

The City of Newcastle

Plan of Management

Bushland

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1. INTRODUCTION

1.1 BACKGROUND

The Plan of Management is an important document providing clear guidelines for the effective management of land in the care and control of Council. The rationale for this Plan lies jointly in the statutory requirements of the Local Government Act 1993 and Newcastle City Council's desire to produce a consistent and effective set of guidelines governing the management of community land. This rationale was established as a key component of the Linking Plan and the Newcastle Green Spaces Strategy.

The Local Government Amendment Act 1998 commenced on 1 January 1999. This Plan has been amended to comply with the requirements of this Act.

Benefits of this Management Plan

The benefits of this Plan of Management are:

1. it identifies the key issues common to bushland and establishes directions for planning, resource management and maintenance for bushland;
2. it clarifies and establishes Council policy and direction, both to Council staff and to the community;
3. it provides the basis for assigning priorities in the programming of works and budgeting; and
4. it helps to inform the process of the preparation of site plans/landscape master plans for the reserves.

This Plan of Management (PoM) will be reviewed annually as part of the budget process to assess implementation and performance, and reviewed after five years to allow policy and planning issues to be updated by the Manager Parks & Recreation.

Bushland areas are managed and maintained by the Manager Parks & Recreation, City Services & Presentation.

1.2 THE LOCAL GOVERNMENT ACT

The Local Government Act 1993 provides Councils with a specific approach to the classification and management of community land. The Act requires that all community land in the care and control of Councils in New South Wales is subject to a plan of management.

Community land is defined by the Act as land that should be kept for the use of the general community, must not be sold or leased for more than 21 years, and may only be leased or licensed for more than five years by public notification.

This Plan of Management has been reviewed in accordance with the requirements of the Act as amended 1998. The community land covered by this Plan is categorised as a **Natural Area**, sub-category **Bushland**, in accordance with section 36J. It should be noted that in the interests of consistency, bushland that is Crown Land has been included in this Plan.

As part of the amendments to the Act in 1998, core objectives were established for community land categorised as bushland.

They are:

- “(a) to ensure the ongoing ecological viability of the land by protecting the ecological biodiversity and habitat values of the land, the flora and fauna (including invertebrates, fungi and micro organisms) of the land and other ecological values of the land;
- (b) to protect the aesthetic, heritage, recreational, educational and scientific values of the land;
- (c) to promote the management of the land in a manner that protects and enhances the values and quality of the land and facilitates public enjoyment of the land, and to implement measures directed at minimising or mitigating any disturbance caused by human intrusion;
- (d) to restore degraded bushland;
- (e) to protect existing landforms such as natural drainage lines, watercourses, and foreshores;
- (f) to retain bushland in parcels of a size and configuration that will enable the existing plant and animal communities to survive in the long term; and
- (g) to protect bushland as a natural stabiliser of the soil surface.”

1.3 NATURAL AREAS – BUSHLAND

Studies undertaken by Newcastle City Council have identified remnant bushland as an important component of the urban environment. The term bushland includes ridgelines and the unique co-existence of remnant habitats with some of Newcastle’s most popular places for recreation including Blackbutt Reserve and Jesmond Bushland. The areas identified as Bushland within Newcastle City Council area are shown in **Figure 1 Location Plan – Bushlands**.



The criteria used to qualify reserves as Bushland are: vegetation cover predominantly remnant bushland; often located over steeply sloping land; with their predominant use as a bushland reserve with a variety of low key/nature based or non-organised recreation activities taking place within the reserve, refer also to **APPENDIX 4**. Other PoMs eg Sportslands, may apply to areas which have remnant bushland and the management principles outlined in this report should apply to those other areas of remnant vegetation wherever practicable.

It will be important to balance the conservation of remnant habitats with development of recreation and leisure opportunities in Newcastle. The system of remnant pieces of bushland represents a substantial contribution to the retention of habitats within the city and has the potential to contribute to the value of regional habitats and biodiversity.

1.4 STRUCTURE OF THIS DOCUMENT

This Plan of Management provides a framework to guide Newcastle City Council's decision-making in relation to bushlands. The plan reflects the needs of:

- Council as managers of reserves
- Current and future visitors as users of the reserves
- Local residents as users and neighbours of reserves and
- The community of Newcastle as custodians of the environment.

Basis for Management

This section reflects the values and long term policies of Council in relation to bushland and has a currency of 10 plus years.

Management Strategies

This section contains the medium term strategies that Council will adopt to achieve its long term policies and has a currency of five years.

Implementation Plan

This section contains the actions that Council will implement in managing bushland, as well as methods to monitor the success of these actions and has a currency of about five years. It is accompanied by a five-year action plan that will be updated annually by the Manager Parks & Recreation.

1.5 COMMUNITY CONSULTATION

Community consultation is integral to the production of a plan of management. It provides Council with a sound understanding of relevant local issues from those who are familiar with and use the open space areas in question.

Public involvement and consultation generates an understanding of Council's land management aims, combats possible misunderstanding, and fosters support for Council's programs and policies. The consent and co-operation of the users of open space facilitates management and lends weight to the status of the plan of management.

The Local Government Act 1993 stipulates that plans of management are exhibited for a minimum of 28 days, and a further 14 days will be allowed for the receipt of submissions from the public. Council will consider all submissions relevant to the plan of management prior to finalisation and subsequent adoption of the plan. The summary of consultation is at **APPENDIX 3**.

2. BASIS FOR MANAGEMENT

In order to assess the values of the bushland to the City of Newcastle, it is appropriate to review them in the context of the provision of open space within the city. The basis for management is comprised of the following aspects:

- context of bushland in open space of Newcastle
- community values relating to bushland
- Newcastle City Council's goals for the bushland
- role of the bushland in achieving the goals for open space, and
- the core objectives for bushland as prescribed by the Act.

2.1 CONTEXT AND ROLE OF BUSHLAND IN THE OPEN SPACE OF NEWCASTLE

The total amount of open space in Newcastle is 1200 ha, (1999) of which bushland is a significant proportion at 35%.

There are just over 20 bushland reserves in the City. Approximately 85% of the bushland is located in the south east planning district and is generally remnant bushland over steeply sloping land where the predominant function is as a bushland reserve. The guidelines for determining what is categorised as bushland have been detailed at **APPENDIX 4**.

These reserves range from 0.5 ha to 156 ha in size, are usually geographically isolated from one another and almost completely surrounded by urban development. Urban bushland reserves included in this PoM are:

- Banksia Close Reserve
- Blackbutt Reserve (includes Richley Reserve)
- Braye Park
- Cambridge Drive Reserve
- Charlotte Street Reserve
- Claremont Avenue Park
- Dangerfield Drive
- George McGregor Park
- Invermore Close Reserve
- Jesmond Bushland (includes areas leased from Hunter Area Health Service)
- Kadina Close Reserve
- Kullaiba Reserve
- Lloyd Street Reserve
- Lookout Road Park North & South
- March Street Reserve
- Marconi Street Reserve
- Marshall Street Reserve
- Myamblah Crescent Reserve (part)
- Nereida Close Reserve
- Rialto Close Reserve
- Sheridan Avenue Park

Approximately three ha of the total Bushland in Newcastle is included in other PoM categories and should be managed accordingly.

The bushland in Newcastle tends to be associated with more established suburbs, however the remaining bushland sites in the western development area of Blue Gum Hills are coming under increasing development pressure. While much of the land is privately owned, new subdivision planning will need to take into account the natural bushland values. This approach is being given impetus by the need to implement legislation for the protection of threatened species, and the requirement of Council for more comprehensive information on environmental issues (flora and fauna), before private land can be developed.

2.2 COMMUNITY VALUES RELATING TO BUSHLAND

Council's awareness of these values was derived from the outcomes of the workshops held during the course of the preparation of Council's strategic open space documents, The Linking Plan and The Newcastle Recreation and Open Space Plan. These were, that open space in Newcastle contributes to the quality of life experienced in the city in it's:

- environmental value
- informal recreation value
- aesthetic quality
- linkages and connections
- accessibility
- resource and asset value
- organised sporting activity value
- tourism potential

Further input from the community was sought at the workshops held specifically to discuss bushland and the values are discussed below.

Historic Landscape Value

Remnant native flora and fauna can exemplify the natural history of an urban area. Habitats are the result of thousands of years of evolution and adaptation to the characteristics and conditions particular to an area. Collectively, urban bushland may constitute a repository for artefacts and relics illustrating occupation over many centuries.

Some reserves may have heritage values, which are either linked to indigenous occupation, early development in Newcastle or are landscaped or built features of the parks.

Ecological and Habitat Value

Our bushland provides important remnant wildlife habitats and refuges. While the size of most urban reserves precludes the survival of larger animals, many species of birds and small animals are able to survive in urban areas by utilising the food and shelter provided by native vegetation. Large trees provide nesting sites and breeding hollows for birds and possums, and as such should be retained wherever possible. Our bushland serves as wildlife corridors, allowing migratory species to 'filter through' large cities. Small, otherwise unremarkable areas of bushland provide important links in chains of bushland reserves, forming wildlife corridors. Rehabilitation of degraded bushland also assists this process. The ecological values of bushland lie in the system of corridors and remnant habitats they provide for native flora and fauna. The bushland is essential for the maintenance of biodiversity in the lower Hunter region.

Scientific and Educational Value

The Australian landscape is ancient and complex. Our bushlands illustrate the area's geological and climatic history through the presence of rock formations, derived soils and distinct range of vegetation types. Rare plants and animals can still survive in the urban bushland. It also provides an important resource for scientific and environmental education in urban areas, in particular, an outdoor laboratory for natural sciences, and physical and personal development. In the rich mosaic of communities found in the lower Hunter region, the system of remnant bushland reserves represent the original sclerophyll plant associations common to the south-eastern sea board. Rainforests are noted to have occurred in Newcastle, however, of the identified bushland reserves, only one gully in Blackbutt Reserve retains a representative fragment of the original rainforest vegetation.

Recreational Value

The recreational opportunities offered by the bushlands are being increasingly recognised. A diverse range of recreational opportunities and the qualities of such experiences are dependent upon the condition of bushland as a natural resource. Recreational activities also impact upon the ecological values of bushland, therefore, the size of the reserves must be balanced with the type or impact of the recreation use.

Quality of Life Value

One of the most important values of urban bushland is its role as 'green space'. The quality of the urban environment is greatly enhanced by proximity to indigenous flora and fauna. The relative scarcity of bushland within highly urbanised areas makes the protection and conservation of such remnants a matter of high priority. Bushland has a modifying effect on air temperature, wind velocity, air pollution and soil stabilisation, and reduces the rate and volume of stormwater runoff. For these reasons, reserves have an intrinsic value in their existence and their location in Newcastle.

Scenic and Aesthetic Values

Australian bushland has distinct characteristics that give it unique qualities of structure, diversity, colour and smell. Our natural landscape is distinctive and recognisable as part of our natural and cultural heritage. Newcastle is unique not only in the amount of bushland retained in its urban area, but also in the spatial relationship between ridgetops and estuarine environments. The bushlands provide quality visual landscape and a distinct, densely wooded, natural contrast to the urban area of Newcastle. The visual quality of bushland can also be enjoyed by people without entering reserves and are an asset to the entire city. The peaceful atmosphere of the reserves is highly valued.

In Newcastle, urban bushland reserves are mostly found on elevated sites with steep landfall and have remained undeveloped largely by virtue of their physiography. In some cases, eg Richley Reserve and the Blue Gum Hills area, the presence of abandoned mining operations, render such sites unsuitable for development. While removal of the bushland has been averted through fortuitous circumstances, the continued protection of the scenic qualities of these areas requires careful management.

2.3 ISSUES THAT AFFECT THE VALUES OF THE BUSHLAND

The integrity of bushland habitats is often compromised by their proximity to urban development. Disturbance to bushland has numerous sources:

- Fragmentation (existing condition & proposed)
- Urban runoff and increased nutrient levels
- Weed invasion
- Changes to bushfire regime
- Predation of native fauna by domestic animals
- Unsustainable levels of recreation use
- Inappropriate use of bushland (vandalism)
- Removal/displacement of habitat
- Inappropriate maintenance techniques and inequitable resource levels.

The result of these disturbances is the destruction of habitat, decrease in biodiversity, an undermining of the viability of ecosystems and the subsequent loss of our bushland. These disturbances are typical of the problems facing urban bushland. Council as a land manager, must tackle these disturbances in a structured and equitable way, applying skills and resources which are appropriate to the type and category of the land being managed.

For our bushland to function successfully the following **key issues** must be addressed.

1. *Asset Maintenance and Improvement*

- land management and maintenance techniques
- recreation needs and facilities
- access
- condition of assets (natural and built)

2. *Financial Issues*

- resource allocation
- income generation (fees & charges, sponsorship)

3. *Removal and Displacement of Habitat*

- biodiversity
- weed invasion
- bushfire management
- visitor management
- stormwater run-off
- flora and fauna

4. *Fragmentation*

- linkages
- service crossings and easements

5. *Marketing and Communication*

- image and presentation
- volunteers
- environmental education
- visitor interpretation

2.4 ISSUES RELATED TO INDIVIDUAL RESERVES

Table 1 Identifies the key issues which relate to specific bushland reserves.

2.4 Table 1 – Issues Related to Individual Reserves

KEY ISSUES																			
Reserve	Asset Maintenance & Improvement					Financial Issues		Removal & Displacement of Habitat						Fragmentation		Marketing & Communication			
	Asset Maintenance	Land Management	Recreation Needs	Access	Condition of Assets	Resource Allocation	Income Generation	Biodiversity	Weed Invasion	Bushfire Management	Visitor Management	Stormwater Run-off	Flora & Fauna	Linkages	Service Crossings	Image and Presentation	Volunteers	Environmental Education	Visitor Interpretation
Banksia Reserve	✓				✓	✓	✓				✓			✓				✓	✓
Blackbutt Reserve (includes Richley Reserve)	✓				✓	✓					✓			✓				✓	✓
Braye Park		✓			✓	✓					✓	✓			✓			✓	
Cambridge Drive Reserve								✓			✓							✓	
Charlotte Street Reserve				✓														✓	
Claremont Avenue Park								✓										✓	
Dangerfield Drive Reserve		✓												✓					
George McGregor Park		✓				✓			✓									✓	
Invermore Close Reserve																		✓	
Jesmond Bushland		✓				✓		✓		✓	✓					✓			
Kadina Close Reserve			✓					✓										✓	
Kullaiba Reserve		✓																✓	
Lloyd Street Reserve								✓	✓										

2.4 Table 1 – Issues Related to Individual Reserves

KEY ISSUES																			
Reserve	Asset Maintenance & Improvement					Financial Issues		Removal & Displacement of Habitat						Fragmentation		Marketing & Communication			
	Asset Maintenance	Land Management	Recreation Needs	Access	Condition of Assets	Resource Allocation	Income Generation	Biodiversity	Weed Invasion	Bushfire Management	Visitor Management	Stormwater Run-off	Flora & Fauna	Linkages	Service Crossings	Image and Presentation	Volunteers	Environmental Education	Visitor Interpretation
Lookout Road Park North & South					✓	✓					✓			✓					
March Street Reserve								✓								✓			
Marconi Close Reserve		✓				✓		✓										✓	
Marshall Street Reserve																			
Myambiah Cres. Reserve (part)		✓	✓					✓		✓	✓	✓			✓			✓	
Nereida Close Reserve		✓				✓													
Rialto Close Reserve																			
Sheridan Ave Park		✓		✓				✓			✓					✓			

2.5 GOALS FOR BUSHLAND

Since the Plan of Management was adopted in 1997, Council's vision and values have been further developed and these underpin the Councillors' and officers' day-to-day decision making processes.

VISION FOR THE FUTURE

*NEWCASTLE WILL BE A.....
GREAT PLACE WITH A GREAT LIFESTYLE AND A GREAT FUTURE.*

NEWCASTLE VALUES ITS

*COMMUNITY
QUALITY OF LIFE
ENVIRONMENT
ECONOMY AND
IDENTITY*

Council stated its values in relation to the environment and identity saying that:

"We will safeguard open spaces and natural places, and we will reinforce Newcastle's coherent, distinctive and robust landscape and urban character to reflect its cultural and natural resources" (Management Plan 1999-2002).

This corporate position has provided the direction for the Newcastle Green Spaces Strategy, the Linking Plan and The Newcastle Recreation & Open Space Plan which form the policy framework for the way we manage our open space and subsequently, our bushland.

Council's goals for bushland reflect the objectives of the legislation and our corporate and community values:

- to conserve and enhance the environmental quality of bushland
- to enhance the aesthetic quality of bushland
- to provide an appropriate range of recreation opportunities in bushland
- to improve accessibility to bushland for all members of the community, and
- to ensure future urban development has no negative impact on bushland.

It can be seen from the statements above that there is a very strong alignment between the core objectives in the Act (para 1.2 on page 2) and the Council's goals. These goals and objectives direct our Management Strategies and our Action Plan.

3. MANAGEMENT STRATEGIES

3.1 BUSHLAND RESERVES - GENERAL

The outcomes of the community workshops indicated that protection and enhancement of the ecological quality of the bushland is of highest priority to the community of Newcastle. It was an overwhelming concern that the provision of access and recreation facilities should only occur in such places and in such a manner as to ensure that the ecological values of bushland are not compromised. Taking into account the core objectives from the Act, the key strategies for the management of our bushland in Newcastle are:

1. pro-active and innovative strategies to encourage the involvement of the community in the management of bushland
2. bushland rehabilitation strategy to restore and enhance biodiversity in the region
3. training for staff and volunteers in site responsive rehabilitation techniques
4. education and advocacy strategy to promote the protection of bushland in Newcastle, and
5. bushland protection strategy to minimise the impact of urban development and to maximise the opportunity for improving linkages between reserves.

These management strategies are detailed in the Implementation Plan which links these to proposed actions and performance measures derived from the community workshops.

3.2 BUSHLAND RESERVES – SIGNIFICANT

Because of the size and complexity of two of the larger bushland reserves, there is information specifically pertaining to their management, which is included here.

Blackbutt Reserve

The Bushland Plan of Management becomes the overarching document for the significant reserves, and the general issues discussed previously also apply to the management of Blackbutt Reserve.

The following documents prepared for Blackbutt Reserve have been referred to during the preparation of this PoM under the Local Government Act 1993, and they remain as a source for specific issues and actions in the management of the site:

- Blackbutt Reserve Management Plan
Bruce McKenzie and Associates (1989)
- Draft Bushfire Management Plan/Guideline: Blackbutt Reserve
Newcastle City Council 1996
- Blackbutt Reserve Weed Management Strategy
Greening Australia - Bush Management Unit 1991
- Blackbutt Reserve Wildlife and Aviary Exhibits Management Plan 1991.

The specific issues that were raised during this process have been addressed in the Implementation Plan. They were:

1. redundant animal enclosures
2. water quality
3. community involvement
4. tourism
5. provision of facilities.

Jesmond Bushland

The Bushland Plan of Management becomes the overarching document for the significant reserves, and the general management strategies discussed previously apply to the management of Jesmond Bushland.

The following documents prepared for Jesmond Bushland have been referred to during the preparation of this Plan of Management under the Local Government Act 1993 and they remain as a source for specific issues and actions for the management and design of the site:

- Jesmond Park and Jesmond Bushland Plan of Management Land Systems 1991
- Draft Bushfire Management Plan/Guideline: Jesmond Bushland Newcastle City Council 1996

The specific issues that were raised during this process have been addressed in the Implementation Plan. They were:

- management resources.

4. IMPLEMENTATION PLAN

This section links the identified issues and management strategies to proposed actions for all bushland in Newcastle. The priority ratings have been determined through consultation, recreation-planning data and asset preservation needs and are subject to the availability of resources. They will be reviewed quarterly and during the annual budget process.

The Plan of Management will be implemented by a range of means which includes, asset preservation programs, routine maintenance and staff training, and capital works programs.

Responsibility for overall implementation of the plan rests with the Parks & Recreation Manager, however, where specialist input is required this has been flagged, as resources will be required from these areas. This will be co-ordinated by the Manager Parks & Recreation.

Codes used in the Implementation Plan are as follows:

Group Responsibility	
D&E	Development & Environment
BBMgt	Manager of Blackbutt Reserve
CS	City Strategy
CS&P	City Services & Presentation

Program	
AMP	Asset Management Program
CWP	Capital Works Program
RMP	Routine Maintenance Program
NB: Others	Specific programs identified in Plan

Cost Estimate	
Code	Meaning
NA	Not Applicable - no major capital works, generally within existing resources
\$?	Cost to be Determined - investigate scope of works to determine impact of funding
ER	Existing Role – being part of an existing job role or team role

N.B. Where work areas have been amended due to Council restructure, they have also been updated in this Plan.

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT - LAND MANAGEMENT AND MAINTENANCE TECHNIQUES					
<i>Future Development: Urban Development is occurring at a rapid pace in existing bushland areas of the city</i>					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Guidelines are required to assist the planning and design of bushland reserves in developing areas eg Blue Gum Hills	<ul style="list-style-type: none"> Develop base criteria for acceptance of future bushland reserves to identify and protect significant natural features 	RP CS/D&E/CS&P	NA	High	<p>Future urban bushland reserves are designed for sustainability and balance the need for access and recreation opportunities</p> <ul style="list-style-type: none"> Guidelines are integrated into planning policy eg Subdivision Code and Urban Code Impact of construction minimised Training for staff in place by May 2002
OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT - LAND MANAGEMENT AND MAINTENANCE TECHNIQUES					
<i>Catchment Management: Project development and construction often causes negative impact on bushland</i>					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
All development and construction in bushland must be managed to minimise land degradation	<ul style="list-style-type: none"> Staff and contractors must comply with development and construction standards/conditions eg DCP 50, EMS – Environmental Management Systems Stormwater Management Plan 	RMP/CWP/AMP/ D&E/ CS&P	NA	Ongoing	

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT - LAND MANAGEMENT AND MAINTENANCE TECHNIQUES						
<i>Protection of Ridgetops: Vegetated ridgetops form a backdrop to Newcastle skyline, are recognised as having high visual quality and contributing positively to the urban fabric of Newcastle</i>						
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure	
Protect ridgetops in our reserves from removal of existing vegetation	<ul style="list-style-type: none"> Revegetate disturbed ridgetop sites to reinforce continuous line of vegetation 	RMP CS&P	EP	Ongoing	Ridgetops present consistent vegetative backdrop to City	
	<ul style="list-style-type: none"> Where development proposals are planning for privately owned ridgetops the issue of protection/conservation is to be considered during the approval process 	D&E/CS	NA	Medium/ Ongoing	Ridgetop vegetation protected on private lands and address in Urban Code	
OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT - LAND MANAGEMENT AND MAINTENANCE TECHNIQUES						
<i>Council Maintenance Practices: Conventional regimes of maintenance are not consistent with the objectives of conservation of bushland</i>						
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure	
Council maintenance practices should be scrutinised	<ul style="list-style-type: none"> Park staff to review current maintenance practices 	RMP CS&P	NA	High	Day to day maintenance and workplans of reserves developed to fit bushland requirements by June 2001	
	<ul style="list-style-type: none"> Develop a maintenance regime that reduces reliance upon mowing, and use of chemical controls 	RMP CS / CS&P	NA	High	Park Staff and volunteers using appropriate maintenance techniques by June 2002	
	<ul style="list-style-type: none"> Educate staff and volunteers in techniques of site responsive bush regeneration 	CS / CS&P	\$?	Ongoing		

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT - LAND MANAGEMENT AND MAINTENANCE TECHNIQUES					
Sportsgrounds: Exist in some bushland reserves					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Sportsgrounds may compromise ecological values of bushland	<ul style="list-style-type: none"> Prepare program of maintenance of existing sportsgrounds consistent with objective to protect and enhance biodiversity 	RMP CS/CS&P	NA	High	Existing sportsgrounds have no negative impact upon ecological values for bushlands
	<ul style="list-style-type: none"> No further development of sporting facilities that would have a negative impact on bushland to occur in riogeline reserves 	RMP D&E/CS&P	NA	Ongoing	
OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT – RECREATION NEEDS AND FACILITIES					
Informal Recreation & Facilities: Ecological values of reserves are affected by the type and intensity of recreational uses Bushland provides for nature-based recreation opportunities					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Limit future development of recreation facilities in bushland	<ul style="list-style-type: none"> Identify appropriate range of recreational uses which may occur in reserves 	CS&P	NA	High	Permitted recreational uses identified by December 2001
	Facilities are required to cater for recreation demand in bushland	<ul style="list-style-type: none"> Prepare program of maintenance of existing facilities, consistent with objectives to protect and enhance biodiversity 	CS&P	High	Development and maintenance of facilities have no negative impact upon ecological values for bushlands
	<ul style="list-style-type: none"> Undertake community survey to determine recreation services in bushland 	CS&P	NA	High	
	<ul style="list-style-type: none"> Formulate capital works program for budget 	CS&P	\$?	High	Capital works program for bushlands developed by December 2001

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT – RECREATION NEEDS AND FACILITIES

Comfortable, safe trails of varying degrees of difficulty are required

Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Assess need for additional walking tracks	<ul style="list-style-type: none"> Construct a series of walking trails with associated signage to enhance the recreational and educational experience of bushwalking 	RMP/CWP CS&P	\$?	Ongoing/ Medium	Walking tracks are maintained to provide safe, comfortable, informative and pleasant recreation experience

OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT – RECREATION NEEDS AND FACILITIES

Redundant pathways and service access fragment bushland

Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Protect reserves from further fragmentation	<ul style="list-style-type: none"> Consolidate path systems in reserves integrate with service access paths 	RMP/AMP CS&P	\$?	Ongoing	Redundant paths identified and revegetated
	<ul style="list-style-type: none"> Revegetate redundant paths 		\$?	Ongoing	
	<ul style="list-style-type: none"> Prepare for routine maintenance of existing tracks to comply with objectives of safety and protection of biodiversity 		\$?	Low	Maintenance program established, complies with service levels

OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT – RECREATION NEEDS AND FACILITIES

Signage

Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Signage	<ul style="list-style-type: none"> Enhance experience of using track system by installing co-ordinated interpretive signage 	CWP/AMP CS&P	NA	Low	Signage installed progressively in high priority reserves
	<ul style="list-style-type: none"> Limit or exclude inappropriate recreational activities 		NA	High/ Ongoing	

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT – RECREATION NEEDS AND FACILITIES					
<i>Buffer from Major Roads: Reserves are often located on some of the busiest roads in Newcastle</i>					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Provide vegetative buffer from main roads to preserve retreat qualities of urban bushland	<ul style="list-style-type: none"> Develop strategy to maintain buffer zones and implement regeneration programs as required 	AMP/RMP CS&P	\$?	Medium/ Ongoing	Bushland continues to provide respite from urban environment
OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT – ACCESS					
<i>Disabled Access: Access required for all members of community</i>					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Access to bushland should be appropriate to site conditions	<ul style="list-style-type: none"> Determine most suitable sites for disabled access and levels of disability and prepare program Construct any access in accordance with the requirements of ACROD 	CWP CS&P	NA	Medium	Construction and sign posting of designed tracks implemented by June 2005
			NA	Ongoing	All construction for people with disabilities meets standard
OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT – ACCESS					
<i>Cycleways: Need for safe offroad cycle facilities within the City</i>					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
No additional cycleways to be constructed through bushland	<ul style="list-style-type: none"> Consider bike plan recommendation for construction of cycleways adjacent to bushland 	CS&P	NA	High	Newcastle and Lake Macquarie Bike Plan implemented city-wide
			NA	Ongoing	Any cycleway constructed adjacent to bushland has no detrimental effect on ecological values

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT – ACCESS

Carparking & Vehicular Access: *The development of public carparking areas in bushland can conflict with the biodiversity strategy for the ridgeland*

Strategy	Action	Program & Responsibility			Cost Estimate	Priority	Performance Measure
		Program & Responsibility	Program & Responsibility	Program & Responsibility			
1. Access allowed only for service vehicles outside of designated public parking areas in reserves	<ul style="list-style-type: none"> Control points of entry/egress by vehicles Clearly designate service access 	RMP CS&P		NA	Ongoing	Safe entry/egress Signage installed	
	<ul style="list-style-type: none"> Monitor parking needs in areas of high use. Investigate possibility of student project or survey 				Medium	Areas of concern identified. Parking adequate and no parking in bushland. Overflow parking managed	
	<ul style="list-style-type: none"> All staff vehicles to use service roads No access into bushland except for emergencies 	RMP		NA	Ongoing	Staff aware of requirement and comply with it	
2. Assess safety aspects of vehicular access to Reserves	<ul style="list-style-type: none"> Investigate options for upgrading access to Blackbutt Reserve from Carnley Avenue 	CS&P		\$150,000	High	Feasibility of options assessed by December 2003	
	<ul style="list-style-type: none"> Investigate requirement to upgrade point of access and provide sign posting 	CS&P		\$?	Medium		
3. Upgrade signage from surrounding houses and streets	<ul style="list-style-type: none"> Improve directional signage to bushland reserves 	CS&P		\$8,000	Low	Access from surrounding streets clearly marked by December 2002	

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT – CONDITIONS OF ASSETS				
Redundant Animal Enclosures: Numerous macropod enclosures remain in Blackbutt Reserve				
Strategy	Action	Program & Responsibility	Cost Estimate	Priority
Redundant enclosures provide an element of visual clutter and no longer serves any useful purpose	<ul style="list-style-type: none"> Prepare program to remove enclosures, dispose or reuse fencing materials in a sensitive manner and revegetate enclosures to provide continuous forest cover 	AMP BBMgt	ER	Completed Stage 1 being implemented
				Sites revegetated and provide continuous forest cover
OBJECTIVE 1 - ASSET MAINTENANCE AND IMPROVEMENT – CONDITIONS OF ASSETS				
Water Quality: Water Quality of numerous constructed ponds is poor in Blackbutt Reserve				
Strategy	Action	Program & Responsibility	Cost Estimate	Priority
Improve water quality in ponds	<ul style="list-style-type: none"> Water quality of all ponds tested as benchmark in 2001 Undertake program of removing introduced avifauna and weeds 	RMP BBMgt/D&E	NA	High
				Water quality of ponds improved by 50% by 2004
				Reduced incidence of algal blooms

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 2 - FINANCIAL ISSUES					
Resource Allocation: Bushland requires commitment to ongoing management for the protection of ecological values					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Budget process to consider more equitable allocation of funding and staff	<ul style="list-style-type: none"> Benchmark Bushland Management with other Councils by December 2001 	RMP CS&P	\$2,000 plus existing resources	High	Bushland parks budgets identified
OBJECTIVE 2 - FINANCIAL ISSUES					
Resource Allocation: Inadequate budget allocation for bushland in comparison with other parks areas					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Ensure Council's asset management system addresses bushland needs	<ul style="list-style-type: none"> Integrate management of ecological values with Council's Asset Management System 	AMP	?	High	Budget allocations more equitable annually
OBJECTIVE 2 - FINANCIAL ISSUES					
Resource Allocation: Management - At present no staff are assigned to the management of Jesmond Bushland					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Bushland needs to be managed to protect identified ecological values		RMP			

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 2 - FINANCIAL ISSUES					
<i>Income Generation: Income generation activities not well focussed for bushland management</i>					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Council to assess various opportunities for funding and/or cost recovery eg environment levy, sponsorship, grants, income producing activities etc to implement for the bushland	<ul style="list-style-type: none"> Identify income generation though grants, sponsorships and other opportunities 	CS&P/RP/GCC/BBMgt			Income generation opportunities for bushlands documented and considered by December 2001 40% of opportunities implemented by December 2004 Income increased by 20% using current level of income 99/00 as benchmark by December 2004
	<ul style="list-style-type: none"> All available grants applied for annually 	CS&P			Current level of grant income documented and used as benchmark for increasing levels
	<ul style="list-style-type: none"> Continue assistance with preparation of grant applications for bushcare groups 	CS&P			Increasing number of groups provided with assistance annually

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 3 - REMOVAL AND DISPLACEMENT OF HABITAT

Biodiversity: The bushlands are recognised as a source of vital habitats in the Lower Hunter, requiring appropriate management to protect biodiversity values

Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
1. Local and regional biodiversity strategies required to restore and maintain to a sustainable level the full diversity of indigenous flora and fauna	<ul style="list-style-type: none"> In association with DIPNR and adjoining Councils, continue to undertake research into the status of biodiversity in the region Rems. P. LHCCRBCS 	CS/D&E	ER	High	Regional Biodiversity Strategy adopted by Council by 2005 Monitoring indicates increase in species diversity
2. Relevant legislation and environmental planning instruments should be reviewed for effective protection of bushland	<ul style="list-style-type: none"> Investigate effectiveness of current planning controls in place to protect bushland from further fragmentation 	CWP	N/A	Medium	Planning and legislative framework effectively supports the protection of biodiversity – Urban Code
3. Protection of corridors is necessary to allow species to move into and through urban areas, prevent populations of species becoming isolated and provide routes for decolonisation	<ul style="list-style-type: none"> Investigate option for Council to adopt SEPP 19 for protection of bushland 	CWP	NA	Medium	Corridors identified, protected and enhanced by 2005
4. Embellish habitat values of reserves and corridors	<ul style="list-style-type: none"> Undertake city-wide identification of wildlife corridors for protection and enhancement of biodiversity 	CWP	NA	High	Projects in these locations are developed to strengthen local and regional biodiversity
					Environmental education program includes biodiversity promotion

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 3 - REMOVAL AND DISPLACEMENT OF HABITAT					
Weed Invasion: Occurs in areas of disturbance, particularly in damp sites					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Eradicate weeds from bushland in association with the revegetation of disturbed sites	<ul style="list-style-type: none"> Bushcare Officer to assist park staff audit of weed infestation in reserves 	CS / CS& P	NA	High	Audit complete and high problem areas incorporated in parks maintenance by 2002
	<ul style="list-style-type: none"> Prepare program of weed control 	CS& P	NA	High	Reduced incidence of weed invasion
	<ul style="list-style-type: none"> Undertake program of education, to encourage "bush friendly" gardens on adjoining land (refer Environmental Education Strategy) 	CS& P	NA	Ongoing	All neighbours of bushland reserves provided with information by December 2001
	<ul style="list-style-type: none"> Continue to train staff and volunteers in methods of bush regeneration and bushland maintenance 	CS& P	NA	Medium/Ongoing	Fifteen volunteers trained per annum. Parks staff identified and training undertaken by December 2001
	<ul style="list-style-type: none"> See also: Asset Maintenance and Improvement 				

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 3 - REMOVAL AND DISPLACEMENT OF HABITAT					
Bushfire Management: Bushland may present a potential threat to life and property in the urban environment					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Bushfire management plans need to recognise the protection of biodiversity buffer zones for new development specify that houses adjacent to bushland are constructed of bricks and have controls in place	<ul style="list-style-type: none"> Draft bushfire management plans to balance the need to protect reserves and surrounding properties from threat of damage with protection of ecological values of reserves 	D&E/CS&P	NA	Medium/draft plans complete	No undesirable change in floristic diversity
					Fire management plans understood and implemented by park staff
	<ul style="list-style-type: none"> Park staff to manage fire trails to a standard that enables access for fire fighting purposes whilst not compromising ecological values of reserves 	CS&P	NA	Medium/Ongoing	Access clear for emergency vehicles
	<ul style="list-style-type: none"> Provide training to bush carers to identify potential hazards 	CS&P	NA	Ongoing	Training includes hazard identification

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 3 - REMOVAL AND DISPLACEMENT OF HABITAT					
<i>Visitor Management: The carrying capacity of reserves is limited by the need to protect habitat values</i>					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Balance needs to be found between the provision of services and attracting increased visitor numbers	<ul style="list-style-type: none"> Identify and review current management of key sites impacted by high intensity of use and implement recommendations using available tools eg NPWS recommendations 	CS&P	NA	High	Visitor Management Plan prepared for Blackbutt Reserve by December 2003
OBJECTIVE 3 - REMOVAL AND DISPLACEMENT OF HABITAT					
<i>Stormwater Run-off & Soil Erosion: Occurs in areas of disturbance to vegetation; along road edges, tracks and watercourses</i>					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Revegetate exposed edges and disturbed sites subject to erosion	<ul style="list-style-type: none"> Prepare program of rehabilitation Train staff and volunteers in work practices which minimise disturbance to soil 	RMP CS&P	NA \$25,000	High Medium/ Ongoing	Reduced incidence of soil erosion in bushland Monitoring shows improved water quality re total suspended solids downstream

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 3 - REMOVAL AND DISPLACEMENT OF HABITAT					
Stormwater Run-off & Soil Erosion: Run-off surrounding development carries pollutants, sediment and nutrients and changes the natural hydrology of catchments					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Manage urban stormwater runoff where it affects ridgeland reserves in a manner consistent with TCM and water sensitive urban design principles	<ul style="list-style-type: none"> Identify causes of damage and develop program of prevention and rehabilitation through sustainable development 	D&E CWP	NA	High	Off-site causes of erosion removed or controlled as per Stormwater Management Plan (July 99)
	<ul style="list-style-type: none"> Undertake remedial action plan 	RMP CWP CS	NA	High	TCM strategies successfully implemented
	<ul style="list-style-type: none"> Enforce site controls to prevent runoff erosion 	D&E	N/A		
	<ul style="list-style-type: none"> Enforce water sensitive urban design procedures in infill and new development 	D&E	N/A	High	Monitoring shows no net increase in stormwater runoff into bushland

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 3 - REMOVAL AND DISPLACEMENT OF HABITAT					
<i>Flora & Fauna Management</i>					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Management of Flora and Fauna	<ul style="list-style-type: none"> ▪ Develop an Interpretive Centre in Blackbutt Reserve to: <ul style="list-style-type: none"> - Encourage community to provide sightings of native animals – Naturewatch - Determine preferred habitats 	CWP CS&P	\$350,000		
OBJECTIVE 3 - REMOVAL AND DISPLACEMENT OF HABITAT					
<i>Flora & Fauna Management: Feral Animals – Introduced species compete with native fauna for food and habitat and prey on native fauna</i>					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Feral animals management strategy required to remove present threat to the viability of habitats	Identify opportunities for the eradication of feral animals in association with relevant government and research agencies	BBMgt CS&P D&E	\$?	High	Feral animal eradication program successfully launched by December 2004 Reduced number of feral animal sightings Reduce impact of feral animals

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 3 - REMOVAL AND DISPLACEMENT OF HABITAT

Flora & Fauna Management: *Feral Animals – Introduced species compete with native fauna for food and habitat and prey on native fauna (Cont.)*

Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Companion animals need to be controlled to remove impact on bushland reserves	<ul style="list-style-type: none"> Develop strategies to preclude access by companion animals to all bushland 	D&E CWP	NA	High/ Ongoing	Reduced impact of companion animals on ecological and scenic values of bushland
	<ul style="list-style-type: none"> Investigate measures undertaken by other Councils for the implementation of curfew to control night time hunting of native fauna by companion animals 	RMP/AMP D&E/CS&P	NA	High	
	<ul style="list-style-type: none"> Educate the community as to the impact of companion animals on ecological values of bushland (refer to Council's Environmental Education Strategy) 	CS&P CD	NA	Ongoing	

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 4 - FRAGMENTATION					
Linkages: State Highway 23 – Represents a significant threat to the viability of reserves					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Council to include these issues in its response to the statement of environmental effects to RTA	<ul style="list-style-type: none"> Council to write to RTA in 1997 indicating they should consider this issue prior to a decision being made regarding the proposal for State Highway 23 	CS	\$? NA	Medium/ Ongoing	Ensure impacts within acceptable limits
Urban bushland is located at the southern & western gateways to the city and contributes positively to the experience of arriving in Newcastle	<ul style="list-style-type: none"> Co-ordinate with adjoining Councils for consistent approach to the protection and enhancement of bushland 	CS D&E	NA	Medium/ Ongoing	Gateways protected and enhanced Linkages between neighbouring Councils promoted

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 4 - FRAGMENTATION					
Linkages: Surrounding reserves					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Integrate adjoining streetscapes to make a positive contribution to local urban amenity	<ul style="list-style-type: none"> Street tree planting to reflect habitat vegetation where possible in surrounding neighbourhoods 	CS&P	NA		
	<ul style="list-style-type: none"> Favoured fauna food species to be chosen 	CS&P	NA	Medium/Ongoing	Corridor values enhanced
Objective 4 - FRAGMENTATION					
Service Crossings and Easements: Contribute to introduction of weed species and to further fragmentation of reserves					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Prevent further fragmentation by consolidating services where possible	<ul style="list-style-type: none"> Negotiate with service authorities to manage easements to prevent further degradation and meet the objectives of this plan 	RMP CS&P	NA	Medium	Agreements with service authorities established
	<ul style="list-style-type: none"> Utilise service crossings as tracks where appropriate 				Park staff adopt procedures
	<ul style="list-style-type: none"> Staff and service vehicles limited to service routes only, except in emergencies 	RMP	NA	Ongoing	
	<ul style="list-style-type: none"> Damage by staff and service vehicles repaired promptly. See also Asset Maintenance and Improvement 				

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 5 - MARKETING AND COMMUNICATION

Image & Presentation – Design: Presentation of design elements within reserves is inconsistent and run down

Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Uniformity in landscape and building design details, materials and colours wherever possible to present a collective image of reserves and reduce visual clutter	<ul style="list-style-type: none"> Establish standards for interpretive signage Directional signage and where appropriate, favour use of natural, renewable materials 	CWP RMP CS/CS&P	NA	Ongoing	Uniform signage and furniture kit for bushland reserves adopted by June 2002
	<p>OBJECTIVE 5 - MARKETING AND COMMUNICATION</p> <p><i>Tourism: Regional function needs to be enhanced</i></p>				
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Diversify services and facilities Determine market segments Develop promotional strategy	<ul style="list-style-type: none"> Facilities to be designed as medals for environmental initiatives and adaptive re-use 	CS/CS&P	\$350,000	High	Increased visitation Positive response from visitors
	<ul style="list-style-type: none"> Undertake surveys and collect data regarding services and usage 	CS&P			
	<ul style="list-style-type: none"> Develop promotional material 				

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 5 - MARKETING AND COMMUNICATION

Volunteers: *Bushcare Groups - Extent of disturbance to reserves places an extraordinary burden on maintenance staff to implement revegetation programs*

Strategy		Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Co-ordinate the assistance of community based bushcare groups with revegetation of bushland	<ul style="list-style-type: none"> Appoint Community Greening Co-ordinator to pursue effective community involvement in bushcare refer: Community Greening Program Develop and implement operational plans for volunteers Link these to big picture goals Continue to develop and promote program of bushcare Continue to provide training to volunteers to maximise value of work performed Investigate and develop a program of volunteer/honorary guides to assist in the public relations aspect of promotion of ecotourism Develop program of innovative opportunities for community involvement, may include workshops, open days, guest lecture series, supervised night walks, etc refer Community Greening Program 		CWP GCC	EP	High	Community Greening Co-ordinator appointed
			GCC CS	NA	High	Increased number of volunteers registered in bushcare programs
			GCC	EP	High/ Ongoing	
					Medium/ Ongoing	See also weed invasion measure
			RMP	NA	Medium/ Ongoing	
			CS&P CD BBMgt	NA	Medium/ Ongoing	Program implemented

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 5 - MARKETING AND COMMUNICATION					
Community Involvement: Community groups interested in the care of Blackbutt exist but not in Jesmond					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Better co-ordination is required between Council and community groups to effectively manage Blackbutt Reserve	<ul style="list-style-type: none"> Co-ordinate the assistance of community based groups to develop guided walks in reserve 	GCC BBmgt	NA	High	Increased number of volunteers registered in bushcare programs and participating in promotions of Blackbutt
	<ul style="list-style-type: none"> Co-ordinate the assistance of community based bushcare groups to revegetate and maintain Blackbutt 				
	<ul style="list-style-type: none"> Canvas opportunity to establish Jesmond Volunteer Group 	CS&P	NA	High/ Ongoing	Increased community participation in bushcare programs

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 5 - MARKETING AND COMMUNICATION					
Environmental Education: Bushland may be misunderstood and/or considered a threat to the urban environment					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Education and advocacy plan required to raise awareness of bushland values and habitat conservation	<ul style="list-style-type: none"> Prepare an education and advocacy plan to enhance appreciation for bushland, which may include: promoting aesthetic values of bushland; undertaking regular volunteer guided tours of reserves; installation of coordinated signage; and provision of information such as details of flora and fauna found on site, the connections between reserves in the system of habitats found in Newcastle and the Lower Hunter, the impact of urban development on the viability of remnant habitats. 	CS&P/Community Partnerships/CGC	\$10,000 from Community Greening Program	High/Ongoing	Education plan developed and integrated with corporate environmental education strategy by December 2002
					Education plan successfully implemented by June 2003
	<ul style="list-style-type: none"> Actively promote involvement by various groups eg schools, tertiary education institutions 	CS&P BBMgt Community Partnerships	NA	Ongoing	Increased participation by community groups in projects

4. IMPLEMENTATION PLAN – BUSHLAND PLAN OF MANAGEMENT

OBJECTIVE 5 - MARKETING AND COMMUNICATION					
Good Neighbours: Properties adjoining bushland contribute to influx of weeds into reserves					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Encourage stewardship of reserves by adjoining landholders	<ul style="list-style-type: none"> Educate neighbours as to the impact of dumping of weeds and grass clippings on bushland 	CS&P	NA	Ongoing	Reduced impact on ecological values of bushland from adjoining properties
	<ul style="list-style-type: none"> Encourage “bush friendly” gardens on adjoining properties refer: Environmental Education Strategy 		NA	Ongoing	All neighbours of bushland contacted and advised by December 2003 (see weed invasion)
OBJECTIVE 5 - MARKETING AND COMMUNICATION					
Visitor Interpretation: Intellectual Accessibility: Information regarding the values of bushland and management strategies should be made accessible					
Strategy	Action	Program & Responsibility	Cost Estimate	Priority	Performance Measure
Education and advocacy plan required to raise awareness of values of bushland	<ul style="list-style-type: none"> Refer to Environmental Education action 	Community Partnerships	NA	Medium/Ongoing	Plan implemented
	<ul style="list-style-type: none"> Refer also to Heritage Places Strategy – Strategic Plan and POMS document for guidance 				Principles included

4.1 FIVE YEAR ACTION PLAN - BUSHLAND

Five-year action plans have been prepared for the Bushland Reserves (generic), Blackbutt Reserve and Jesmond Bushland. They are based on the Implementation Plan and contain the actions that Council will implement in managing the reserves. It is envisaged that at the end of the five-year period the action plans will be reviewed. The Implementation Plan and Five Year Action Plan are structured to link back to the Issues in Section 2.5. The action plan is to be utilised as a planning tool by the staff responsible for implementing the Plan of Management.

Target dates have been nominated to guide implementation and to provide a timeline for assessment and evaluation of performance measures. For rationale and performance measures refer to the Implementation Plan.

4.1 FIVE YEAR ACTION PLAN - BUSHLAND

For ease of overview, these actions are summarised from the detail in the Implementation Plan. Please refer to the Implementation Plan when preparing budgets and work-plans for these actions.

MAJOR ACTIONS	2001	2002	2003	2004	2005	status
1. Asset Maintenance & Improvement						
Land Management and Maintenance Techniques						
• Future development/base criteria						
• Catchment management						
• Protection of ridgetops						
• Sportsgrounds						
• Council maintenance practices						
Recreation Needs and Facilities						
• Informal recreation						
• Walking trails						
• Signage						
• Buffer planting						
Access						
• Disabled access						
• Cycleways						
• Carparking and vehicular access						
• Access into Blackbutt						
• Signage						
Condition of Assets						
• Redundant animal enclosures						
• Water quality						
2. Financial Issues						
Resource Allocation						
• Bushland parks budgets identified and analysed						
Income Generation						
• Opportunities documented						
• Income increased by 20%						

Legend: Regular ongoing activity

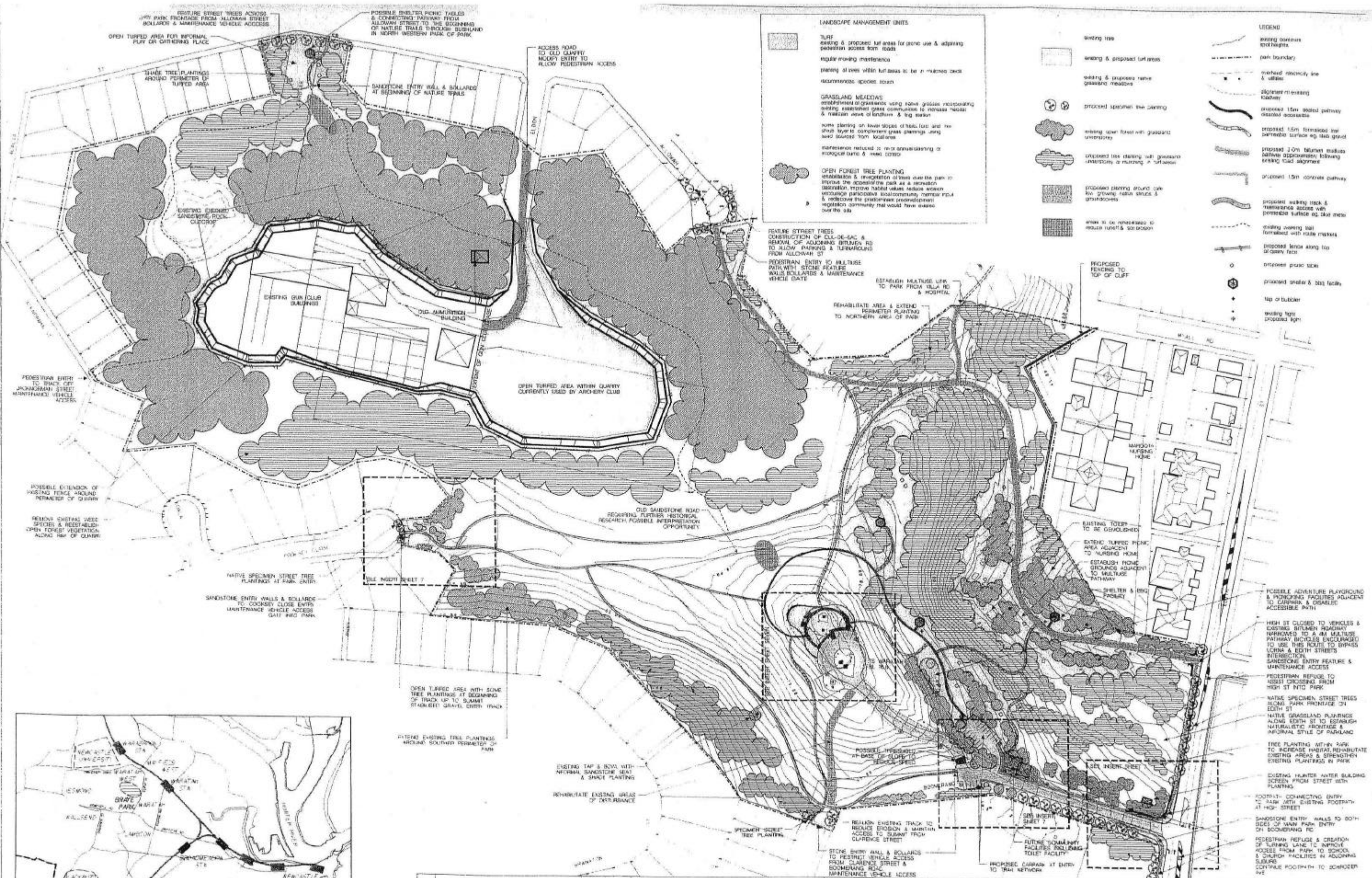


4.1 FIVE YEAR ACTION PLAN (CONT.)

MAJOR ACTIONS	2001	2002	2003	2004	2005	status
3. Removal & Displacement of Habitat						
<i>Biodiversity</i>						
<i>Weed invasion</i>						
• Audit to identify high priority sites						
• Staff training						
• Good Neighbours information						
<i>Bushfire Management</i>						
• Staff training						
• All access routes clear						
<i>Visitor Management</i>						
• Visitor Management Plan for Blackbutt						
<i>Stormwater run-off</i>						
• Onsite Management						
• Offsite Management						
<i>Flora & Fauna</i>						
• Fauna Management						
• Feral animal eradication plan launched						
<i>Companion Animal Education Plan for bushland neighbours</i>						
4. Fragmentation						
<i>Linkages</i>						
• State Highway 23						
• Street tree planting linkages						
Service crossings easements						
• Agreements with service authorities						
5. Marketing & Communication						
<i>Image and presentation</i>						
• Design and establish standard for park furniture and signage						
• Tourism visitor surveys						
<i>Volunteers</i>						
• Bushcare groups increased number per annum						
• Community involvement/guided walks/open days developed						
• Jesmond bushcare group established						
<i>Environmental education</i>						
• Education, interpretive & advocacy plan						
• Good neighbour program						
<i>Visitor interpretation</i>						
• Intellectual accessibility						
• Cultural accessibility						

4.2 BRAYE PARK CONCEPT MASTERPLAN

Refer to Braye Park Concept Masterplan on the following page.



LANDSCAPE MANAGEMENT UNITS

- Turf seeding & proposed turf areas for scenic use & adorning pedestrian access from roads
- regular mowing maintenance
- planting of trees within turf areas to be maintained once recommended species chosen

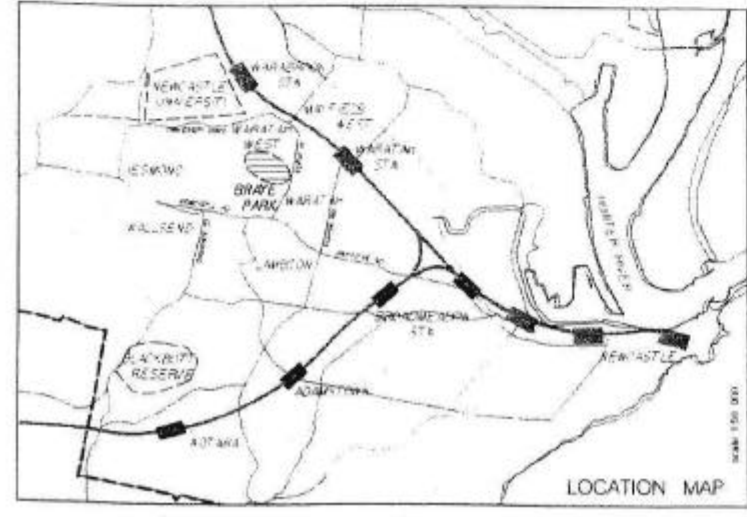
GRASSLAND MEADOWS

- establishment of grasslands using native grasses incorporating existing established grass communities to increase habitat & increase areas of shelter & log stores
- some planting on lower slopes of hills, low and low shade type to complement grass plantings using seed sourced from localities
- reference to reduced or no mowing of ecological value & trees 20099

OPEN FOREST TREE PLANTING

- establishment & revegetation of trees over the park to improve the aesthetics of the park as a recreation destination, provide habitat values reduce erosion, encourage pedestrian biodiversity, restore riparian & reduce the pedestrian inconvenience of vegetation community that would have existed over the site

- LEGEND**
- existing tree
 - existing & proposed turf areas
 - existing & proposed native grassland meadows
 - proposed specimen tree planting
 - existing open forest with grassland understorey
 - proposed tree clearing with grassland understorey or mowing in turf areas
 - proposed planting around cafe for private retail sales & grassed areas
 - work to be undertaken to reduce runoff & sediment
 - existing concrete structures
 - park boundary
 - overhead electricity line & utility
 - disposal m-mowing boundary
 - proposed 1.5m graded pathway (existing concrete)
 - proposed 1.5m formalised path (bitumen surface eg. 10m gravel)
 - proposed 2.0m bitumen meadow (existing asphalt)
 - proposed 1.5m concrete pathway
 - proposed walking track & maintenance areas with permeable surface eg. 10m gravel
 - existing mowing track formalised with road markings
 - proposed fence along top of quarry face
 - proposed picnic table
 - proposed shelter & bbq facility
 - top of tucker
 - existing light
 - proposed light



NO. 02/12/2008	DATE	THESE DRAWINGS HAVE BEEN PREPARED USING PROVEN METHODS AND CHECKED FOR COMPLIANCE WITH THE NATIONAL STANDARDS AND THE CLIENT BRIEF.	PHONE 02 4921 0222	120-126 MEYER ROAD	NEWCASTLE CITY COUNCIL
		THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT ALL STAGES THROUGHOUT THE WORK TO MATCH THE SHIP DRAWINGS. ALL DIMENSIONS SHOWN IN PREFERENCE TO SCALES.	FAX 02 4921 2121	GREAT POINT	PROJECT NO.
					BRAYE PARK
					CONCEPT MASTERPLAN
					DATE: 02/12/2008
					SCALE: 1:1000
					DRAWING NO. 02/12/08
					SHEET NO. 1
					TOTAL SHEETS: 1
					ISSUE: A

LMC CONSULTING GROUP

A BUSINESS UNIT OF LAYNE RESOURCES PTY. LTD.

APPENDIX 1

SCHEDULE OF LAND: BUSHLAND

Legend: C: Community Land
 CR: Crown Land
 ML: Miscellaneous Land

COUNT	PARK NAME	AREA	LAND REGISTER NO	LOT NO	DP NO	LOCATION	OWNERSHIP
1	Banksia Close Reserve	0.478 ha	C 11	Lot 51	DP 255476	Banksia Close ADAMSTOWN 2289	NCC
2	Blackbutt Reserve	156.48 ha Total area 164 ha	C 166	Lot 13 Lot 11 Lot 10 & 13 Lot 181 Lot 1 Lot 19	DP 263567 DP 263567 DP 263568 DP 599648 DP 594058 DP 555035	Lookout Road NEW LAMBTON 2305 Lookout Road NEW LAMBTON 2305 Lookout Road NEW LAMBTON 2305 Lookout Road NEW LAMBTON 2305 Mahogany Drive NEW LAMBTON 2305	Dedicated Public Reserve Dedicated Public Reserve Dedicated Public Reserve Dedicated Public Reserve Fee Simple - Used as Park
3	Richley Reserve (part of Blackbutt Reserve) Braye Park	7.643 ha 17.995 ha	C 178 CR 47, C 241	18	Lot 47 Pt Lot 2600, Pt Lot 387, Lot 505 DP 755247 CR 63080	Clarence Road WARATAH 2289	Dept of Land & Water Conservation, NCC

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SCHEDULE OF LAND: BUSHLAND

COUNT	PARK NAME	AREA	LAND REGISTER NO	LOT NO	DP NO	LOCATION	OWNERSHIP
4	Cambridge Drive Reserve	3.889 ha	C 37	Lot 64, 65	DP 713019	Dangerfield Drive ELERMORE VALE 2287	Dedicated Public Reserve
				Lot 252	DP 739442	Dangerfield Drive ELERMORE VALE 2287	Dedicated Public Reserve
				Lot 344	DP 786552	Syga Close ELERMORE VALE 2287	Dedicated Public Reserve
				Lot 345	DP 786552	Syga Close ELERMORE VALE 2287	Dedicated Public Reserve
5	Charlotte Street Reserve	1.882 ha	C 143	Lot 136	DP 231107	Charlotte Street MEREWETHER 2291	Dedicated Public Reserve
6	Claremont Ave Park	5.529 ha	C 012	Lot 62	DP 30888	Randall Parade ADAMSTOWN HTS 2283	
7	Dangerfield Drive	3.375 ha	C 42	Lot 345	DP 786552	Dangerfield Drive ELERMORE VALE 2287	Dedicated Public Reserve
				Lot 3032	DP 833672		
				Lot 4062 Lot 6020	DP 837912		
				Lot 1037	DP 835247		
				Lot 8007	DP 826535 DP 839205		
		8.11ha	C 61	Lot 429	DP 789096	Dangerfield Drive ELERMORE VALE 2287	Dedicated Public Reserve

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COUNT	PARK NAME	AREA	LAND REGISTER NO	LOT NO	DP NO	LOCATION	OWNERSHIP
8	George McGregor Park	19.66 ha	C 214	Lots 5, 8, & 12	DP 826092	McCaffrey Drive RANKIN PARK 2287	Fee Simple - Used As Park
9	Invermore Close Reserve	5.865 ha	C 260	5.865	Lot 131 DP 239822	Invermore Close WALLSEND 2287	NCC & Dedicated Public Reserve
10	Jesmond Bushland	36.60 ha Total area with leases 123 ha	C 103	Lot 1	DP 774078	Newcastle Road LAMBTON 2299	Fee Simple - Used As Park
		40.39 ha	M L 12	Lot 1	DP 839929	Croudace Street NEW LAMBTON HEIGHTS 2305	Leased from Hunter Area Health Service 50 years from 1/7/94
		13.31 ha	M L 13	Lot2	DP 839929	Croudace Street NEW LAMBTON HEIGHTS 2305	Leased from Hunter Area Health Service. 10 years from 1/7/94
		32.94 ha	M L 14	Lot 4	DP 839929	Lookout Road NEW LAMBTON HEIGHTS 2305	Leased from Hunter Area Health Service 20 years from 1/7/94

APPENDIX 1

SCHEDULE OF LAND: BUSHLAND

COUNT	PARK NAME	AREA	LAND REGISTER NO	LOT NO	DP NO	LOCATION	OWNERSHIP
11	Kadina Close Reserve	5.147 ha	C 50	Lot 109	DP 789693	Kadina Close WALLSEND 2287	Dedicated Public Reserve
12	Kullaiba Reserve	0.583	C007	Lot 134	DP 241072	Princeton Avenue ADAMSTOWN HEIGHTS 2289	
13	Lloyd Street Reserve	0.295	C 150			Lloyd Street MEREWETHER 2291	
14	Lookout Road Park North	0.609	C 183	Lot 39	DP 19631	Lookout Road NEW LAMBTON HEIGHTS 2305	
15	March Street Reserve	2.687 ha	C 97	Lot 2	DP 594058	March Street KOTARA 2289	Council Nursery - Fee Simple
16	Marconi Close Reserve	0.161	C 008	Lot 6	DP 258029	Marconi Close ADAMSTOWN HEIGHTS 2289	
17	Marshall Street Reserve	5.955	C 094	Lot 1 Lots 30-33	DP 330006 DP734569	Peatties Road KOTARA 2289	
18	Nereida Close Reserve	0.521 ha	C 95	Lot 14 Lot 62	DP 210082 DP 526774	Johnson Street KOTARA 2289 Nereida Close KOTARA 2289	Dedicated Public Reserve

APPENDIX 1

SCHEDULE OF LAND: BUSHLAND

COUNT	PARK NAME	AREA	LAND REGISTER NO	LOT NO	DP NO	LOCATION	OWNERSHIP
19	Rialto Close Reserve	1.626 ha	C 57	Lot 325 Lot 377	DP 248204 DP 258508	Rialto Close ELERMORE VALE 2287	Dedicated Public Reserve
20	Sheridan Avenue Park	2.843 ha	C 9	Lot 94	DP 223284	Sheridan Avenue ADAMSTOWN 2289	Dedicated Public Reserve

APPROPRIATE PURPOSES FOR GRANTING OF LEASES AND LICENCES IN BUSHLAND

Any Leases or Licences in respect of a natural area must be consistent with Section 47B and 47C of the Local Government Act 1993.

Licences and Leases

Written agreements have previously been prepared for some of the parks included in this Plan of Management to allow for the controlled use of the parks by sporting groups.

At Blackbutt Reserve, a model-boating association uses ponds. There is an agreement, but no formal licence issued for this use. At Myamblah Crescent Reserve, several licences have been issued to sports associations and school groups. Issues regarding licences and leases at Myamblah Crescent Reserve will be addressed in the Sports Lands Plan of Management.

SUMMARY OF COMMUNITY CONSULTATION

Community Workshop	September 1996
Community Workshop No.2	November 1996
Public Exhibition	November & December 1996
Council Adoption	December 1996
Plans of Management	Review 1999
Public Evaluation	June/July 2000
Council Adoption	October 2000

GUIDELINES FOR THE CATEGORISATION OF LAND AS BUSHLAND

Guidelines for categorisation of land as a natural area

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.

NOTE: Section 36A of the Act provides that community land that has been declared a critical habitat under the Threatened Species Conservation Act 1995 or the Fisheries Management Act 1994 must be categorised as a natural area.

Section 36B of the Act provides that community land all or part of 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.

Section 36C of the Act provides that community land that is the site of a known natural, geological, geomorphological, scenic or other feature that is considered by the council to warrant protection or special management considerations, or that is the site of a wildlife corridor, must be categorised as a natural area.

Guidelines for categorisation of land as bushland

- (1) Land that is categorised as a natural area should be further categorised as bushland under section 36(5) of the Act 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 which contains a range of habitats for native fauna (such as logs, shrubs, tree hollows and leaf litter); or
 - (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.

REFERENCES

- ◆ Blackbutt Reserve Management Plan 1989
Bruce McKenzie
- ◆ Blackbutt Reserve Weed Management Strategy
Greening Australia - Bush Management Unit April 1991
- ◆ Bush Regeneration - Recovering Australian Landscapes
Robin A. Buchanan
TAFE NSW 1989
- ◆ City Enhancement Plan
Newcastle City Council 1994
- ◆ Draft Bush Fire Management Plan/Guideline: Blackbutt Reserve
Newcastle City Council June 1996
- ◆ Draft Bush Fire Management Plan/Guideline: Jesmond Bushland
Newcastle City Council June 1996
- ◆ Interim Guidelines for Implementation of Protocol for Community Consultation
Newcastle City Council 1996
- ◆ Jesmond Park and Jesmond Bushland Plan of Management
Land Systems Pty Ltd May 1991
- ◆ The Linking Plan
Newcastle City Council 1996
- ◆ Local Government Act 1993 Land Management Manual
Department Land and Water Conservation and Manidis Roberts Consultants
- ◆ Newcastle Open Space Plan
Hassell Consultants 1996
- ◆ Newcastle's Community and Land Resources
Newcastle City Council Pamphlet 1995
- ◆ Save the Bush in Newcastle.
Anne Clements and Associates 1994
- ◆ Succeeding with Plans of Management 1996
Department Land and Water Conservation and Manidis Roberts Consultants
- ◆ Newcastle Green Spaces Strategy
Newcastle City Council 2000