups in the achievement of the objectives of the PoMs. Andrew Sutcliff of the *Friends of the Bush Terry Hills Oval* raised a number of detailed issues regarding volunteer work and the benefits which it provides if well managed and coordinated.

The written submission from the Belrose Rural Community Association (Mary Armstrong) raised concerns about practical budgeting allocation for implementation of actions and suggested draft PoMs should give reference to the human resource available through volunteer bush regeneration workers in a formal sense as a management/implementation principle.

It was suggested that there was value in high levels of coordination, teamwork and support between Council’s contract staff and volunteer bush regeneration groups. While there was some excellent work, there was also evidence of activity which was at “cross purposes” on occasions. Generally, the use of local volunteers, which had potential to be a growing resource, was seen as a key means of achieving draft PoM goals, provided there was appropriate support and training.

Comment and Recommendations

A management program for bushland protection and regeneration which relies on the important work of volunteer groups, would reasonably provide a support regime for the actions of such groups. It is understood that a support program is in place. However some suggestions for improvement were made. Mindful of the commentary at this hearing the following recommendations can be made:

Recommendation: *Arrangements for liaison and coordination of Council staff/contractor works with volunteer programs be reviewed by Council in consultation with volunteer group representatives/contractors. The review include consideration of development of work programs for individual reserves based on a consultative process, regular consultation on matters which arise eg meetings at an interval of say 6 months may be a minimum reasonable standard for works on larger scale reserves, and the initiation of training programs for volunteer groups, and standards for use of hazardous materials such as pesticides².*

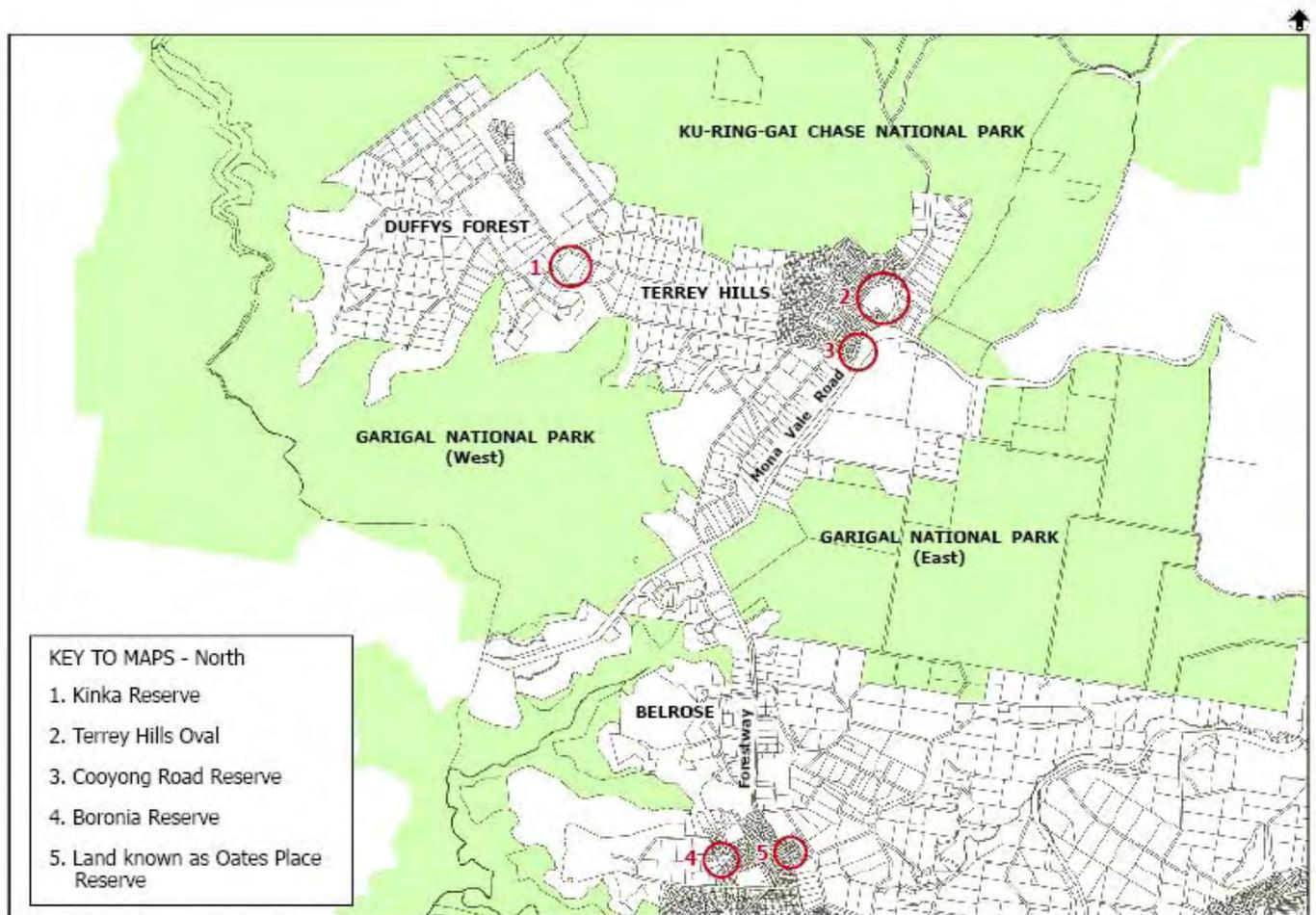
² In regard to Terry Hills Oval, the latter of these recommended actions would be consistent with Management Action 36) at page 66 of the draft Northern Reserves PoM.

Recommendation: PoM content give reference to volunteer bush regeneration workers as one of the resources available for implementation of proposed initiatives and the support program to encourage and management this. For example, reference to volunteer groups should be made in the following sections of the draft PoM in regard to the relevant reserves:

- Objective: Integrated planning to ensure no conflict of goals and outcome (eg Proposed Action 10 for Terrey Hills Oval)³
- Objective: Promote the best management practice and community awareness of the conservation requirements of threatened species⁴.

3.2 Plan of Management - Threatened Bushland Reserves (Duffys Forest Ecological Community North)

Brief background and commentary was provided for each individual reserve covered by the PoMs. After each reserve was addressed an opportunity for community comment/questions was provided. The plan below indicates the location of the individual reserves which are discussed in turn below.



3.2.1 Kinka Reserve

Ms Powell indicated that Kinka Reserve is an important bushland reserve as it supports a relatively undisturbed remnant of DFEC. Actions in the plan of management include rationalisation of the track system in the reserve, implementing the revegetation process and upgrading the remainder of

³ eg p62 Terrey Hills Oval

⁴ eg p65 Terrey Hills Oval

the cleared area to accommodate horse-riding activity without damaging the adjacent DFEC. The primary values of the reserve are conservation of an endangered vegetation community, the link it provides in a local wildlife corridor and low key recreation opportunities, in particular horse-riding for the local community⁵.

Ms Powell indicated that the proposed revegetation process involves a technique called soil seedbank translocation. This technique involves the careful excavation of 5-10cm of topsoil from a DFEC site approved for development, which is then spread over the site to be revegetated.

Questions and Submissions

Ms Mullins and Ms Armstrong were concerned about the quality of the soil to be involved in the translocation process, citing some problems in the past. There was a concern to ensure Council manage this process well.

Ms Powell indicated that specialist consultants were involved in the process and there had been substantive success in similar projects in the past. State government Department of Environment & Climate Change (DECC) will also be involved in the process.

Ms White sought assurances that horse riding would still be allowed. Ms Powell emphasised the draft PoM provided for continuing horse riding. In Ms White's written submission to the draft PoM the following additional comments were provided:

- In the interests of education and community commitment/enjoyment of the re-emergence of the Duffys Forest community, walking tracks set down before topsoil translocation to facilitate make it easy for schools, others to walk through sit and observe
- Detailed development of the horse area: needs to be well conceived and constructed from the start
- Supports multi-use trail around the reserve.

The North Shore Pony Association (Leonie Cains) made the following points in a written submission:

- Proposed Action 14⁶: Requests a piped fence arrangement similar to PPs Pony Club arena, as well as the telegraph poles.
- Proposed Action 23: Seeks a trail on Kulgoa Crescent Road to reduce on-road riding and improve safety
- Proposed Action 25: Provision of a walking track with signage to promote community awareness.
- Raises interest Rhoker and Anembo Reserves which are not included in these PoMs.

Comments and Recommendations

The challenging planning and management context facing Kinka Reserve seems to be well on the way to resolution with the draft PoM. It is apparent that a balance between the differing interests relating to the protection of the natural values of the reserve and the recreation/horse riding activities has been arrived at generally to the satisfaction of interest groups. In regard to the particular issues raised in submissions the following comments are provided:

⁵ Ms Powell indicated that in 2005 a draft PoM was prepared for Kinka Reserve involving significant liaison with conservation, horse-riding and other interests. This process had seemingly resolved many of the competing issues and the new draft PoM carried the essence of these resolutions through.

⁶ The draft PoMs indicate a series of individual "Proposed Actions" for each reserves in the section on *Management of the Reserves*.

-
- The soil seedbank translocation process has worked well previously in the local area and comments from Ms Powell give confidence that the process is to be well managed in this instance.
 - In regard to Proposed Action 14, the horse-riding fraternity see value in the provision of a pipe fence as well as the timber protection structures to delineate the rehabilitation area from the activity area.

Recommendation: Council should liaise with the North Shore Horse and Pony Association in the development of the detailed specification for the fencing here. Resourcing will be a relevant consideration in the final determination of fencing.

- Proposed Action 27 already provides for on-site signage to promote community awareness
- My own view is that it would be counterproductive to introduce a walking trail and sitting area within the revegetation area. However there is, it seems to me, merit in a viewing space on the bounds of the revegetation area which encourages an appreciation of the process from the community including local schoolchildren. This would be consistent with Proposed Action 27.
- Determination of the reasonableness of the provision of a trail in Kulgoa Crescent road reservation is outside the bounds of this draft PoM and warrants separate consideration by Council, mindful of the obvious benefits to horse riding groups, potential impacts on bushland and cost/management implications. We are unaware of the history of Council's consideration of this matter.

Recommendation: Council give consideration to a trail in Kulgoa Crescent road in accordance with the North Shore Horse and Pony Association submission.

3.2.2 Terrey Hills Oval

Ms Powell indicated that the bushland covered by this PoM comprises the strips of ridge top bushland surrounding Terrey Hills Oval. Management of the playing fields, tennis and basket-ball courts were intended to be covered by the *Generic Sportsground Plan of Management* currently in preparation by Council.

A map of Terrey Hills Oval from the draft PoM is shown overpage.

The main bushland area is isolated into two sections by a scout hall. Both sections are small, disturbed and fragmented by numerous tracks, however the southern section is in significantly better condition. There is a significant presence of endangered plant, *Grevillea caleyi*, in the vicinity. For the past 10 years Council has been undertaking a restoration program under the guidance of the *Grevillea caleyi* Recovery Team focussing mainly on the southern bushland section. This has included the erection of fencing to limit access.

The primary values of the bushland covered under this plan are conservation of an endangered vegetation community and an endangered plant and the link it provides in a local wildlife corridor.



Title: Terrey Hills Oval
Project Name: Site Condition and Infrastructure Survey
Client: Warringah Council

- Legend**
- Reserve Boundary
 - - - Tracks
 - Infrastructure (points)
 - Infrastructure (lines)
 - ▭ Infrastructure (area)
 - ▭ Encroachments (area)
 - Other Significant Features (Point)

Prepared by: DJ
Approved by: RM
Status: Final
Projection: MGA Zone 56
Date: 11/04/2006

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Warringah Council
 www.warringahcouncil.nsw.gov.au
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 Council



It was evident that there had been some conflict in land use and management planning with regard to the northern section of bushland in particular. Below key points from the draft PoM, summarised by Ms Powell at the hearing are provided:

- BMX bike use of the northern section of the bushland has extended significantly beyond the original circuit track constructed by the local scout community in the early 1980s. In 2003 Council proposed to fence off this section to exclude BMX bike riding and commence bushland restoration work. Council was concerned at the high level of mound construction, pit excavation and vegetation clearance taking place resulting in unacceptable safety risks to children riding in the area and significant damage to bushland including the habitat for the threatened plant *Grevillea caleyi*.
- The Ku-ring-gai and Northern Beaches Threatened Species Working Group supported the fencing proposal but the public consultation process generated a number of concerns and objections from the local community. To respond to these concerns, a meeting was held between senior Council representatives and concerned local residents. At the meeting Council's Administrator indicated that Council would be willing to look at a smaller track on the edge of the bush. Such a proposal would require the community to establish an organisation to take care of the facility and supervise its maintenance.
- Council staff identified an area of degraded bushland where the formalisation of a BMX bike riding would not result in an unacceptable impact on the conservation values of the reserve. A draft plan for a track and associated infrastructure was submitted for Council's consideration. The plan had the endorsement of the Terrey Hills Progress Association, sporting groups that use Terrey Hills Oval and the Scouting Association which manages a scout hall on land adjacent to the area. Details about the funding and administration of the track have not been discussed and to date the proposal has not progressed any further. Another meeting was held between community representatives and Council staff in late 2005 as a part of the public consultation process for this Plan of Management.
- Council has carried out short term works to remove dangerous jumps and repair damage to the reserve from previous BMX bike activity on two occasions. In response to continuing damage to threatened species habitat and public liability concerns, this plan of management authorises the fencing of parts of the northern section of bushland.

Ms Powell also indicated that the threatened plant *Grevillea caleyi* had been discovered in the southern boundary of the bushland area.

Submissions and Questions

Mr Sutcliff

A written submission was provided by Andrew Sutcliff of the *Friends of the Bush Terry Hills Oval*. Mr Sutcliff's suggestions and concerns are summarised as follows:

- Needs to be improved coordination between Council management and maintenance programs and the Bushcare Program which was commenced in March 2006. Work was sometimes "at cross-purposes".
- Series of detailed recommendations for inclusion in management planning for Terrey Hills Oval precinct for inclusion in relevant plan of management. A number of these areas would relate moreso to the sportsground plan of management and include: oval steps, area at end of parking lot, cricket nets, possible Council maintenance of BMX track, rationalisation of paths.

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- Concern about long term protection of area behind the Terry Hills Community Centre. This area is seen as high value bushland but there is a suggestion that the area may be set aside for parking.

Ms Cliff

Ms Cliff saw it as short-sighted to categorise the northern area as bushland under the Act. This was seen to remove forever the possibility that this area may be used for recreation or community purposes. Ms Cliff believed there was many other uses that the area could be put to apart from the current BMX use. It was believed that the small area set aside for this purpose was insufficient. In any event there was little money available to fund the facility with Council expecting significant contributions from the local community.

It was emphasised that active play was a desirable pursuit for children in today's environment where childhood activities are often less active and unhealthy. It was indicated that the land was originally designated for sporting pursuits and it would be a pity to lose it given the small area available for this use.

Ms White

In her written submission Sally White expressed her support for the repair of the old BMX area and encouraging families to watch over it, remembering the reserve is "after all" a sport and playing field. Ms White also supports a walking trail around the reserve to increase public use and security.

BMX Area - Analysis

Is it appropriate to recategorise this disturbed area as Natural Area: Bushland?

It is noteworthy that the draft PoM describes this area as having only fair vegetation health (p22) due to vegetation clearance and the BMX activities. Warringah Council's Natural Area Survey⁷ cites the area as "highly disturbed vegetation" and having conservation significance as "local habitat" only.

Clause 102 of the LG Act provides guidelines for categorisation of land as a *natural area*:

102. Land should be categorised as a natural area under section 36 (4) of the Act if the land, whether or not in an undisturbed state, possesses a significant geological feature, geomorphological 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 section 36 (5) of the Act.

Clause 107 then provides guidelines for categorisation of land as *bushland*

- (1) *Land that is categorised as a natural area should be further categorised as bushland ... if the land contains primarily native vegetation and that vegetation:*
 - (a) is the natural vegetation or a remainder of the natural vegetation of the land, or*
 - (b) although not the natural vegetation of the land, is still representative of the structure or floristics, or structure and floristics, of the natural vegetation in the locality.*
- (2) *Such land includes:*
 - (a) bushland that is mostly undisturbed with a good mix of tree ages, and natural regeneration, where the understorey is comprised of native grasses and herbs or native shrubs, and that contains a range of habitats for native fauna (such as logs, shrubs, tree hollows and leaf litter), or*

⁷ Cited in draft PoM.

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- (b) moderately disturbed bushland with some regeneration of trees and shrubs, where there may be a regrowth area with trees of even age, where native shrubs and grasses are present in the understorey even though there may be some weed invasion, or*
- (c) highly disturbed bushland where the native understorey has been removed, where there may be significant weed invasion and where dead and dying trees are present, where there is no natural regeneration of trees or shrubs, but where the land is still capable of being rehabilitated.*

Considering the above, there are interpretive questions as to whether the guidelines are met with the categorisation of the subject land as *natural area: bushland*. In particular there is a question as to whether the land is capable of being rehabilitated, or indeed whether there is community value in the land being rehabilitated, in terms of opportunity cost.

This is juxtaposed against the question of the BMX recreation which has been occurring on the site. The submissions on the matter seemed to make two fundamental points:

- There is a public good in this space being used for recreation or community purposes, if not now then one day in the future, especially given our current community concerns relating to health and exercise for young people
- Categorisation as bushland cuts off opportunities for active recreation on the land into the future.

It is also clear that, despite a number of efforts by Council to repair and prevent its occurrence, there has been activity by persons unknown to maintain the unauthorised and unsafe BMX trails (eg excavation of pits and provision of mounds).

Despite what is understood to be the “endorsement of the Terry Hills Progress Association”⁸ of the proposed new and smaller BMX track, Ms Cliff suggested a view in the community that the small BMX area was insufficient, and that there seemed to be little opportunity to generate local funds to maintain such a facility (eg insurance) which is understood to be required.

BMX Area - Conclusions and Recommendations

Risk of Injury Immediate Concern

- The immediate management concern here relates to the safety issues associated with the BMX tracks.
- The tracks seem to be very unsafe in their present state and while it may exist, there is no evidence presented about local community energy to prevent the tracks re-emergence after efforts by Council. It would of course be devastating for those involved if a serious accident occurred, eg with young children using the track unsupervised.
- This suggests the need for sustainable, low maintenance action to prevent this occurring. While full resolution may be easier said than done, the proposed fencing proposal can and should be initiated immediately.

Recommendation Provisions for the fencing of the area as outlined in the draft PoM be supported and implemented as soon as possible.

Categorisation and Future Use of the Area

- Given the competition for resources, and comments raised in submissions about resourcing actions in the draft PoM, it would seem an inappropriate use of resources to try to rehabilitate this particularly area to a vegetation community of more than local significance.

⁸ Draft PoM North, p21. The draft PoM also indicates that there are expectations that there will be some local inputs required for the funding and administration of the track.

- It seems to me a council acting reasonably mindful of its charter⁹ will indeed seek to encourage outdoor activity for youngsters in areas such as Terry Hills, which can be somewhat isolated from recreation/social/cultural infrastructure.
- Despite the fact that there is a large playing area within the Oval, it seems to me that it would be unreasonable for the subject land to be reserved in a sense “in perpetuity” as future bushland, given that there may be an opportunity which arises in the future for a land use which conflicts with this value¹⁰. This is especially recognisant of the land’s highly disturbed state, and the fact that the Terry Hills Oval site is Crown land “reserved for public recreation” under the Crown Lands Act, 1989”¹¹.
- Categorise the land *natural area: bushland* is not seen to be particularly conducive to protect it from being used for the hazardous BMX activity. The seclusion and existing trees are significant contributing factors to this risk. While it is hypothetical, one of the means of sustainably reducing this risk may be to allow alternative (sensitive) active uses on this portion of the site, which may even include removal of some of the low value vegetation.

Recommendation: *The disturbed BMX area be excluded from the Threatened Bushland Reserves PoM and included in the Generic Sportsgrounds Plan of Management, as is the smaller area currently proposed as a BMX track. The area can be identified for bushland regeneration and as a buffer/corridor to endangered DFEC in the sportsground PoM, but noting its potential to be used for sensitive community/recreation purposes in the future.*

An alternative is that the land be retained in the Threatened Bushland Reserves PoM, but the citation differentiate it from DFEC and note the area’s potential to be used for sensitive recreation purposes in the future.

Land Adjoining Terry Hills Oval - Analysis

Mr Sutcliff’s oral submission raised the question of how future management will link together all the vegetation communities which adjoin the reserve itself and the importance of this to the notion of corridors. Mr Sutcliff’s submission was particularly concerned with the area at the rear of the community centre, outside the reserve boundary. The draft PoM can reasonably be evaluated on how it gives consideration to adjoining land. The scout hall, road reservations (especially McCarrs Creek Road, water tower area, and land at rear of community centre, all include vegetation communities which seem to link with identified vegetation communities within the reserve. The maps in the draft PoM do show references to the adjoining land (see p24). In particular:

- the vegetation behind the community hall is nominated as identifier “Z” or “highly disturbed vegetation” and having “local habitat” conservation significance
- the scout hall area is nominated “LL” and as being “9sf Duffys Forest Silvertop Ash-Brown and Stringybark Forest with a conservation status of “threatened in NSW”).

The draft PoM written instrument also recognises the significance of adjoining land with its references to the value: *Biological Corridors and Linkages* (p64), and objectives which include “(enabling) plant and animal communities to survive in the long term”. Nominated strategies and actions include:

<i>Strategies</i>	<i>Management Actions</i>
<i>Ensure planning and management for priority 3 corridor status (Smith and</i>	<i>Maintain and improve corridor habitat when undertaking reserve restoration works and in assessment of development</i>

⁹ See the Council Charter, s8 LG Act.

¹⁰ Any future development would need to address concerns about potential conflict with nearby DFEC, but this can occur effectively as is evident from Kinka Reserve outcomes.

¹¹ Draft PoM, p46.

<i>Smith 2005)</i>	<i>proposals in parts of corridor adjacent to reserve</i>
<i>Promote opportunities to acquire, or sympathetic management of, adjoining lands</i>	<i>Minimise the adverse impact of activities and development on land adjacent to the reserve through appropriate development conditions, planning controls and guidelines</i>
	<i>Develop guidelines to offset loss of threatened habitat associated with development and activities on adjacent land and within the reserve on an enduring and “like or better” basis</i>
	<i>Investigate opportunities to reserve and manage threatened bushland on the land occupied by the scout hall, through enlargement of reserve area, conservation agreement, or other measure</i>
	<i>Identify opportunities to conserve buffer zones and significant habitat on adjacent land such as road reserves</i>

There is appropriate provision for the scout hall and road reservation vegetation communities in the draft PoM.

There is some question in regard to the vegetation community which straddles the boundary between the Terry Hills reserve and what is understood to be community facilities land. It is not surprising that Mr Sutcliff’s group’s work in bushland restoration sees no such boundary. On the basis of submissions to the hearing there is a planning issue here that needs to be faced sooner or later. It was suggested that there is some interest in the vegetated area at the rear of the community facility being used for parking purposes, to offset what has been suggested to be a local shortfall of parking. The draft PoM also indicates the vegetation along the southern perimeter (including that nearest to the vegetation behind the community centre) as having a resilience rating of “Very Poor” (p25). The draft PoM describes this reliance rating as follows:

<i>Bushland Condition</i>	<i>Intervention Required</i>
<i>Bushland virtually replaced with weed species and/or Only mature specimens of highest stratum remain and no seedlings or sapling present due to infestation of understorey by weed species.</i>	<i>Medium to high Ability of system to recover is lost or seriously limited. Definitely needs a “kick start” or may require reconstruction of approximate original system.</i>

Land Adjoining Terry Hills Oval - Conclusions and Recommendations

The draft PoM is clear in indicating that the vegetation community behind the community centre does not have the same conservation significance as the Duffys Forest communities which form the key focus of this plan. Significance as local habitat is suggested. In the draft PoM’s consideration of the value *Biological Corridors and Linkages* there is reference to both the concept of “corridors” and of “buffers” and “significant habitat”. It is not clear that examination of significance of the corridor along the southern side of Terry Hills Oval has occurred. However actions related to this would be a matter which could be attended to in discussions between local volunteer bush regeneration groups and Council, as recommended earlier.

3.2.4 Cooyong Road Reserve

Ms Powell indicated that Cooyong Road Reserve was a very small strip area off Mona Vale Road upon which Council had been undertaking a restoration program for *Grevillea caleyi*.

There were no submissions in relation to this aspect of the draft PoM.

3.2.5 Boronia Reserve

Ms Powell described Boronia Reserve as a small reserve in Belrose with approximately two thirds of the reserve presenting as a neighbourhood park with mown grass and playground equipment and the remaining area managed as DFEC bushland. The intent is to extend the bushland boundary by approximately 16m to the north incorporating a portion of the park. Ms Powell indicated that the playground strategy had independently identified the removal of playground equipment from this reserve as a recommendation.

Submissions

The proposal was generally seen as a good idea. There was a question as to whether the local residents would be aware of these proposed changes.

Boronia Reserve - Conclusions and Recommendations

While there is considerable public notification in local newspapers of the draft PoMs, it is seen as appropriate, in this instance alone, that there be advice provided to the two immediately adjoining properties, fronting Stratford Drive, about the proposed changes to this reserve. There are two reasons for this:

- The nature of the land use immediately adjacent to living areas of these dwellings (as opposed to “over the back fence and out of site”) will change reasonably significantly and procedural fairness would suggest a need for notice to be given to these residents and that they have a right to comment before Council makes this decision.
- To help inform the residents into the purpose of the proposed change, and thus address previous concerns regarding “weed plumes” and other direct impacts which adjoining residents can have on endangered bushland.

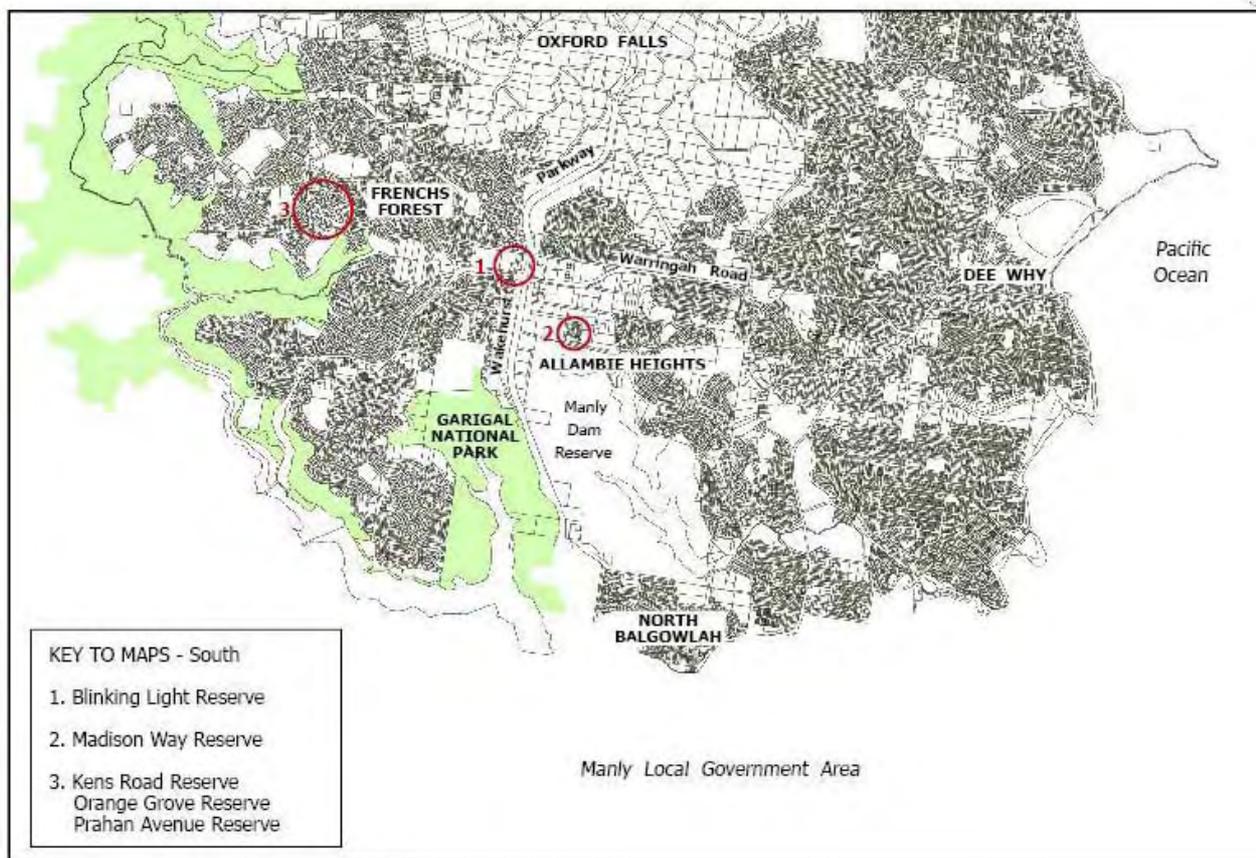
Recommendation: *Prior to finalising the draft PoM for Boronia Reserve the two adjacent property owners/residents fronting Stratford Drive be notified of the proposed changes and any feedback be considered by Council.*

3.2.6 Oates Place Reserve.

There was good support for this proposal, including the name change, and a view that there had been good regeneration since the recent burn, and less dumping of rubbish. A number of submissions supported the encouragement of volunteers to be involved in this program. See previous recommendation relating to the citation of volunteers in the PoM.

3.3 Plan of Management - Threatened Bushland Reserves (Duffys Forest Ecological Community South)

Ms Powell then worked through proposed provisions for the draft PoM for threatened bushland reserves in the southern area of the LGA. See map below.



3.3.1 Blinking Rights Reserve

Ms Powell described Blinking Light Reserve as a stand of bushland isolated by major roads, residences and clearings. Despite its small size the reserve was seen as an important link in a wildlife corridor identified in a recent report.¹² Restoration works have been underway for the past eight years.

The recent announcement of nearby land as the site for a major public hospital, and attendant major roadworks necessary to access the site were seen as issues of particular challenge for the retention of the bushland values of the reserve.

Submissions

Key concerns raised in submissions were related to liaison with State authorities to ensure that planning for the hospital development was sympathetic to the bushland values of the reserve, and the wider area. A number of parties suggested there was direct value in having intact bushland in close proximity to the hospital given the need for patients and visitors for quite time and space to “reflect and meditate”.

¹² Warringah Natural Area Survey: Vegetation History and Wildlife Corridors August 2005.

Recommendation: Government authorities involved in hospital planning and development be forwarded copies of final PoM, and Council request consideration of native bushland values in both the reserve and adjacent areas in planning work for the hospital and its environs.

3.3.2 Madison Way Reserve

Ms Powell introduced the background to the Madison Way reserve which comprises five separate parcels dedicated to Council as part of a controversial land subdivision in 2000, which resulted in the clearing of substantial areas of DFEC. An important outcome proposed with the draft PoM would be to incorporate the bushland in two unmade road reserves into the DFEC plan, securing an important corridor link to the Manly Warringah Memorial Park and its DFEC.

Submissions centred on the question of best means to control nutrient runoff into the local creek system. Comments from Council's representatives indicated the difficulty in resourcing follow-up action to police this. The best means was seen to be through provisions at the DA stage. Refer previous recommendation for suggested action in relation to this.

3.3.3 Orange Grove Reserve, Kens Road Reserve, Prahran Avenue Reserve.

Ms Powell indicated that a single integrated strategy had been prepared for these interlinked reserves which are managed by Council as one area. There were no objections to this aspect of the draft PoM. Commendations were given for the good liaison with local school communities in regard to vegetation plans of management relevant to these reserves.

3.4 Other Submissions

Other submissions were also made in regard to Council's draft Bushland Policy and in regard to the retention of threatened species on private lands. These matters do not have direct implications for the draft PoMs, and are noted as matters for Council consideration.

4. CONCLUDING REMARKS

The work on the draft PoMs was received very favourably in submissions to the hearing and Council's officers should be commended in this regard.

Having considered the particulars of the submissions, the above recommendations are provided for Council consideration in the finalisation of the plans.



Peter Walsh
Independent Chairperson of Hearing

12 July 2007