

Robert East Reserve

formerly (North Kiama Park)



plan of management

november 2006



KIAMA MUNICIPAL COUNCIL
your council, your community

**Adopted by Council at its meeting held on
21 November 2006**

Council Resolution CR458

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1.0 INTRODUCTION

1.1 Background

The land covered by this plan is known unofficially as North Kiama Park and includes public land located between Hutchinson Street and the Princes Highway at Bombo. (*Figure 1*). It is public land owned by the Kiama Municipal Council and has been classified “Community” land under the provision of the Local Government Act 1993.



Figure: 1 Locality Plan

The Local Government Act also requires that Council prepare a Plan of Management in conjunction with the community to identify the important features of the land, clarify how Council will manage the land and how the land may be used or developed.

Until a Plan of Management for Community Land is adopted, the nature and use of the land cannot be changed and Council cannot carry out new development or improvements to the land. As the Plan of Management is the primary management tool for the Community Land, this has to be adopted before a Voluntary Conservation Agreement can be entered into.

This Plan of Management has been prepared in order to achieve a balanced, responsible and ecologically sustainable use of the land and to ensure that it addresses the needs of both local neighbourhood groups and the broader community. It has been prepared to meet the requirements of the Local Government Amendment Act 1998. It identifies appropriate outcomes for the reserve and provides a way for achieving these outcomes through a series of clear strategies and detailed actions.

1.2 Community Land Covered by the Plan

The Community Land covered by this plan is shown in *Figure 2*. It comprises Lot 10 DP 1027584 which has an area of 1.6 ha.

The land is zoned as Open Space Existing Recreation 6(a) under Kiama Council's Local Environmental Plan 1996. The area adjoins housing zoned Residential 2(a), Kiama Cemetery zoned Special Uses, Cemetery, 5(a) and an unformed part of Hutchison Street zoned Rural Environmental Protection Scenic 7(d). On the eastern side it adjoins land acquired by the Roads and Traffic Authority for the North Kiama Bypass (*See Figure 2*).

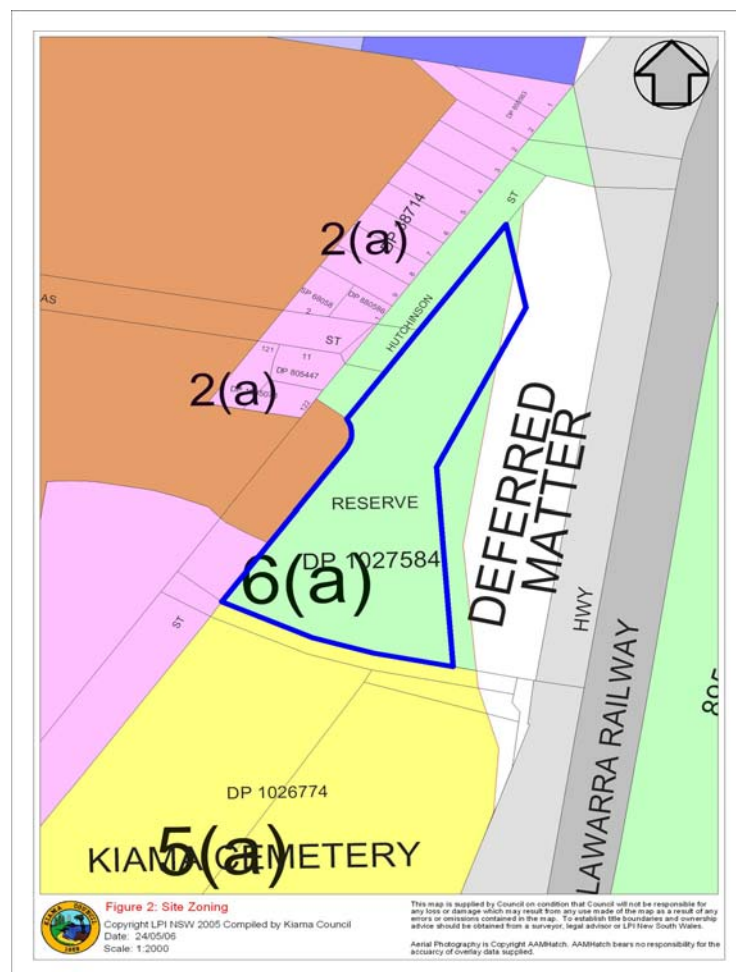


Figure 2

1.3 Management Units

For management purposes, the land has been separated into two units which reflect the physical characteristics of the site and the possible future use of the site. These units are illustrated in *Figure 3*.



Figure 3 - Management Units

1.4 Category and Class of Land

As noted earlier, all the land included in this plan is classified as Community Land under the Local Government Amendment Act 1998. Under Section 36(4) of the Local Government Amendment Act 1998 all Community Land must be categorised as one following categories:

- Natural Area
- Sportsground
- Park
- Area of Cultural Significance
- General Community Use

It is considered that part of the site, Management Unit 1, should be categorised as “Natural Area - Bushland” and part, Management Unit 2, as “Park” as shown in *Figure 3*. These categories accurately reflect the physical characteristics of the site and the most appropriate use.

Management Unit 1 is categorised as Natural Area - Bushland because of the presence of the Threatened Species, *Zieria granulata*, and the remnant littoral rainforest. Under Section 9 of the Recovery Plan for *Zieria granulata*, prepared by the Department of Conservation, Council has an obligation to incorporate site specific protection measures for the species in Plans of Management for Community Lands.

The remainder of the site, Management Unit 2, is mainly covered by kikuyu and various weeds and is categorised as Park .It is proposed that this area of land be improved by landscaping or the provision of non-sporting facilities for passive recreation that will not unduly intrude on the peaceful enjoyment of the land by others.

1.5 Function and Value

1.5.1 Landscape

The site occupies part of a very prominent hillside immediately west of Bombo Beach. It is visually prominent from the north and south on the Princes Highway and nearby residential areas and offers almost a 360 degree view of the surrounding landscape including Bombo Beach and Spring Creek.



View to the south east

1.5.2 Cultural Heritage:

A drystone walled corral, approximately 40metres in diameter, occupies the highest point on the site. Mr Barry Boles, whose family owned the adjoining “Glenbrook Farm”, has stated that the corral was erected to yard horses by people catching the train from Bombo railway station when the train line terminated at Bombo. This was in 1887. There is evidence of a track constructed from the existing cemetery access road to the reserve up the south facing slope. The wall has recently been repaired by the Kiama Rotary Club. It is unusual because of the circular shape; it is worthy of preservation and being drawn to the attention of people visiting the reserve.

1.5.3 Native Vegetation

A remnant area of littoral rainforest covers approximately 1.3ha on the south facing slope of the hill. Approximately half of this is located on the reserve; the remainder is located on the adjoining land owned by the RTA and an unformed section of Hutchinson Street. A detailed description of the vegetation is provided in the vegetation survey completed by Ms.D. Black and included in Appendix 1. The remnant includes the Threatened Species, *Zieria granulata* as well as Flintwood (*Scolopia braunii*), Muttonwood (*Rapanea variabilis*), Black Apple (*Planchonella australis*), Whalebone (*Streblus brunonianus*), Red-fruited olive plum (*Cassine australis*), Native Quince (*Alectryon subcinereus*) and Sassafras (*Doryphora sassafras*). These species are similar to those that typify headland littoral rainforest in the few other locations in which it remains in Kiama Municipality. Isolated specimens of *Zieria granulata* are also present around the corral. The soils are well structured krasnozems derived from the underlying geology or stony lithosols on the steeper slopes; the latter are prone to erosion. Therefore, retention of vegetation on the steeper slopes is important in preventing erosion.

Approximately 50 % of the site, the area proposed to be categorised as park, is covered by kikuyu and pockets of lantana. A number of coral trees are present in the northernmost corner of the reserve.

1.5.4 Aesthetic and Recreational Value

The area provides opportunities for passive recreation, bird watching and enjoyment of the open space and appreciation of the magnificent views. The reserve also has a purely intrinsic value - worth derived simply from its existence as open space and the remnant Subtropical Rainforest present on the site.

1.6 Preparation of a Plan of Management

The process undertaken in the preparation of a Plan of Management for Council owned Community Land must follow the steps and requirements set down under the Local Government Act 1993. These steps are:

- Prepare the draft plan.
- Council must give public notice of the existence of the draft plan.
- The draft plan is to be exhibited for at least twenty-eight (28) days and a submission period of at least 42 days during which submissions may be made to Council.
- Hold a public hearing in respect of the plan if the proposed plan categorises Community Land under Section 36 (4) or (5) of the Local Government Amendment Act 1998.
- Consider all submissions made to the public hearing and any written submissions made to Council on the draft plan during the period of public exhibition. Council may then decide to amend the draft plan or to adopt the plan without amendment.
- Should the draft plan require significant amendment then the public consultation process (exhibition and submission period) must be re-held. Another public hearing is not required.
- Subject to no further amendments being required, the Plan of Management is then formally adopted by Council.

1.7 Community Participation

Community consultation is a fundamental source of information necessary to provide the most efficient and effective Plan of Management for Community Land.

Such participation creates the opportunity for interested parties to become actively involved in the development of a plan which reflects the needs, opinions and priorities of the people most affected by the plan itself.

The Rotary Club of Kiama have expressed a desire to maintain the area and to carry out some improvements on the site. The draft plan has been discussed with representatives of the Club. Consultation with the broader community and the National Parks and Wildlife Service (DEC) regarding the Threatened Specie will be undertaken during exhibition of the Draft Plan of Management.

2.0 PHYSICAL FEATURES AND CONDITION OF THE LAND AND STRUCTURES AND USES

2.1 General Biophysical Conditions

The reserve is located on a prominent hillside immediately west of Bombo Beach.

The highest point on the reserve is approximately 40metres above sea level; the reserve slopes steeply on its southern side to the Kiama Cemetery. It is adjoined on the eastern side by a section of land owned by the RTA that separates the reserve from the top of the road cutting. The southern slope is covered with remnant headland littoral rainforest infested with Lantana and African Olive. This extends onto the adjoining RTA land on the east and to a lesser extent, onto the unformed part of Hutchinson Street on the west. Details of this vegetation are provided in the Vegetation Survey by D. Black in Appendix 1.

The remainder of the site is generally covered with kikuyu and pockets of lantana.

Soils consist of shallow reddish brown sandy clay loam overlying the bedrock – Kiama Sandstone and Bumbo latite.

2.2 Existing Facilities

There are no facilities on the reserve at present. Vehicles can be parked at the site and pedestrian access is available from Hutchinson Street.

2.3 Existing Uses

The site is presently mainly unused by the community, although the Kiama Rotary Club have recently undertaken some maintenance mowing and restoration of the dry stone walls on the site.



Part of Dry Stone Wall Corral

3.0 COUNCIL'S OVERALL PLANNING FRAMEWORK

Council has defined a number of fundamental or corporate goals that are to be addressed in any future development of their parks and recreation areas. These goals form an overarching framework for all the more detailed objectives and strategies in this plan.

3.1 Aim of this Plan of Management

To develop a Plan of Management for the reserve to comply with the Local Government Act 1993 and the Local Government Amendment Act 1998 and which is consistent with Council's corporate goals and policies. The plan should also achieve a balanced, responsible and ecologically sustainable use of the land and ensure that it addresses the needs of both the local community groups and the broader community.

3.2 Corporate Goals

Council has developed a Strategic Plan comprising a long term vision for the Municipality supported by a number of strategic goals. The goals and objectives of particular relevance to this plan are as follows:

Sustainable Environment

Kiama Council's goal is that Kiama will have high quality natural, rural, town and village environments and landscapes sustained and enhanced for the present and for the future. Kiama Council will:

- Protect, enhance, manage and monitor the area's landscapes, places of heritage significance and natural environments;
- Control and plan development of our built environment for the wellbeing of the community;
- Manage and reduce the environmental impacts of all activities on air, water and land systems;
- Promote environmental awareness through educational programs;
- Provide leadership by demonstrating environmental excellence in all Council activities and policies.

Quality Facilities, Services and Infrastructure

Kiama Council's goal is to plan and manage its facilities, services and infrastructure so that they are continuously improved to be the best Council can provide within its available resources.

Kiama Council will provide and maintain services, facilities and infrastructure which are:

- Responsive to the diverse needs of the community;
- Accessible to users;
- Affordable within the Council's resources;
- Planned in a local and regional context.

Community Cohesion and Wellbeing

Kiama Council's goal is that the community will have an enhanced quality of life and that it will have promoted access, equity and social justice. Kiama Council will:

- Contribute to the health, safety and well being of the community;
- Involve the community and relevant stakeholders to plan, develop and facilitate access to services and resources;
- Promote awareness and understanding of cultural diversity;
- Recognise and support the value of cultural heritage;
- Value and promote creativity in the community.

4.0 COUNCIL POLICIES

Council has developed a number of general policies in the planning, management and maintenance of community land and Council reserves. Any strategies and actions proposed in this plan must be consistent with these policies.

4.1 Planning

Council will:

- Consider and attempt to balance the need for community recreation facilities with the impact development of such sites will have on local residents;
- Attempt to balance the provision of active and passive recreational facilities;
- Consider access to recreational facilities for young families and disabled users;
- Integrate access for disabled users in plans for future developments;
- Limit facilities on the site to those facilities which are compatible with the objectives of the Plan of Management;
- Attempt to provide safe pedestrian links and corridors between components of the open space network; and
- Have regard to Council's Environmental Goals and Biodiversity Policy when approving works on the site.

4.2 Management

Council will:

- Reserve the right to control the use of, and access to, Community Land;
- Create opportunities for community consultation and participation in the planning and development of Community Land; and
- Facilitate a system whereby enquires and complaints from the public can be efficiently and promptly dealt with.

4.3 Development of New, and Improvement of Existing, Facilities

Council approval is required prior to any development or improvement made to Community Land.

All major developments and improvements to be funded (solely or partially) by Council will be approved through inclusion in Council's Capital Works Schedule.

Works included in Council's Capital Works Program will be funded from income generated from Council's entrepreneurial activities, general revenue, Section 94 contributions and external funds in the form of Government grants. If the anticipated yields from these sources are not achieved it will result in the proposed works being delayed to later dates.

Council will encourage community assistance in the development of new facilities as well as maintenance of existing facilities through the co-operation and assistance of local groups.

4.4 Weed Control

The control of noxious weeds in general shall remain with the Illawarra Noxious Weed Authority. Council will carry out the control of nuisance weeds or environmental weeds. This will involve the use of herbicides or mechanical methods as well as minimum disturbance methods where appropriate.

4.5 Maintenance

Council will:

- Carry out maintenance and inspection as detailed in the Strategic Asset Maintenance Program for Parks and Reserves, Recreational Facilities, Foreshores, Boat Ramps, Disused Quarries and Cemeteries;
- Review maintenance service levels outlined in the Strategic Asset Maintenance Program for Parks and Reserves to ensure that facilities are maintained efficiently and within budget constraints;
- Encourage community groups to assist with maintenance;
- Ensure the efficient and conservative use of water, pesticides, herbicides and fertilisers on Council ground; and
- Carry out bush regeneration in accordance with standard accepted practices for bush regeneration.

4.6 Fees

Council applies fees for the use of Council reserves. An application must be lodged with Council prior to the event. All applicable fees must be paid prior to the hire/use of the reserve.

The fees associated with the hiring of Council reserves for major events, concerts, functions etc, are detailed in Council's Fees and Charges Schedule. Council's fee structure is reviewed on an annual basis.

4.7 Uses and Activities Requiring Council Approval

- All activities defined in Part D Section 68 of the Local Government Act 1993;
- Fetes/cultural activities;
- Exhibition/displays;
- Commercial photographic/film shoots;
- Concerts/performances;
- Large, formal gatherings; and
- Recreational and environmental facilities under the care, control or management of Council, rehabilitation of wetland systems, essential public works.

4.8 Prohibited Activities

Activities in the view of Council which may be damaging, disruptive and/or may represent a danger to either users of the reserve, neighbouring properties or the site, or which are not consistent with the 6(a) zoning.

4.9 Sale of Alcohol

Council must approve the sale of alcohol on Council property. Before approval is sought, a Functions Licence must be obtained from the NSW Police Department. This licence must be produced in every instance where an application involving the sale of alcohol on Council property is sought.

Applications must meet the requirements set down by the Licensing Board, Courts of NSW and Council.

4.10 Signage

Council uses signs to regulate the activities carried out on Community Land and to provide educational information so as to provide a safe and enjoyable place for passive and active recreational pursuits.

Whilst signs are a crucial source of information, they have a significant impact on the aesthetics of a reserve. All signs must meet a design standard and be approved by the Manager of Environment. All signs must be sympathetic to their environment in their design, construction and location.

All Council signs erected under Section 632 of the Local Government Act and as part of the Strategic Asset Management Program (SAMP), plus reserve name signs and traffic and safety signs, are permissible. Council must approve all other signs before erection.

4.11 Easements

Council reserves the right to grant easements as required for utilities and access, bearing in mind the impact of such easements on the site.

4.12 Leases, Licences and Other Estates

Council does not propose to grant any leases, licences or other estates (apart from easements as earlier noted) in respect of the Community Land except for those leases, licences and other estates permitted by Clause 25 of the Local Government (General) Regulation 1999.

4.13 Animals on Reserves

Existing Acts and Regulations regarding the prohibition of animals such as dogs and horses on Community Land including a public place or part thereof, without prior Council approval, must be enforced to keep these areas free of animals and excrement.

Council will enforce the Companion Animals Act 1998 and Regulations or equivalent which states that the owner of a dog found in a prohibited place is in breach of the law. In general, without prior approval of Council, a dog is not permitted in the following places (whether or not they are leashed or otherwise controlled):

- Within 10 metres of any playing apparatus provided or part for the use of children;
- Within 10 metres of any apparatus provided for the preparation or consumption of food by humans;
- Public bathing areas including a beach that Council has ordered that dogs are prohibited and upon which there are signs notifying the Council order of prohibition;
- Any areas provided or set apart for public recreation or the playing of games that Council has ordered that dogs are prohibited and upon which there are signs notifying the Council order of prohibition.

4.14 Public Safety

As recommended by the LOGOV Risk Management Services report, Council has developed a Strategic Asset Maintenance Program (SAMP) for all its assets. SAMP has been developed to create and maintain all assets under the care, custody, control and management of Council to a safe standard and in a safe condition which is in fact the highest standard and condition that Council can reasonably afford in all of its circumstances and having regard to financial economic, environmental, aesthetic, social or political factors or constraints.

5.0 MANAGEMENT OBJECTIVES, ISSUES AND STRATEGIES

5.1 Management Objectives

5.1.1 Core objectives

The core objectives are defined in Section 36 (1) of the Local Government Act 1993; these vary according to the categorisation of the land.

For Management Unit 1, the core objectives for the management of community land categorised as “Natural Area – Bushland” are:

- (a) To conserve biodiversity and maintain ecosystem function in respect of the land, or the feature or habitat in respect of which the land is categorised as a natural area;
- (b) To maintain the land, or that feature or habitat, in its natural state and setting;
- (c) To provide for the restoration and regeneration of the land;
- (d) To provide for community use of and access to the land in such a manner as will minimise and mitigate any disturbance caused by human intrusion;
- (e) To assist in and facilitate the implementation of any provisions restricting the use and management of the land that are set out in a recovery plan or threat abatement plan prepared under the Threatened Species Conservation Act 1995 or the Fisheries Management Act 1994;
- (f) 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;
- (g) To protect the aesthetic, heritage, recreational, educational and scientific values of the land;
- (h) 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;
- (i) To restore degraded bushland;
- (j) To protect existing landforms such as natural drainage lines, watercourses and foreshores;
- (k) To retain bushland in parcels of a size and configuration that will enable the existing plant and animal communities to survive in the long term; and
- (l) To protect bushland as a natural stabiliser of the soil surface.

For Management Unit 2, the core objectives for management of community land categorised as a Park are:

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

Council's corporate goals are also relevant to the management of this reserve.

5.2 Major Issues

5.2.1 Bushland Conservation

As noted in Section 2.1, the part of the reserve on the southern slope and categorised as "Natural Area" contains a remnant pocket of headland littoral rainforest. There are only a few other locations in the Municipality where this community still exists. Black noted that "*The diversity of trees present includes Flintwood (Scolopia braunii), Muttonwood (Rapania variabilis), Black Apple (Planchonella australis), Whalebone (Streblus brunonianus), Red-fruited olive plum (Cassine australis), Native Quince (Alectryon subcinereus) and Sassafras (Doryphora sassafras). These species are similar to those that typify headland littoral rainforest in the few other locations in which it remains in Kiama municipality. Native holly (Alchornea ilicifolia), was identified near the top of the slope. This shrub occurs in other headland littoral rainforest on latitude (eg in Killalea SRA), but is seldom seen elsewhere in the Illawarra.*

An area near the base of the slope, adjacent to the cemetery, has been previously cleared and planted with Acacia longifolia. This area contains a flat bench, possibly an old road, edged by a heritage stone wall. It is now thickly covered with Lantana and contains little of the original native vegetation."

In particular, a number of *Zieria granulata* plants are present on the edge of this existing vegetation. The presence of this plant and the abundance of species requires that the area be managed in accordance with the objectives as set out in Section 5.1.1. Generally, this should be aimed at the conservation and progressive regeneration of the endemic native vegetation. This must be based on accepted bush regeneration techniques which should take into account the variable nature of the vegetation as identified in Black's report, the species identified on site by Black, and the resources required to progressively implement a rehabilitation plan. Any clearing of remnant rainforest would not be permitted in this management unit. Priority needs to be given to work along the northern edge of the existing vegetation adjoining the corral where there are a number of *Zieria* plants. Work here should be aimed at preserving these plants and providing a buffer planting to link this with the *Zieria* plants on the outside of the corral wall. This would also act as a windbreak to the south. This is shown in *Figure 4*. A list of plants suitable for use in Unit 1 is included in Appendix 2; only species listed there are to be planted in this unit.

Planting in the Natural Bushland Unit as shown in *Figure 4* must not interfere with views of Blowhole Point when viewed from the centre of the corral.

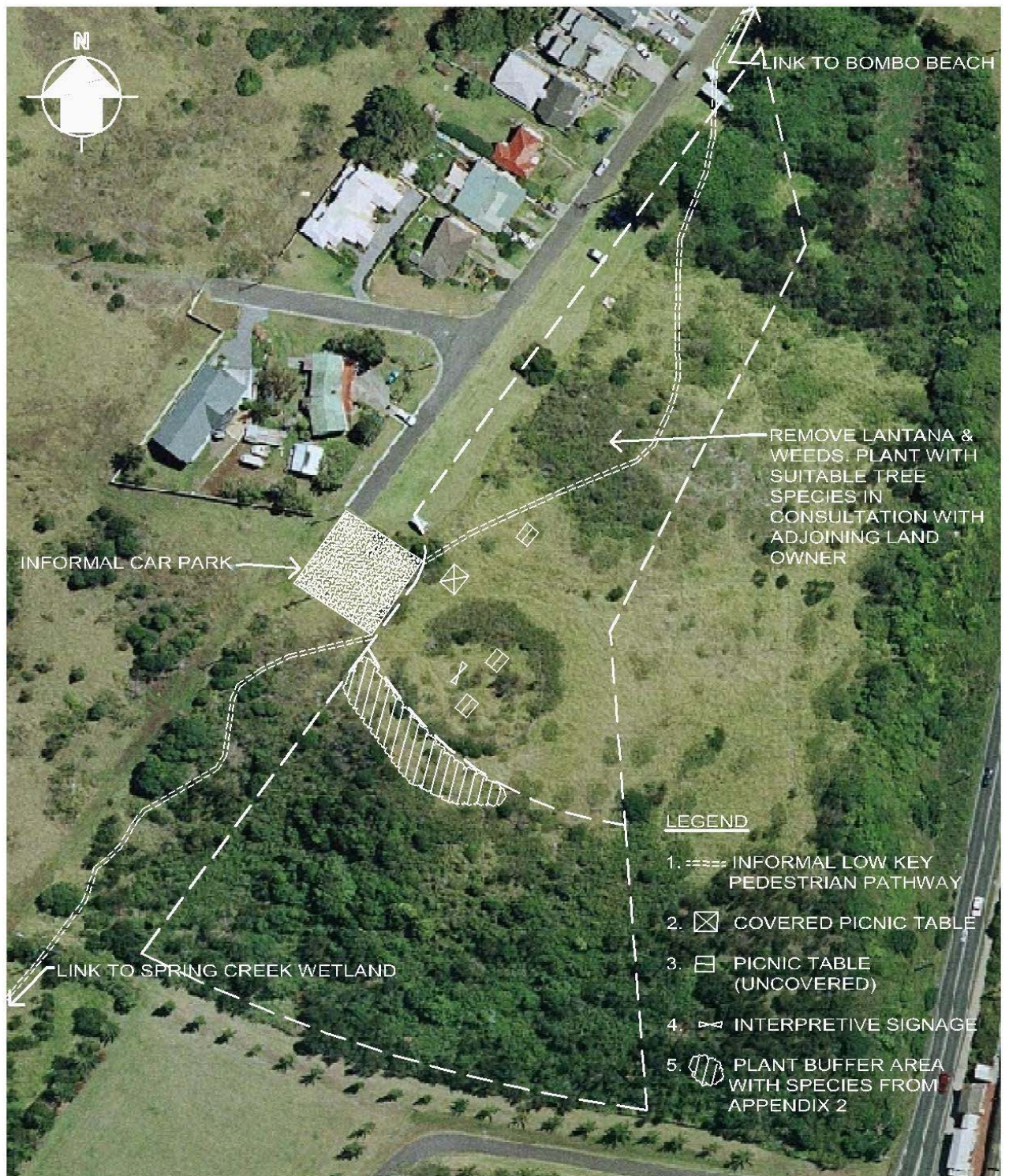


Figure 4

5.2.2 Access

Vehicle and pedestrian access is available from Hutchinson Street. At present the site is open to vehicles. Vehicle access should not be permitted on the reserve except for authorised purposes. Therefore an informal carpark should be provided off the end of the existing sealed section of Hutchinson Street as shown in *Figure 4*. This could be sealed in the future if the use of the area warranted sealing it.

The site adjoins other public land to the south, namely the Kiama Cemetery and Spring Creek Wetlands. A pedestrian link to those areas would be desirable as these areas link back to pathways leading into Kiama. This could be provided by establishing a low key unsealed pedestrian pathway between the reserve and Riddell Street adjacent to the cemetery and Spring Creek. Disturbance to the soil must be kept to an absolute minimum as any disturbance will cause erosion and increase maintenance costs. This needs to be located so that it does not impact on the cemetery or the remnant vegetation and provides as easy access as possible. The pathway could be located within the Hutchinson Street road reserve where the impacts will be minimal. (*See Figure 4*). The exact location is to be determined on site taking into account these factors.

5.2.3 Development of the Park Unit

As noted previously, this part of the reserve is open grassed area covered with kikuyu and some scattered trees in the northern corner. It also contains the dry stonewall corral. There are impressive views from this part of the site. It is ideally suited for passive recreational use such as picnicking and viewing. As noted in Section 5.2.2, vehicle access should be limited to authorised vehicles only. As noted previously, the Rotary Club of Kiama has recently undertaken work to restore the dry stone wall corral and the wall fronting Hutchinson Street. The Club has also assisted in removing weeds from part of the reserve.

Because of its location at the end of Hutchinson Street, it is unlikely that it will be used by large numbers of people. The facilities should not detract from the open vistas available from the site or clutter the site. In that regard, it is proposed that four picnic tables be provided in the locations shown in *Figure 4*. The provision of additional picnic tables or shelters can be reviewed if the demand for these facilities warrants such a review. That review, however, should take into account the need and careful sensitive siting of these facilities of that they do not detract from the open vistas or clutter the site.

There are a number of *Zieria granulata* plants located around the corral wall. The plants on the southern side would benefit by planting additional native species to create a buffer or windbreak to the south as noted in 5.2.1 Those within the corral would benefit by creation of a weed free area around each group of plants. This is to encourage the natural regeneration of *Zieria granulata* plants around these places.

The use of herbicide within those areas would not be allowed. Although these plants are outside the natural area unit, Council has an obligation to preserve and regenerate these plants. Any work undertaken around the plants must not compromise that obligation and Council would seek the co-operation of any volunteers, including the Rotary Club, in this.

On-going maintenance to the dry stone walls, removal of the coral trees and lantana and the erection of an interpretative sign would also be desirable.

Limited tree planting, as indicated in *Figure 4*, is recommended. This planting should take into account the view lines from the reserve.

6.0 ACTION PLAN

The following tables set out a number of actions required to implement the identified Management Strategies and Performance Targets for each Management Unit within the North Kiama Park. These actions are the means of achieving the objectives of the Plan of Management. Unless otherwise noted, the responsibility for the implementation of these actions is with the Director of Engineering and Works.

A clear indication of how the completion of the aims will be assessed is also provided in the tables under Performance Evaluation.

Management Unit 1: Natural Area - Bushland

Management Objectives	Management Strategies Performance Targets	Actions (means of achieving targets)	Performance Evaluation (how they will be assessed)
Provide for restoration and regeneration of the land.	<ul style="list-style-type: none"> Encourage the regeneration of indigenous native plants and habitat areas on the site. 	<ul style="list-style-type: none"> The erection of an interpretative sign. Progressively undertake a bush regeneration program. 	<ul style="list-style-type: none"> Conservation and regeneration of the native plants in this 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.	<ul style="list-style-type: none"> Reduce the impact of domestic animals. 	<ul style="list-style-type: none"> Enforce the Companion Animals Act. 	<ul style="list-style-type: none"> Penalties issued for infringements. Erection of appropriate signage.
To maintain the land, or that feature or habitat, in its natural state and setting.	<ul style="list-style-type: none"> Maintain and improve vegetation and habitat. Ensure rehabilitation utilises native species endemic to the site. 	<ul style="list-style-type: none"> The erection of an interpretative sign. Produce information literature about the value of the native vegetation on the site. Use only species listed in Appendix 2 when undertaking rehabilitation work in Unit 1. 	<ul style="list-style-type: none"> Conservation and regeneration of the native plants in this area. Successful establishment of endemic species.
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.	<ul style="list-style-type: none"> Limit vehicle and pedestrian access to the bushland unit. 	<ul style="list-style-type: none"> Provide suitable car barriers at all entry points to the reserve. Carry out Council Ranger patrols of the reserve. 	<ul style="list-style-type: none"> Authorised vehicles only in the area. Penalties issued for infringements.

Management Objectives	Management Strategies Performance Targets	Actions (means of achieving targets)	Performance Evaluation (how they will be assessed)
<p>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.</p>	<ul style="list-style-type: none"> • Work with the NPWS in the development of recovery plans. 	<ul style="list-style-type: none"> • Incorporate provisions of the recovery plan for <i>Zieria granulata</i> into this Management Plan. • Establish buffer planting as shown in <i>Figure 4</i>. 	<ul style="list-style-type: none"> • Implementation of provisions of recovery plan. • Maintenance and regeneration of <i>Zieria granulata</i> around corral. • Increase in occurrence of Threatened Species <i>Zieria granulata</i>.
<p>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.</p>	<ul style="list-style-type: none"> • Encourage adjoining property owners to participate in the conservation of the area and to plant native species endemic to the site within their own properties. 	<ul style="list-style-type: none"> • Develop information literature about the value of the native vegetation on the site. 	<ul style="list-style-type: none"> • Increased appreciation of the ecological values of the site.
<p>To protect the aesthetic, heritage, recreational, educational and scientific values of the land.</p>	<ul style="list-style-type: none"> • Facilitate the provision of information on the general value of the bushland area to the public. 	<ul style="list-style-type: none"> • Develop interpretative signage and literature about the value of the site. 	<ul style="list-style-type: none"> • Provision of signage and distribution of literature.

Management Objectives	Management Strategies Performance Targets	Actions (means of achieving targets)	Performance Evaluation (how they will be assessed)
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.	<ul style="list-style-type: none"> Ensure that any development in the Natural Area Bushland Unit is consistent with the management of the unit for the conservation and regeneration of the Littoral Rainforest. 	<ul style="list-style-type: none"> Do not permit any further removal of the remnant Subtropical Rainforest or other native trees endemic to the site. Use only species listed in Appendix 2 when undertaking rehabilitation work in Unit 1 	<ul style="list-style-type: none"> Conservation of the remnant Littoral Rainforest or other native trees endemic to the site. Progressive implementation of rehabilitation works.
To restore degraded bushland.	<ul style="list-style-type: none"> Enhance the quality of the vegetation on the site. 	<ul style="list-style-type: none"> Use only species listed in Appendix 2 when undertaking rehabilitation work in Unit 1. 	<ul style="list-style-type: none"> Progressive implementation of rehabilitation works.
To protect existing landforms such as natural drainage lines, watercourses and foreshores.	<ul style="list-style-type: none"> Maintain the quality of the landforms. 	<ul style="list-style-type: none"> Prohibit changes to the landform. 	<ul style="list-style-type: none"> Maintenance of landform.
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.	<ul style="list-style-type: none"> Seek to increase the area of the Bushland Unit 	<ul style="list-style-type: none"> Manage the unformed part of Hutchinson Street in sympathy with the adjoining Bushland Unit. 	<ul style="list-style-type: none"> Eradication of weeds and regeneration of native species.
To protect bushland as a natural stabiliser of the soil surface.	<ul style="list-style-type: none"> Prevent the removal of trees. 	<ul style="list-style-type: none"> Ensure Council's Tree Preservation Order is applied to the reserve. 	<ul style="list-style-type: none"> Minimisation of soil erosion.

Management Unit 2 - Park

Management Objectives	Management Strategies Performance Targets	Actions (means of achieving targets)	Performance Evaluation (how they will be assessed)
To encourage, promote and facilitate recreational, cultural, social and educational pastimes and activities.	<ul style="list-style-type: none"> • Provide facilities suitable for passive recreation. • Improve access to the reserve. 	<ul style="list-style-type: none"> • Provide and maintain picnic facilities as per Section 5.2.4 and <i>Figure 4</i>. • Provide interpretative signage on the reserve. • Provide pedestrian pathways linking to Spring Creek and Bombo Beach. 	<ul style="list-style-type: none"> • Provision of picnic facilities. • Provision of signage. • Provision of pathways.
Provide for passive recreational activities or pastimes and for the casual playing of games.	<ul style="list-style-type: none"> • Provide facilities suitable for passive recreation only. • Prevent vehicle access to the Community land. 	<ul style="list-style-type: none"> • Provide and maintain picnic facilities as per Section 5.2.4 and <i>Figure 4</i>. • Maintain the area in accordance with Council's Strategic Asset Management Policy (SAMP). • Provide and maintain a carpark in Hutchinson Street as per Section 5.2.2. 	<ul style="list-style-type: none"> • Provision of picnic facilities • Maintenance of facilities in compliance with the SAMP. • Authorised vehicles only in community land. .

7.0 REFERENCES

Kiama Municipal Council Kiama Council Management Plan, 2006/2009

Kiama Municipal Council Local Environmental Plan, 1996

Department of Local Government Practice Note No1, Public Land Management, May 2000

Department of Environment and Conservation (NPW) Zieria granulata (Illawarra Zieria) Recovery Plan January 2005

APPENDIX 1

North Kiama Park Vegetation Survey D Black - May 2006

North Kiama Park

This park is situated between Hutchinson Street, the Princes Highway road reserve and Bombo Cemetery. It is an area of latite with a bouldery, south-facing slope and a grassy north-facing slope. A rock wall separates it from Hutchinson Street and from an unformed southern section of Hutchinson Street to the south (overlooking Spring Creek wetland). There is a circular rock wall at the top of the site. Parts of the area are open and grassed, whereas others contain remnants of the original vegetation.

Area 1: Top: *Zieria granulata*

This area is cleared and grassed. The circular heritage rock wall is situated in the middle of this cleared area. In the area inside and around the corral wall, there are approximately 20 mature to senescent, wind-affected *Zieria granulata* bushes.¹ The site slopes gently to the south and south-east for approximately 10-12 metres. There are a further 6 *Zierias* about 10-12 metres from the rock corral. These are old. No young bushes occur and there appears to be no regeneration. One other bush occurs to the east of this clump, separated by about fifteen metres of Lantana. There are no further *Zieria granulata* downslope to the south beyond these 7 bushes.

Area 2: South Slope: Headland Littoral Rainforest

This area extends from beyond the *Zieria granulata* bushes down a steep rocky slope to the Bombo Cemetery. The entire slope is heavily infested with Lantana (*Lantana camara*) and African Olive (*Olea africana*).

It nevertheless contains a significant remnant of headland littoral rainforest². Other examples of this community in the Kiama Municipality are at Kendall's Beach (S. side, small area of headland) and on Gerroa Headland (in private property). If regeneration works were undertaken, this could be restored to the best example of this vegetation community in Kiama.

The diversity of trees present includes Flintwood (*Scolopia braunii*), Muttonwood (*Rapanea variabilis*), Black Apple (*Planchonella australis*), Whalebone (*Streblus brunonianus*), Red-fruited olive plum (*Cassine australis*), Native Quince (*Alectryon subcinereus*) and Sassafras (*Doryphora sassafras*). These species are similar to those that typify headland littoral rainforest in the few other locations in which it remains in Kiama Municipality. Native holly (*Alchornea ilicifolia*) was identified near the top of the slope. This shrub occurs in other headland littoral rainforest on latite (eg in Killalea SRA), but is seldom seen elsewhere in the Illawarra.

¹ *Zieria granulata* is scheduled under the TSC Act 1995 as an endangered species and is the subject of a Recovery Plan.

² . This vegetation community is scheduled under the TSC Act 1995 as an endangered plant community.

An area near the base of the slope, adjacent to the cemetery, has been previously cleared and planted with *Acacia longifolia*. This area contains a flat bench, possibly an old road, edged by a heritage stone wall. It is now thickly covered with Lantana and contains little of the original native vegetation.

Area 3: Unformed Section of Hutchinson Street South to Bombo Cemetery

This area is heavily infested with nearly impenetrable Lantana and scattered African olives. There are very occasional natives close to the rock wall on the eastern side of the road reserve. Species include Whalebone (*Streblus brunonianus*), Guioa (*Guioa semiglauc*), Native Daphne (*Pittosporum undulatum*), Flintwood (*Scolopia braunii*) and Orangethorn (*Citriobatus pauciflorus*). A single clump of *Zieria granulata* occurs at the top of the road reserve adjacent to the rock wall.

Area 4: Alongside Rock Wall Adjacent to Formed Section of Hutchinson Street and Adjacent North-Facing Slope

There are a few scattered natives along this rock wall, but none of these are scheduled or uncommon. They include Whalebone (*Streblus brunonianus*), Cheese tree (*Glochidion ferdinandi*), Native olive (*Notelaea venosa*), Black wattle (*Acacia mearnsii*), Brown Kurrajong (*Commersonia fraseri*), Native orangethorn (*Citriobatus pauciflorus*) and Golden guinea flower (*Hibbertia scandens*).

The adjacent north-facing slope is all but devoid of native vegetation, being covered with kikuyu and dense Lantana. Weeds present include Fireweed (*Senecio madagascariensis*), Veiny Verbena (*Verbena rigida*), Cobbler's pegs (*Bidens pilosa*) and Scotch thistle (*Onopordium acanthium*). There are some planted Coast wattle (*Acacia longifolia* var. *sophorae*), some latite exposures near the top with Rock fern (*Cheilanthes sieberi*) and Saloop (*Einadia hastata*), a groundcover saltbush.

APPENDIX 1

Plant Species	Common Name	Location	Abundance
Trees			
<i>Acacia sophorae</i>	Coast wattle	lower 2	planted?
<i>Acmena smithii</i>	Lilli Pilli	2	occasional
<i>Alectryon subcinereus</i>	Native quince	2	occasional
<i>Cassine australis</i>	Red fruited olive plum	2	frequent
<i>Clerodendrum tomentosum</i>	Native Clerodendrum	2	frequent
<i>Cryptocarya microneura</i>	Murrogun	lower 2	occasional
<i>Doryphora sassafras</i>	Sassafras	lower 2	moderately frequent
<i>Duboisia myoporoides</i>	Corkwood	2	occasional
<i>Eupomatia laurina</i>	Bolwarra	2	moderately frequent
<i>Glochidion ferdinandi</i>	Cheese tree	4	occasional
<i>Guioa semiglauc</i>	Guioa	2/3	occasional
<i>Melicope micrococca</i>	White Euodia	2	frequent
<i>Notelaea venosa</i>	Native olive	2/4	frequent
<i>Pittosporum undulatum</i>	Native Daphne	2	frequent
<i>Planchonella australis</i>	Black apple	2	occasional
<i>Rapanea variabilis</i>	Muttonwood	2	frequent
<i>Scolopia braunii</i>	Flintwood	2	very frequent
<i>Streblus brunonianus</i>	Whalebone	all	frequent
Shrubs			
<i>Alchornea ilicifolia</i>	Native holly	2	occasional
<i>Citriobatus pauciflorus</i>	Orangethorn	2/4	moderately frequent
<i>Commersonia fraseri</i>	Brown kurradjong	4	occasional
<i>Crinum pedunculatum</i>	Crinum lily	2	occasional
<i>Maclura cochinchinensis</i>	Cockspur thorn	2	frequent
<i>Phyllanthus gastroemii</i>	Phyllanthus	2	occasional
<i>Pittosporum revolutum</i>	Hairy Pittosporum	2	occasional
<i>Wilkiea huegelliana</i>	Veiny Wilkiea	2	occasional
<i>Zieria granulata</i>	Kiama Zieria	1/upper 2/3/4	occasional
Groundcovers/Ferns/Vines			
<i>Adiantum hispidulum</i>	Rough maidenhair fern	2	occasional
<i>Aphanopetalum resinsum</i>	Gum vine	2/4	frequent
<i>Arthropteris tenella</i>	A fern	2	frequent
<i>Asplenium flabellifolium</i>	Necklace fern	2	frequent
<i>Carex longibrachiata</i>		2	occasional
<i>Cheilanthes sieberi</i>	Rock fern	1	frequent
<i>Desmodium varains</i>	Tick trefoil	2	occasional
<i>Dichondra repens</i>	Kidney weed	2	moderately common
<i>Doodia aspera</i>	Rasp fern	2	moderately common
<i>Eragrostis leptostachya</i>	Paddock lovegrass	1	frequent
<i>Eustrephus latifolius</i>	Wombat berry	2	occasional
<i>Gahnia melanocarpa</i>	Black saw sedge	2	occasional
<i>Geitonoplesium cymosum</i>	Pastel flower	2	occasional
<i>Geitonoplesium cymosum</i>	Scrambling lily	2	occasional
<i>Geranium homeanum</i>	Geranium	2	common near base
<i>Gymnostachys anceps</i>	Settler's flax	2	moderately common
<i>Hibbertia scandens</i>	Golden guinea flower	2/3/4	occasional
<i>Lastraeopsis microsora</i>	a ground fern	2	occasional
<i>Legenophora moorei</i>	Roundleaf vine	2	moderately common
<i>Malaisia scandens</i>	Burny vine	2	occasional

Plant Species	Common Name	Location	Abundance
Groundcovers/Ferns/Vines continued			
Marsdenia rostrata	Common milk vine	2	occasional
Microlaena stipoides	Weeping grass	2	some near base
Pandorea pandorana	Wonga wonga vine	2/ 3	occasional
Pellaea falcata	Fishbone fern	2	frequent
Plectranthus parviflorus	Plectranthus	2	occasional
Pteris tremula	Tender Brake	2	occasional
Rubus parvifolius	Native raspberry	2	occasional
Sarcopetalum harveyanum	Pearl vine	2	moderately common
Smilax australis	Lawyer vine	2	moderately common
Stephania japonica	Snake vine	2	occasional
Tylophora barbata	Tylophora	2	moderately frequent
Viola hederacea	Native violet	2	occasional
Weeds			
Cinnamomum camphora	Camphor laurel	2	occasional
Delairea odorata	Cape ivy	2	moderately frequent
Asparagus fern		2	occasional
Grevillea robusta	Silky oak	2	1 only
Lantana camara	Lantana	all	very frequent
Ligustrum lucidum	Large leaved privet	2	occasional
Ochna serrulata	Ochna	2	frequent
Olea africana	African olive	all	very frequent
Verbena rigida	Veiny verbena	1,2	frequent

Appendix 2

Species List for Management Unit 1

Plant Species	Common Name	Suitable Areas as per Appendix 1
Trees		
Acacia mearnsii	Black wattle	all (in mix)
Acmena smithii	Lilli Pilli	all
(Alectryon subcinereus	Native quince) ³	2,3,
Allocasuarina verticillata	Drooping She- oak	all
(Cassine australis	Red fruited olive plum)	all
(Clerodendrum tomentosum	Native Clerodendrum)	all
Cryptocarya microneura	Murrogun	2,3,
(Doryphora sassafras	Sassafras)	2,3
(Duboisia myoporoides	Corkwood)	all
(Eupomatia laurina	Bolwarra)	2,3
Glochidion ferdinandi	Cheese tree	2,3,
Guioa semiglauca	Guioa	all
(Melicope micrococca	White Euodia)	2,3,
Notelaea venosa	Native olive	all
Pittosporum undulatum	Native Daphne	all
(Planchonella australis	Black apple)	2,3,
(Rapanea variabilis	Muttonwood)	2,3,
(Scolopia braunii	Flintwood)	all
(Streblus brunonianus	Whalebone)	all
Shrubs		
(Alchornea ilicifolia	Native holly)	1
Citriobatus pauciflorus	Orangethorn	all
Commersonia fraseri	Brown kurrajong	all (in mix)
Pittosporum revolutum	Hairy Pittosporum	all
(Wilkiea huegelliana	Veiny Wilkiea)	all
(Zieria granulata	Kiama Zieria)	1/upper2/3/
Groundcovers/Ferns/Vines		
(Doodia aspera	Rasp fern) ⁴	all
Hibbertia scandens	Golden guinea flower	all
Pandorea pandorana	Wonga wonga vine	2,3
(Pellaea falcata	Fishbone fern) ²	2,3
(Pteris tremula	Tender Brake) ²	2,3
Viola hederacea	Native violet	2,3
Additional Suitable Species found nearby		
Alphitonia excelsa	Red ash	2,
Banksia integrifolia	Coast Banksia	all
Melaleuca armillaris	Bracelet Honeymyrtle	1
Myoporum acuminatum	Boobialla	all
Lomandra longifolia	Mat rush	all
Kennedia rubicunda	Running postman	1,
Hardenbergia violacea	False sarsparilla	1,
(Themeda australis	Kangaroo grass) ⁵	1,
Cymbopogon refractus	Lemongrass	1,4
Poa poiformis	Coastal Poa	1

³ Brackets indicate species may not be available from nurseries

⁴ Transplant possible

⁵ Provenance only available by transplanting from nearby headlands