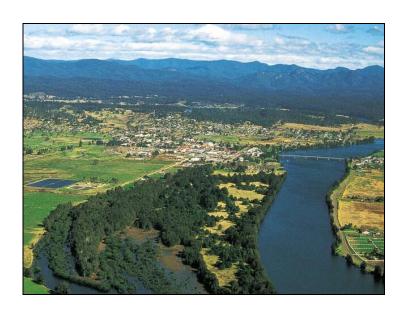


PLAN OF MANAGEMENT



Russ Martin Park
Moruya War Memorial Swimming Pool
Moruya Town Wharf and Boat Ramps
Moruya Riverside Park
Ryan's Creek Parkland
Ryan's Creek Wetland

Endorsed by Eurobodalla Shire Council
13 September 2005 Works & Facilities Committee Meeting
Adopted by the Department of Lands on 27 February 2007



This is the Plan of Management for: Russ Martin Park, Moruya War Memorial Swimming Pool, Moruya Town Wharf and Boat Ramps, Moruya Riverside Park, Ryan's Creek Parkland and Ryan's Creek Wetland.

This Plan of Management was prepared by Eurobodalla Shire Council in consultation with the Department of Lands.

ESC Plan of Management No. 24

Any requests for further information or questions regarding this Plan of Management can be addressed to:

Plans of Management Officer (Reference: 01.5728) Eurobodalla Shire Council PO Box 99 MORUYA NSW 2537

Phone (02) 4474 1000 Email council@eurocoast.nsw.gov.au

Table of Amendments:

No	Date	Endorsed by Council	Exhibition Period	Adopted by Minister for Lands	Details of Amendments

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1.0 Executive Summary

Located on the Moruya River, Russ Martin Park, Moruya War Memorial Swimming Pool, Moruya Town Wharf & Boat Ramps, Moruya Riverside Park, Ryan's Creek Parkland and Ryan's Creek Wetland occupy over 37 hectares of flat riverside land. The reserves feature views of the river and mountain ranges, open grassy meadows, hidden lagoons and wetlands, bbq and picnic facilities, play equipment, and a 25m swimming pool. Conveniently situated just minutes from the Moruya town centre and the Princes Highway, the reserves have the potential of becoming a focus for recreational and social activity within the township of Moruya.

Historically the reserves were created sometime after 1895 when the "Moruya Progress Association suggested that a reclaiming wall be built from the town wharf to MYNORA and sand pumped behind it into what was waste land. The Harbours and Rivers Department agreed. The area created behind the wall is now a park, swimming pool and caravan park."

This Plan of Management discusses the existing uses of the reserves and presents a series of proposals that sets the future direction for the management and development of the reserves. Developed in consultation with the local community, Eurobodalla Shire Council, the Department of Lands and within the various Local, State and Federal Government legislation and guidelines, the future for these reserves is full of opportunity.

This plan promotes the extension of pedestrian and bicycle paths, already providing great links around town, through a series of paths within the reserves. Russ Martin Park and the Swimming Pool areas will be upgraded to improve the amenity of the reserves.

Various events will be encouraged in Moruya Riverside Park. This could include food festivals, carnivals, festivals, music concerts and markets. Aboriginal and European heritage on the reserves will be recognised and protected. Interpretive information will inform and educate visitors of the previous uses on the site as they stroll through the park. A regional playground facility will be complemented with bbq facilities, picnic areas and open spaces for informal games. Event related short stay primitive camping facilities will provide camping close to town. Sculptural works will feature throughout the park. Cars will be restricted to the roadways with ample parking provided to ensure easy access to the various features of the reserves.

As horses graze within a fenced perimeter in Ryan's Creek Parkland, the reserves can still be enjoyed for their environmental qualities, fishing opportunities, swimming and picnicking. It is possible that grazing will be phased out and Ryan's Creek Parkland made fully available to the public.

The creek and wetland will be protected, however people will be encouraged to venture into the wetland area without impacting on the environment. Interpretive signage and bird hides will provide visitors with local information on the flora and fauna of the area and give visitors an opportunity to observe the diversity of bird life in the wetland area.

The Arts Council of Eurobodalla have secured a licence to occupy an adjacent piece of Crown Land from which to operate a Community Arts Centre – called "Art Central". They have upgraded an old cottage which has become an attractive cultural addition to the park environment. There is another cottage next door which is also licensed from the Crown – this land may be added to the reserve in the future and could be developed for cultural activities and accompanying facilities for visitors such as a restaurant and/or café.

It may also be possible in the longer term to develop a multi use Regional Performing and Visual Arts Centre in the Eurobodalla Shire. The southwestern corner of this reserve has been identified as a possible location, however further investigation is required.

The implementation of the proposals incorporated in this Plan of Management are illustrated on the Landscape Masterplans. Some of these proposals may required various legislative approvals – such as those administered by Fisheries, Department of Lands and Eurobodalla Shire Council.

¹ Warry, N. (1991). <u>Eurobodalla Almanac – A Chronological Overview of the Growth of the Shire of Eurobodalla p44.</u>

2.0 Introduction – Why a Plan of Management?

All land included in this Plan of Management is Crown Land. Eurobodalla Shire Council is the appointed Trust Manager under Part 5 of the Crown Lands Act 1989 for the two Trust areas included in this Plan of Management.

The Riverside Reserve Trust (Crown Reserve Number 82377) was first created on 19 February 1960. This Trust includes Russ Martin Park, the Moruya War Memorial Swimming Pool, the land adjacent to the Moruya Town Wharf and Boat Ramp, the former Moruya Caravan Park and the former site of Westwood's Tyres. The Moruya Reserve Trust (Crown Reserve Number 83511) was created on 13 December 1961. This Trust includes the Ryan's Creek Parkland, Ryan's Creek and Ryan's Creek Wetland.

This Plan of Management guides the future use and development of these reserves. It outlines how Council, in consultation with the Department of Lands, intends to use, develop and manage the land; how leases, licences or other interests are granted on the reserve; and determines the scale and intensity of development on the land for today and the future.

As a planning tool, it provides objectives for the management of the land. This gives both Council, the Department of Lands and the community, goals to work towards in achieving desirable outcomes for the management of the land. A Plan of Management can be used to identify projects that could be achieved through community working groups as well as providing supporting documentation when applying for grants.

The Plan of Management is structured to firstly give an overview of the relevant legislation and policies that govern the development of the land included in the plan. This is followed by an assessment of the existing condition of the reserves' various features – both natural and constructed. The issues identified in the assessment of the existing conditions are addressed in the strategies and actions that guide the development of the land.

Throughout the consultation process, the community's values of the reserves have been identified. These values direct the strategies and actions which are illustrated in the Landscape Masterplan. A priority list for the staging of works provides an indication of how the development of the reserves may progress.

There are various Appendices that support the information in the plan and give more background information to its development. The bibliography provides the references from which much of the information has been sourced and may of interest to the community.

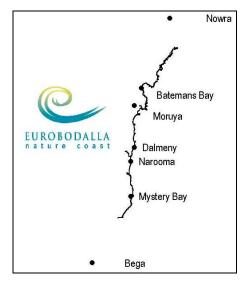
3.0

Moruya is located on the South Coast of New South Wales, approximately 3 ½ hours drive from Sydney and a 20 minute drive from Batemans Bay.

Moruya is a rural town located on the Moruya River, approximately 6.5 kilometres from the river mouth. Surrounded by beaches and National Parks, Moruya is centrally located within the Eurobodalla Local Government Area.

Famous for supplying the granite for the Harbour Bridge pylons and other Sydney landmarks such as the Cenotaph in Martin Place, many of the town's older buildings are made from the local stone. Prior to the quarrying activity, Moruya was a centre for shipping, dairy and gold mining.

Today Moruya is a retail and commercial town, supporting some dairy and fishing activities, and becoming especially busy during the tourist seasons. Council's Main Administration building is located in Moruya.



Plan 1: Site Location Map



Photo 1: 1996 Aerial Photo of the Moruya Riverside Reserves

The reserves span a length of over 1.7km from the Moruya Bridge on the west to the junction of the Moruya River and Ryan's Creek on the east.

4.0 Consultation Process

November 2001 Public Meeting

A Public Meeting/Workshop was held at the Moruya RSL Hall on Monday 5 November, 2001. The aim of this meeting was to generate discussion about the Reserves and give the community an opportunity to voice their ideas about what should happen on the reserves.

Approximately 80 people participated in this meeting including the Mayor, Councillors and staff from Eurobodalla Council and the Department of Lands. The meeting included a presentation on the site and a presentation on the flooding restrictions that apply to the site. Everyone was given an opportunity to present their views on how they believe the reserves should be managed and developed either verbally and/or in writing. In addition, Council received 25 written submissions. Both the verbal and written submissions are reproduced in Attachment 1 (page 77) of this Plan of Management.

October 2004 Public Presentation

Due to the uncertainty of the tenure of the adjacent Crown Land, the project was put on hold until these issues were resolved, hence the delay in responding to the community after the first meeting with the completion of a draft Plan of Management.

A public presentation of the draft Plan of Management was held on Thursday 21 October 2004. At this meeting a competition was launched to find a new name for the reserve.

October 2004 – November 2004 Public Exhibition and Submission Period for the Draft Plan of Management

The Draft Plan of Management was placed on public exhibition from 7 October 2004 - 5 November 2004 (4 week period). Public submissions on the plan were accepted from 7 October 2004 - 19 November 2004 (6 week period).

46 detailed and considered submissions were received from interested community members and government departments. The suggestions and constructive criticism has resulted in a more thorough and detailed Plan of Management.

March 2005 A new name for the Old Moruya Caravan Park

A competition was launched in October 2004 to find a new name for the Old Moruya Caravan Park.

Competition entries closed on 19 November 2004 and on 8 March 2005 Council chose the new name "Moruya Riverside Park" from over 100 entries.

September 2005 Council's Works & Facilities Committee Meeting

On 13 September 2005 the draft Plan of Management was endorsed at Council's Works & Facilities Committee meeting. The plan has now been forwarded to the Department of Lands for final adoption by the Minister administering the Crown Lands Act 1989.

Community Stakeholders and Interest Groups

During the process of researching and writing this Plan of Management many people from the community contributed their ideas. A list of the interested stakeholders and community groups is included in Appendix 2 (page 81).

5.0 Desired Outcomes

The desired outcomes of this plan are:

- To establish what uses are permissible on the land included in this Plan of Management.
- To establish management practices for the land included in this Plan of Management
- To ensure that the use and management of the reserves is in keeping with The Crown Lands Act 1989, NSW Coastal Policy 1997, The Guiding Principles Of Ecological Sustainable Development (see Appendix 1 – page 80) and other relevant legislation and policies in achieving its outcomes.
- To ensure that the seven key values of the reserve are protected and enhanced:
 - Environmental
 - 2. Cultural Heritage
 - 3. Recreational
 - 4. Scenic
 - 5. Tourism
 - Educational
 - 7. Community

6.0 Explanatory Notes

- 1. Council has assigned each reserve with a unique identification number. This number is generated from Council's central database of land and is called a Property Identification Number (PIN). See Table A on page 25.
- 2. The Crown Lands Act 1989 as at 7 July 2003, is here after referred to as the Crown Lands Act.
- 3. State Environmental Planning Policy No. 14 Coastal Wetlands, is here after referred to as SEPP 14.

7.0 Relevant Legislation and Policies

There are many legislative instruments that have been considered in the preparation of this Plan of Management. Of significance are the Crown Lands Act 1989 and the New South Wales Coastal Policy 1997. There are other policies that examine the local environmental conditions and impose restrictions on the type of development that is possible on the reserves included in this Plan of Management. These include the Moruya River Floodplain Management Plan and the Eurobodalla Shire Council Urban Local Environment Plan.

Note: Legislation and policies are subject to continual review and change. Therefore, while all information in this plan is current as at the date of its adoption, all legislation, policies and other instruments are subject to change.

7.1 Lower South Coast Regional Environmental Plan No 1

The aims, objectives, policies and strategies of this plan are, in relation to the Lower South Coast Region:

- (a) to conserve the scenic and environmental character of the Region,
- (b) to maintain the scale and character of the built environment,
- (c) to preserve views to and from public places,
- (d) to protect public places from overshadowing,
- (e) to encourage development sympathetic to the natural landform, and
- (f) to enable flexibility in building design consistent with the general aims and objectives of this plan.

The proposals included in this Plan of Management are not inconsistent with this Regional Environmental Plan.

7.2 Lower South Coast Regional Environmental Plan No 2

- (1) The aims of this plan are:
 - (a) to develop regional policies that protect the natural environment and promote the orderly and economic development and use of land and other resources in the region, consistent with conservation of natural and man-made features.
 - (b) to consolidate and amend various existing policies applying to the region, to make them more appropriate to regional needs, and to place them in the context of regional policy,
 - (c) to provide a basis for the coordination of activities related to growth in the region and to encourage optimum economic and social benefit to the local community and visitors to the region, and
 - (d) to establish a regional planning framework for identifying priorities for further investigation to be carried out by the Department of Planning and other agencies.
- (2) The aims will be implemented in this plan by specifying:
 - (a) objectives for the future planning, development and use of land within the region, and
 - (b) regional policies to guide the preparation of local environmental plans and for development control.

The proposals included in this Plan of Management are not inconsistent with this Regional Environmental Plan.

7.3 The NSW Coastal Policy 1997

The Coastal Policy responds to the fundamental challenge to provide for population growth and economic development without putting the natural, cultural and heritage values of the coastal environment at risk. To achieve this, the Policy has a strong integrating philosophy based on the principles of ecologically sustainable development (ESD) (see page 80).

The coastal zone is defined in section 4A of the Coastal Protection Act 1979 (as amended 2002). Generally it includes land that is one kilometre landward of the western boundary of the coastal waters of New South Wales, also, one kilometre landward around any bay, estuary, coastal lake or lagoon, also, follows the length of any coastal river inland generally at a distance of one kilometre from each bank of the river, also, to one kilometre beyond the limit of any recognised mangroves on or associated with the river, or, if there are no such recognised mangroves to one kilometre beyond the tidal limit of the river is shown to the nearest cadastral boundary or easily recognisable physical boundary.

Therefore, all of the land included in this Plan of Management is located in the Coastal Zone and is subject to the provisions of the NSW Coastal Policy 1997.

The nine goals of the Coastal Policy are:

- 1. Protecting, rehabilitating and improving the natural environment of the coastal zone.
- 2. Recognising and accommodating the natural processes of the coastal zone.
- 3. Protecting and enhancing the aesthetic qualities of the coastal zone.
- 4. Protecting and conserving the cultural heritage of the coastal zone.
- 5. Providing for ecologically sustainable development and use of resources.
- 6. Providing for ecologically sustainable human settlement in the coastal zone.
- 7. Providing for appropriate public access and use.
- 8. Providing information to enable effective management of the coastal zone.
- 9. Providing for integrated planning and management of the coastal zone.

Some of the Key Actions of the Coastal Policy that are especially relevant to this Plan of Management include:

- Protection and restoration of important fisheries habitats, such as seagrasses and mangroves.
- SEPP 14 Coastal Wetlands and SEPP 26 Littoral Rainforests will be rigorously enforced and extended where appropriate in recognition that what remains of these valuable ecosystems needs to be fully protected from inappropriate development.
- Coastal lands and aquatic environments with conservation values will be assessed and appropriate tenures, reservations, zonings and/or regulations will be put in place to protect them, conserve biodiversity and to protect and ensure the recovery of threatened species.
- Water quality in coastal waters, estuaries and rivers will be maintained where it is currently adequate, or improved
 where it is currently inadequate. This will be addressed through a number of specific actions designed to control
 discharges from both point and non-point sources, including development and implementation of management and
 monitoring programs.
- Cultural heritage will be protected and conserved through a variety of planning and management programs.

As at the date of adoption of this Plan of Management the 1997 Coastal Policy was under review.

7.4 The Comprehensive Coastal Assessment

The original broad guidance from Government when the Comprehensive Coastal Assessment (CCA) was initiated indicated that the CCA would:

- Acquire then utilise information on the values (and therefore opportunities) of the NSW coast to enable better and more certain economic, social and environmental decision-making.
- Provide data on, and an analysis of, the environmental, economic, social and cultural values of coastal land for use in planning and management with a focus on land use decision making at the regional scale.

- Ensure the standardisation and integration of existing data sets and to identify and fill significant data and information gaps, based on clearly defined policy objectives.
- Document a range of key data sets (for example, vegetation; tenure; economic resources such as minerals) which will be used to, for example:
 - Identify areas suitable for growth industries such as aquaculture development and boat building;
 - Identify areas suitable to support tourism development ranging from major new resorts to low key eco-tourism;
 - Define and delineate areas suitable for rural and residential development;
 - Identify and then protect key economic resources, for example, minerals and aggregate sands;
 - Identify highly sensitive coastal and estuarine habitats and catchments; and
 - Develop an inventory of areas with potential for public open space or conservation management.
 - Be consistent with Government objectives to sustain Indigenous coastal communities and their heritage.

The CCA will achieve these through the Department of Infrastructure Planning and Natural Resources' Coastal Regional Strategies which are being developed for priority areas including the South Coast. These new regional strategies will direct how sustainable development will occur in the regions over the next 30 years (looking at growth, infrastructure to support economic development and creating regions that are better places to live and work). Each strategy will be informed by a strategic assessment to test the impacts of different development scenarios, and this is where the CCA will be important.

The CCAs have developed an integration framework plus tools, methods and data via CCA projects. The integration framework is being used to varying degrees across the different regional strategies to evaluate and rank development scenarios based on a suite of coastal values.

The regional strategies will not be legislative (like Regional Environmental Plans), but Local Environmental Plans up-dated over the next 3-5 years will be directed to take them into account. Refer to Section 7.12 on page 16 for more information on Council's Urban Local Environmental Plan.

Changes to Eurobodalla's LEPs may impact on the future development of the reserves, depending on how the various regional strategies from the CCA are incorporated into amended LEPs.

7.5 State Environmental Planning Policy No. 71 Coastal Protection

State Environmental Planning Policy No. 71 (SEPP 71) – Coastal Protection is a key element of the NSW Government's Coastal Protection Package to protect the State's beaches, headlands and other coastal features for future generations. The NSW Minister for Planning determined that the protection of the NSW coast is a matter of environmental planning significance for the State under the *Environmental Planning and Assessment Act 1979*.

SEPP 71 applies to all land located within the Coastal Zone, as defined in Section 7.3 above.

The policy has been made to ensure:

- development in the NSW coastal zone is appropriate and suitably located
- there is a consistent and strategic approach to coastal planning and management
- there is a clear development assessment framework for new development in the coastal zone.

All of the Crown Land included in this Plan of Management is included in the coastal zone. The provisions of SEPP 71 apply to all of this land.

Therefore, certain types of Development Applications (DA) may need to be referred to the Department of Infrastructure, Planning and Natural Resources (DIPNR). DIPNR will then determine who will assess the DA (under Section 89A of the Environmental Planning and Assessment Act) – whether it be Council or DIPNR. The types of developments that would need to be referred to DIPNR includes, but is not limited to, two storey developments and tourist facilities (including

camping grounds). Refer to Schedule 2 of SEPP 71 for more information.

Department of Infrastructure, Planning and Natural Resources have advised that the issuing of short term licenses for camping would not constitute State significant development SEPP 71.

7.6 NSW Government Floodplain Management Manual 2001

All of the land included in this Plan of Management is subject to flooding. The NSW Government Floodplain Management Manual 2001 must be complied with by all agencies dealing with the management of flood risk as it relates to use and development of the floodplain. It incorporates the Flood Prone Land Policy.

The primary objective of the NSW Government Floodplain Management Manual is:

"To reduce the impact of flooding and flood liability on individual owners and occupiers of flood prone property, and to reduce private and public losses resulting from floods, utilising ecologically positive methods where possible".

The average of tangible (financial) flood damage in New South Wales is estimated to be more than \$110 million dollars per year. There other intangible damages including increased levels of emotional stress and mental and physical illness caused be a flood episode. A flood is a traumatic experience for many victims.

The manual provides guidelines for better management of flood prone areas.

7.7 Moruya River Floodplain Risk Management Plan 2004

The Moruya River Floodplain Risk Management study was carried out for the Floodplain Management Committee established by Eurobodalla Shire Council. The objectives of the floodplain management study are:

- to define the nature of the flood hazard:
- to examine the impact of flooding, in physical, economic and social terms on the existing community and the potential for future development;
- to develop structural and non-structural measures for mitigating the effects of the flood hazard;
- to review council's current flood policy provisions in light of the hazard, the risk and the means of mitigating the risk; and
- to discuss the environmental and social impacts of proposed mitigation works.

The highest recorded flood, which occurred in 1925, is believed to have reached a level of approximately 5.4m AHD at Moruya Bridge. This flood was followed by two severe floods in 1963 and 1975. Since then, relatively minor floods have occurred in the Moruya River, and although primarily affecting agricultural land, these floods have had an impact on the entire community.

The study identified that during a severe flood the area including the Moruya Riverside Reserves would be subject to extreme flood hazard with velocities reaching 1.5 m/s during a 1% (1 in 100 year) flood event with water depths reaching up to 2.5m above existing ground level. This risk of flood imposes restrictions on the type of development that is appropriate on these reserves.

The Moruya River Floodplain Management Risk Plan was adopted by Council on 23 November 2004. This Plan includes the Moruya River Floodplain Development Control Plan (DCP) which defines the flood planning levels and controls development within the Moruya River Floodplain.

The implication for the land included in this Plan of Management is that future development must comply with the provisions of the relevant planning controls in place for flood prone areas. In particular, the Moruya River Floodplain DCP severely restricts the development of any permanent structures within this land. Any developments proposed on the land must comply the Moruya River Floodplain DCP.

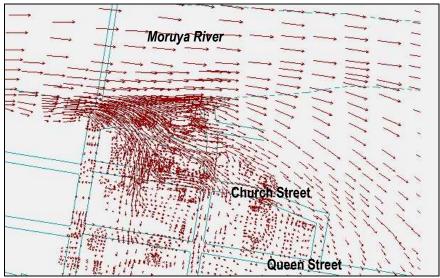


Figure 2: Model illustrating the intensity of flow velocities of the Moruya River in Flood

7.8 NSW Wetlands Management Policy 1996

The purpose of the NSW Wetlands Management Policy is to encourage the management of the wetlands of the State so as to halt and where possible, reverse:

- loss of wetland vegetation;
- declining water quality;
- declining natural productivity;
- loss of biological diversity; and
- declining natural flood mitigation.

Encourage projects and activities which will restore the quality of the State's wetlands, such as:

- rehabilitating wetlands;
- re-establishing areas of buffer vegetation around wetlands; and
- ensuring adequate water to restore wetland habitats.

Adoption of the NSW Wetlands Management Policy means that the Government, in its decision-making, will give explicit consideration to the biophysical requirements of wetlands with the goal of ensuring their sustainable management.

7.9 State Environmental Planning Policy No. 14 – Coastal Wetlands

This policy ensures coastal wetlands are preserved and protected for environmental and economic reasons. The policy applies to local government areas outside the Sydney metropolitan area that front the Pacific Ocean. The policy identifies over 1300 wetlands of high natural value from Tweed Heads to Broken Bay and from Wollongong to Cape Howe.

Land clearing, levee construction, drainage work or filling may only be carried out within these wetlands with the consent of the local council and the agreement of the Department of Infrastructure, Planning & Natural Resources. Such development also requires an environmental impact statement to be lodged with a development application. The policy is continually reviewed. It has, for example, been amended to omit or include areas, clarify the definition of the land to which the policy applies and to allow minimal clearing along boundaries for fencing and surveying.

This Plan of Management includes SEPP 14 Wetland No. 178 which is also included in the Directory of Important Wetlands In Australia as Moruya River Estuary Saltmarshes (reference number NSW119).

Any land clearing, levee construction, drainage works or filling in the SEPP 14 wetland will required the consent of Council and the Department of Infrastructure, Planning & Natural Resources.

7.10 The Crown Lands Act 1989 (administered by the Department of Lands)

Moruya Riverside Reserves are all Crown Reserves and as such, this Plan of Management is prepared in accordance the provisions of the Crown Lands Act (in particular Division 6) which governs the management and use of Crown Reserves.

Crown land must be used and managed in accordance with the principles of Crown land management as set out in Section 11 of the Act. These principles guide the development, use and management of Crown Land.

Principles of Crown Land Management:

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

Crown land may be reserved or dedicated for a variety of public purposes. There are currently many purposes for which Crown land can be reserved. Uses and activities on land reserved for public purposes are, firstly, broadly defined by the public purpose of the reservation, in conjunction with any conditions and provisions within the specific zoning in the local council's local environmental plan. The land uses are then more specifically defined by either a statutory mechanism (a Plan of Management), contractual agreement (lease or licences), or a combination of both. Refer to Section 8.3 on page 24 for more information in regard to the Crown Land Purposes.

In order to change a reservation, a land assessment is required under the Crown Lands Act 1989. The Minister can waive an assessment if it is in the public interest, and if it is consistent with the principles of Crown Land management.

Division 6 of the Crown Lands Act specifies that Draft Plans of Management must be exhibited for a minimum of 28 days and any person may make representations concerning the plan to the Minister. Once a Plan of Management is adopted for a Crown Reserve no operations may be undertaken on or in relation to the reserve unless they are in accordance with the plan.

7.11 Food and Beverage Outlets on Crown Reserves Policy 1996 (Administered by the Department of Lands)

This policy provides guidance for assessing food and beverage outlets which may be acceptable and those which may not be acceptable on Crown reserves. In determining whether a proposal is appropriate the following criteria should be applied:

- The facility should enhance the public use of the reserve and not become the main focus of the reserve;
- The integrity of the reserve in terms of its public purpose and environmental qualities should be preserved;
- The public's right of access to the reserve should be preserved.

7.12 Eurobodalla Council Urban Local Environmental Plan 1999

Zoning is the term given to the different areas where different types of development may be allowed to happen. The zones applicable for the land included in this Plan of Management are defined in Council's Urban Local Environmental Plan 1999 (LEP) which is a statutory document (legally enforceable).

The Moruya Riverside Reserves are zoned 6a1 under Division 6 of Council's Urban LEP 1999. The objectives of the 6a1 Public Open Space zone are:

- (a) to recognise the importance of land in the zone as open space and allow a limited range of uses compatible with keeping the land as open space and in pubic owner ship, and
- (b) to permit a range of uses, especially recreational uses, where those uses comply with the plan of management for the land, and
- (c) to allow development on foreshores where that development is water-related and enhances the recreational use or natural environment of the foreshore, and
- (d) to reserve privately owned land that is essential for future public open space and provide for its acquisition by the Council, and
- (e) to ensure that development in areas of environmental significance does not reduce that significance.

What development may be carried out in the 6a1 Public Open Space zone? (Section 44 of the LEP)

- (1) Development for the purpose of the following is allowed without development consent within the 6a1 Public Open Space zone:
 - on community land, development by or on behalf of a public authority that is consistent with an adopted plan of
 management for that community land and, if not so consistent, would be allowed by subclause (2) or otherwise
 by this subclause,
 - utility installations,
 - works (including land clearing) carried out by or on behalf of a public authority involved in landscaping, gardening, bushfire hazard reduction, erosion control or rehabilitation, or drainage.
- (3) Development for the purpose of the following is allowed only with development consent within the 6a1 Public Open Space zone, but only if it is not included in subclause (1):
 - agriculture
 - aguaculture
 - caravan parks for short-term residents only
 - car parks
 - cemeteries
 - child care centres
 - · community centres
 - development by a public authority
 - dwelling-houses required for the management of the reserve or facilities on the reserve
 - educational establishments
 - forestry
 - helipads for emergency use only

- indoor recreation facilities
- land clearing
- marinas
- places of assembly
- racecourses
- recreation areas
- · recreation establishments
- restaurants
- roads
- showgrounds
- telecommunications facilities
- waste collection centres.

All of the activities proposed in this Plan of Management are consistent with Council's Urban LEP with the exception of markets. As at the date of adoption of this Plan of Management, an amendment to the LEP was underway to allow markets in the 6a1 zone.

7.13 Assessment of Fauna Habitat Linkages and Considerations for Management:

A report was prepared by Gaia Research for Council in 2001 entitled Assessment of Fauna Habitat Linkages and Considerations for Management: Select Rural Residential Areas in Eurobodalla Shire.

In relation to the protection of threatened species habitat, the report recommended that rural residential areas should have buffer zones for riparian corridors on creeks, rivers, wetlands and lakes. The report recommended a minimum distance of 60m either side of a creek to retain a reasonable amount of vegetation for habitat protection. Corridors around lakes were recommended to be a minimum 100m.

The south bank of the Moruya River forms part of the corridor used by several species of migrating Honeyeaters (including the Regent Honeyeater which is a threatened species) that make their way downriver to South Head and across the estuary to North Head on their autumn migration to the north. It forms part of the corridor for southerly migration in spring

but is not as well-used as in autumn.

The Landscape Concept Masterplan illustrates a 60m buffer around the SEPP 14 Wetland and the river's edge (refer to page 72 for more information).

7.14 Commonwealth Native Title Act 1993

As a result of the High Court Mabo Decision the Commonwealth Government enacted legislation which recognised the interest that indigenous Australians may still hold in some areas of Crown Land. The Act makes provision for:

- Aborigines and Torres Strait Islanders to lodge native title claims;
- the determination and validation of extinguishment of native title;
- the dealing with land and waters where native title may not have been extinguished; and
- establishing the existence of native title.

The requirements of this legislation must be followed by the reserve trusts when dealing with Crown reserve where it has not been established that any native title interest that may have existed in the land has been lawfully extinguished. The land covered by this Plan of Management is owned by the Crown and is subject to the provisions of the Native Title Act 1993.

The land included in this Plan of Management is currently not subject to a native title claim. However, any developments proposed for the reserves under the adopted Plan of Management will need to take into consideration the requirements of the Native Title Act 1993 prior to works being undertaken.

7.15 Fisheries Management Act 1994

The Fisheries Management Act 1994 provides for conservation, development and sharing of the fishery resources of New South Wales for the benefit of present and future generations.

Under Part 7 of the Fisheries Management Act 1994 mangroves are protected marine vegetation.

Works within waterways such as rock retaining walls, jetties and boardwalks may require approval from the Department of Primary Industries under the provisions of Part 7 of the Fisheries Management Act.

The Fisheries Management Act also requires recreational fishing to be licenced.

7.16 Threatened Species Conservation Act 1995

The Threatened Species Conservation Act provides protection for threatened native plants and animals in New South Wales (with the exception of fish and marine plants). Provisions are made for the identification, conservation and recovery of threatened species and their populations and communities within this legislation. Further, this legislation also seeks to reduce the threats that may impact on the survival of listed species.

Threatened species are listed as either: endangered, vulnerable or presumed extinct. The following criteria are used to determine what category the species or community should be listed under:

Endangered species

The species is likely to become extinct in nature in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate, or its numbers have been reduced to such a critical level, or its habitats have been so drastically reduced, that it is in immediate danger of extinction, or it might already be extinct, but is not presumed extinct.

Provisional Listing of an endangered species on an emergency basis

Although not previously known to have existed in New South Wales, the species is believed on current knowledge to be indigenous to New South Wales, or it was presumed to be extinct in New South Wales but has been rediscovered, and the species is not currently listed as an endangered species.

Vulnerable Species

The species is likely to become endangered in New South Wales unless the circumstances and factors threatening its survival or evolutionary development cease to operate.

Species presumed extinct

A species is eligible to be listed as a species that is presumed extinct at a particular time if, in the opinion of the Scientific Committee, it has not been recorded in its known or expected habitat in New South Wales, despite targeted surveys, over a time frame appropriate, in the opinion of the Scientific Committee, to its life cycle and form.

As at the date of adoption of this Plan of Management, there were two Endangered Ecological Communities located on the land included in this Plan of Management. They are:

- 1. "Coastal saltmarsh in the NSW North Coast, Sydney Basin and South East Corner Bioregions". This listing was gazetted on 4 June 2004; and
- 2. "Swamp Oak Floodplain Forest of the NSW North Coast, Sydney Basin and south Easter Corner Bioregions". This listing was gazetted on Friday 17 December 2004.

Refer to Section 8.7.2 Flora on page 30 for more information.

There are also several species of threatened fauna know to occupy the reserves. These are:

- Regent Honeyeater (endangered) Xanthomyza Phrygia
- Pied Oystercatcher (vulnerable) Haematopus longirostris
- Masked Owl (vulnerable) Tyto novaehollandiae
- Swift Parrot (endangered) Lathamus discolor

Refer to Section 8.7.3 Flora on page 31 for more information.

As at April 2005 there were no Recovery Plans for any of the above listed communities or species completed under the Threatened Species Conservation Act 1995. Similarly, there was no Critical Habitat in Eurobodalla Shire as at April 2005.

7.17 National Parks and Wildlife Act 1974

The National Parks and Wildlife Act includes provisions designed to protect all native plants and animals species listed under the Threatened Species Conservation Act 1995.

Under the National Parks and Wildlife Act, it is an offence:

- to harm or do anything with the purpose of harming any animal which is a threatened species, population or
 ecological community ('harm' has its everyday meaning, except that it does not include harming an animal by
 changing its habitat);
- to harm any animal or use any device for the purposes of harming any animal that is fauna within a wildlife district, wildlife refuge, wildlife management area, conservation area, wilderness area or any area subject to a wilderness protection agreement;
- to pick any plant which is a threatened species, population or ecological community ('pick' means to gather, pluck, cut, pull up, destroy, poison, dig up, remove or injure);
- to pick any plant within a wildlife district, wildlife refuge, wildlife management area, conservation area, wilderness area or any area subject to a wilderness protection agreement;
- to buy, sell, possess or control any plant or animal that is a threatened species or part of an endangered population;
- to do anything or fail to do something which causes damage to a critical habitat;

- if a person knows that an area of land is the habitat of a threatened species, population or ecological community, to do something or fail to do something which causes damage to that habitat;
- to harm or do anything with the purpose of harming protected fauna;
- to buy, sell, possess or control any protected fauna;
- to import or export any protected fauna into or out of New South Wales; and
- to pick, possess or sell a protected native plant.

Harming or picking a threatened species, population or ecological community is only permitted in the following circumstances:

- with development consent under the Environmental Planning and Assessment Act and where the action in question
 was essential to carry out development in accordance with that development consent;
- if issued with a licence to harm or pick a threatened species, population or ecological community under the Threatened Species Conservation Act or a licence to harm protected fauna under the National Parks and Wildlife Act and were complying with that licence;
- if the activity was authorised by the *Rural Fires Act* 1997;
- if the activity was a routine agricultural management activity; or
- if the activity was in accordance with a property vegetation plan.

7.18 Environment Protection and Biodiversity Conservation Act 1999

The Environment Protection and Biodiversity Conservation Act 1999 is a Commonwealth Government piece of legislation that has the following objects (Section 3 of the Act):

- (a) to provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance; and
- (b) to promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources: and
- (c) to promote the conservation of biodiversity; and
- (ca) to provide for the protection and conservation of heritage; and
- (d) to promote a co-operative approach to the protection and management of the environment involving governments, the community, land-holders and indigenous peoples; and
- (e) to assist in the co-operative implementation of Australia's international environmental responsibilities; and
- (f) to recognise the role of indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity; and
- (g) to promote the use of indigenous peoples' knowledge of biodiversity with the involvement of, and in cooperation with, the owners of the knowledge.

Actions that have, or are likely to have, a significant impact on a matter of national environmental significance require approval from the Commonwealth Environment Minister under the EPBC Act.

There are two species of birds listed under the EPBCA that can be found on the reserves, they are:

- Regent Honeyeater (endangered) Xanthomyza Phrygia Recovery Plan has been completed by the Department of the Environment and Heritage
- Swift Parrot (endangered) Lathamus discolour Recovery Plan has been completed by the Department of the Environment and Heritage

It is the responsibility of the person proposing to take an action this is, or is likely to have a significant impact on the species to refer that action to the Commonwealth Environment Minister. Eurobodalla Shire Council is only obliged to refer an action that itself proposes to take. Eurobodalla Shire council is not responsible for referring the actions of other proponents.

Therefore, if Council proposed to take any action that is, or is likely to have a significant impact on the species, that action must be referred to the Commonwealth Environment Minisiter.

7.19 The Burra Charter

The Burra Charter was developed in 1979 in "Burra" South Australia to deal with issues of significance, conservation and restoration of culturally significant places. It was based on the 1966 Venice charter, but differs in that it has been developed to best suit the Australian context. The most recent amendments to the Burra Charter were completed on 26 November 1999.

The Burra Charter defines Cultural Significance as "aesthetic, historic, scientific or social value for past, present or future generations.

Cultural significance is a concept which helps in estimating the value of places. The places that are likely to be of significance are those which help an understanding of the past or enrich the present, and which will be of value to future generations.

Although there are a variety of adjectives used in definitions of cultural significance in Australia, the adjectives "aesthetic", "historic", "scientific" and "social", given alphabetically in the Burra Charter, can encompass all other values."

The Burra Charter consists of 29 articles, all relating to the recognition and conservation of places of cultural significance. Essentially the charter sets out in a logical order a set of guidelines or a framework which is intended to assist people working with historical and/or cultural places and sites.

Article 3 of the Burra Charter advocates a "cautious approach". This is expanded as follows:

- 3.1 Conservation is based on a respect for the existing fabric, use, associations and meanings. It requires a cautious approach of changing as much as necessary but as little as possible.
 - The traces of additions, alterations and earlier treatments to the fabric of a place are evidence of its history and uses which may be part of its significance. Conservation action should assist and not impede their understanding.
- 3.2 Changes to a place should not distort the physical or other evidence it provides, nor be based on conjecture.

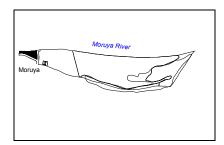
As at the date of adoption of this Plan of Management, the reserves include areas of both Aboriginal and European Cultural significance have been identified and documented. The conservation and management of these areas should be consistent with the provisions of the Burra Charter.

7.20 Other relevant legislation and policies

- Coastal Protection Act 1979
- Environmental Planning & Assessment Act 1979
- Eurobodalla Waterways Infrastructure Strategy A Strategy for the Provision and Maintenance of Wharves, Jetties and Launching Ramps throughout Eurobodalla Shire (June 2002)
- Local Government Act 1993
- Native Vegetation Conservation Act 1997
- Noxious Weeds Act 1993 (refer to Section 8.73. Weeds on page 35 for more information)
- New South Wales Biodiversity Strategy NPWS
- Native Vegetation Conservation Strategy
- State Rivers & Estuaries Policies

8.1 Reserves included in this Plan of Management

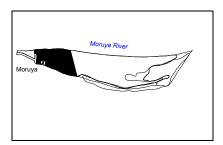
The reserves included in this Plan of Management are:



Russ Martin Park & the Moruya War Memorial Swimming Pool

Includes PIN numbers 28759, 9229, 28760, 9221 (refer to Table A on page 25 for more details).

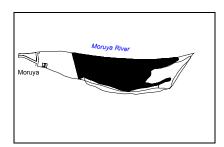
Includes part of Crown Reserve number 82377.



Moruya Riverside Park & Moruya Town Wharf and Boat Ramps

Includes PIN numbers 8933, 8932, 11777, 27004, 18366, 18368, 30308, 33025 (refer to Table A on page 25 for more details).

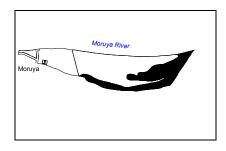
Includes part of Crown Reserve number 82377.



Ryan's Creek Parkland

Includes PIN number 7623 (refer to Table A on page 25 for more details).

Includes Crown Reserve number 83511.



Ryan's Creek and Ryan's Creek Wetland

Includes SEPP 14 Wetland number 178.

See Table A on page 25 for a complete listing of the land included in this Plan of Management.

Plan 2 on page 26 provides a more detailed illustration of the land status of the reserves as at the date of adoption of this Plan of Management.

Refer also to Appendix 3 (Vegetation Survey) on page 82 for more detailed plans of the vegetation on the reserves as at the date of adoption of this Plan of Management.

Note: The boundary of the Crown Reserves adjacent to the Moruya River is mean high water mark.

8.2 Adjacent land excluded from this Plan of Management

There are three parcels of land managed directly by the Department of Lands and one Council 'paper road' adjacent to Crown Reserve 82377 that have been considered in the masterplanning for the whole site, even though they are not formally part of the Crown Reserve. Refer to Plan 2 on page 26 for an illustration of the land managed directly by the Department of Lands and the Council 'paper road'. A paper road is an unformed road that has not yet been constructed as a formal roadway.

It is proposed that in the long term these areas may be added to the reserve (excluding the paper road providing access to the Moruya Town Wharf and Boat Ramp).

This Plan of Management recommends that an application be made to the Department of Lands to have the three parcels of land added to Crown Reserve 82377 at the termination of the current licence agreements.

Although the land currently under licence and managed directly by the Department of Lands is not formally included in this Plan of Management, the area has been identified in the Landscape Masterplan (refer to page 72) for the development of facilities to encourage, facilitate and provide cultural activities and ancillary uses for visitors in the future. In the longer term, this area could accommodate a multi-use Regional Performing and Visual Arts Centre that may also include a restaurant and/or café.

The three parcels of land and one 'paper road' adjacent to Crown Reserve 82377 are discussed in more detail as follows:

8.2.1 Arts Council of Eurobodalla Cottage at 24-26 Church Street (Lots 234 & 306 DP 758710)

The Arts Council of Eurobodalla have secured a licence (Crown Licence Number 353377) to occupy an adjacent piece of Crown Land from which to operate a Community Arts Centre – called "Art Central". They have upgraded an old residential cottage which has become an attractive cultural addition to the park environment.

This licence agreement commenced on 13 March 2003 and expires when terminated. It is recommended that this land be added to Crown Reserve 82377 on the expiration of the licence. As at the date of adoption of this Plan of Management this licence was administered by the Department of Lands.

8.2.2 Cottage at 28 Church Street (Lot 444 DP 726782)

The land at 28 Church Street is leased from the Crown. The lease is current until terminated. It is recommended that this land be added to Crown Reserve 82377 on the expiration of the lease. As at the date of adoption of this Plan of Management this lease was administered by the Department of Lands.

8.2.3 Eurobodalla Shire Council 'paper road' accessing the Moruya Town Wharf and Boat Ramps

The Moruya Town Wharf is accessed via a Eurobodalla Shire Council 'paper road'. This Plan of Management recommends that this paper road remain as it is to ensure continued access to the wharf and boat ramps.

8.3 Reserves Ownership

All land included in this Plan of Management is Crown Land. Eurobodalla Shire Council is the appointed Trust Manager under Part 5 of the Crown Lands Act 1989 for the two Trust areas included in this Plan of Management.

The Riverside Reserve Trust (Crown Reserve Number 82377) was first created on 19 February 1960. This Trust includes Russ Martin Park, the Moruya War Memorial Swimming Pool, the land adjacent to the Moruya Town Wharf and Boat Ramp, the former Moruya Caravan Park and the former site of Westwood's Tyres.

The Moruya Reserve Trust (Crown Reserve Number 83511) was created on 13 December 1961. This Trust includes the Ryan's Creek and Parkland, Ryan's Creek and Ryan's Creek Wetland.

8.4 Crown Reserve Purpose

All land included in this Plan of Management has the Crown Land Purpose of "Public Recreation".

The use of the land must be consistent with its Crown Reserve Purpose of Public Recreation and with the Council zoning for the land under its Local Environmental Plan. Further, the Plan of Management, leases and licences must support the use of the land for Public Recreation.

In addition, case law judgements influence the policy and practice of the Department of Lands and the Trust Managers. The body of case law which helps define acceptable uses and activities on public recreation reserves provides the following guidance:

- Improvements and developments to land which is reserved or dedicated are confined to those which support, or are ancillary to, the public purpose of the reservation;
- Land reserved or dedicated for public recreation must be open to the public generally as a right. The public may
 only be restricted from access to parts of the reserve and buildings thereon, if it is necessary for the public's
 enjoyment of the reserve to be excluded, eg. a workshop, equipment storage or operational facilities;
- Access as of right does not mean entirely free access. Reasonable entry fees and charges may be imposed as well as other legal constraints to entry, such as relate to health and safety;
- Use of the reserve must be consistent with the public purposes for which the land is dedicated or reserved. This
 includes uses ancillary or supportive of the purpose, such as a kiosk on land dedicated for public recreation; and
- A lease or licence must be consistent with the reason or purpose of the land's reservation or dedication.

This Plan of Management recommends that the SEPP 14 area within Ryan's Creek Parkland be assigned the Crown Reserve Purpose of "Environmental Protection", this may be subject to a land assessment by the Department of Lands.

8.5 Land Zoning

All land included in this Plan of Management is zoned 6(a)1 Public Open Space under Eurobodalla Shire Council's Urban Local Environment Plan 1999. Refer to Section 7.10 Eurobodalla Council Urban Local Environmental Plan 1999 on page 16 of this Plan of Management.

Table A: (i) Listing of Land Included in this Plan of Management (Moruya Riverside Reserves) – Eurobodalla Shire Council appointed Trust Manager

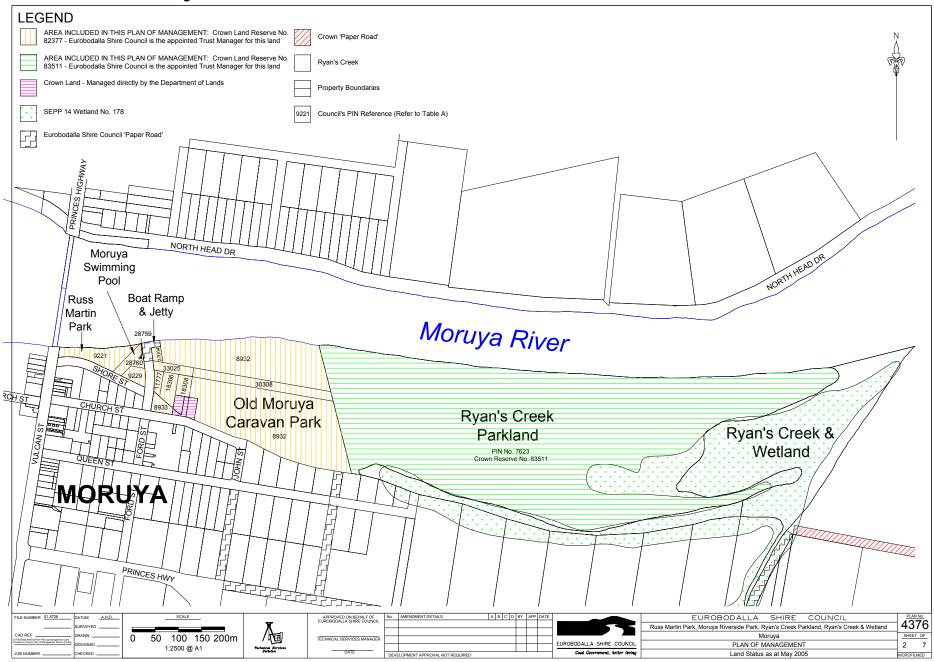
PIN No ²	Date Council Appointed Trust Manager	Reserve Name	Existing Crown Reserve Purpose	Crown Reserve Trust Name	Crown Reserve No	Lot & DP Number	Area (ha)	Address	Zoning
9221	6 May 1960	Russ Martin Park	Public Recreation	Riverside Park Reserve Trust	82377	Lot/Por: 7024 DP: 1019725	0.5286	Shore St, Moruya	6a1 Public Open Space
28759	6 May 1960	Moruya War Memorial Swimming Pool	Public Recreation	Riverside Park Reserve Trust	82377	Lot/Por: 7032 DP: 1019726	0.0069	Ford St, Moruya	6a1 Public Open Space
9229	6 May 1960	Moruya War Memorial Swimming Pool	Public Recreation	Riverside Park Reserve Trust	82377	Lot/Por: 7025 DP: 1019725	0.1555	Shore St, Moruya	6a1 Public Open Space
28760	6 May 1960	Moruya War Memorial Swimming Pool	Public Recreation	Riverside Park Reserve Trust	82377	Lot/Por: 7031 DP: 1019726	0.2061	Shore St, Moruya	6a1 Public Open Space
27004	6 May 1960	Moruya Riverside Park (east of the Boat Ramp area)	Public Recreation	Riverside Park Reserve Trust	82377	Lot/Por: RES DP: 752151	0.0681	Ford St, Moruya	6a1 Public Open Space
18368	6 May 1960	Moruya Riverside Park (Formerly Moruya Caravan Park)	Public Recreation	Riverside Park Reserve Trust	82377	Lot/Por: 221 DP: 752151	0.1252	Church St, Moruya	6a1 Public Open Space
18366	6 May 1960	Moruya Riverside Park (Formerly Moruya Caravan Park)	Public Recreation	Riverside Park Reserve Trust	82377	Lot/Por: 303 DP: 752151	0.2276	Church St, Moruya	6a1 Public Open Space
11777	6 May 1960	Moruya Riverside Park (Formerly Moruya Caravan Park)	Public Recreation	Riverside Park Reserve Trust	82377	Lot/Por: 220 DP: 752151	0.0853	Ford St, Moruya	6a1 Public Open Space
8932	6 May 1960	Moruya Riverside Park (Formerly Moruya Caravan Park)	Public Recreation	Riverside Park Reserve Trust	82377	Lot/Por: 304 DP: 752151	7.382	Church St, Moruya	6a1 Public Open Space
30308	6 May 1960	Moruya Riverside Park (Formerly Moruya Caravan Park)	Public Recreation	Riverside Park Reserve Trust	82377	Lot/Por: 1 DP: 722793	0.6350	Church St, Moruya	6a1 Public Open Space
8933	6 May 1960	Moruya Riverside Park (Formerly site of Westwood's Tyres)	Public Recreation	Riverside Park Reserve Trust	82377	Lot/Por: 305 DP 752151	0.1365	Ford St, Moruya	6a1 Public Open Space
7623	22 December 1961	Ryan's Creek Parkland	Public Recreation	Moruya Reserve Trust	83511	Lot/Por: 7021 DP: 1017328	27.72	William St, Moruya	6a1 Public Open Space
N/A	N/A – Council land	Moruya Town Wharf & Boat Ramp	N/A	N/A – Council land	N/A	Council closed road	0.1122	Ford St, Moruya	Uncoloured
33025	6 May 1960	Moruya Riverside Park (Formerly Moruya Caravan Park)	Public Recreation	Riverside Park Reserve Trust	82377	Lot/Pol: 7038 DP: 1081043	0.1810	Ford St, Moruya	Uncoloured

Table A: (ii) Listing of Land adjacent to the Moruya Riverside Reserves land managed directly by the Crown

PIN No ²	Existing Use – Lease/Licence	Current Lease/Licence Status	Area (Ha)	Lot & DP Number	Reserve No	Address	Zoning
8931 & 8930	24-26 Church Street – licenced to the Arts Council of Eurobodalla	Licence commenced on 13/3/03. Licence Number 353377. Licence expires when terminated.	0.1296	Lot 234 DP 758710 Lot 306 DP 758710	95621	Church Street, MORUYA	6a1 Public Open Space
8929	28 Church Street – Special Lease 1987/3, Moruya Residence	Weekly tenancy.	0.0907	Lot 444 DP 726782	n/a	Church Street, MORUYA	6a1 Public Open Space

² PIN refers to the land's Property Identification Number. This is a unique number that Council has assigned to that land.

Plan 2: Land Included in this Plan of Management



8.6 Historical Review

As stated in the Executive Summary, the reserve was created sometime after 1895 when the "Moruya Progress Association suggested that a reclaiming wall be built from the town wharf to MYNORA and sand pumped behind it into what was waste land. The Harbours and Rivers Department agreed. The area created behind the wall is now a park, swimming pool and caravan park." Taken from Warry, N. (1991). Eurobodalla Almanac – A Chronological Overview of the Growth of the Shire of Eurobodalla p 44.

8.6.1 Aboriginal History associated with the Reserves

Several on site meetings were conducted with Cobowra Local Aboriginal Lands Council to determine the importance of the reserve to the Aboriginal community and to identify areas of cultural significance.

It was established that there is no known Aboriginal heritage associated with Russ Martin Park, the Moruya War Memorial Swimming Pool, the Moruya Town Wharf & Boat Ramps, Ryan's Creek Parkland and Ryan's Creek and Ryan's Creek Wetland.

However, in Moruya Riverside Park, Council has been advised of the location of an area of Aboriginal cultural significance on the northeastern corner of this site. As at the date of adoption of this Plan of Management, this site has not been registered with the Department of Environment and Conservation (National Parks and Wildlife Service). This area was surveyed and has been identified as an area not for development - as illustrated on the Landscape Masterplan on page 72 of this Plan of Management.

There was an Aboriginal Midden located where the roadway now traverses from Ford Street through to where the amenities blocks were once located. This site has been destroyed, however, its existence has been registered with the Department of Environment and Conservation (NPWS) as a shell midden. This site was recorded on the 1st of July 1974 by Marjorie Sullivan.

Further meetings with various members of the Aboriginal community have provided an insight into the Aboriginal history associated with the reserves. One of the elders has provided this commentary "European settlement of the Moruya Area commenced in 1828 with the arrival of Frances Flannagan. There were 150 Aboriginal people living in Moruya but by 1848 only 13 survived because of diseases. The loss of land occurred with European settlement (territories, camp sites and sacred areas) so the remaining Koori people had lost their culture by the 1800's and could no longer follow their traditional lifestyles."

8.6.2 European History associated with the Reserves

The Moruya Progress Association was responsible for the creation of the Russ Martin Park, north of the Adelaide Hotel sometime prior to 1920. The park was named after Russell Arthur William Martin – a local publican and councillor. The area has been used as a park for many years and the large Moreton Bay Figs in this park are believed to be over 80 years old.

The area now accommodating the Moruya Memorial Swimming Pool was previously the site of the "Steamer Store" – a storage area for timber and other produce prior to being loaded onto the vessels to be transported away.

In 1901 a new town wharf was built in the same location as today's wharf and boat ramps. This new wharf replaced the Shore Street Wharf. The first steamer to dock here was the S.S. Murray.

The previous wharf was much larger than today's as it was servicing large vessels. A crane was located at the end of the old wharf and trolley tracks connected the wharf to the Illawarra & South Coast Steamship & Navigation Company building (later known as Moruya Produce).

Many floods have had their impact on the reserves. During the 1925 flood the SS Bermagui was washed into the training wall beside the old Caravan Park site – approximately 300m east of the Moruya Bridge.

The Illawarra & South Coast Steamship and Navigation Company's holding sheds/depot was located the site of the old Moruya Caravan Park. This was a Second World War industry which began to wind down after 1945 with the flood which washed the bridge away. In 1953 the Illawarra & South Coast Steamship and Navigation Company ceased operations and was taken over by Allen Taylor & Company and Lumber Operators using SS Bergalia & Bermagui. Boats were still known to deliver goods and passengers to Moruya up until 1959.

Ryan's Sawmill was built on the corner of Church & Ford Streets. Over time there were many owners – the final occupant was Westwoods Tyres. This building burnt down in 2002.

A 'swimming pool' evolved from the southern side of the retaining wall in the 1940's. The pool provided a tidal swimming 'hole' for the community until the development of the Moruya Memorial Swimming Pool in 1965. Of interest, the Moruya Examiner on 5 October 1951 reported the following article:

"SWIMMING BATHS TO BE REPAIRED AGAIN – Last Wednesday's meeting of the Moruya Urban Committee decided to repair as soon as practicable the river swimming baths and to try to obtain from the P.W.D. [Public Works Department] granite spalls for the building of a retaining wall at the baths. These baths have been repaired several times and flood debris has always put them out of commission again; it is intended to try a method of staying the upstream piles to the bank this time to try and float the debris past the baths.

This 'swimming pool' has been placed on Council's list for future investigation for heritage significance.

The area identified as Ryan's Creek Parkland land was once part of the flow of the river prior to the construction of the river training wall. It appears that much of this area was intertidal, as indicated by old parish maps of the area. The area was later called "The Commons" and was used by locals to graze stock when feed was scarce.

In the past Ryan's Creek and Ryan's Creek Wetland has been a popular place for fishing and prawning. Over 100 years ago, the Mynora Wharf was located on the east side of Ryan's Creek.

8.6.3 Moruya River – Brief history of the development of the training wall and the use of the river

The publication "Between Wind & Water" published by the NSW Department of Public Works provides an excellent record of the development of ports, river mouths and coastal waterways of New South Wales. The following extracts provide an insight into the development of the breakwaters of the Moruya River:

"The breakwaters which guided ships to the town jetties at Moruya and Narooma were more than mere installations. They had been argued for and won; they had become symbols of local identity, and their deterioration seemed to symbolise a dissolving lifestyle, draining communities of their political and economic substance. This was the spectre which had provoked the more irrational lobbying for harbour works and port facilities all along the coast; the dreams of deep-sea ports which had for so long attracted the investment of capital, and even more significantly, had inspired the investment of life and labour which made the ports a personal legacy for generations of families".

"Upriver townships such as Murwillumbah, Mullumbimby, Lismore, Casino, Grafton, Bellingen, Kempsey, Taree, Nowra and Moruya owe their existence to the breakwaters that allowed ships to enter the rivers, and it was shipping on which they entirely depended, until roads and railways linked them. Many of the jetties are gone, though the observant will discern traces of their past importance in the layout of riverside towns or beach roads."

The following timeline of events has been developed from information included in this publication:

1826: Governor Ralph Darling proclaimed the Moruya River the southern limit of location, beyond which potential landowners were warned "neither civilized society nor colonial law prevailed".

Farmers used the Moruya River as a canal to send their vegetables and corned beef upriver by iron punt, as no ship could get into the river. Floodwaters temporarily opened the entrance in 1847 and 10 years later the new Broulee electorate petitioned parliament on the necessity and practicality of maintaining an entrance by dredging. Chief Engineer for Harbours and Rivers, E.O. Moriarty, sent a surveyor in 1861 to investigate.

1840s:

1874: E.O. Moriarty sent Hydrographic Surveyor, Thomas Keele, to make a detailed study of the entrance to the Moruya Riiver for a proposed breakwater on the northern shore to deepen and stabilise the shipping channel up to the town wharf. 1883: A large sandbank was The river dredge Minos cut through a large sandbank seawards, almost making it to the bar. This enabled the ISCSNC (Illawarra and South Coast Steam Navigation Company) to use the river with constant dredging. 1885: The colonial government commissioned a design for works on the Moruya River. 1888: The Dredge Superintendent reported: "Of all the ports of our seaboard there is non more unsatisfactory to report on than Moruya. Thirty years ago the river was in a far better condition than it is today. At that time there was comparatively deep water as far as the township. Now there is nothing to be seen but a continuation of sandbanks. The altered condition has been caused by the tearing up of the rive bed and its banks by gold-diggers and sluicing parties seeking for gold from Araluen to Moruya, as well as by the deposit of debris sent down from hydraulic sluicing claims on the upper tributaries. This blocking up of the river has been most prejudicial to the entrance, the volume of flood tide water being lessened, the ebb scour is correspondingly diminished, hence the shallowed bar and the tortuous channel inside of it." 1890: Work had commenced on constructing a mile long dyke to help maintain a straight channel in the Moruya River. A flood breached the dyke and the embankment behind it broke down. Costs to this point totalled nearly £15,000. Attempts to reshape the river were suspended. <u>1891</u>: The river mouth bar became impossible with the closure of the river mouth. 1892: The Moruya Steam Navigation Company formed and purchased the steamer Trident. In the same year the grab dredge Pi was working in difficult conditions as the seas over the bar were too rough for punts to be loaded there from the dredge. 1894: The ladder dredge Archimedes was used to dredge the entrance. Due to rough seas and the shallow entrance which hindered towing, the dredge was prevented from working to its capacity. The bar was improved enough to allow the Trident to make weekly trips between Moruya and Sydney. Unfortunately, while waiting outside the entrance for high tide, the Trident struck the end of the breakwater and sank. The vessel was not salvageable. 1897: Another attempt was made to deepen the river channel and create a turning basin for steamers by dredging. This was to allow small steamer passage to the town wharf where they could load and discharge cargo. A dredge vessel, the Tau, discharged the dredge material into a reclamation area behind a curved training wall while work resumed on the protection wall along the northern bank. 1901: Work on the training walls was suspended after funding cuts. 1904: The local Moruya Steam Navigation Company ceased to operate. <u>1907</u>: Dredging resumed on the Moruya River to keep the channel open for ships. The southern training wall was extended. <u>1920</u>: 400 feet of the training wall subsided following a scour along the river side of the breakwater. 1924: The Benandra was turned broadside on by the waves while trying to cross the bar. One passenger drowned below before a boat could be launched and the ship abandoned. Moruya quarry opened on the northern shore of the river near the entrance to supply granite for the construction of the Sydney Harbour Bridge. This provided the impetus to spend more funds on the maintenance of a channel along the river. <u> 1925</u>: Construction of a spur wall commenced in an effort to improve the crossing conditions inside the entrance. Then huge floods flushed out all the sandbanks from the lower river. During this time the Bermagui was washed over the training wall. The ship was floated back into the river and 20 metres of the training wall had to be demolished and rebuilt. Following the floods, the Ballina dredged a channel through shoals which stretched across the river and extended for more than a mile between Moruya and Malabar Creek. 1927: The spur wall was completed. 1931: Contract for the supply of Moruya Granite was completed. The southern training wall was extended by 500 feet. 1944: Surveys of sand movement at the Moruya entrance were carried out by Public Works Hydrographic Surveyor E.M. Beach. <u>1946</u>: £160,000 was approved for expenditure on new works at Moruya. This involved extending the northern breakwater by 600 feet, constructing a westerly training wall from the breakwater and an easterly extension of the southern wall. 1952: Illawarra and South Coast Steam Navigation Company ceased operations. 1954: Extensions works on the breakwaters completed.

8.7 Land Description as at adoption of this Plan of Management

8.7.1 Topography

Over 36½ hectares of flat riverside reserves lie alongside the Moruya River for approximately 1.7 kilometres east of the Moruya Bridge. The reserves are located on the Moruya River Floodplain and thus the topography is generally flat with slight undulations in some areas.

The river's edge is defined by a breakwall of granite boulders. The training wall was built in late 1800's and early 1900's by the New South Wales Department of Public Works to ensure that the Moruya River remained navigable for boats. The breakwall is currently maintained by Eurobodalla Shire Council funding in part provided by the New South Wales State Government.

8.7.2 Flora

No Flora & Fauna study has been carried out on this reserve. However a detailed survey of the vegetation in the Moruya Riverside Park, Ryan's Creek Parkland, Ryan's Creek & Ryan's Creek Wetland was carried out by Mrs Jenny Liney, a member of the Friends of the Eurobodalla Regional Botanic Gardens. Refer to Section 15.0 Appendix 3 on page 82 for more information. This study identifies the major species and makes recommendations on the management of both native and weed species.

A Flora & Fauna study would be required to detail the diversity and health of flora on the reserve. There is little information about the SEPP 14 Wetland (No. 178) which occupies approximately 24 hectares (over half of the reserve) at the eastern half of the study area, or in regard to the two endangered ecological communities that are located on the reserve and discussed below.

In May 2000 NSW National Parks and Wildlife Service (Department of Environment and Conservation) completed a report "Terrestrial Ecosystems of the Eurobodalla Local Government Area" with assistance from Eurobodalla Council and the Lower South Coast Catchment Management Committee. The report is derived from the Southern Comprehensive Regional Assessment (1997-2000).

The report identified the following vulnerable vegetation communities on the reserves:

ECOSYSTEM 185: Mangrove Estuarine Low Forest

Mangrove Estuarine Low Forest is a low estuarine forest dominated by *Aegiceras corniculata* or *Avicennia marina*. It is restricted to mudflats occurring in the upper tidal zone. It occurs north from about Merimbula in the Eden CRA Region (Keith & Bedward 1999).

ECOSYSTEM 25: South Coast Swamp Forest complex

South Coast Swamp Forest complex- Casuarina glauca is a medium dense forest up to 15 metres tall, dominated by Casuarina glauca, with Acacia sophorae and Avicennia marina. The ground cover is sparse with herbs and graminoids including Commersonia cyanea, Pratia purpurescens, and Rhagodia candolleana ssp. candolleana.

As discussed in Section 7.15 on page 18, these vegetation communities form part of two endangered ecological communities that have been listed under the Threatened Species Conservation Act 1995.

Ecosystem No. 185 includes Mangrove species that are protected marine vegetation under the Fisheries Management Act 1994.

Ecosystem No.25 is included in the endangered ecological community of "Swamp Oak Floodplain Forest of the NSW North Coast, Sydney Basin and south Easter Corner Bioregions". This listing was gazetted on Friday 17 December 2004.

A site visit has determined that parts of Ryan's Creek Parkland and Wetland includes vegetation that forms the endangered ecological community of "Coastal saltmarsh in the NSW North Coast, Sydney Basin and South East Corner Bioregions". This listing was gazetted under the Threatened Species Conservation Act on 4 June 2004. These areas have not yet been mapped.

Both Ecosystems 25 and 185 have been mapped and are illustrated at Photo 2 below.



Photo 2: 1996 Aerial photo illustrating the extent of the Endangered Ecological Communities

As at April 2005 there are no Recovery Plans adopted for these endangered ecological communities. The completion of Recovery Plans under the Threatened Species Conservation Act is the responsibility of the Department of Infrastructure, Planning and Natural Resources.

8.7.3 Fauna

As stated above, no Flora & Fauna study has been carried out on this reserve. However, Mike Crowley, Ecologist, has provided the following list of frogs, reptiles, birds and mammals that he has recorded in the area over the past 20 years.

Amphibians – Ryans Creek				
Scientific Name	Common Name			
Crinia signifera	Common Froglet			
Lymnodynastes peronii	Striped Marsh Frog			
Paracrinia haswelli	Haswell's Toadlet			
Pseudophryne bibronii	Bibron's Toadlet			
Pseudophryne dendyi	Dendy's Toadlet			
Litoria dentata	Bleating Tree Frog			
Litoria ewingi	Ewing's Tree Frog			
Litoria peronii	Peron's Tree Frog			
Litoria verreauxii	Verreaux's Tree Frog			

Reptiles – Ryans Creek				
Scientific Name	Common Name			
Amphibolurus muricatus	Jacky Lizard			
Physignathus lesueurii	Eastern Water Dragon			
Varanus varius	Lace Monitor			
Lampropholis delicata	Dark-flecked Garden Skink			

Reptiles – Ryans Creek	
Scientific Name	Common Name
Lampropholis guichenoti	Pale-flecked Garden Skink
Teliqua scincoides	Common Eastern Bluetongue
Pseudechis porphyriacus	Red-bellied Black Snake

Common Name Black Swan Darter Little Pied Cormorant White-faced Heron Little Egret Great Egret Cattle Egret Striated Heron Nankeen Night Heron Australian Ibis Royal Spoonbill Black-shouldered Kite Whistling Kite Swamp Harrier Brown Goshawk Grey Goshawk
Darter Little Pied Cormorant White-faced Heron Little Egret Great Egret Cattle Egret Striated Heron Nankeen Night Heron Australian Ibis Royal Spoonbill Black-shouldered Kite Whistling Kite Swamp Harrier Brown Goshawk
Little Pied Cormorant White-faced Heron Little Egret Great Egret Cattle Egret Striated Heron Nankeen Night Heron Australian Ibis Royal Spoonbill Black-shouldered Kite Whistling Kite Swamp Harrier Brown Goshawk
White-faced Heron Little Egret Great Egret Cattle Egret Striated Heron Nankeen Night Heron Australian Ibis Royal Spoonbill Black-shouldered Kite Whistling Kite Swamp Harrier Brown Goshawk
Little Egret Great Egret Cattle Egret Striated Heron Nankeen Night Heron Australian Ibis Royal Spoonbill Black-shouldered Kite Whistling Kite Swamp Harrier Brown Goshawk
Great Egret Cattle Egret Striated Heron Nankeen Night Heron Australian Ibis Royal Spoonbill Black-shouldered Kite Whistling Kite Swamp Harrier Brown Goshawk
Cattle Egret Striated Heron Nankeen Night Heron Australian Ibis Royal Spoonbill Black-shouldered Kite Whistling Kite Swamp Harrier Brown Goshawk
Striated Heron Nankeen Night Heron Australian Ibis Royal Spoonbill Black-shouldered Kite Whistling Kite Swamp Harrier Brown Goshawk
Nankeen Night Heron Australian Ibis Royal Spoonbill Black-shouldered Kite Whistling Kite Swamp Harrier Brown Goshawk
Australian Ibis Royal Spoonbill Black-shouldered Kite Whistling Kite Swamp Harrier Brown Goshawk
Royal Spoonbill Black-shouldered Kite Whistling Kite Swamp Harrier Brown Goshawk
Black-shouldered Kite Whistling Kite Swamp Harrier Brown Goshawk
Whistling Kite Swamp Harrier Brown Goshawk
Swamp Harrier Brown Goshawk
Swamp Harrier Brown Goshawk
Croy Cooboule
Grey Gosnawk
Collared Sparrowhawk
Wedge-tailed Eagle
Australian Hobby
Australian Kestrel
Masked Lapwing
Silver Gull
Feral Pigeon
White-headed Pigeon
Spotted Turtle-Dove
Brown Cuckoo-Dove
Common Bronzewing
Yellow-tailed Black Cockatoo
Gang-gang Cockatoo
Galah
Sulphur-crested Cockatoo
Rainbow Lorikeet
Musk Lorikeet
Little Lorikeet
Australian King Parrot
Crimson Rosella
Eastern Rosella
Pallid Cuckoo
Fan-tailed Cuckoo
Horsefield's Bronze Cuckoo
Shining Bronze Cuckoo
Common Koel
Channel-billed Cuckoo
Southern Boobook
Barn Owl
I Bam UWI
White-throated Needletail

Birds - Ryans Creek	
Scientific Name	Common Name
Dacelo novaeguineae	Laughing Kookaburra
Toriramphus sanctus	Sacred Kingfisher
Eurystomus orientalis	Dollarbird
Climacteris leucophaeus	White-throated Treecreeper
Malurus cyaneus	Superb Fairy-wren
Malurus lamberti	Variegated Wren
Pardalotus punctatus	Spotted Pardalote
Sericornis frontalis	White-browed Scrubwren
Gerygone mouki	Brown Gerygone
Gerygone olivacea	White-throated Gerygone
Acanthiza pusilla	Brown Thornbill
Acanthiza chrysorrhoa	Yellow-rumped Thornbill
Acanthiza nana	Yellow Thornbill
Acanthiza lineata	Striated Thornbill
Anthochaera carunculata	Red Wattlebird
Anthochaera chrysoptera	Little Wattlebird
Philemon corniculatus	Noisy Friarbird
Meliphaga lewinii	Lewin's Honeyeater
Lichenostomus chrysops	Yellow-faced Honeyeater
Lichenostomus leucotis	White-eared Honeyeater
Melithreptus lunatus	White-naped Honeyeater
'	New Holland Honeyeater
Phylidonyris novaehollandiae Acanthorhynchus tenuirostris	Eastern Spinebill
Myzomela sanguinolenta	Scarlet Honeyeater
Microeca fascinans	
	Jacky Winter Flame Robin
Petroica phoenicae Petroica rosea	Rose Robin
Eopsaltria australis	Eastern Yellow Robin
Psophodes olivaceus	Eastern Whipbird
Pachycephala pectoralis	Golden Whistler
Pachycephala rufiventris	Rufous Whistler
- · · · · · · · · · · · · · · · · · · ·	
Colluricincla harmonica Monarcha melanophris	Grey Shrike Thrush Black-faced Monarch
Myiagra rubecula	Leaden Flycatcher
Myiagra inquieta	Restless Flycatcher
Grallina cyanoleuca	Magpie Lark
Rhipidura rufifrons	Rufous Fantail
Rhipidura fuliginosa	Grey Fantail
Rhipidura leucophrys	Willie Wagtail
Coracina novaehollandiae	Black-faced Cuckoo-shrike
Oriolus sagittatus	Olive-backed Oriole
Sphecotheres viridis	Figbird
Artiamus cyanopterus	Dusky Woodswallow
Cracticus torquatus	Grey Butcherbird
Gymnorhina tibicen	Australian Magpie
Strepera graculina	Pied Currawong
Corvus coronoides	Australian Raven
Ptilonorhynchus violaceus	Satin Bowerbird
Anthus novaehseelandiae	Richard's Pipit
Passer domesticus	House Sparrow
Neochmia temporalis	Red-browed Finch
Carduelis carduelis	
Dicaeum hirundinaseum	European Goldfinch
Dicaeum mirunumaseum	Mistletoe Bird

Birds – Ryans Creek				
Scientific Name	Common Name			
Hirundo neoxena	Welcome Swallow			
Hirundo nigricans	Tree Martin			
Zosterops lateralis	Silvereye			
Turdus merula	Blackbird			
Sturnus vulgaris	Common Starling			
Acridotheres tristis	Common Myna			

Mammals – Ryans Creek	
Scientific Name	Common Name
Tachyglossus aculeatus	Short-beaked Echidna
Macropus giganteus	Eastern Grey Kangaroo
Canis familiaris	Dog & Dingo
Vulpes vulpes	Red Fox
Oryctolagus cuniculus	Rabbit

While this list is comprehensive, in order to accurately document the fauna more completely a Flora & Fauna study would be required to survey the diversity and health of fauna on the reserve.

The Eurobodalla Natural History Society visited the site in April 2003. Based on their records (Nature in Eurobodalla Nos. 1-16 1986-2002) and personal knowledge, the Society has contributed the following notes in regard to fauna:

- The stretch of land supports a wide range of waterside birds, raptors, non-passerines and passerines, as well as mammals, reptiles and amphibians, moths and butterflies and other invertebrate insects.
- The south bank of the Moruya River forms part of the corridor used by several species of migrating Honeyeaters that make their way downriver to South Head and across the estuary to North Head on their autumn migration to the north. It forms part of the corridor for southerly migration in spring but is not as well-used as in autumn.
- The woodland is used by summer-migrant breeding birds: Sacred Kingfishers, Dollarbirds, Leaden Flycatchers, Rufous Fantails, Black-faced Monarchs and others.
- Resident birds, from small Yellow-rumped Thornbills in open land to large insectivorous species like Magpies, various Honeyeaters and other species of Thornbills, Fairy-wrens and Scrubwrens in woodland and woodland edges, maintain stable populations.
- Casuarina stands are favoured by all species of small, insectivorous birds.
- The proximity of urban land is to the benefit of most species: gardens provide food, nesting sites and (often) fresh water.
- Ryan's Creek is home to waterside birds, Ibis, Herons and Egrets. The banks provide nesting sites for Azure Kingfishers and the nearby wetland is a haven for amphibians.
- Undoubtedly, small reptiles (lizards and skinks), some species of snakes, probably Lace Monitors too, inhabit this stretch of land.
- Additional plantings would strengthen those fragile parts of the woodland and casuarina stands could be augmented.

As at June 2004 Eurobodalla Shire Council records and the NPWS Wildlife Atlas indicate that the following threatened species had been recorded around the reserves:

- Regent Honeyeater (endangered) Xanthomyza Phrygia The Regent Honeyeater is a medium sized honeyeater with black, white and bright yellow plumage. Black plumage is dominate on the head, neck, breast and back are predominantly black. The black plumage on the wings is edged with white and the outer feathers are bright yellow. A distinguishing, large patch of bare, cream-coloured warty skin surrounds each eye.
- Pied Oystercatcher (vulnerable) Haematopus longirostris The Pied Oystercatcher is shy of humans and seldom allows close approach. It is mostly silent when feeding but may utter a whistled 'peepapeep' or 'pleep-pleep' when in flight. All oystercatchers have a bright orange-red bill, eye-rings and legs and a red

eye. Young birds are similar in appearance to the adults, but lack the intense red-orange colour and are more brown instead of black. The size ranges from 48 - 51 cm. The white breast and belly distinguish the Pied Oystercatcher from the closely related Sooty Oystercatcher, *H. fuliginosus*, which has all black plumage.

- Masked Owl (vulnerable) Tyto novaehollandiae The Masked Owl has three basic plumage forms: pale, intermediate and dark. The plumage pattern remains similar in each case. The facial disc is chestnut to white, edged with a darker ring and darker around the bill and below the eyes. The upper parts vary from blackish-brown to grey-white and are liberally spotted with grey and white. The underparts are rufous to white, speckled with dark brown. Sexes are similar in plumage, but the females are markedly larger and generally darker than the males. The call is a deep, rasping screech. Young Masked Owls are white to cream in colour when first fledged. After the first year, they closely resemble the adults but may be more heavily streaked.
- Swift Parrot (endangered) Lathamus discolour The swift parrot Lathamus discolor (White) is a small fast-flying, nectarivorous parrot which occurs in eucalypt forests in south eastern Australia. Bright grass green in colour, the swift parrot has patches of red on the throat, chin and forehead, which are bordered by yellow. It also has red on the shoulder and under the wings and blue on the crown, cheeks and wings. A distinctive alarm call of kik-kik-kik (usually given while flying), a streamlined body, long tail and flashes of bright red under the wing enable the species to be readily identified.

As at April 2005 there are no Recovery Plans adopted for these species. The completion of Recovery Plans under the Threatened Species Conservation Act are the responsibility of the Department of Infrastructure, Planning and Natural Resources.

8.7.3 Weeds

The following noxious weeds have been identified on the various areas of the reserve:

- Eragrostis curvula African Lovegrass (W2)
- Lycium ferocissiumum African Boxthorn (W2)
- Opuntia sp. Prickly Pear (W4f)
- Rubus fruticosus Blackberry (W3)
- Chrysanthemoides monilifera Bitou bush

The control of further spread from African Lovegrass is essential. This noxious weed is spread by seed contamination on vehicles leaving the site and from contaminated soil leaving the site. As result construction/maintenance vehicles must be washed down prior to leaving the site and no soil is to be removed from the site. Similarly, any fill being brought to the site must be deemed clean and free of weeds prior to use on the site.

Under the Noxious Weeds Act 1993 land owners are responsible for the control of noxious weeds. As Trust Manager of these reserves, Council is responsible for the control of noxious weeds on the land. A program is currently underway that includes the treatment of the above noxious weeds.

There are many environmental weeds that have been identified on the site. Some of these include:

- Acetosella sagitatta Turkey rhubarb
- Conyza albida Fleabane
- Delairea odorata Cape Ivy
- Ligustrina lucidum Large Leaved Privet
- Ligustrina sinense Small Leaved Privet
- Myrsiphyllum asparagoides Florist's smilax
- Pennisetum clandestinum Kikuyu
- Salix sp. Willow
- Senna x floribunda

- Sida rhombifolia Paddy's lucerne
- Solanum mauritianum
- Tradescantia albiflora Wandering jew
- Yucca aloifolia Yucca

Refer to Section 17.0 Appendix 3: Vegetation Survey on page 82 for more detailed information on the vegetation on the reserves as at April 2002.

Refer to Section 11.5 Environmental Management on page 56 for the proposed land management strategies in regard to weed control.

8.7.4 Climate

Moruya experiences a mild temperate climate with a mean maximum of approximately 24°C in February and a mean minimum of approximately 6°C in July. Quite often it can be upto 5°C warmer in Moruya than at Moruya Heads.

The mean rainfall ranges from 97mm over 10 days in January to 54 millimetres over 7 days in July. These temperatures are recorded at Moruya Heads, located approximately 6.5km east of the reserves.

8.7.5 Moruya River

The Moruya River has a catchment area of 1,540 km². The waterway area is 30.4 km². There are twin training breakwaters where the river meets the sea.

The Deua River becomes the Moruya River approximately 20 km from the entrance at the junction of Womban Creek. In the bygone period of coastal traders, the river was navigated by large cargo vessels up to Moruya (7 km from entrance). The Moruya River is mostly shallow with depths varying between 2 and 3 m - sand banks are exposed at low tide near the Princess Highway bridge at Moruya. Navigable access to small craft downstream of the tidal limit (19 km from entrance) remains generally good except for the 1 km length of river immediately adjacent to the Princess Highway bridge. The mean spring tidal range at the entrance is 1.10 m.

There is good public access – there are many opportunities for boat launching along the entire north bank downstream of Moruya.

The river and estuaries support professional and recreational fishing, prawning and oyster operations. Production on the flood plains includes dairying.

The Moruya Sewerage Treatment Plant is located south of the SEPP 14 Wetland.



Photo 3: Aerial view of the Moruya River mouth. Moruya Riverside Reserves are located approximately 6.5km upstream from the river mouth.



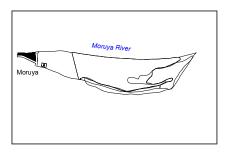
Photo 4: Aerial view of Moruya Riverside Reserves

8.8 Existing facilities and uses as at adoption of this Plan of Management

This section discusses the existing facilities and uses of the various parts of the reserve. It provides a general discussion of the facilities and highlights the need for change and improvements and the opportunities for future development.

In the future, this section will provide a historical reference for the development of the reserves.

8.8.1 Russ Martin Park



Russ Martin Park is a small park east of the Moruya River Bridge. There are electric bbq facilities, picnic tables and chairs, play equipment, shady trees and a small rotunda. The original toilet block was constructed in 1972, however this was replaced in 2000 with a new building. This public toilet serves the northern end of town, the Saturday markets and visitors.

There are many different activities located within a relatively small area. As a result the park can become crowded and congested when busy during public holidays and weekends. It is a park that provides attractions for both passive as well as active activities – sometimes creating a conflict of use. The Moruya Markets currently operate from the car park behind the Adelaide Hotel, across the road from the park. The markets attract large crowds, often overflowing into the park where there is often a town band playing or a local community group fund raising.



Photo 5: Russ Martin Park BBQ and Picnic Facilities



Photo 7: Russ Martin Park Children's Play Equipment



Photo 6: Russ Martin Park Rotunda



Photo 8: The pedestrian/cycle way through Russ Martin Park

The grass cover is generally good, even though the park is not irrigated. There are many shade trees including mass *Casuarina sp.* plantings along the river's edge and *Grevillea robusta* feature trees. There are three significant *Ficus macrophylla* (Moreton Bay Figs) on the southern boundary of the park. These trees are in fair to good condition, having been infested with and treated for Fig Psyllid and requiring some tree surgery to improve their form, their health and to reduce the risk of limbs falling. At some time in the future selected removal may need to be considered. They provide excellent shade and amenity to the park and should be preserved and maintained as a high priority or replaced if the Fig Psyllid causes irreparable damage.

The park furniture is in poor condition. Constructed of timber and reinforced concrete, they are progressively rusting and decaying. To minimise the visual effect of this the furniture is regularly painted.

There is a brass plaque memorial set into a granite block in recognition of Russell Arthur Martin, after whom the park is named. The concrete slab on which this is set is in poor condition and the location of the granite block can restrict movement through the park during busy times.

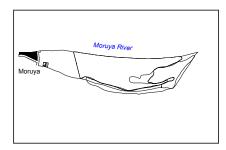
The Rotunda or Band Stand is in good condition, however it is subject to vandalism. It is often the focus of activity in the park with various town bands playing on weekends or special occasions. The park furniture around the Rotunda is in good condition, however the garden beds are sparsely planted and barren.

The picnic furniture next to the play equipment is in satisfactory condition. There is a shade structure accompanying this table and chairs.

The play equipment is approximately 11 years old and does not reflect the recent changes in playground equipment design that can provide a better play experience for children.

There is a bubbler and tap in the park. The bubbler is subject to vandalism. The tap provides water for routine maintenance.

The park is bounded on the west by the Moruya River Bridge. The RTA has considered plans for a new dual carriageway bridge over the Moruya River, which may cross the river at a point further east of Russ Martin Park. However, this would not become a serious issue until at least 2025 and should not restrict the development of the reserves in the short to medium term.



The Moruya War Memorial Swimming Pool was officially opened by Edwin Street on 13 February, 1965. The original pool was 33m long and 10.7m wide. In the early 1990's the pool was rebuilt to accommodate improved filtration methods and to provide a more modern facility for the community. The rebuilt Moruya War Memorial Swimming Pool was officially opened by Councillor C.P. Vardon on 11 December, 1992.

The rebuilt complex comprises of 3 pools: a 25m eight lane lap pool, a learner's pool and a toddlers' pool. The complex is open from August through to April. There are shady and sunny areas to sit, seating for watching events and a small kiosk that provides refreshments. Toilets, change room and shower facilities are all provided within the complex. It is a popular venue during school holidays and provides learn to swim classes, squad training and aqua aerobics classes.

As at the date of adoption of this Plan of Management the swimming pool complex is contract managed by Euroswims Pty Limited. The management and maintenance of the pool is governed by the details of the management agreement. Further information regarding the operation of the pool is detailed in the management agreement document. The current management agreement expires on 30 June 2006. At the completion of the management agreement it will be re-tendered.

There is an informal, well used track between the northern boundary of the swimming pool complex and the river's edge.

There are 30 parking spaces provided for the swimming pool complex. This is sufficient for everyday use, during events, cars park further afield in adjoining streets and carparks.

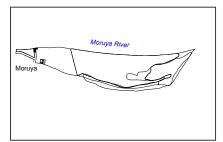


Photo 9: Informal pathway between the swimming pool and the river.



Photos 10: Moruya War Memorial Swimming Pool 25m Lap Pool.

8.8.3 Moruya Town Wharf & Boat Ramps



Adjacent to the Moruya War Memorial Swimming Pool complex and located at the northern end of Ford Street is the Moruya Town Wharf and Boat Ramps.

The Moruya Town Wharf is owned and maintained by Eurobodalla Shire Council. Council has entered into an agreement with the Department of Lands for a Permissive Occupancy (PO No. 1970/20) for the wharf.

The concrete boat ramps are both approximately 19m long and 4m wide. They are in average condition with the concrete falling away in some sections and the embankments on either side severely eroded.

It's a convenient place to fish, launch a boat or jet ski, even dive into the Moruya River for a swim. The Moruya Surf Life Saving Club uses the boat ramps to launch their rowing craft when training their boat crews – upto 3-4 nights a week during Summer, as do many other recreational rowers.

In the past, the site has been host to Dragon Boat races. The boats launch from the boat ramps and row east along the river to the starting line. The finish line is the eastern boat ramp. Spectators line the banks of the river to watch the event. Occasionally yachts and catamarans have moored at the Wharf.

There is inadequate parking provided for boats with trailers. Vehicular manoeuvrability is difficult due to the lack of turning area. However the wharf and boat ramp are not heavily used and the facilities meet the needs of the current volume of users.

A park bench is located above the Town Wharf and provides a great vantage point for taking in the view and watching the activities along the river.

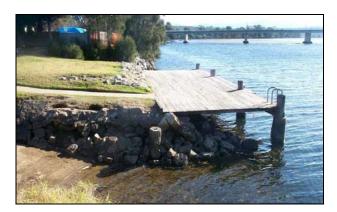
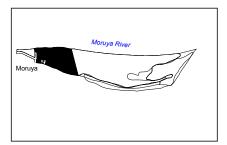


Photo 11: The Moruya Town Wharf and Boat Ramps



Photo 12: Eastern Boat Ramp adjacent to the Moruya War Memorial Swimming Pool

8.8.4 Moruya Riverside Park



Until June 2001 the Moruya Caravan Park operated from the reserve between the Moruya War Memorial Swimming Pool and Ryan's Creek Parkland. The amenities block is one of the few reminders of the old caravan park. Most of the other services, such as concrete slabs and electricity posts, were removed in August 2001. There are some impressive stands of exotic trees remaining.

Due to the regular flooding of the Moruya River and the inconvenience and risk to life and property associated with the rising flood levels, the lease for the Caravan Park was not renewed. It was a popular place for camping and caravans with people returning annually to the park.

The amenities block remains on the reserve and includes both men's and women's toilets and shower facilities. There is also a laundry and a small office.

These amenities blocks are in poor condition due to acts of vandalism which occurred after the Caravan Park closed down and have since been fenced off until their demolition.



Photo 13: Amenities Block on the former Moruya Caravan Park site (these were scheduled for removal in 2005).



Photo 15: Open grassed area with the Westwood Tyre building in the background (this building burnt down in 2002).



Photo 14: Entrance to the Moruya Riverside Park from Ford Street.



Photo 16: Moruya Riverside Park. Facing west from the centre of the park.

There are many trees planted throughout the reserve, originally to provide shade for campers and caravans. Many are in excellent condition and are good park feature trees. Others are in poor condition and should be removed and replaced with a more appropriate species. There is certainly the basis for an excellent parkland environment.

There are areas clear of vegetation that have a meadow like appearance. The ground levels are inconsistent and certainly levelling out is required over much of the park.

The remnants of a "Swimming Hole" on the edge of the Moruya River are still clearly evident (refer to Section 8.6.2 European History on page 27 for more information). The embankments around the pool are in poor condition and subject to erosion. There is significant sediment accumulating in the pool and mangroves have established in what was once a sandy base. As at the date of adoption of this Plan of Management the pool was being considered for Heritage Listing. The swimming hole is no longer suitable for swimming.



Photo 17: Casuarinas assisting with training wall stabilisation where Ryan's Creek meets the Moruya River.



Photo 18: Small inlet from the Moruya River on Ryan's Creek Parkland. An opportunity for revegetation and bank stabilisation.

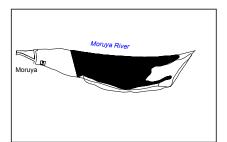


Photo 19: The "Swimming Hole" facing east with Moruya River alongside.



Photo 20: The "Swimming Hole" facing south west.

8.8.5 Ryan's Creek Parkland



East of the Moruya Riverside Park is Ryan's Creek Parkland. Fenced with a cattle grid providing public access, this area has been used by the Moruya Rodeo Committee since 1968 as grazing land for the Club's horses.

The Committee has recently installed new fencing and cattle grid. There are currently approximately 15 horses grazing on the parkland. There is no formal arrangement between the Department of Lands or Council

authorising this use of the reserve. The horses are keeping the grass down and in this regard their presence on the reserve is serving a useful purpose. However, they may be intimidating to some members of the public. The SEPP 14 Wetland is not protected from the effects of the hard hooves and grazing.

The local Scouts and Cubs have been using this area for various activities including compass walks and wide games for the past 10 years. Wide games include any game requiring or making use of any large area of land.

Fisher people utilise the rough track that provides access through the park to the junction of Ryan's Creek and the Moruya River.



Photo 21: Rodeo Committee's Horses and the rough vehicular track that provides access through the reserve.



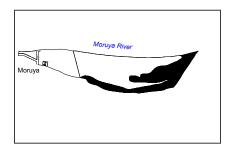
Photo 22: Open grassed area in the Ryan's Creek Parkland.



Photo 23: Lagoon at the eastern end of Ryan's Creek Parkland.



Photo 24: Shady Casuarina forest in Ryan's Creek Parkland.



The Ryan's Creek Wetland was declared a SEPP 14 (State Environmental Planning Policy No. 14) in December 1985. Approximately ½ of this wetland is located within the study area. The Moruya River Estuary Management Committee monitors the overall management of the wetland. This Plan of Management addresses several issues in regard to the management of the wetland from the adjacent land.

The Wetland is not protected from the horses grazing on the adjacent Ryan's Creek Parkland. The extent of damage caused by the horses has not been extensively studied. However the wetland would be affected by the horses grazing, destroying and trampling areas of the wetland.

There is unrestricted access to the wetland and creek for cars, horses and motorbikes. At low tide vehicles drive over the mud flats. This is causing compaction in areas of the wetland.

There is some rubbish in the area, including dumped cars.



Photo 25: Spectacular rocks in Ryan's Creek.



Photo 27: View west along Ryan's Creek.



Photo 26: Ryan's Creek Wetland facing west.



Photo 28: Ryan's Creek junction with the Moruya River. A place for pumping yabbies, fishing and walking.

9.0 Values of the Reserves

Ascertaining the community values of land is identifying what the community finds important and special about it.

Land management issues change over time, depending on the needs of the community; and community's change – what may be important in the present may be less important in the future. Values however tend to transcend the everyday issues of land management and set a more strategic vision for the management of the land. Values coexist, augment and support each other. Where singular issues may be really important in the short term, the overriding values attached to the land will tend to be relevant for a longer period.

How can values be implemented in land management? Once values and their level of significance are determined, land maintenance and development practices that recognise, manage and conserve these values may then be implemented. Refer to Section 11.0 Land Management – Operational Plan on page 48 for more information on how the values are reflected in strategies for land management.

The following values have evolved through the community consultation process and in consideration of the requirements of relevant legislation and policies:

1. Environmental

- There is a significant, protected wetland that comprises approximately ½ of the eastern end of the reserve (SEPP 14 Wetland)
- This wetland is protected and the flora and fauna within has high conservation value.
- The reserves include endangered ecological communities.
- The environment provides educational and recreational opportunities.

2. Cultural Heritage – Aboriginal & European

• There is both Aboriginal and European history associated with the study area.

3. Recreational

- The reserves are an important resource for the local Moruya community, the greater Eurobodalla and visitors to the area as open space for both active and passive recreational activities.
- The reserve provides access to the river, via the boat ramps and wharf, for fishing, boating and swimming.

4. Scenic

- The views north through the reserves to the river are spectacular.
- There are excellent views of the mountain range to the west.
- The Moruya River provides a significant sense of arrival to the Moruya township.

5. Tourism

The reserve has the potential to be another focus for tourist activity in Moruya.

6. Educational

• The environmental, historical and recreational qualities of the reserves provide great resources for education.

7. Community

 The reserve has potential to become a focus for a variety of community activities that will promote and enhance a sense of community.

10.0 Framework for the development of the Reserves

There is a significant body of legislative requirements and policy objectives that Council is required to consider in the development of Plans of Management. As discussed in Section 7.0 Relevant Legislation and Policies on page 11, these polices, acts and studies create the framework for the direction of development on the reserves.

Throughout the community consultation process Council has received enthusiastic, innovative ideas about the types of development that could feature on the Moruya Riverside Reserves. The level of community interest in the formulation of this Plan of Management has been high and reflects a strong sense of community custodianship and connection with this land. Refer to Attachment 1 on page 77 of this Plan of Management for a complete list of the ideas that were submitted to Council at the first public meeting in November 2001.

This Plan of Management has incorporated most of the ideas that were presented to Council. Refer also to the Operational Plan (page 48) and the Landscape Masterplan (page 70). All of the proposed developments are within the parameters of the policies, acts and studies as discussed in Section 7.0 (page of page 11) of this Plan of Management.

In this section the merits of some of the proposals are examined in more detail. These ideas/proposals did not conform with the legislation and/or policies that govern the use of the land. For the information of the community the justification for exclusion from the Plan of Management is discussed with reference to the relevant policy, act or study in the following table.

Proposal	Relevant legislation, policy , study & other issues that prohibit the proposal		
Archery	Archery has informally operated in the past on the Ryans Creek Parkland. However access and safety preclude this activity on the reserve in the future.		
Bus interchange	 Council has since located a bus shelter/interchange facility in Apex Park. The Park is located centrally in town and on the highway which is the main route for both local and regional bus services. The development of a bus interchange would be inappropriate on flood prone land. The Moruya River Floodplain Management Study 1996 states: 		
	S 9.4.1 "The Moruya CBD region experiences high to extreme flood hazards during a severe flood event, with flood depths up to 4 metres and velocities reaching 1.5 m/s north of Shore Street through the Rotary Park, swimming pool and caravan park."		
	The cost of developing this infrastructure would preclude it from being constructed on flood prone land with the potential for significant damage during a flood event.		
Canal development	development:		
	Section 5: Canal estate development prohibited. A person must not carry out canal estate development.		
Caravan Accommodation – short and/or long stay	This development would be inappropriate on flood prone land. The Moruya River Floodplain Management Study 1996 states:		
Restricting camping/caravan times to summer (from US example) to avoid time of likely flood	S 9.4.1 "The Moruya CBD region experiences high to extreme flood hazards during a severe flood event, with flood depths up to 4 metres and velocities reaching 1.5 m/s north of Shore Street through the Rotary Park, swimming pool and caravan park."		
iikely iloou	 It was as a result of this Study and the prevailing flooding regime of the Moruya River that the Department of Land and Water Conservation did not renew the lease for the Moruya Caravan Park which expired in June 2001. Caravans were removed from the flooded Caravan Park on a regular basis over the duration of the lease. The flooding regime of the Moruya River is not seasonal. However, refer to 12.13 Primitive Camping on page 63 for more information regarding the authorisation of primitive camping in the reserve. 		
Criterion track – 800m cycleway – relocate from Gundary to the Moruya Riverside Reserves	This use would be appropriate however, the 800m criterion track has since been constructed at Gundary Oval, Moruya.		

Proposal	Relevant legislation, policy , study & other issues that prohibit the proposal		
A development like Mogo by the river	The development of the reserves in this manner is inconsistent with the Crown Reserve public purpose of Public Recreation (Table A on page 25 for a full listing of the reserve's public purposes).		
Docklands development along the river with jetties,	The development of the reserves in this manner would be inconsistent with Crown Lands Act 1989:		
promenade, piers	S 11 (b) that the natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible.		
	The development of these reserves would be inconsistent with the Moruya River Floodplain Management Study 1996.		
	S 9.4.1 "The Moruya CBD region experiences high to extreme flood hazards during a severe flood event, with flood depths up to 4 metres and velocities reaching 1.5 m/s north of Shore Street through the Rotary Park, swimming pool and caravan park."		
	This development would no be permissible in the zone (6a1 Public Open Space)		
Fill area to allow	The development of the reserves in this manner would be inconsistent with Crown Lands Act 1989:		
development above flood levels	S 11 (b) that the natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible.		
	The development of the reserves in this manner would be inconsistent with the Moruya River Floodplain Management Study 1996.		
	S 9.4.1 "The Moruya CBD region experiences high to extreme flood hazards during a severe flood event, with flood depths up to 4 metres and velocities reaching 1.5 m/s north of Shore Street through the Rotary Park, swimming pool and caravan park."		
	Further, filling this area could have an effect on the flooding regime of the river and on the wider catchment.		
Marina, place for visiting yachties	The development of these reserves in this manner is inconsistent with Crown Lands Act 1989:		
yaonies	S 11 (b) that the natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible.		
	The development of these reserves is this manner is inconsistent with the Moruya River Floodplain Management Study 1996.		
	S 9.4.1 "The Moruya CBD region experiences high to extreme flood hazards during a severe flood event, with flood depths up to 4 metres and velocities reaching 1.5 m/s north of Shore Street through the Rotary Park, swimming pool and caravan park."		
	The development of a Marina would be dependent on regular dredging of the river.		
Museum	Moruya already has a Museum on Campbell Street.		
On site caretaker	Not required – the design of the space maximises passive surveillance of the reserves.		
Swimming pool – extend facilities – covered 50m pool and Manager's quarters.	As at the date of adoption of this Plan of Management there are insufficient funds to facilitate this extension.		
Water Gardens	There is already a water gardens in Batemans Bay.		

11.0 Land Management – Operational Plan

The Operational Plan identifies the key land management issues. A set of management strategies and actions accompany each issue providing an ongoing framework for the management of the reserves. These management issues relate to the Values of the reserve and are reflected in the Landscape Masterplan. The flow chart below also demonstrates how the Management Issues are addressing the identified values of the reserve.

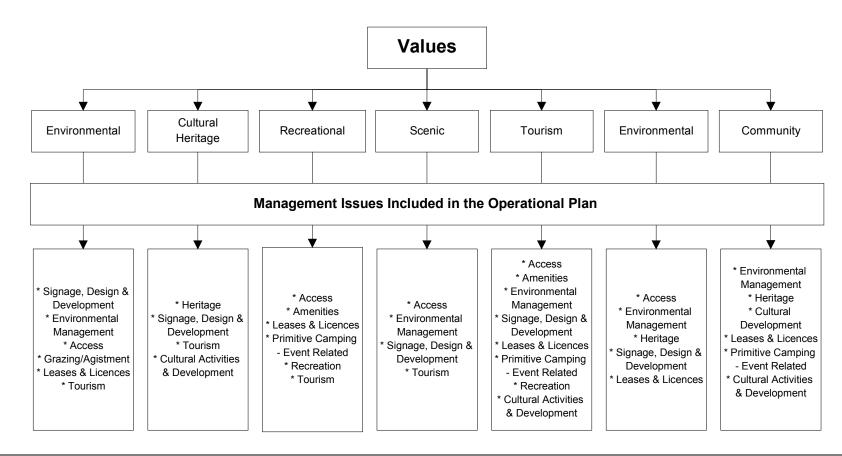
<u>Values</u>: Issues that the community finds important and special

Management Issue: The issue that requires a detailed approach to future management

Existing Situation: The existing situation/condition as at the date of adoption of this Plan of Management Strategy: Broad management strategies or goals that indicate the main aims and desired outcomes

Action: Specific actions that address the strategies

Notes: Address particular concerns that relate to all sites within the Plan of Management relevant to the Management Issue



Management Issue	Existing Situation	Strategy	Action
11.1 Access: Vehicular	No parking provided on site for Russ Martin Park, however there is some parking provided on street, across the road in the carpark behind the Adelaide Hotel and in the adjacent swimming pool carpark. There is currently no vehicular access into or through the reserve. Council maintenance vehicles are the only vehicles with authority to drive through the park.	 Russ Martin Park No parking to be provided on the reserve. Continue to ensure the park is not accessed by vehicles, maintenance vehicles excepted. 	Russ Martin Park1. No action required.2. No action required.
	1. There is currently no vehicular access into or through the swimming pool complex, excepting maintenance vehicles. 2. There are approximately 30 car spaces provided on site for the swimming pool. 3. There is minimal shade cover for parked cars. 4. The parking provided meets the current needs of the swimming pool. During events cars park on the adjoining streets, around the wharf and in the Moruya Riverside Park reserve. During Saturdays the carpark is often full with overflow parking from the Moruya Markets.	Moruya War Memorial Swimming Pool Continue to ensure only appropriate maintenance vehicles access the swimming pool complex. To provide maximum number of car spaces for the swimming pool complex. Provide more shade trees for carpark amenity where possible. Provide overflow parking for peak use times.	Moruya War Memorial Swimming Pool Ensure gates remained locked and accessed by appropriate personnel only. Develop upgraded car park as shown on the Landscape Masterplan. Plant trees as shown on the Landscape Masterplan. Overflow parking provided in Moruya Riverside Park.
	 Moruya Town Wharf & Boat Ramps Vehicular access is via Ford Street. Access to the wharf and ramps is satisfactory. There is insufficient room for vehicles with trailers to easily manoeuvre around when launching boats. There is inadequate parking provided at the Town Wharf and Boat Ramps. It can be difficult to manoeuvre vehicles with trailers in this area. 	 Moruya Town Wharf & Boat Ramps To ensure that vehicular access to the wharf and ramps is safe and accessible. Ensure manoeuvrability and good visibility for drivers with trailers. To provide parking so that users can safely park their car and trailer with room for manoeuvring to and from the boat ramps. 	 Moruya Town Wharf & Boat Ramps Develop improved vehicular access as shown on the Landscape Masterplan. Develop improved access for cars with trailers as shown on the Landscape Masterplan. Develop upgraded car park as shown on the Landscape Masterplan. Seek funding for implementation of plans. Grants may be available from Waterways' Asset Development Program.

Management Issue	Existing Situation	Strategy	Action
11.1 Access: Vehicular continued	Moruya Riverside Park There is a gravel track that traverses through the reserve, connecting with Ford Street on the west and continuing	Moruya Riverside Park To ensure vehicular access through the reserve is safe and to provide access to the various attractions within the	Moruya Riverside Park Construct roads and tracks as shown on the Landscape Masterplan that complies with the relevant standards.
	through the reserve to where Ryan's Creek meets the Moruya River. Vehicular access is not restricted to this track and cars drive haphazardly in some areas. Unrestricted vehicular access is compounding the compaction of the ground.	reserve. Vehicular access to be restricted to the roadways to ensure a safe environment for pedestrians and cyclists. 2. To add the paper road located at the north eastern end of Ford Street Moruya to the adjacent Crown Reserve for	As at the May 2005, application had been made to the Department of Lands to close this road and add the land to Crown Reserve Number 82377 for Public Recreation.
	 There is a Council Paper Road located at the north eastern end of Ford Street Moruya that once provided vehicular access into the Moruya Riverside Park when it was operating as a caravan park. There is no formal parking provided in the Moruya Riverside Park area. Cars currently park haphazardly throughout the reserve. 	Public Recreation, Crown Reserve Number 82377. 3. To provide parking facilities to ensure maximum use and access to the reserve. Restrict parking areas to ensure environmental and scenic amenity is not compromised. Parking to be located to ensure safe pedestrian movement to nearby attractions. Provide parking for cars with caravans, mobile homes etc.	Develop parking as shown on the Landscape Masterplan. Consider providing a sewer pump out facility for large vehicles in Moruya Riverside Park.
	Ryan's Creek Parkland	Ryan's Creek Parkland	Ryan's Creek Parkland
	 There is no formal parking provided in this area. Cars currently park haphazardly throughout the reserve. 	To provide parking to ensure maximum use and access to the reserve, including facilitating access to Ryan's Creek and wetland. Restrict parking areas to ensure	Develop a car park in Ryan's Creek Parkland as shown on the Landscape Masterplan.
	 There is a gravel track that traverses through the reserve and further beyond to Ryan's Creek and the wetland. Access is currently haphazard, vehicles do not stay on the gravel track. 	environmental and scenic amenity is not compromised. Parking to be located to ensure safe pedestrian movement to nearby attractions.	Construct roads and tracks as shown on the Landscape Masterplan that complies with the relevant standards and provides access to the attractions in the parkland.
	Unrestricted vehicular access is likely to be causing some damage to flora and fauna – some of which is listed under the Threatened Species Conservation Act 1995. Which have the second blind of the SERB 44 at least 1995. Which have the second blind of the SERB 44 at least 1995. Which have the second blind of the SERB 44 at least 1995. The second of the second blind of the second blind of the second blind of the second blind of the second of the second blind of the second blind of the second blind of the second blind of the second of the second blind of th	To ensure vehicular access through the reserve is safe, provides good access to the various attractions within the reserve and promotes a safe environment for pedestrian and cyclists.	 Construct roads and tracks as shown on the Landscape Masterplan that complies with the relevant standards with minimal impact on the environment. Remove dumped cars from the margins of the wetland.
	 Vehicles have unrestricted access to the SEPP 14 wetland and areas of Endangered Ecological Communities. 	 Vehicular access to be restricted to the roadways to ensure minimal disturbance to the environment and separation from pedestrians. 	SEPP 14 wetland and Endangered Ecological Communities fenced, incorporating a 60m buffer area from the boundaries.
		To prohibit vehicular access in the SEPP 14 wetland area or in any area of Endangered Ecological Communities.	
	Ryan's Creek and Ryan's Creek Wetland	Ryan's Creek and Ryan's Creek Wetland	Ryan's Creek and Ryan's Creek Wetland
	There is no formal access or parking provided for vehicles	Observe and implement the provisions of Section 7 of the State Facility (SERR) No. 444 which	1(a) Creek and wetland areas fenced, incorporating a 60m buffer

State Environmental Planning Policy (SEPP) No. 14 which

damage to flora and fauna and to protect the tidal creek and

prohibits: clearing of the land, constructing levees on the

wetland area, vehicles to be prohibited in the wetland and

land, draining the land; or filling the land. To minimise

creek area and areas of environmental significance.

through the reserve. Access is currently haphazard, at low

tide vehicles are driving through the wetland and over the tidal

flats. Cars are currently parking haphazardly on the edges of

the wetland, causing some degradation, damage to flora and

fauna and compaction and disturbance to the tidal flats.

area from the boundaries

the public's enjoyment of these areas.

1(b)

Car park must not be located in the SEPP 14 area or in any

area of Endangered Ecological Communities. Parking to be

provided in the adjacent Ryan's Creek Parkland area within walking distance to the creek and wetland area to facilitate

Existing Situation	Strategy	Action
Council constructed a pedestrian/cycle way through the park in 1998. The 1.25 kilometre Health and Heart Care Cycle and Walk Way traverses through this reserve and connects through to Chesher Park	Ensure pathway is well maintained. Provide further links beyond the swimming pool complex through to the Moruya Riverside Park site. Monitor pedestrian requirements within the park. Reassess as required to improve pedestrian circulation and reduce unnecessary obstructions.	 Russ Martin Park Develop pathways as shown on the Landscape Masterplan. Upgrade park as required to improve pedestrian access.
Moruva War Memorial Swimming Pool	Moruva War Memorial Swimming Pool	Moruya War Memorial Swimming Pool
There is good pedestrian access to the swimming pool from the carpark and via the pedestrian/cycle way which links back along the river to the Moruya Hospital. There is an informal pathway between the pool and the river's edge. The river's edge requires maintenance as the training wall is sinking in sections, making the edge unstable and compromising public access in some areas. Undesirable activity occurs in this area.	1. Ensure pathway is well maintained. Provide further links beyond the swimming pool complex through to the Moruya Riverside Park site. 2. To ensure that the training wall along the river's edge is repaired and periodically maintained and to provide safe pedestrian/cycleway access between the river's edge and the pool's northern boundary.	Develop paths as shown on the Landscape Masterplan. 2(a) Schedule the maintenance of the training wall within Council's schedule of maintenance works for the wall. Construct pathways to minimise disturbance to training wall edge. 2(b) Construct a concrete footpath to link Russ Martin Park to the boat ramp and wharf, as per the Landscape Masterplan. Ensure lines of sight from east to west are unobstructed.
Moruya Town Wharf & Boat Ramps	Moruya Town Wharf & Boat Ramps	Moruya Town Wharf & Boat Ramps
 Pedestrian/cycle access is currently via the existing road network. There is no dedicated pedestrian/cycleway to or through this area. 	To ensure pedestrian and cycle access to the wharf and boat ramps is safe and accessible.	Continue the pathway through to the Moruya Riverside Park – as shown on the Landscape Masterplan.
Moruya Riverside Park	Moruya Riverside Park	Moruya Riverside Park
 There is no formal pedestrian or cycle pathways through the reserve. Access is currently haphazard. There is no further pedestrian links to land east of the park. 	 To ensure safe pedestrian and cycle access to and through the reserve. Provide access to the attractions within the reserve. There is an opportunity to provide a pedestrian/cycleway to link to Preddy's Wharf and/or the Moruya South Head Cycle/Pathway. 	 Construct pedestrian/cycleways as shown in the Landscape Masterplan. Ensure roadways are constructed to be pedestrian friendly, include traffic calming devices. Subject to Council's support, further investigate extension of pathway through to Preddy's Wharf.
	1. Council constructed a pedestrian/cycle way through the park in 1998. The 1.25 kilometre Health and Heart Care Cycle and Walk Way traverses through this reserve and connects through to Chesher Park Moruya War Memorial Swimming Pool	Russ Martin Park Russ Martin Park Russ Martin Park

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Management Issue	Existing Situation	Strategy	Action
	-		
11.2 Access: Pedestrian/Cycleway –	Ryan's Creek Parkland	Ryan's Creek Parkland	Ryan's Creek Parkland
continued	There is no formal pedestrian or cycle pathways through the reserve. Access is currently haphazard.	 To ensure safe pedestrian and cycle access to and through the reserve. In particular to provide access to the fishing spots and designated access points to facilitate access to 	Construct a pedestrian/cycleway as shown in the Landscape Masterplan.
	2. There are no further pedestrian links to the east due to Ryan's	Ryan's Creek and wetland.	2. Subject to Council's support, further investigate extension of
	Creek.	There is an opportunity to provide a pedestrian/cycleway to link to Preddy's Wharf and/or the Moruya South Head Cycle/Pathway.	pathway through to Preddy's Wharf. Any construction is required to meet the provisions of the Rivers and Foreshores Improvement Act 1948, SEPP 14 and any other relevant polices and/or legislation.
	Ryan's Creek and Ryan's Creek Wetland	Ryan's Creek and Ryan's Creek Wetland	Ryan's Creek and Ryan's Creek Wetland
	There are no formal pedestrian or cycle pathways through the reserve. Access is currently haphazard.	Pedestrian access to be provided to facilitate public enjoyment of the wetland and creek. Access is to be well delineated to ensure minimal disturbance to the creek and	Develop informal pedestrian tracks to the creek and wetland areas as shown on the Landscape Masterplan. Any construction is required to meet the provisions of the Rivers
	2. There is no further pedestrian links to the east.	wetland environment.	and Foreshores Improvement Act 1948, SEPP 14 and any other relevant polices and/or legislation.
		 Investigate the opportunity to provide a pedestrian/cycleway to link to Preddy's Wharf and/or the Moruya South Head Cycle/Pathway via boardwalks or similar through the wetlands. 	 Subject to Council's support, conduct a feasibility study into the extension of the pathway through to Preddy's Wharf. Any construction is required to meet the provisions of the Rivers and Foreshores Improvement Act 1948, SEPP 14 and any other relevant polices and/or legislation.

In 1992 Council adopted its Disability Access Action Plan. Development of the land included in this Plan of Management must consider the Schedule of Targets and Responsibilities as shown in the Disability Action Plan.

Management Issue	Existing Situation	Strategy	Action
11.3 Amenities (park furniture, public toilets, swimming	Russ Martin Park	Russ Martin Park	Russ Martin Park
pool, bbqs, bins & shelters)	Existing park furniture consists of a variety of styles and colours in various conditions.	Ensure all park furniture is safe and painted a consistent colour.	 Progressively remove park furniture that is in poor condition and replace with new park furniture. Paint all existing furniture the same colour, using a colour that matches the Rotunda.
	The park is overcrowded with play equipment, bbq facilities etc and lacks structure.	Develop the park to ensure it is uncluttered and is a quality public open space.	Rationalise the amenities in the park as per the Landscape Masterplan. Implement changes after the development of
	The toilet block was constructed in 2000 and is in good condition.	Continue to provide a well maintained toilet block.	Moruya Riverside Park. 3. Toilet block on maintenance program for regular inspections
			and maintenance requirements.
	Moruya War Memorial Swimming Pool	Moruya War Memorial Swimming Pool	Moruya War Memorial Swimming Pool
	Managed by management agreement. Refer to Section 11.13 Recreation on page 64.	Managed by management agreement. Refer to Section 11.13 Recreation on page 64.	Managed by management agreement. Refer to Section 11.13 Recreation on page 64.
	Moruya Town Wharf & Boat Ramps	Moruya Town Wharf & Boat Ramps	Moruya Town Wharf & Boat Ramps
	 There are two park benches that are structurally sound however need to be painted. They are positioned in a good resting place with a great view. 	Continue to provide park furniture to improve the amenity of the boat ramps and wharf area.	Provide new park furniture and a shelter to provide shade as shown on the Landscape Masterplan.
	There is a wheelie bin located near the wharf.	Provide facilities to ensure that that the area is maintained and minimise rubbish.	2. Continue to provide, maintain and empty bins in this area.
	3. Refer also to Section 11.13 Recreation on page 64.	3. Refer also to Section 11.13 Recreation on page 64.	Refer also to Section 11.13 Recreation on page 64.
	Moruya Riverside Park	Moruya Riverside Park	Moruya Riverside Park
	There are currently 2 toilet blocks, shower facilities, laundry and a small office located centrally in the reserve. All	 Provide public toilets to meet the needs of users in an appropriate location. 	Construct a new public toilet block in the location as shown on the Landscape Masterplan. Ensure that the design of the toilet
	structures have been subject to vandalism since the caravan park closed in June 2001 and contain asbestos products. As at May 2005, Council was in the process of demolishing and removing this building from the site.	Provide amenities including but not limited to: park furniture, shelters, bins, bbqs etc.	block is in accordance with best practice guidelines. Refer to the Brisbane City Council Guidelines for Public Toilet Design when designing the toilet block. Design to be consistent with the NSW Police "Safer By Design" Guidelines. This includes NOT installing blue lights in the toilet block.
	There are no other amenities provided in the park.		Ensure amenities are of a consistent theme, colour, style and form etc.
	Ryan's Creek Parkland, Ryan's Creek and Ryan's Creek Wetland	Ryan's Creek Parkland, Ryan's Creek and Ryan's Creek Wetland	Ryan's Creek Parkland, Ryan's Creek and Ryan's Creek Wetland
	No amenities provided.	Provide a low key level of amenities.	Provide park furniture and bins where appropriate.

Management Issue	Existing Situation	Strategy	Action
11.4 Cultural Activities and Development	Russ Martin Park, Moruya War Memorial Swimming Pool & Moruya Town Wharf & Boat Ramps 1. Occasional cultural activities taking place.	Russ Martin Park, Moruya War Memorial Swimming Pool & Moruya Town Wharf & Boat Ramps 1. To continue to support cultural activities on the reserve.	Russ Martin Park, Moruya War Memorial Swimming Pool & Moruya Town Wharf & Boat Ramps k 1. Include these reserves in the Cultural Development Action Plan for Moruya Riverside Park (see below).
	Moruya Riverside Park	Moruya Riverside Park	Moruya Riverside Park
	Occasional cultural activities taking place.	 To consider the development of a Regional Visual & Performing Arts Centre on the park. To facilitate the establishment of markets on the park. To include cultural activities in the development and ongoing use of the reserve. 	Conduct a feasibility study into the development of a Regional Visual and Performing Arts Centre on the land in the south western corner of the Moruya Riverside Park. Refer to the Landscape Masterplan on page 70 for an illustration of the possible location of this Centre. Refer to Notes below. Markets established on the site in the areas illustrated on the Landscape Masterplan on page 70 in accordance with a licence agreement (Refer to Section 11.9 on Leases and
	Arts Cottage (Lots 234 & 306 DP 758710)	Arts Cottage (Lots 234 & 306 DP 758710)	Licences). Market activities subject to Development Assessment. 3. Complete a Cultural Development Action Plan for the Park that includes provision for public art, festivals events and performances. Arts Cottage (Lots 234 & 306 DP 758710)
	Managed by the Department of Lands who have issued a Licence to the Arts Council of Eurobodalla to occupy the land. This licence is current until terminated.	When licence terminated consider adding this land to Crown Reserve 82377.	Continue to liaise with the Department of Lands on the future tenure and possible development of this land.
	The Arts Council of Eurobodalla provide arts classes to the community through Adult Education.	 Continue to support the Arts Council of Eurobodalla in the short term. For the long term, consider the development of this site that will enhance the public's enjoyment of Moruya Riverside Park. 	2(a) Include consideration of the suitability of this land (and the land in the south western corner of the Moruya Riverside Park) as a possible site in the feasibility study for the location and development of a Regional Visual and Performing Arts Centre in the Eurobodalla Shire. Refer to the Landscape Masterplan on page 70 for an illustration of the possible location of this Centre. Refer also to Notes below.
			2(b) If the site is deemed unsuitable for a Visual and Performing Art Centre consider the site for the development of a smaller scale Arts Centre, Café, Restaurant, Environment Centre or other activity that is consistent with the zoning, the Crown Lands Act and the Moruya Floodplain DCP.

Management Issue	Existing Situation	Strategy	Action
11.4 Cultural Activities and Development – continued	Residential Cottage (Lot 444 DP 726782) Managed by the Department of Lands who have issued a residential lease on the land. This lease is current until terminated.	Residential Cottage (Lot 444 DP 726782) When licence terminated consider adding this land to Crown Reserve 82377 and consider the development of this site that will enhance the public's enjoyment of Moruya Riverside Park.	2(a) Include consideration of the suitability of this land (and the
			land in the south western corner of the Moruya Riverside Park) as a possible site in the feasibility study for the location and development of a Regional Visual and Performing Arts Centre in the Eurobodalla Shire. Refer to the Landscape Masterplan on page 70 for an illustration of the possible location of this Centre. Refer also to Notes below.
			2(b) If the site is deemed unsuitable for a Visual and Performing Art Centre consider the site for the development of a smaller scale Arts Centre/Gallery, Café, Restaurant, Environment Centre or other activity that is consistent with the zoning, the Crown Lands Act and the Moruya Floodplain DCP.
	Ryan's Creek Parkland, Ryan's Creek Wetland & Ryan's Creek	Ryan's Creek Parkland, Ryan's Creek Wetland & Ryan's Creek	Ryan's Creek Parkland, Ryan's Creek Wetland & Ryan's Creek
	Occasional cultural activities taking place.	To continue to support cultural activities on the reserve.	Include these reserves in the Cultural Development Action Plan for Moruya Riverside Park (see above).
Notes	-	rt walking distance. major traffic and transport routes. nunity for such facilities. ties. n land located on a flood plain.	

Management Issue	Existing Situation	Strategy	Action
11.5 Environmental	Russ Martin Park	Russ Martin Park	Russ Martin Park
Management	1. The park is pleasantly landscaped.	Ensure the park continues to provide a pleasant landscaped environment with shade and good grass cover.	Investigate the requirement for the park to be irrigated.
	 There are three Ficus macrophylla (Morton Bay Figs) that provide excellent shade and amenity and are believed to be over 80 years old. They are suffering structural problems, have been treated for Fig Psyllid, have required tree surgery and the ground below the trees is compacted. 	Alleviate compaction around the trees and improve trees' structural integrity. Implement recommendations of the Plant Disease Diagnostic Unit of the Sydney Botanic Gardens Trust.	 Biological control measures implemented – see Appendix 4 on page 92 for more details. Protect areas around figs as shown on the Landscape Masterplan. Plan for replacement trees to reduce the impact of the removal of existing trees if required.
	3. Dogs are prohibited in this park	Continue to prohibit dogs from this park.	Ensure signs are in place advising visitors that dogs are prohibited in this park, if required.
	Moruya War Memorial Swimming Pool	Moruya War Memorial Swimming Pool	Moruya War Memorial Swimming Pool
	Environment within the swimming pool complex is operated by management agreement.	 To ensure that the environment within the swimming pool complex is managed in a safe manner. 	 Review and monitor the management of the swimming pool environment regularly to ensure appropriate standards of environmental management are maintained.
	Dogs are prohibited in the swimming pool complex.	Continue to prohibit dogs from the swimming pool complex.	Ensure signs are in place advising visitors that dogs are prohibited in the swimming pool complex, if required.
	Moruya Town Wharf & Boat Ramps	Moruya Town Wharf & Boat Ramps	Moruya Town Wharf & Boat Ramps
	The wharf and boat ramps are not heavily used. There may be an issue with litter, fish cleaning waste, boat wash down.	Ensure provision for litter collection.	Bins installed and rubbish colleted.
	Dogs are currently allowed on leash.	Continue to allow dogs in the wharf and boat ramps area on leashes, on a timeshare basis.	 Ensure signs in place advising visitors of dog restrictions. Amend Council's Companion Animal Management Plan to reflect the restrictions.
	Moruya Riverside Park	Moruya Riverside Park	Moruya Riverside Park
	The site is currently planted with a mix of native and exotic vegetation and has a park character.	To provide a park like environment with a variety of tree species to provide shade and amenity	Develop detailed landscape and planting plans in consultation with the Landscape Masterplan (page 72). Consult with

- vegetation and has a park character.
- There are several weed species including noxious and environmental weeds.
- Dogs are currently allowed on the reserve off leash.
- Part of the Moruya Riverside Reserve includes the Endangered Ecological Community – South Coast Swamp Forest Complex (listed on the Threatened Species Conservation Act 1995 as "Swamp Oak Floodplain Forest of the NSW North Coast, Sydney Basin and south Easter Corner Bioregions". This area is currently grazed by horses.
- species to provide shade and amenity.
- To ensure that the environment is free of weeds.
- Continue to allow dogs in the wharf and boat ramps area on 2. leashes, on a timeshare basis.
- Manage the Endangered Ecological Community as per the requirements of the Threatened Species Conservation Act 1994. Stage the removal of grazing stock from areas identified as part of the Endangered Ecological Community.
- with the Landscape Masterplan (page 72). Consult with Eurobodalla Regional Botanic Gardens on the selection of appropriate species as required.
- Removal of weed species. Develop a weed removal/control program. Ensure noxious weeds are included in Council's programs for removal. All construction/maintenance vehicles must be washed down prior to leaving the site. No soil is to be removed from the site. New fill must be clean and free of weeds prior to use on the site.
- Install signage at entrance to reserve to advise visitors of the dog restrictions, as appropriate. Amend Council's Companion Animal Management Plan to reflect the restrictions.
- Construct fenced area for grazing as shown on the Landscape Masterplan.

Management Issue	Existing Situation	Strategy	Action
Management Issue 11.5 Environmental Management - continued	1. The site is currently grazed by approximately 15 horses owned by the Moruya Rodeo Committee. The horses are keeping the grass cover down over the reserve. The Moruya Rodeo Committee has maintained fences and sprayed for blackberries as required. The horses have unrestricted access on the reserves. 2. There are several weed species including noxious and environmental weeds on the reserves. 3. Dogs are currently allowed off leash on this reserve. 4. Used for camping and motor bike riding. These activities are	Ryan's Creek Parkland, Ryan's Creek and Ryan's Creek Wetland To continue to allow grazing in the short to medium term. Grazing to managed in accordance with sustainable farming practice. To reduce the occurrence of weeds on the reserves and aim for a weed free environments. Allow dogs in this reserve off leash. Dogs are prohibited inside any fenced area. To ensure a balance between environmental amenity and the recreational needs of the community.	Ryan's Creek Parkland, Ryan's Creek and Ryan's Creek Wetland Lease/licence for grazing to ensure that the land is managed in accordance with best practice. Refer to Section 11.6 on page 58. Remove weed species. Develop a weed removal/control program. Ensure noxious weeds are included in Council's programs for removal. All construction/maintenance vehicles must be washed down prior to leaving the site. No soil is to be removed from the site. New fill must be clean and free of weeds prior to use on the site. Ensure treatment of weeds considers any possible impacts on stock. Install signage to advise visitors of dog restrictions, as
	not managed on the reserve and result in minor environmental damage and litter. 5. There was once a Landcare group involved in the environmental management of this reserve but it has since folded. 6. The current Crown Reserve Purpose for the reserve is "Public Recreation". 7. There is no protection for riparian vegetation or the SEPP 14 wetland. 8. The land includes the Endangered Ecological Community – South Coast Swamp Forest complex (listed on the Threatened Species Conservation Act 1995 as "Swamp Oak Floodplain Forest of the NSW North Coast, Sydney Basin and south Easter Corner Bioregions". There are no	 Involve the community in identified projects. Ensure the reserve has the correct Crown Reserve Purpose to reflect the current and future needs of the community and the environment. To implement the recommendations of Gaia Report "Fauna Habitat Linkages and Considerations for Management" refer to page 17 of this Plan of Management for more information. Manage the Endangered Ecological Community as per the requirements of the Threatened Species Conservation Act 1994. Manage the Endangered Ecological Community as per the requirements of the Threatened Species Conservation Act 1994. 	 appropriate. Amend Council's Companion Animal Management Plan to reflect the restrictions. Undesirable activities such as motorbikes, camping and unrestricted vehicular access prohibited in the reserves. Establish a Landcare Group for the reserve. Identify projects for completion. Recommend to the Department of Lands that the Crown Reserve Purpose be reviewed to include areas of Crown Reserve Purpose "Public Recreation" as well as 'Environmental Protection'. 60m buffers provided from the river and SEPP 14 wetland edges. Restrict grazing and vehicular access in the areas of the
Notes	provisions in place to protect this vegetation. 9. The land includes the Endangered Ecological Community – Mangrove Estuarine Low Forest Complex (listed on the Threatened Species Conservation Act 1995 as "Coastal saltmarsh in the NSW North Coast, Sydney Basin and South East Corner Bioregions". There are no provisions in place to protect this vegetation. 10. The land includes Mangroves that are protected under the Fisheries Management Act. Breakwall/Training Wall maintenance:	Manage the mangrove environments as per the requirements of the Fisheries Management Act.	Restrict grazing and vehicular access in the areas of the Endangered Ecological Community. Restrict grazing and vehicular access from the mangrove environments.

- Eurobodalla Shire Council undertake all maintenance works on the breakwall/training wall.
- As at the date of adoption of this Plan of Management funding was very limited.
- Works are completed on an as needs basis.
- Any significant works require separate funding by Council and/or State Government agencies. All works require concurrence with NSW Fisheries.

Management Issue	Existing Situation	Strategy	Action
11.6 Grazing/Agistment	Old Moruya Cararvan Park, Ryan's Creek Parkland & Ryan's Creek and Ryan's Creek Wetland	Old Moruya Cararvan Park, Ryan's Creek Parkland & Ryan's Creek and Ryan's Creek Wetland	Old Moruya Cararvan Park, Ryan's Creek Parkland & Ryan's Creek and Ryan's Creek Wetland
	The Moruya Rodeo Committee has been grazing approximately 15 horses since 1968 on these reserves. There is no formal agreement in place for agistment. The Rodeo Committee has been grazing.	 Provide for continued use of the parkland for grazing as appropriate and to formalise an agreement with the Trust Manager (Eurobodalla Shire Council) to authorise the use of this land for agistment. 	 Refer to the Landscape Masterplan (page 70) for extent of grazing area. Enter into a lease/licence agreement for the agistment of stock within the area defined on the Landscape Masterplan. Refer also to Notes below.
	 The Rodeo Committee spray for blackberries and do general maintenance in the area. The grazing horses keep the grass cover down and weed infestation minimal. 	 Ensure that the land is maintained to best practice standards. 	 Lease/licence to require that the lessee/licensee be responsible for land management to best practice standards. Refer also to Notes below.
	 The public have unlimited access to this land. There is no delineation between the Parkland and the Wetland/Creek area. Horses are currently accessing the wetland and creek area. The grazing stock compact the soil, introduce weeds, increase nutrient loading and destroy flora. This activity is inconsistent with S 7 of the State Environmental Planning Policy (SEPP) No. 14 which prohibits: clearing of the land, constructing levees on the land, draining the land; or filling the land. Grazing amounts to clearing of the land and as such is inconsistent with the provisions of the Policy. Some of this land is declared Endangered Ecological Community and mangroves are protected under the Fisheries Management Act 1994. 	 To allow for grazing in the short/medium and reassess the recreational needs of the community as required. To ensure that the environmental values of the wetland and creek are maintained. To ensure that the provisions of SEPP 14, the Threatened Species Conservation Act 1995 and the Rivers and Foreshores Improvement Act 1948 are addressed. 	 Refer also to Notes below. Termination of the lease/licence for grazing and removal of stock from the land when the need for additional community open space/recreational needs arises. Relocation of horses needs to accommodate quarantine procedures to ensure no transfer of African Lovegrass from the site. Grazing excluded from within 60m of the wetland, creek, and river boundaries as shown on the Landscape Masterplan. Grazing excluded from the areas identified as endangered ecological communities and from mangrove areas.

Other Considerations for granting leases, licenses or other estates:

- Any lease, licence or other estate must be consistent with the provisions of the Crown Lands Act 1989.
- Any lease, licence or other estate must be consistent with the tendering provisions of the Local Government Act 1993 and Regulations.
- The provisions relating to the leasing or licensing of Community Land under the Local Government Act 1993 may also be used as guidelines.
- Public competition refer to ICAC guidelines.
- Concessional or rebated rates for not for profit groups may be considered.
- Commercial rates must be considered when the land is to be leased or licensed for commercial (for profit) operators.

Public Liability Insurance Requirements:

Prior to authorised events being held on Council reserves the event organiser must hold and provide a copy of a Certificate of Currency for the following insurance policies prior to the event:

- (Section 1) A Broadform Public Liability Policy noting Council as principle and containing a cross liability clause appropriate to the activities for an amount for an amount specified by Council (as at the date of adoption of this Plan of Management, a minimum of \$10M cover was required) for any one occurrence in respect of any liability for; "personal injury or the death of any person; and "loss of or damage to property including property of the Council.
- (Section 2) Workers Compensation Insurance under the Workers Compensation Act 1987 (NSW) covering all persons employed or deemed to be employed by the event organiser in connection with the activity.

Management Issue	Existing Situation	Strategy	Action
Management Issue 11.7 Heritage	Moruya Riverside Park 1. A rock 'swimming pool' evolved in the park in the 1940s. This pool has been placed on Council's list for future investigation for heritage significance. 2. The Department of Environment and Conservation (NPWS) has one registered Aboriginal site located in the north western region of the park. The midden site was recorded on 1 July 1974 and has since been destroyed. 3. In 2002 Council was advised of an Area of Aboriginal Cultural Significance in the north eastern region of the park. This area has not been register with The Department of Environment and Conservation (NPWS).	All Reserves 1. Ensure conservation of identified and unknown important sites on the reserves. 2. Manage Culturally Significant Sites in accordance with the provisions of the Burra Charter.	All Reserves 1. Consider nominating items of historical significance for listing in Council's Local Environmental Plan, on the New South Wales State Heritage Register or with the Department of Environment and Conservation (NPWS). 2. Consider nominating Aboriginal Places, Objects or other valued sites for inclusion on the Department of Environment and Conservation (NPWS) Register. 3. Historical sites identified on the Landscape Masterplan (page 70) and developed as appropriate. 4. If, during work activities on the land, possible Aboriginal sites are located, work must stop and an Aboriginal Sites Officer be advised to determine the next course of action. 5. If, during work activities on the land, possible site of European heritage are located, work must stop and an appropriate Heritage adviser or archaeologist be advised to determine the next course of action. 3. Prepare Conservation Plans where required.

For more information on the history of the reserves refer to Section 8.6 Historical Development of the Reserves on page 27 of this Plan of Management.

Notes

Manag	ement Issue	Existing Situation	Strategy	Action
•	Leases, Licenses & Casual Bookings	Russ Martin Park 1. The Rotunda in Russ Martin Park is available for community and commercial use.	 Russ Martin Park To continue to allow community use of the Rotunda under casual bookings. To continue to allow commercial use of the Rotunda under licence agreement. To continue to allow the use of the Rotunda for events by licence agreement. Refer to Council's Special Events Policy. 	See notes regarding public liability insurance and other issues below. Approved leases, licenses and casual bookings issued for appropriate activities on the land. Ensure the requirements of Council's Special Events Policy are addressed.
		Moruya War Memorial Swimming Pool 1. This facility is managed under a management agreement.	To continue to provide this recreational opportunity for the community. To ensure that the facility is managed in order to provide the best return to the Trust Manager and the community. To ensure that the facility is managed in order to provide the best management outcomes for the community.	Moruya War Memorial Swimming Pool Ongoing review of the management of the facility to ensure a quality and safe swimming facility for the community. See notes regarding public liability insurance and other issues below. Review the Management Agreement at the end of each term.
		Dragon Boat Races use the wharf and ramps. Boats are launched from the ramps and proceed east along the river to the start line. The finish line is directly in front of the eastern boat ramp. Other low key events occur from time to time.	Moruya Town Wharf & Boat Ramps To continue to allow community use of the Moruya Town Wharf & Boat Ramps under casual bookings. To continue to allow commercial use of the Moruya Town Wharf & Boat Ramps under licence agreement. To continue to allow the use of the Moruya Town Wharf & Boat Ramps for events by licence agreement.	See notes regarding public liability insurance and other issues below. Approved leases, licenses and casual bookings issued for appropriate activities on the land. Ensure the requirements of Council's Special Events Policy are addressed.

Management Issue	Existing Situation	Strategy	Action
11.8 Leases, Licenses & Casual Bookings – continued	Moruya Riverside Park	Moruya Riverside Park	Moruya Riverside Park
	 The reserve has been used for Camel rides under licence agreement. 	To continue to allow community use of Moruya Riverside Park under casual bookings.	See notes regarding public liability insurance and other issues below.
	2. Used by Scouts and schools for various outdoor activities.	To continue to allow commercial use of Moruya Riverside Park under licence agreement.	Approved leases, licenses and casual bookings issued for appropriate activities on the land.
		 To continue to allow the use of Moruya Riverside Park for special events by licence agreement. 	Ensure the requirements of Council's Special Events Policy are addressed.
		4. Refer to Council's Special Events Policy.	Refer to Section 11.13 on page 63 for more information on the authorisation for the grating of short term licenses for camping
		 Refer to Section 11.13 on page 63 for more information on the authorisation for the grating of short term licenses for camping on this part of the reserve. 	on this part of the reserve.
	Ryan's Creek Parkland	Ryan's Creek Parkland	Ryan's Creek Parkland
	The local Scouts and Cubs have been using this area for various activities including compass walks and wide games for the past 10 years.	To continue to allow community use of Ryan's Creek Parkland under casual bookings.	See notes regarding public liability insurance and other issues below.
	No other events take place on the reserve.	To continue to allow commercial use of Ryan's Creek Parkland under licence agreement.	Approved leases, licenses and casual bookings issued for appropriate activities on the land.
		 To continue to allow the use of Ryan's Creek Parkland for events by licence agreement. 	Ensure the requirements of Council's Special Events Policy are addressed.
		4. Refer to Council's Special Events Policy.	Refer to Section 11.8 on page 58 for more information on the authorisation for the granting of a lease for grazing on this
		Refer to Section 11.8 on page 58 for more information on the authorisation for the granting of a lease for grazing on this reserve.	reserve

Management Issue	Existing Situation	Strategy	Action
11.8 Leases, Licenses &	Ryan's Creek and Ryan's Creek Wetland	Ryan's Creek and Ryan's Creek Wetland	Ryan's Creek and Ryan's Creek Wetland
Casual Bookings – continued	No events currently take place on this part of the reserve.	 Observe and implement the provisions of Section 7 of the State Environmental Planning Policy (SEPP) No. 14. This prohibits: clearing of the land, constructing levees on the land, draining the land; or filling the land. Ensure that the environmental values of the creek and wetland are preserved and protected. To continue to allow community use of Ryan's Creek Parkland under casual bookings. To continue to allow commercial use of Ryan's Creek Parkland under licence agreement. To continue to allow the use of Ryan's Creek Parkland for events by licence agreement. Refer to Council's Special Events Policy. 	 Events must not have a significant impact on the environment. Detailed assessments of proposed activities must be completed to ascertain the impact of the activity on the Creek and/or Wetland. See notes regarding public liability insurance and other issues below. Approved leases, licenses and casual bookings issued for appropriate activities on the land. Ensure the requirements of Council's Special Events Policy are addressed. Refer to Section 11.8 on page 58 for more information on the authorisation for the granting of a lease for grazing on this reserve
		 Refer to Section 11.8 on page 58 for more information on the authorisation for the granting of a lease for grazing on this reserve. 	

Other Considerations for granting leases, licenses or other estates:

- Any lease, licence or other estate must be consistent with the provisions of the Crown Lands Act 1989. Authorised purposes for the granting of temporary licences (as per S32 of the Crown Lands Regulation 2000) include Catering (eg. food festivals), Entertainments (eg. circuses, carnivals, festivals, music concerts), Equestrian Events, Exhibitions, Filming, Functions, Markets, Shows, Sporting and organised recreational activities (eg. regatta).
- Any lease, licence or other estate must be consistent with the tendering provisions of the Local Government Act 1993 and Regulations.
- The provisions relating to the leasing or licensing of Community Land under the Local Government Act 1993 may also be used as guidelines.
- Public competition refer to ICAC guidelines.
- Concessional or rebated rates for not for profit groups may be considered.
- Commercial rates must be considered when the land is to be leased or licensed for commercial (for profit) operators.

Public Liability Insurance Requirements:

Prior to authorised activities and/or events being held on Council reserves the event organiser must hold and provide a copy of a Certificate of Currency for the following insurance policies prior to the event:

- (Section 1) A Broadform Public Liability Policy noting Council as principle and containing a cross liability clause appropriate to the activities for an amount for an amount specified by Council (as at the date of adoption of this Plan of Management, a minimum of \$10M cover was required) for any one occurrence in respect of any liability for; "personal injury or the death of any person; and "loss of or damage to property including property of the Council.
- (Section 2) Workers Compensation Insurance under the Workers Compensation Act 1987 (NSW) covering all persons employed or deemed to be employed by the event organiser in connection with the activity
- Under Council's Casual Hirer's Policy insurance is covered by Eurobodalla Shire Council.

Mana	gement Issue	Existing Situation	Strategy	Action
11.9	Primitive Camping –	All Reserves	All Reserves (with the exception of Moruya Riverside Park)	All Reserves (with the exception of Moruya Riverside Park)
	Event Related	Camping prohibited.	Continue to prohibit camping.	Rangers requested to investigate any illegal camping on the reserve.
				 Appropriate signage erected to advise that camping is prohibited.
		Moruya Riverside Park	Moruya Riverside Park	Moruya Riverside Park
		Camping prohibited.	Provide for temporary primitive camping licences to accompany events being held in the reserve or in the township of Moruya.	Refer to Section 11.10 Leases & Licences on page 60 for more information.
		Area for camping is to be maintained as a parkland environment to ensure continued public enjoyment when	Maintain the area nominated for event related camping as a parkland environment when not in use for camping.	
			not in use for camping.	Licensee must ensure that the provision of camping complies with the requirements of the licence agreement, relevant
			 Camping to comply with the provisions of the relevant legislation, regulations and/or policies. 	legislation, and/or Council policies. As at August 2005, the relevant legislation was the Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and
		4. Ensure camping is restricted to the nominated area.	Moveable Dwellings) Regulation 2005.	
				 Licensee must ensure that camping is retained within the area nominated in the Licence agreement. Council Rangers will be requested to investigate any illegal camping on the reserve.

Management Issue	Existing Situation	Strategy	Action
11.10 Recreation	Park provides a range of play equipment. The 1.25 kilometre Health and Heart Care Cycle and Walk Way traverses through this reserve and connects through to Chesher Park.	Provide play equipment in the park to complement the regional playground to be located in Moruya Riverside Park. Promote the Health and Heart Care Cycle and Walk Way	On the completion of the regional playground in Moruya Riverside Park, upgrade the play equipment in Russ Martin Park to provide a play environment for small children that complies with the relevant Australian Standard.
		and extend through to Moruya Riverside Park.	Develop cycle/pedestrian pathways as shown on the Landscape Masterplan.
	Moruya War Memorial Swimming Pool	Moruya War Memorial Swimming Pool	Moruya War Memorial Swimming Pool
	 Managed by a management agreement with Euroswims Pty Limited. This agreement expires on 30 June 2006. All amenities within the swimming pool complex are covered by this management agreement. 	Ensure that the management agreement for the swimming pool gives the best return to the community both financially and in the provision of a quality recreational facility.	 Review management agreement prior to renewal to ensure tha it provides for effective and efficient management of the swimming pool.
	Some members of the community are advocating that the pool be covered to facilitate year round use.	To update the swimming pool complex to ensure that the facility meets the needs of the community.	Assess the merits of enclosing the swimming pool in due course.
	3. As at May 2005 Council had commissioned a pool consultant to conduct a Strategic and Operational Review of Swimming Centres for the shire. This will entail a review of existing facilities and provide an assessment of the current and future swimming pool needs of the community as well as providing recommendations and strategies for implementation.	Refer to Strategic and Operational Review of Swimming Centres.	Implement the recommendations as per Council's Strategic and Operational Review of Swimming Centres.
	Moruya Town Wharf & Boat Ramps	Moruya Town Wharf & Boat Ramps	Moruya Town Wharf & Boat Ramps
	 Boat ramps are used infrequently for launching boats. Most fishing from boats launched at this wharf is for river fishing. Sea fishing vessels launch from Preddy's Wharf. This wharf and boat ramp facility is located too far from the river mouth for sea bound vessels. The ramps are also used for launching small craft and jet skis. The wharf is used for fishing and as a diving platform for swimming in the river. There are no fish cleaning or wash down facilities. There is no sewer pump-out facilities for boats. This was previously considered jointly in a study by Waterways, Council and the Department of Land and Water Conservation (now the Department of Lands). The outcome of the study was that pump out facilities were not required on the Moruya River. 	 To provide for informal recreational activities such as fishing, boating and swimming. Refer to Council's Eurobodalla Waterways Infrastructure Strategy - A Strategy for the Provision and Maintenance of Wharves, Jetties and Launching Ramps throughout Eurobodalla Shire (June 2002). Identify facilities for users of the boat ramps and wharf and include facilities for limited mobility access. Continue to monitor the need for a sewer pump out facility on Moruya River. 	 Develop facilities as shown on the Landscape Masterplan. Implement strategies as per Council's Eurobodalla Waterways Infrastructure Strategy - A Strategy for the Provision and Maintenance of Wharves, Jetties and Launching Ramps throughout Eurobodalla Shire (June 2002). Develop facilities as shown on the Landscape Masterplan. If further demand is forthcoming, conduct a feasibility study into the possibility of providing sewer pump-out facilities for marine vessels at the boat ramp/wharf.

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Management Issue	Existing Situation	Strategy	Action
44.40 D " " "			
11.10 Recreation - continued	Moruya Riverside Park	Moruya Riverside Park	Moruya Riverside Park
	 This is currently under-utilised for recreational activity as there is no infrastructure in place to facilitate recreation other than the open grassed areas. There is no play equipment in the park. 	 To provide for recreational activities such as picnicking, fishing, playing, walking, bike riding and bird watching etc. Provide play experiences in the park. To provide for outdoor entertainment in the park. 	 Develop facilities as shown on the Landscape Masterplan. Develop a regional playground in this park that provides for equal access and provide play experiences for children of various ages. Consider the inclusion of sculptural elements within the playground. Playground design to be site specific and incorporate local themes. Develop an outdoor amphitheatre in the park. Ensure that water and 3 phase power are provided at the site. This will allow for lighting, sound, special effects and refrigeration of food services if required. Ensure comfort, good acoustics and amenity is considered in the design of the amphitheatre – provide some shade. (b) Develop a small outdoor performance space in the park.
			Ensure that water and 3 phase power are provided at the site. This will allow for lighting, sound and special effects if required. Ensure some shade is provided.
	Ryan's Creek Parkland	Ryan's Creek Parkland	Ryan's Creek Parkland
	This is currently under-utilised for recreational activity as there is no infrastructure in place to facilitate recreation other than the open grassed areas. Used by Scouts and schools for various outdoor activities.	 To provide for passive active recreational activities such as picnicking, fishing, walking and bird watching. Facilitate the use of the reserve for appropriate approved recreational activities. 	 Develop facilities as shown on the Landscape Masterplan. Approved recreational activities comply with the relevant Council policies and requirements.
	3. The area is used to provide access to Ryan's Creek and Ryan's Creek Wetland and includes areas of a SEPP 14 wetland that is used occasionally for fishing and bird watching.	3. Facilitate appropriate access to Ryan's Creek and Ryan's Creek Wetland that complies with the relevant legislation, regulations and policies.	 Appropriate development consent granted for the construction of boardwalks, tracks and bird hides in Ryan's Creek Parkland that provide access to Ryan's Creek and Ryan's Creek Wetland – as indicated on the Landscape Masterplan.
	Ryan's Creek and Ryan's Creek Wetland	Ryan's Creek and Ryan's Creek Wetland	Ryan's Creek and Ryan's Creek Wetland
	This area is currently used for fishing, pumping yabbies, walking, bird watching.	 To provide for passive recreational activities such as fishing, pumping yabbies, walking and bird watching. Facilitate the use of the reserve for appropriate approved recreational activities. 	 Develop facilities as shown on the Landscape Masterplan. Approved recreational activities comply with the relevant Council policies and requirements. Appropriate development consent granted for the construction
		 To facilitate enjoyment of the reserve that complies with the relevant legislation, regulations and policies. 	 Appropriate development consent granted for the construction of boardwalks, tracks and bird hides to provide access to Ryan's Creek and Ryan's Creek Wetland – as indicated on the Landscape Masterplan.

Management Issue	Existing Situation	Strategy	Action
11.11 Signage, Design & Development	Russ Martin Park There is a brass plaque attached to a large granite rock that commemorate the life of Russel Arthur Martin after whom the park was named. There are over 7 signs in this park. There is an information sign on the gross pollutant trap that is located underground on the reserve.	Russ Martin Park 1. Retain the commemorative granite feature. 2. Minimise signage in the park. 3. Continue to provide information on stormwater treatment.	Re-locate the commemorative granite feature as shown on the Landscape Masterplan. Replace concrete slab with more appropriate base. Include this reserve in the Style Guide (refer to Notes below). All developments designed and constructed in accordance with the Style Guide (refer to Notes below).
	Moruya War Memorial Swimming Pool There is a small plaque within the pool complex detailing when the pool was opened and by whom. There is no information about the history of the pool – it was built with funds generated by the War Veterans Association. Signage within the pool complex is the responsibility of the Swimming Pool Manager.	Moruya War Memorial Swimming Pool Acknowledge the contribution of the War Veterans to the construction of the swimming pool. Ensure appropriate signage located within the pool complex to address safety and behaviour in and around the pool.	Moruya War Memorial Swimming Pool Further investigate the history of the pool and have this information provided for visitors for interest and as a historical reference for the future. Swimming Pool Manager to provide appropriate signage within the pool complex. All developments designed and constructed in accordance with the Style Guide (refer to Notes below).
	Moruya Town Wharf & Boat Ramps There is a NSW Fisheries sign in place advising of bag restrictions and minimum catch sizes. There is a sign located near the Town Wharf that provides information on Council's measures to keep the Moruya River free of stormwater pollution with the use of gross pollutant traps and other measures.	Moruya Town Wharf & Boat Ramps Advise visitors of the local fishing conditions and the local ecology. Continue to provide information on stormwater treatment.	Include this reserve in the Style Guide (refer to Notes below). All developments designed and constructed in accordance with the Style Guide (refer to Notes below).
	Moruya Riverside Park 1. There is no signage within the reserve. 2. There is no arrival signage in for the reserve.	Provide interpretive information at appropriate locations to assist visitors with way finding and to provide information on the various historical and environmental features of the reserve. 2. Provide effective entrance signage to create a strong sense of arrival to the park.	Include this reserve in the Style Guide (refer to Notes below). Design and install entrance signage in locations as shown on the Landscape Masterplan. All developments designed and constructed in accordance with the Style Guide (refer to Notes below).

Management Issue	Existing Situation	Strategy	Action
11.11 Signage, Design & Development – continued	Ryan's Creek Parkland 1. There is no signage within the reserve. 2. There is no arrival signage in for the reserve.	Ryan's Creek Parkland Provide interpretive information at appropriate locations to assist visitors with way finding and to provide information on the various historical and environmental features of the reserve. Provide effective entrance signage to create a strong sense of arrival to the park.	Ryan's Creek Parkland Include this reserve in the Style Guide (refer to Notes below). Design and install entrance signage. All developments designed and constructed in accordance with the Style Guide (refer to Notes below).
	Ryan's Creek and Ryan's Creek Wetland 1. There is no signage within the reserve. 2. There is no arrival signage in for the reserve.	Ryan's Creek and Ryan's Creek Wetland Provide interpretive information at appropriate locations to assist visitors with way finding and to provide information on the various historical and environmental features of the reserve. 2. Provide effective entrance signage to create a strong sense of arrival to the park.	Ryan's Creek and Ryan's Creek Wetland Include this reserve in the Style Guide (refer to Notes below). Design and install entrance signage. All developments designed and constructed in accordance with the Style Guide (refer to Notes below).

Develop a Style Guide for all reserves including the following:

- All signage to be consistent and carry the branding/logo of the park as developed in the Marketing and Advertising Program for the Park.
- Minimise the number of signs in the reserves (rationalise signs where possible).
- Ensure signage is designed and constructed to reduce the risk of damage by vandalism.
- All reserves to be connected through commonality of signs and themes from Russ Martin Park through to the wetland.
- Signage should provide an informative and aesthetically valued walk through the reserves including information on people, environment, history etc. Artists are to be considered for consultation on the development of park furniture and other appropriate developments within the reserves. There is an opportunity to seek assistance from the South East Arts Region in this regard.
- All amenities through all reserves included in this Plan of Management must be consistent in their design, materials, themes and colour scheme. A coordinated approach must be taken

Management Issue	Existing Situation	Strategy	Action
11.12 Tourism	Russ Martin Park	Russ Martin Park	Russ Martin Park
	1. This a popular place for travellers to stop and rest.	1. To provide a quality park for tourists to stop at.	1. Maintain as an attractive park on the river.
	2. Visitors to the Moruya Markets also utilise this park.		2. Ensure continued visibility from the bridge (Princes Highway).
	Views of the river and mountain ranges are an attraction of the reserve.		3. Ensure public toilets are maintained to Council standards.
	tile leserve.		4. Provide small play equipment for small children.
	Moruya War Memorial Swimming Pool	Moruya War Memorial Swimming Pool	Moruya War Memorial Swimming Pool
	Available for visitors to use.	To continue to provide an attractive swimming facility for that is available to tourists.	 Include the pool in marketing and advertising campaigns as appropriate.
	Moruya Town Wharf & Boat Ramps	Moruya Town Wharf & Boat Ramps	Moruya Town Wharf & Boat Ramps
	Available for visitors to use.	To promote and improve facilities at the Moruya Town Wharf and Boat Ramps to meet the requirements of	1. Develop facilities as shown on the Landscape Masterplan.
	2. Existing parking for cars & trailers is inadequate.	recreational fishing and boating.	 Include the Moruya Town Wharf and Boat Ramp in marketing and advertising campaigns as appropriate.
	3. Existing facilities are inadequate.		and advocating company to do appropriate.

often return afmusely. The Caravan Park lesses was not renewed and since June 2001 the caravan park ceased to operate. 2. Available as open space for visitors to use. View of the river and mourishin ranges are an attraction of the reserve. 3. The park is currently generally unknown in the wider community. 4. Develop and individual feel billourys by yellerding the styles, values and diseased of scoeping at large to the community and forcesse patronage. Market the park as a destination for first pearl as a destination for first pearl as a destination for first pearl as a community and forcesse patronage. Market the park as a community and forcesse patronage. Market the park as a destination for first pearl will advant the park as a diseased of scoeping at targe. 4. Develop and promote the inclusion of arts and cultural activities that will attract bursists. 5. Promote the hosting of regular events on the park. 5. Promote the hosting of regular events on the park. 6. Encourage promoters and organisers to hold recurring even in the park. 7. Encourage promoters and organisers to hold recurring even in the park. 8. Encourage promoters and organisers to hold recurring even in the park. 8. Encourage promoters and organisers to hold recurring even in the park. 8. Encourage promoters and organisers to hold recurring even in the park. 8. Encourage promoters and organisers to hold recurring even in the park. 8. Encourage promoters and organisers to hold recurring even watching and wetland experiences. 9. Promote the reserve as an ideal location for birdwatching, easy bush walking and other nature based activities. 9. Promote the reserve as an ideal location for birdwatching, easy bush walking and other nature based activities. 1. The reserves are not sign posted at the highway: 1. The reserves are not sign posted at the highway: 1. Improve exposure of the reserve to users of the Princes 1. Improve exposure of the reserve to users of the Princes 1. Improve exposure of the reserve to users of the Princes	Management Issue	Existing Situation	Strategy	Action
1. The old Monaya Caravan Park lattracted visitors who would often return annually. The Caravan park cased to present a finite continuation of the reserve and since during 2014 for earlier and mountain ranges are an attraction of the reserve. 2. Available as open space for visitors to use. Views of the river and mountain ranges are an attraction of the reserve. 3. The park is currently generally unknown in the wider community. 4. Deselve and for community. 5. Promote the hosting of regular events on the park. 6. Promote the hosting of regular events on the park. 6. Promote the hosting of regular events on the park. 7. Promote the hosting of regular events on the park. 8. Promote the hosting of regular events on the park. 8. Promote the hosting of regular events on the park. 8. Promote the hosting of regular events on the park. 8. Promote the hosting of regular events on the park. 8. Promote the hosting of regular events on the park. 9. Promote the hosting of regular events on the park. 9. Promote the hosting of regular events on the park. 1. This is not a well known area for visitors. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sign posted at the highway. 1. The reserves are not sig	11.12 Tourism - continued	Moruva Riverside Park	Moruva Riverside Park	Moruva Riverside Park
Ryan's Creek Parkland, Ryan's Creek & Ryan's Creek		 The old Moruya Caravan Park attracted visitors who would often return annually. The Caravan Park lease was not renewed and since June 2001 the caravan park ceased to operate. Available as open space for visitors to use. Views of the river and mountain ranges are an attraction of the reserve. The park is currently generally unknown in the wider 	 Provide some short term camping on site in association with events. Maintain the area as an attractive park on the river to attract tourists to Moruya. Market the park to increase its exposure within the community and increase patronage. Market the park as a location for hosting events and festivals. This will add to the cultural life of Moruya by reflecting the styles, values and issues of society at large Develop and promote the inclusion of arts and cultural activities that will attract tourists. 	1. Refer to Section 11.12 Event Related Primitive Camping on page 63 and Section 11.7 Leases & Licences on page 60. 2. Develop facilities as shown on the Landscape Masterplan. 3(a) Establish a marketing and advertising program for the park. The reserve could be marketed as a destination for festivals and events such as busking, food festivals, markets, music festivals and arts festivals etc. Develop appropriate branding for the park that can be used consistently in advertising, signage and marketing. 3(b) Include Moruya Riverside Park in marketing and advertising campaigns as appropriate. 4. Engage with artists to provide public art within the park – both
1. This is not a well known area for visitors. 1. Provide for nature based experiences including bird watching and wetland experiences. 2. Promote the reserve as an ideal location for birdwatching, easy bush walking and other nature based activities. 2. Establish a marketing and advertising program for the park. Develop appropriate branding for the park that can be used consistently in advertising, signage and marketing. 3. Include the natural areas in marketing and advertising campaigns as appropriate. All Reserves 1. The reserves are not sign posted at the highway. 1. Improve exposure of the reserve to users of the Princes Highway. 2. Establish a marketing and advertising program for the park. Develop appropriate branding for the park that can be used consistently in advertising, signage and marketing. 3. Include the natural areas in marketing and advertising campaigns as appropriate. 4. Improve exposure of the reserve to users of the Princes Highway. 2. Improve exposure of the Princes Apply to the RTA for a tourist sign to be erected in an appropriate location to signal the location of the Moruya Riverside Park — a regional park (or as appropriate). 2. Investigate the opportunity to utilise the banners on the northern arrival to Moruya (on the Moruya River Bridge) to				Encourage promoters and organisers to hold recurring events
watching and wetland experiences. 2. Promote the reserve as an ideal location for birdwatching, easy bush walking and other nature based activities. 2. Promote the reserve as an ideal location for birdwatching, easy bush walking and other nature based activities. 3. Include the natural areas in marketing and advertising campaigns as appropriate. All Reserves 1. The reserves are not sign posted at the highway. 1. Improve exposure of the reserve to users of the Princes Highway. 4. Apply to the RTA for a tourist sign to be erected in an appropriate location to signal the location of the Moruya Riverside Park – a regional park (or as appropriate). 2. Establish a marketing and advertising program for the park. Develop appropriate branding for the park that can be used consistently in advertising, signage and marketing. 3. Include the natural areas in marketing and advertising consistently in advertising, signage and marketing. 3. Include the natural areas in marketing and advertising consistently in advertising, signage and marketing. 4. Include the natural areas in marketing and advertising brown appropriate. 4. Apply to the RTA for a tourist sign to be erected in an appropriate location to signal the location of the Moruya Riverside Park – a regional park (or as appropriate). 4. Investigate the opportunity to utilise the banners on the northern arrival to Moruya River Bridge) to		Ryan's Creek Parkland, Ryan's Creek & Ryan's Creek Wetland	Ryan's Creek Parkland, Ryan's Creek & Ryan's Creek Wetland	Ryan's Creek Parkland, Ryan's Creek & Ryan's Creek Wetland
1. The reserves are not sign posted at the highway. 1. Improve exposure of the reserve to users of the Princes Highway. 1. Improve exposure of the reserve to users of the Princes Highway. 1. Apply to the RTA for a tourist sign to be erected in an appropriate location to signal the location of the Moruya Riverside Park – a regional park (or as appropriate). 2. Investigate the opportunity to utilise the banners on the northern arrival to Moruya (on the Moruya River Bridge) to		This is not a well known area for visitors.	watching and wetland experiences. 2. Promote the reserve as an ideal location for birdwatching,	2. Establish a marketing and advertising program for the park. Develop appropriate branding for the park that can be used consistently in advertising, signage and marketing. 3. Include the natural areas in marketing and advertising
1. The reserves are not sign posted at the highway. 1. Improve exposure of the reserve to users of the Princes Highway. 1. Improve exposure of the reserve to users of the Princes Highway. 1. Apply to the RTA for a tourist sign to be erected in an appropriate location to signal the location of the Moruya Riverside Park – a regional park (or as appropriate). 2. Investigate the opportunity to utilise the banners on the northern arrival to Moruya (on the Moruya River Bridge) to		All Reserves	All Reserves	All Reserves
northern arrival to Moruya (on the Moruya River Bridge) to			Improve exposure of the reserve to users of the Princes	Apply to the RTA for a tourist sign to be erected in an appropriate location to signal the location of the Moruya
promote the reserves and/or upcoming events.				

12.0 Landscape Masterplans

The Landscape Masterplans illustrate the proposed developments for the reserves. They have been developed to reflect the community's ideals and aspirations for the land. As discussed earlier in this Plan, there were 100s of ideas put forward and these are all reproduced at Attachment 1 on page 77.

All proposals are subject to the relevant planning approvals process including the Development Assessment process and requirements of other State Government agencies.

What is a Landscape Masterplan? A Landscape Masterplan is developed as part of the design process. The first step is to analyse the site. This part of the design process involves the consideration of site features and adjacent uses, aspect, topography, vegetation, identification of opportunities and constraints and any other issues pertaining to the future development site. Many of these issues have been discussed throughout this Plan of Management.

The Landscape Masterplan then draws on what the community has said they would like on the reserve and determines spatially how these land uses may be accommodated considering the issues, opportunities and constraints that were identified during the site analysis phase. The Landscape Masterplan guides the future development and improvement of the reserve but is dependent on further detailed construction documentation to finalise the design process. Construction documentation examines the finer details to facilitate the construction of the elements proposed in the Landscape Masterplan – like: the kinds of materials to be used; colours; plant species; exact locations of pathways, roads, fences, amenities and the details of the playground. As a result, items illustrated on the Landscape Masterplan may be amended in the Construction documentation as the details are refined.

The Landscape Masterplan includes three drawings:

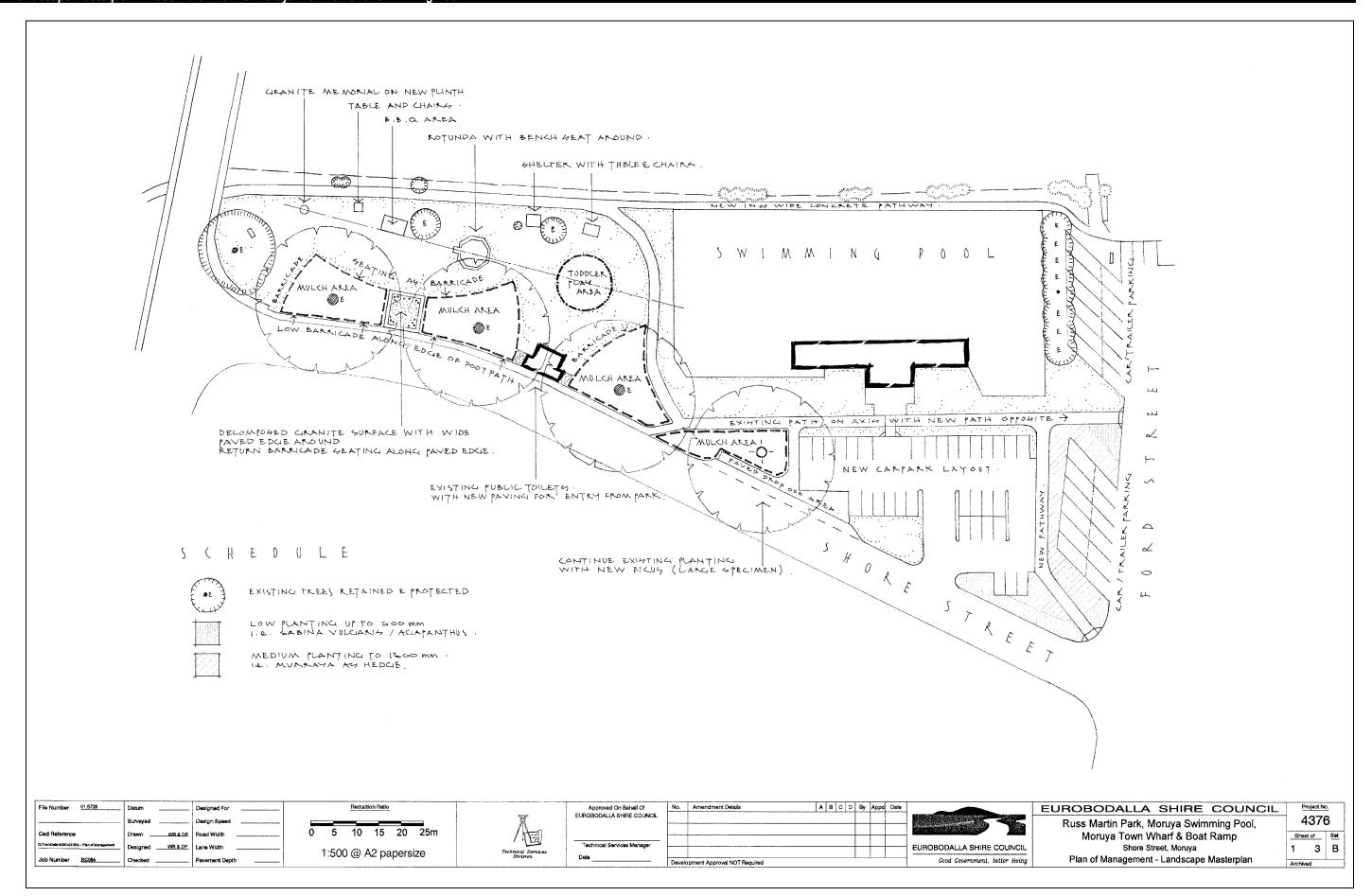
- 1. Russ Martin Park & the Moruya War Memorial Swimming Pool
- 2. Moruya Riverside Park
- 3. Ryan's Creek Parkland, Ryan's Creek Wetland & Ryan's Creek

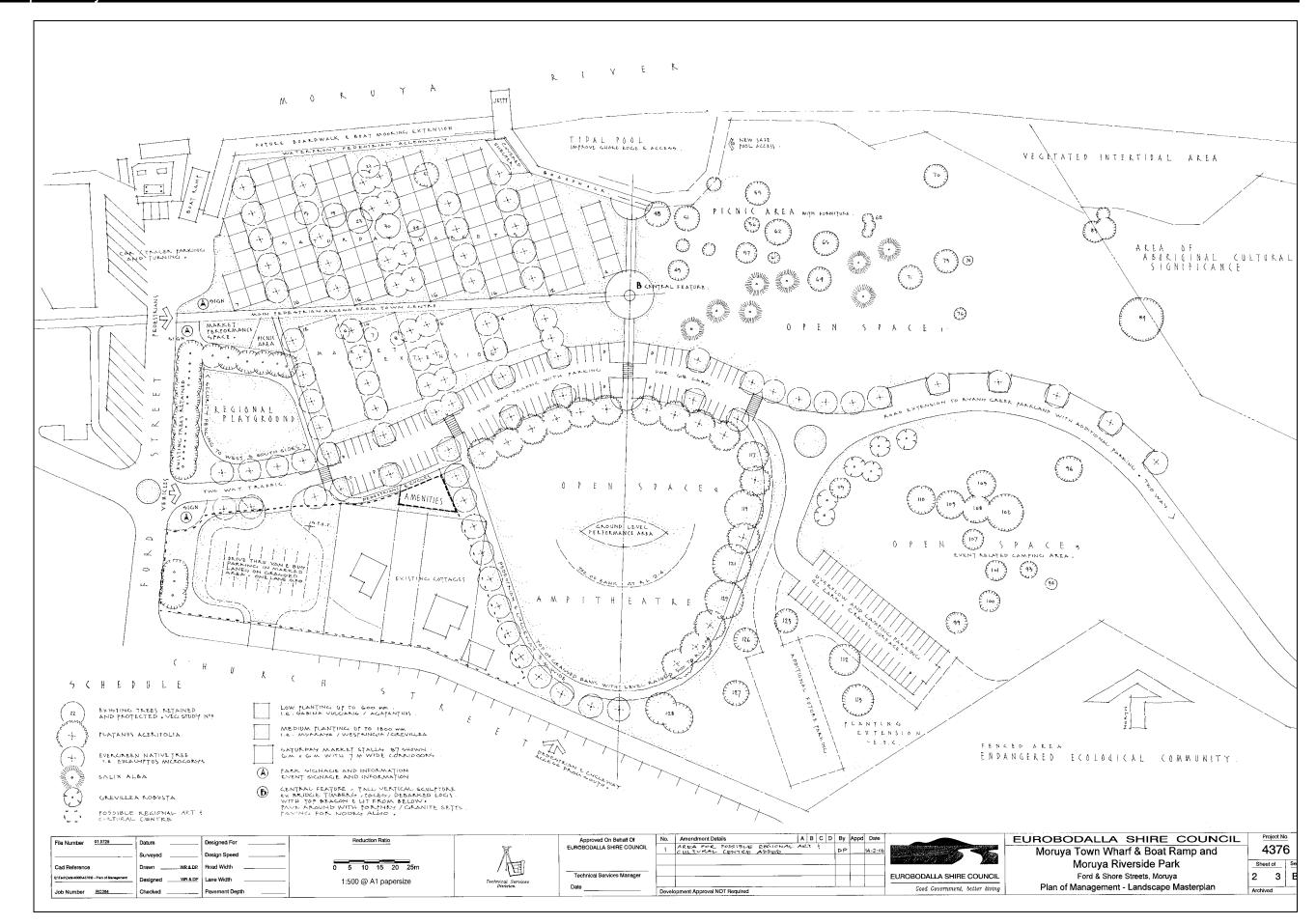
The major components included in the Landscape Masterplans are listed below – more detail is provided on the plans as illustrated on the following pages:

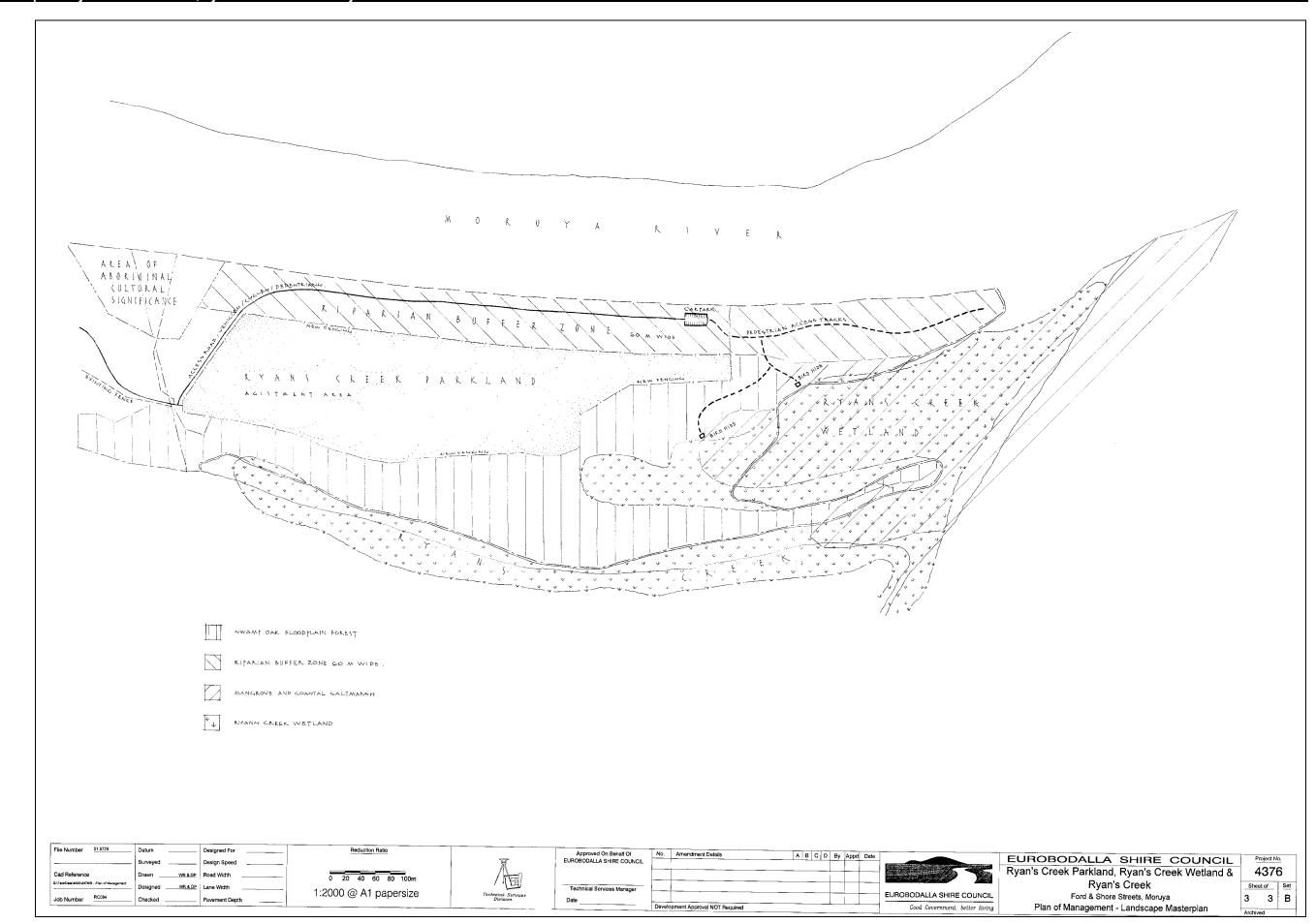
- AREAS OF ABORIGINAL CULTURAL SIGNIFICANCE areas identified, protected and interpretive signage provided for improved awareness & community education.
- ◆ ACTIVITIES a variety of activities may be granted a lease or licence to use on the reserve such as markets, food festivals, boat hire, bike hire, pony rides etc. Refer to Section11.7 Leases and Licences on page 60 for more details.
- AMENITIES the Moruya Riverside Park facilities are to be demolished and new public toilets provided for day visitors.
- ◆ AMPHITHEATRE an outdoor facility to host a variety of outdoor events such as drama, musical events, ceremonies etc. While not in use it becomes a play feature for visitors.
- ◆ ARTS CENTRAL COTTAGE located at 24-26 Church street, this facility is a community arts centre providing art classes for the community and a meeting place for regional artists. NOTE: At as the adoption of this Plan of Management Council was not the Trust Manager for this land, however this Plan of Management makes provisions for the future use of the land as it may be added to the reserve in the future. This land is currently administered by the Department of Lands.
- BBQ & PICNIC AREAS picnic and bbq facilities with shade, vehicular access and parking within walking distance.
- BIRD WATCHING bird hides to encourage bird watching in and around the wetland and creek.
- ♦ BOAT FACILITIES upgrading of the boat launching facilities as per Council's Eurobodalla Waterways Infrastructure Strategy June 2002. Improved parking for cars & trailers.
- ◆ CAMPING provision of an area for primitive short term camping to accompany events and activities in the reserve or the township. This activity must be licensed. Refer to Section11.12 Primitive Camping − Event Related on page 63

for more details.

- ENVIRONMENT identification of areas for protection, regeneration and revegetation. More information on the Vegetation Study Areas is included at Appendix 3 on page 82 of this Plan of Management.
- GRAZING agistment permitted on the reserve under lease/licence as appropriate within a fenced area wetland is
 protected with a buffer zone that will be fenced to prevent stock access. Refer to Section 11.8 Grazing/Agistment on
 page 58 for more information.
- INTERPRETIVE SIGNAGE to inform visitors of historical and environmental features of the reserve.
- PARKING restricted areas for parking to minimise disturbance to the environment while meet the needs of users.
- ◆ PATHWAYS a network of pedestrian, cycle and vehicular pathways to access the reserves safely and with minimal disturbance to the environment that links all the features of the reserves. In the longer term to continue the pedestrian/cycle network along the river to connect with Preddy's Wharf and provide safe pedestrian and cycle access to South Head as part of the Moruya South Head Cycle/Pathway project.
- PLAYGROUND provision of a large regional playground facility to accommodate a range of ages and abilities.
- RECREATION providing areas for informal active and passive recreation.
- ♦ REGIONAL PERFORMING AND VISUAL ARTS CENTRE The southwestern corner of this reserve has been identified as a possible location for this development, however further investigation is required. This area includes the land currently accommodating the two cottages for which as at the date of adoption of this Plan of Management Council is not the Trust Manager.
- ♦ RESIDENTIAL COTTAGE located at 28 Church Street Moruya this cottage is currently licensed for residential use. NOTE: At as the adoption of this Plan of Management Council was not the Trust Manager for this land, however this Plan of Management makes provisions for the future use of the land as it may be added to the reserve in the future. This land is currently administered by the Department of Lands.
- ♦ SCULPTURAL GARDEN/EXHIBITION SPACE featuring works of art from the region.
- SIGNAGE directional signage to assist visitors with movement around the reserves
- WETLAND protection of the State Environmental Protection Policy No.14 Coastal Wetlands Wetland Number
 Buffer zones and protective fencing provided to protect this wetland.







13.0 Staging of Works, Estimate of Costs & Funding

13.1 Staging of Works

The following priority list will assist with the staging of works:

Stage 1 – Moruya Riverside Park - Site Preparation

- 1.1 Demolish old amenities buildings.
- 1.2 Remove dead, dying, unsafe and inappropriate trees/shrubs.
- 1.3 Remove rubbish
- 1.4 Complete tree surgery on trees to remain as required.
- 1.5 Level the area to make safe and allow regular mowing.

<u>Stage 2 – Moruya Riverside Park – Roadways, Parking & Market Area</u>

- 2.1 Construct the access road and car parking.
- 2.2 Install bollards.
- 2.3 Plant all new trees.
- 2.4 Construct pedestrian/cycle pathways.
- 2.5 Install services (3 phase power, water, power) where required including amphitheatre, markets and small performance space.
- 2.6 Install lighting to roadways.
- 2.7 Develop a Style Guide for the Reserves.
- 2.8 Design and construct entrance signage (artist features).

Stage 3 - Moruya Riverside Park - Amphitheatre, Boat Ramp and Regional Playground & Russ Martin Park

- 3.1 Design and construct the amphitheatre. Turf/seed with kikuyu.
- 3.2 Install lighting to amphitheatre and other high use areas.
- 3.3 Upgrade the town boat ramp and wharf.
- 3.4 Design and construct the regional playground.
- 3.5 Install picnic facilities and associated infrastructure.
- 3.4 Design and construct public toilets.
- 3.5 Replace play equipment in Russ Martin Park with equipment for small children only.
- 3.6 Implement protection measures for Fig Trees in Russ Martin Park.
- 3.7 Design and construct the small performance space.
- 3.8 Design and construct the central feature (artist feature).

Stage 4 - Moruya Riverside Park - Camping Ground, Swimming Pool (river rock pool), Jetties and Swimming Pool Car Park

- 4.1 Construct gravel access road to camping ground.
- 4.2 Construct fishing jetties.
- 4.3 Design and construct upgrade to the historic swimming pool (river rock pool).
- 4.4 Design and install interpretive signage.
- 4.5 Design and construct kerb and parallel parking on Church Street.
- 4.6 Upgrade the Moruya War Memorial Swimming Pool car park.
- 4.7 Construct pedestrian/cycle pathway on northern side of the Moruya War Memorial Swimming Pool.

Stage 5 - Ryan's Creek Parkland

- 5.1 Construct fencing.
- 5.2 Construct gravel access road through to carpark.
- 5.3 Design and construct carpark.
- 5.4 Construct pedestrian/cycleway.
- 5.5 Design and install interpretive signage.

Stage 6 - Ryan's Creek Wetland and Ryan's Creek

- 6.1 Construct informal tracks to wetland.
- 6.2 Design and construct bird hides and boardwalks.
- 6.3 Design and install interpretive signage.
- 6.4 Construct pedestrian/cycleway (boardwalk as required) to link to the South Head Cycle/Pathway.

NOTE: This staging list is indicative only. The staging may be modified by Council or its delegated staff depending on the availability of funding and/or other resources.

13.2 Estimate of Costs

A Quantity Surveyor was engaged to provide an estimate of costs for the development of these reserves as per the Concept Masterplan in September 2004.

The total estimate of costs was \$4,730,303. However it must be noted that this estimate was prepared from the Landscape Masterplan drawings, without specifications nor civil, structural or services engineer's advice.

This estimate is intended as an initial guide only for feasibility purposes, assuming no onerous conditions of contract nor undue time constraints. Future cost increases and GST are excluded.

13.3 Funding

Council has received the following funding for the development of these reserves:

2003	\$20,000	Department of Lands (removal of caravan park infrastructure)
2004	\$5,000	Department of Lands (development of the Plan of Management)
2005	\$30,000	Department of Lands (demolition and removal of amenities buildings)

As at the date of adoption of this Plan of Management, Council has allocated the following funds towards the development of the reserves:

\$21,700	Removal of caravan park infrastructure
\$50,000	Park upgrade
\$205,000	Park upgrade
\$75,000	Park upgrade
\$75,000	Park upgrade
	\$50,000 \$205,000 \$75,000

There may be opportunities to seek voluntary community involvement in the development of the park. This will be assessed on a case by case basis.

Funds can be sourced from Council and through grant applications to various State and Federal Government agencies. Consideration will also be given to sponsorship arrangements that would assist with the development and maintenance of the reserves.

14.0 Attachment 1: Comments from Community Meeting on 5 November, 2001

- Should be an open recreational park with bbqs, play equipment, paths, seating, parking
- Short term primitive camping not caravans
- A marina on the site
- Should allow for short term parking/overnight stay of motor vans/homes
- This river front reserve is Moruya's best asset
- Russ Martin park is looking worn out and there is no soft fall under the play equipment
- Could be a caravan stop point. There is no where for travellers as a stop point in Moruya
- Rodeo Club need access for their stock
- Boat ramp to be maintained, needs to be a dual boat ramp, needs more parking
- Moruya needs a place for large vehicles to stop
- Moruya needs a place for car and caravan parking
- Opportunity to lease the land in order to bring \$\$ into the community to upgrade the river banks etc.
- Extension of bike path from Pool right through to Preddy's Wharf.
- If the Arts Workshop was to go to the old Tyre Shop then the reserve could provide accommodation for artists in residence.
- Have part of the reserve as a shortstay caravan park.
- Sculpture garden
- A place to attract international artists (old Tyre Shop + Accommodation + Reserve) – good for tourism.
- Longer leases will attract better clients.
- Primitive camping area required may be restricted
- Possibility of restricting camping/caravan times to summer (from US example) to avoid time of likely flood.
- The Department of Meteorology monitors the Moruya River for flood events (Laugher)
- Canal development by the River
- A 'Mogo' by the river type of development scale to be in keeping with the area. A development that would be sympathetic to the area.
- Flooding issues shouldn't restrict development.
- Suggested the Moruya Historical Museum for historical information on the site.
- I value tourism as the whole town benefits. This could be
 in the form of a primitive caravan park with an on site
 Caretaker, plus an area for markets, walking-cycle path,
 a small marina would also look attractive as well as be an
 attraction for visitors. All these things still keep the park
 in a natural state which is what I like about it.
- Natural beauty and generally easy access
- They are available for public use
- Walking, picnics, access to river fishing
- Develop existing/future potential for greater community and visitor use
- More frequent maintenance by authorities
- Model yacht/boat pond
- Visiting yachties
- Rowing Club
- Model Cars/Trains
- Walkway to 'Heads' and bike track
- An open venue for markets

- The area should be a large marina (privately developed) with a path around it a boardwalk continuing to South Head in time.
- Marina
- Dredge path to sea
- Commercial projects marine sales etc
- Eating establishments
- Short stay (10 days) Van Park
- Small boat facility off river in pond as feature as a commercial development
- Bike path to South Head a very valuable asset.
- Keep two areas separate
- Old Caravan Park for passive recreational picnic areas, bbqs etc, European style park, Arts Centre.
- Aboriginal memorial
- Frisbees
- Sculpture park
- Long vehicle parking
- Playground equipment
- Boat mooring not marina
- Area beyond fence line primitive camping, affordable accommodation, minimal permanent structures.
- Open space
- Environmental education
- Preservation of the casuarina forest and the environment around Ryan's Creek where the access isn't so good
- Weed control
- Sporting facility low impact for Scouts/Clubs etc, archery, initiative courses, orienteering, bmx (a dirt course already exists)
- A sundial human interactive on a River/Water theme (not expensive)
- Public green open space beside water
- Community Art Centre
- The river site should be available to our community
- Why shouldn't the people of Moruya have access to the best parts of our RIVER!
- Move Moruya markets and rename it to 'Moruya Country Markets'
- Invite 'Farmers Markets' from down south to join in each month
- Advertise through the Internet and other avenues
- Farmers Markets throughout NSW have and are becoming very popular. Give people a choice of the food and consumer products to buy.
- Markets will link in beautifully with Arts Workshop and sculpture area.
- Market provide revenue and can be moved in a flood
- Water Gardens using pumped water and use talents of qualified Council Staff (ie. Landscape Designers)
- Another idea for Moruya 'Historic Walk' few signs up Campbell Street, past Museum & PO around to Churches etc into shopping area.

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- Extension of existing pool facilities to include covered pool, 50m pool, manager's quarters. 'Pull-in' parking area (to free up pool parking area).
- Primitive Camp Ground
- Camping area for mobile homes

- Bicycle and walking path (historical walk)
- Memorial walk in honour of previous Aboriginal residents contribution to the town.
- Art & Craft project at Westwood Tyres
- Cycle paths, parkland/picnic areas/play equipment/bbgs (Sydney's Rouse Hill Recreational Reserve – as good example)
- Upgrade boat ramp facilities
- Use of Westwood's Building as Art & Cultural Centre.
- Wetlands education
- Focus on children
- The Moruya Archery Club had a small section in the south eastern corner of Ryan's Creek Park and wetland we would be willing to lease a small section again with little or no impact as before on the surrounding area and no restricted access to anyone on the times we are not using it. We would also be willing to help with land care in maintaining the wetlands. The primitive camping area would help us out as the site we are on currently the camping is limited. We get up to one hundred archers to our invitation shoots twice a year. Apart from signposting and warning signs when in use the only other sign of our occupation would be target butts scattered in the casuarina trees but these blend in and earth butts have no impact on the area
- No permanent buildings
- Primitive camp site with showers/toilets
- Landscaping of whole foreshore
- Market stall moved from Adelaide carpark frees up car park and enables more market stalls
- I value the park like nature of the area
- Plant some specimen native park trees indigenous to area. Remove exotic trees - willows
- Westwood's to become a gallery/workshops
- Moruya Markets to relocate to Old Caravan Park site. Stall fees towards community
- Primitive camping with supervision. NO long stay caravans or permanent mobile homes
- Cycleways
- Performance "arena" (no structure) for events such as Four Winds – Bermagui or Domain – Sydney
- Marina idea I foresee problems with river mouth safety and access. Dredging a short term solution till next flood comes through
- Environment education great idea
- Parkland, markets, camping, performance space, gallery & studios, cycling, fishing, sculpture, environmental education
- It is a fantastic site for passive recreation and should remain as such! Minimum development such as bbg areas, toilets etc. are all that is required. Under no circumstances should any commercial development be undertaken or even considered!! Walking waterside path extending from the existing pathway which terminates at the swimming pool would be a 'plus'.
- Develop old tyre site and adjacent cottages for further amenities, café etc. Riverside marina??
- Moruya Riverside Park site Park
- Ryan's Creek Parkland Rural Use & cycleway
- Small park and car parking with a cycleway on river bank (as on west side of bridge) to Moruya Heads - fence off remaining area for rural use, grazing etc.

- To close down the North Head Primitive Caravan Park leaving that area open for future development, and opening up a primitive and overnight Caravan Parking area, or just for caravans to pull in for a cuppa and a rest.
- Picnic area with bbq's and seats where the ground has been built up (for flood reasons)
- Bus interchange (toilets)
- Function Centre meeting place
- new business opportunities, shops & restaurants/cafes
- History granite/gold days
- Marina
- Provides a Destination
- local tour buses
- plenty of parking to set down passengers and pick up (cars included)
- caravans
- toilets
- parcel lockup
- **Function Centre**
- Meeting Room Local community groups
- Events expos/weddings
- Conferences local, national, ACT markets
- Arts Centre/History Centre
- Local artists
- Exhibitions/display (National Gallery Exhibition)
- Crafts
- **Products**
- **Tourist Information**
- General banking
- Accommodation
- Tours
- Place of interest
- Photo displays
- Museum for periodical display
- Marina
- Row boat hire
- Canoes
- Building to be built along historic warehouse/sawmill/boat building using high beams, rafters, flooring (all local hardwoods milled and sawed here)
- Jetty/dock/pier/promenade to be timber structure examples: Echuca, The Rocks - Argyle Centre, Hobart, Bega (Cheese Factory) Heritage Centre
- Boatramp parking will be required. This could be designed to double as car/caravan parking reducing costs and extents of bitumen.
- I like the markets idea. Candelo markets these markets raised enough funds to build a 50m swimming pool. This provides an indication of the funding power they can have.
 - The construction of the criterion track could be designed with a bit of flair so that it can double for the market layout (rather than have vehicles wear the grass out). It could also move away from the standard oval to say a racing circuit style. Imagine having done the turn and coming face to face with the person on a parallel track and they are running you down. The mental part of the sport! This too could also double as the access to the park further down and as part of the walking/cycle track at other times. The same could pick up the Koori site. wetland aspects, etc as part of an interpretative walk. Again min cost and max versatility.

- The current mass of willows is a blight on the landscape.
 I'd like to get rid of them all and replace with more suitable species.
- The first 3rd of the park should be open to the river rather than heavily planted along the foreshore for environmental reasons. This would retain the open and beaut vista of the river.
- The open space adjoining could then be utilised for bbq/picnic/informal games (akin to Corrigans).
- I'd like to see the main playground removed from Russ Martin Park (keep as a toddler's area?). Something bright and obvious on the foreshore of the river so you can see it from Moruya bridge as you travel south. Care would be needed due to flooding but worth investigation.
- Arts/sculpture (whilst not your typical engineers love) is an interesting concept worth further exploration.
- Camping?? Good idea but would it actually stack up well worth a look given extent of community support.
- The Old Caravan Park site at Moruya ... a perfect location for a Marina. A Marina would provide a handy docking area for seafaring travellers, fishermen men, and pleasure craft. This could include the following: A restaurant, A shop providing fishing tackle, bait, and marine service for boats, Fish and Chip Shop, Picnic Tables.
- A boardwalk extending from the Marina along the riverbank through the Park to town would be an attractive feature.
- These facilities would beautify our town and provide a
 pleasant area for relaxation and entertainment, which
 would give Moruya a much-needed boost. We need to
 encourage Tourism to help small business and provide
 employment in this area.
- a sculpture garden
- outdoor events
- an area for primitive camping ground
- extending the bike path from the swimming pool through to Preddy's Wharf along the river
- bird watching
- revegetation opportunities
- educational/interpretative walks with information boards a reconciliation walk
- a marina
- open space reserve/parkland with barbecues, play equipment, picnic tables and chairs
- a model boat pond
- walking/jogging paths
- interpretive signage
- buffers around the wetland prevent damage from grazing
- heritage value of Old Swimming Pool & Steamship Co.
 site
- re-use of Westwood's Building
- open air amphitheatre
- fishing/boating opportunities
- covered performance area/pavilion
- relocate bicycle criterion track from Gundary Oval to this site
- active recreational fields
- upgrade boat ramp facilities
- markets/festivals
- bike riding/walking/jogging

- picnics
- café/restaurant on the river
- Be aware of maintenance costs.
- venue for outdoor events
- Jamhorees
- defined vehicular access from Shore Street through the riverside reserves to the end of Ryan's Creek Parkland
- provide parking in appropriate locations
- open parkland with feature trees
- part of the area would need to be filled above likely future flood levels. If that could be done then there would be many options available to prospective developers that could substantially improve Moruya's economy
- picnic area, primitive camping, walking tracks, bike paths.
 Westwood's Tyre Building for an arts centre & tourist info is excellent
- Moruya Riverside Park & Ryan's Creek Parkland cannot be considered in isolation from the town, its business district and landscape.
- See the township as circle starting and finishing at the river
- Moruya Riverside Park & Ryan's Creek Parkland as a continuation of the hospital riverside walk and Gundary playing fields.
- Wharf Area transfer boat hire business to south riverbank, establish caravan/trailer carpark at existing boatramp and wharf.
- Revegetate riverbank with River Oaks but gap occasionally to afford views
- Knock down toilet block and rebuild
- Install educational/information signage around Aboriginal site, bora bora ground
- Erect memorial to early settlers and sailors who maintained the settlement
- Erect a monument to those who fought in wars for peace
- Moruya Riverside Park, place of reflection and calmsuggest a formal colonnade or pergola with seating
- Leave the old swimming hole as it is
- Wind road roughly on same track as presently used but turn to north before Ryan's Creek wetland and circle back to Moruya Riverside Park – avoiding the 'quiet' precinct and joining the main entry road which is 2 way only from west to this point.
- Have lay-bys for carparking for picnic spots
- Design paths for long and short walks suggest stabilised decomposed granite
- Ryan's Creek Parkland Revegetate with trees and shrubs native to site in clumps and groves. Maintain (mow) only used places, such as designated picnic spots.
- Ryan's Creek Parkland access track from road to designed education study area.
- Possibility that the RTA may have plans for a new dual carriageway bridge, crossing the river further east of it's current location
- Connect to proposed South Head walkway
- Grassy swales for flood mitigation might be considered here if practicable.

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- Westwood's to Arts Centre, but renovated to standard
- Cottages clean up and rent till final decision
- Kiosk in peak times

15.0 Appendix 1: Principles of Ecologically Sustainable Development

Eurobodalla Shire Council has adopted a Sustainable Living Policy that addresses the seven principles of ecologically sustainable development. As part of its code of practice these guiding principles are considered in preparing all plans and strategies, and assessing the merit of public and private investment in built and social infrastructure. The seven principles and the extent to which they have been considered, have been met and applied in preparing this plan are detailed below.

THE PRECAUTIONARY PRINCIPLE

The precautionary principle. - where there are threats of serious or irreversible damage to the community's ecological, social or economic systems, a lack of complete scientific evidence should not be used as a reason for postponing measures to prevent environmental degradation. In some circumstances this will mean actions will need to be taken to prevent damage even when it is not certain that damage will occur.

THE PRINCIPLE OF INTERGENERATIONAL EQUITY

The principle of intergenerational equity - the present generation should ensure that the health, integrity, ecological diversity, and productivity of the environment is at least maintained or preferably enhanced for the benefit of future generations.

THE PRINCIPLE OF CONSERVING BIOLOGICAL DIVERSITY AND ECOLOGICAL INTEGRITY

The principle of conserving biological diversity and ecological integrity - aims to protect, restore and conserve the native biological diversity and enhance or repair ecological processes and systems.

THE PRINCIPLE OF IMPROVING THE VALUATION AND PRICING OF SOCIAL AND ECOLOGICAL RESOURCES

The principle of improving the valuation and pricing of social and ecological resources - the users of goods and services should pay prices based on the full life cycle costs (including the use of natural resources at their replacement value, the ultimate disposal of any wastes and the repair of any consequent damage).

THE PRINCIPLE OF ELIMINATING OR REDUCING TO HARMLESS LEVELS

The principle of eliminating or reducing to harmless levels - any discharge into the air, water or land of substances or other effects arising from human activities that are likely to cause harm to the environment.

THE PRINCIPLE OF ENCOURAGING A STRONG, GROWING AND DIVERSIFIED ECONOMY

The principle of encouraging a strong, growing and diversified economy - promotes local self reliance, and recognises and strengthens the local community and its social capital in ways that safeguard the quality of life of future generations.

THE PRINCIPLE OF PROVIDING CREDIBLE INFORMATION IN OPEN AND ACCOUNTABLE PROCESSES

The principle of providing credible information in open and accountable processes - encourages and assists the effective participation of local communities in decision making.

16.0 Appendix 2: Community Stakeholders and Interest Groups

Aboriginal community members

Apex Batemans Bay
Arts Council of the Eurobodalla

Coastcare

Coastwatchers Association Inc

Cobowra Local Aboriginal Land Council

Department of Land and Water Conservation

Eurobodalla Archery Club

Eurobodalla Landcare

Eurobodalla Shire Council

Eurobodalla Walking Together

Euroswims Pty Ltd LIONS Moruya

Moruya & Batemans Bay Police

Moruya & District Chamber of Commerce and Industry

Moruya 2000

Moruya 2537 Moruya Cycling

Moruya Examiner

Moruya Golf Fishing Club

Moruya Historical Society

Moruya Markets

Moruya Probus Club

Moruya Swimming Club Committee

Rodeo Club

Rotary Club of Moruya

South Head Cycleway Committee

17.0 Appendix 3: Vegetation Survey

A brief survey of the vegetation in the Moruya Riverside Park, Ryans Parkland and Ryans Creek Wetland was carried out in April 2002 by Jenny Liney of the Eurobodalla Botanic Gardens. Only one visit was made to each of the sites.

The survey was conducted on the three main areas of the reserve:

1. Moruya Riverside Park

Individual trees identified and a list made of the ground flora identifiable at that time. Refer to the Existing Conditions Plan on page 90.

2. Ryans Creek Parkland

Ryans Creek Parkland was divided into three communities and the main species were listed, with particular reference to noxious weeds in the Eurobodalla Shire. Other weeds with potential for problems were also noted. The three communities are referred to as Vegetation Study Areas A, B & C and are illustrated on page 91.

3. Ryans Creek Wetland

An examination was made of the Ryans Creek Wetland. Mangrove and margin species were identified and an assessment was made of the health of the complex. The waterbody flora was not sampled. This area is illustrated on page 91.

1. Moruya Riverside Park

3.1 Moruya Riverside Park – Trees

Each tree on the Existing Conditions Plan was numbered and then identified. The following table lists them. Two poorly specimens could not be identified.

NO.	INT	NAME	COMMON NAME
* denote	es specie	es not native to Australia	
1	*	Cupressus sp.	Cypress pine
2		Pittosporum undulatum	Sweet pittosporum
3	*	Cupressus sp.	Cypress pine
4	*	Jacaranda mimosifolia	Jacaranda
5	*	Corymbia ficifolia	Red flowering gum
6	*	Jacaranda mimosifolia	Jacaranda
7	*	Jacaranda mimosifolia	Jacaranda
8	*	Jacaranda mimosifolia	Jacaranda
9	*	Eucalyptus ?nicholii	Narrow leaved peppermint
10	*	Corymbia ficifolia	Red flowering gum
11	*	Jacaranda mimosifolia	Jacaranda
12	*	Jacaranda mimosifolia	Jacaranda
13		Corymbia ficifolia	Red flowering gum
14		Eucalyptus ?nicholii	Narrow leaved peppermint
15	*	Platanus x acerifolia	Plane tree
16	*	Salix alba	Basket willow
17	*	Salix alba	Basket willow
18	*	Salix alba	Basket willow
19	*	Salix alba	Basket willow
20		Lophostemon conferta	Brush box
21		Callistemon sp.	Bottlebrush
22	*	Salix alba	Basket willow
23	*	Salix alba	Basket willow

24	*	Salix babylonica	Weeping willow
24 25	*	Salix babyloriica Salix alba	Rasket willow
25 26	*	Salix alba	Basket willow Basket willow
20 27	*		
	*	Salix babylonica Salix alba	Weeping willow Basket willow
28	*		
29		Salix alba	Basket willow
30		Melaleuca quinquenervia	Paperbark
31		Eucalyptus ?nicholii	Peppermint
32		Platanus x acerifolia	Plane tree
33	*	Casuarina glauca	Swamp casuarina
34	*	Schinus areira	Pepper tree
35		Salix alba	Basket willow
36	*	Eriobotrya japonica	Loquat
37	*	Ligustrina sinense	Small leaved privet
38	*	Pinus sp.	Pine tree
39		Corymbia ficifolia	Red flowering gum
40		Hymenosporum flavum	Native frangipanni
41	*	Jacaranda mimosifolia	Jacaranda
42	*	Ligustrina lucidum	Large leaved privet
43	*	Yucca aloifolia	Yucca
44	*	Jacaranda mimosifolia	Jacaranda
44 (a)	*	Eriobotrya japonica	Loquat
45	*	Salix alba	Basket willow
46	*	Salix alba	Basket willow
47	*	Salix alba	Basket willow
48	*	Salix alba	Basket willow
49	*	Salix alba	Basket willow
50	*	Salix alba	Basket willow
51	*	Salix alba	Basket willow
52		Melaleuca armillaris	Honey myrtle
53	*	Salix babylonica	Weeping willow
54	*	Salix babylonica	Weeping willow
55	*	Salix alba	Basket willow
56	*	Salix babylonica	Weeping willow
57	*	Salix matsudana	Tortured willow
58	*	Salix matsudana	Tortured willow
59		Melaleuca styphelioides	Prickly leaved tea-tree
60	*	Salix matsudana	Tortured willow
61	*	Salix babylonica	Weeping willow
62	*	Salix matsudana	Tortured willow
63	*	Salix alba	Basket willow
64	*	Salix alba	Basket willow
65	*	Salix matsudana	Tortured willow
66		Casuarina sp.	Casuarina
67		Grevillea robusta	Silky oak
68		Platanus x acerifolia	Plane tree
69		Casuarina glauca	Swamp casuarina
70	*	Salix alba	Basket willow
71	*	Salix matsudana	Tortured willow
72		Eucalyptus ?nicholii	Narrow leaved peppermint
73		Casuarina glauca	Swamp casuarina
74	*	Platanus x acerifolia	Plane tree
75 76		Eucalyptus ?nicholii	Narrow leaved peppermint
76		Grevillea robusta	Silky oak
77		DEAD	
78		Melaleuca sp.	Paperbark
79		Melaleuca quinquenervia	Paperbark

80		Eucalyptus sp.	Eucalypt
81	*	Ligustrina sinense	Small leaved privet
82	*	Nerium oleander	Oleander
83		Casuarina glauca	Swamp casuarina
84		Casuarina glauca	Swamp casuarina
85		Casuarina glauca	Swamp casuarina
86		Eucalyptus sp.	Eucalypt
87		Casuarina glauca	Swamp casuarina
88		Eucalyptus sp.	Eucalypt
89		Casuarina glauca	Swamp casuarina
90		Eucalyptus sp.	Eucalypt
91		27	Lucarypt
92	*	Eriobotrya japonica	Loquat
93		Acacia ?mearnsii	Black wattle
93 94		??	?Apple tree
95		DFAD	:Apple tree
96			Danarhark
96 97		Melaleuca quinquenervia Melia azedarach	Paperbark White cedar
	*	Mella azedarach Salix matsudana	Tortured willow
98	*		
99	*	Salix matsudana	Tortured willow
100	-	Salix alba	Basket willow
101		Eucalyptus ?nicholii	Narrow leaved peppermint
102		Toona ciliata	Red cedar
103	*	Eucalyptus ?botryoides	Bangalay
104		Salix alba	Basket willow
105	*	Pinus sp.	Pine tree
106	*	Pinus sp.	Pine tree
107	*	Salix alba	Basket willow
108	*	Salix alba	Basket willow
109	*	Pinus sp.	Pine tree
110	*	Pinus sp.	Pine tree
111		Pittosporum undulatum	Sweet pittosporum
112		Casuarina glauca	Swamp casuarina
113		Casuarina glauca	Swamp casuarina
114		Grevillea robusta	Silky oak
115		Grevillea robusta	Silky oak
116		Eucalyptus ?nicholii	Narrow leaved peppermint
117	*	Platanus x acerifolia	Plane tree
118	*	Platanus x acerifolia	Plane tree
119	*	Platanus x acerifolia	Plane tree
120	*	Platanus x acerifolia	Plane tree
121	*	Pinus sp.	Pine tree
122	*	Salix alba	Basket willow
123	*	Platanus x acerifolia	Plane tree
124	*	Platanus x acerifolia	Plane tree
125		Eucalyptus ?botryoides	Bangalay
126	*	Salix alba	Basket willow
127		Eucalyptus ?botryoides	Bangalay
128		Eucalyptus sp.	
129	*	Salix alba	Basket willow
130	*	Salix alba	Basket willow
131	*	Salix alba	Basket willow
132	*	Salix alba	Basket willow
133	*	Salix alba	Basket willow
134	*	Salix alba	Basket willow
135	*	Salix babylonica	Weeping willow
136	*	Salix alba	Basket willow
		- 3	

137	*	Eriobotrya japonica	Loquat
138	*	Salix alba	Basket willow
139	*	Salix alba	Basket willow
140	*	Salix alba	Basket willow
141	*	Salix alba	Basket willow
142	*	Salix alba	Basket willow
143	*	Eriobotrya japonica	Loquat
144	*	Eriobotrya japonica	Loquat
145	*	Salix babylonica	Weeping willow
146	*	Hedera helix	English ivy
147		Hakea salicifolia	Willow leaved hakea
148		Callistemon sp.	Bottlebrush
149	*	Salix alba	Basket willow
150	*	Cupressus sp.	Cypress pine
151		Corymbia ficifolia	Red flowering gum
152	*	Salix babylonica	Weeping willow
153	*	Salix alba	Basket willow
154	*	Ligustrina sinense	Small leaved privet
155		??	
156	*	Ligustrina sinense	Small leaved privet
157	*	Salix alba	Basket willow
158	*	Schinus areira	Pepper tree
159	*	Salix alba	Basket willow
160	*	Salix alba	Basket willow
161	*	Salix alba	Basket willow
162	*	Salix alba	Basket willow
163	*	Salix alba	Basket willow
164	*	Salix alba	Basket willow
165	*	Salix alba	Basket willow

There are at least three *Salix* spp. in the Park. It was difficult to identify them precisely in the absence of flowers or seeds, and also in view of the fact that this genus hydridises very readily. However, because they all appear to have been planted (there are no seedlings or obviously out of place individuals), broad identifications have been made. Namely *Salix alba* (Basket willow), *Salix babylonica* (Weeping willow), and *Salix matsudana* (Tortured willow).

Salix spp. are named in the Eurobodalla Shire Council's Noxious Weeds list, so a decision will have to be made whether or not to remove any or all of them. Nevertheless, it is unlikely that there will be very much seedling recruitment in the absence of a suitable seedbed. A seedbed most likely to favour seedling establishment is where bare sediments, mud, sand or gravel, together with suitable moisture and temperature conditions, are present.

In practice, shed seed (attached to a parachute) is likely to be blown off exposed dry surfaces and to stick to wet surfaces. Unless the seedbed is mostly free of vegetation, willow seedlings will fail to grow because of the high requirement for light. In addition, if the surface is not wet within about two weeks of seed shed, the seed dies before it can germinate.

I would appear that there is no willow infestation on the adjacent reaches of the Moruya River, even though some of the trees have been established in the Park for many years.

There is a large (102) *Toona ciliata* (Red cedar) on the southern side of the track and a good looking (20) *Lophostemon conferta* (Brush box) on the other side of the track near the boat ramp. Both of these should be retained.

All the *Corymbia ficifolia* (Red flowering gum) trees should be removed, as they look dreadful. Most of the trees on the north west corner, near the boat ramp, appear undernourished and ugly. All the privets, both large and small leaved, should be taken out as soon as possible, as should the (43)Yucca near the old amenities block.

Information on *Salix* spp. was sourced from *Natural Resource Management*, Dec. 1999, published by The Australian Association of Natural Resource Management.

3.2 Moruya Riverside Park – Ground Covers

There is a significant diversity of ground species established in the old caravan park site. The flora is composed of a mixture of introduced and some native species. The list is not exhaustive because only one survey was completed. No noxious ground flora species were found in this section and none of the species should prove troublesome if the area is kept mown.

Abundance is rated on a scale of 1 - 5. 1 =one or two individuals, 2 =uncommon, 3 =common, 4 =abundant, 5 =dominant.

	SPECIES	COMMON NAME	ABUNDANCE
*	Ammi majus	Queen Annes lace	2
*	Anagallis arvensis	Pimpernel	2
*	Axonopus affinis	Narrow leaved carpet grass	3
*	Bidens pilosa	Cobblers peg	2
*	Bromus catharticus	Prairie grass	3
*	Capsella bursa-pastoris	Shepherds purse	2
*	Conyza albida	Fleabane	4
	Cynodon dactylon	Couch grass	4
*	Delairea ordorata	Cape ivy	2
*	Digitaria sanguinalis	Crab grass	3
*	Ehrharta erecta	Panic veldtgrass	4
*	Eleusine indica	Crowsfoot grass	3
	Eragrostis leptoshachya	Paddock lovegrass	3
*	Gnaphalium sp.	Cudweed	2
*	Hypochaeris radicata	Dandelion	2
*	Malva parviflora	Small flowered mallow	2
	Microlaena stipoides	Weeping grass	4
	Oplismenus aemulus	Pink awn grass	2
*	Paspalum dilatatum	Paspalum	4
*	Pennisetum clandestinum	Kikuyu	5
*	Plantago lanceolata	Plaintain	2
*	Rumex acetosella	Dock	2
*	Setaria glauca	Pigeon grass	3
?	Solanum sp.	Nightshade	1
*	Sonchus oleraceus	Milk thistle	2
*	Sporobolus africanus	Parramatta grass	3

^{*} Denotes an introduced species

3.3 Moruya Riverside Park – Recommendations

The most urgent task in the Old Caravan Park is to remove the Privets, both large and small leaved, as well as the *Yucca aloifolia* near the old amenities block.

2. Ryan's Creek Parkland

This section of the study area lies between the Moruya River and Ryans Creek and is constantly under grazing pressure by a number of horses. The site can be roughly divided into three sections:

- A a moist wooded section;
- B a grassy open woodland in the centre; and
- C a more densely wooded part with a grassy understorey.

Weeds found that appear in the list Noxious Weeds in NSW: Eurobodalla Shire, are *Lycium ferocissimum* (African boxthorn), occurring throughout the whole area, particularly in A and C. *Chrysanthemoides monilifera* (Bitou bush), one plant only on the river bank in the eastern part of C. This plant needs removing as soon as possible so as to avoid any new individuals germinating. *Opuntia* sp. (Prickly pear), in the southern section of A *Rubus fruticosa* (Blackberry), in the northern section of A.

The grassy open woodland B is heavily grazed; however the wooded areas A and C, being more shaded, appear to be only lightly grazed but suffer from trampling. The whole parkland is infested with weedy plant species with some natives. The weeds in the wooded section A, which includes an ephemeral watercourse, are particularly prolific. *Ligustrina sinense* (Small leaved privet), *Lycium ferocissimum* (African boxthorn), *Opuntia* sp. (Prickly pear), and *Delairea odorata* (Cape ivy), and *Senna* x *floribunda*, are some of the worst.

Tree species are dominated by Casuarina glauca, Acacia mearnsii, Acacia mabellae, Acacia longifolia and Pittosporum undulatum, interspersed with an occasional eucalypt. A few shrubs are evident, Babingtonia pluriflora and Bursaria lasiophylla being significant natives. There is one small patch of (possibly) Crinum pedunculatum (Swamp lily) growing in amongst some logs in B. This lily is recorded as growing north from Jervis Bay, and although it has been collected from north of Batemans Bay, there are no records of it growing south of the Moruya River. If this identification proves to be correct, perhaps the clump should either be protected from trampling by a fence, or else moved to a safe place.

There are several undesirable weed species: namely *Myrsiphyllum asparagoides* (Florist's smilax) three plants seen in A and C; *Tradescantia albiflora* (Wandering jew) particularly around the bases of trees in the shaded parts of A and C; *Sida rhombifolia* (Paddy's lucerne) which is prolific where the horses graze in B, and common in A and C; *Acetosella sagitatta* (Turkey rhubarb) in the woodland areas of A and C, and *Senna x floribunda* in the watercourse area of A. *Conyza albida* (fleabane) is abundant in the open area B and present in A and C, and a bush of *Solanum mauritianum*.in B.

2.1 Ryan's Creek Parkland – ground covers

The grazed portion supports the introduced grass species:

- Erhrharta erecta (Panic veldtgrass)
- Paspalum dilatatum (Paspalum)
- Pennisetum clandestinum (Kikuyu);
- Setaria glauca (Pigeon grass)
- Sporobolus africanus (Parramatta grass

And native species:

- Austrostipa verticillata (Spear grass)
- Cynodon dactylon (Couch)
- Microlaena stipoides (Weeping grass)
- Oplismenus aemulus (Pink awn grass)

As well as a range of herbaceous plant species, both introduced and native.

2.2 Ryan's Creek Parkland – introduced non-grassy weeds

The following table lists introduced non-grassy weeds, with an indication of their abundance on a scale of 1 - 5. 1 = one or two individuals, 2 = uncommon. 3 = common, 4 = abundant, 5 = dominant.

NAME	COMMON NAME	NOXIOUS	SECTION	ABUNDANCE
Acetosella sagittata	Turkey rhubarb		A, C	3
Araujia hortorum	Moth vine		Α	3
Bidens pilosa	Cobblers pegs		Α	1
Capsella bursa-pastoris	Shepherds purse		В	2
Chrysanthemoides monilifera	Bitou bush	*	С	1
Cirsium vulgare	Spear thistle		Α	1
Conyza albida	Fleabane		A, B, C	4
Delairea odorata	Cape ivy		A, C	3
Ligustrina sinense	Small leaf privet		Α	4
Lonicera japonica	Honeysuckle		Α	2
Lycium ferocissimum	African boxthorn	*	A, B, C	4
Myrsiphyllum asparagoides	Florists smilax		A, C	2
Opuntia sp.	Prickly pear	*	Α	3
Rubus fruticosus	Blackberry	*	Α	1

Senna x floribunda	Senna	A	3
Sida rhombifolia	Paddy's lucerne	A, B, C	4
Sisymbrium officinale	Hedge mustard	A, B, C	3
Solanum mauritianum	Tobacco bush	В	1
Tanacetum vulgare	Tansy	A, C	2
Tradescantia albiflora	Wandering jew	A, C	3
Verbena bonariensis	Tall purple top	A, C	1
Verbena rigida	Purple top	В	1

2.3 Ryan's Creek Parkland - recommendations

The specimen of *Crinum pedunculatum* (?) should be positively identified. If the preliminary ID is correct, steps should be taken to protect this clump.

In order to set a good example, Council should remove the Noxious Weeds in the Parkland. The Bitou bush, the *Opuntia* and the Blackberry should not present any problems, as there are only a few specimens, so prompt action could avoid future infestations. A plan of action should be devised to control the *Lycium ferocissimum*, as this species is widespread.

Other weeds requiring attention are:

Myrsiphyllum asparagoides; only a few individuals of this species were seen and they could easily be removed. Acetosella sagitatta; existing plants should be destroyed before the weed gets out of control. Ligustrina sinense; the ephemeral watercourse in Section A contains a large number of this species. A plan of action for eradication should be drawn up.

Ryan's Creek Wetland (SEPP 14 – No. 178)

A brief visual survey of the above wetland was carried out on 10 April 2002. This did not include sampling the waterbody flora.

3.1 Species growing in the water:

- Avicennia marina this is found the entire length of Ryans Creek and all specimens appear to be in good health.
- Aegiceras corniculatum there is an unusually large number of individuals of this species in the section of Ryans Creek near the junction with the Moruya River. Further upstream (in the creek) Grey mangrove (Avicennia marina) is dominant.

3.2 Wetland margin species

The margin of the wetland adjacent to the Reserve is not in such good condition. This is apparently due to trampling pressure by the horses that are agisted in the Reserve. Even so, there is a moderate diversity of species. There are few introduced wetland margin species.

- Brachycome graminea Grass daisy
- Cynodon dactylon Couch grass
- Einardia trigonos Fishweed
- Juncus kraussii Sea rush
- Limonium australe Native sea lavender
- Samolus repens Creeping brookweed
- Sarcocornia quinqueflora Samphire
- Selliera radicans
- Suaeda australis Seablite
- *Triglochin striatum* Streaked arrowgrass

The margin of the wetland is dominated by Casuarina glauca (Swamp casuarina).

The Department of Infrastructure Planning and Natural Resources discusses the Moruya River Estuary on its website (as at June 2004 located at www.dlwc.nsw.gov.au/care/water/estuaries/Inventory/moruya.html). Their website indicates that the following species are indicative of the type of vegetation that would be found in and around the Ryan's Creek Wetland.

- Aegiceras corniculatum River Mangrove
 Avicennia marina Grey Mangrove
 Zostera capricornia and muelleri, Heterozostera tasmanica Eelgrass
 Halophila ovalis and decipiens Paddleweed
- Ryans Creek Wetland (SEPP 14 No. 178) recommendations 3.3

It is recommended that the margins of the Wetland should be fenced to allow the vegetation to recover from the trampling of the horses.

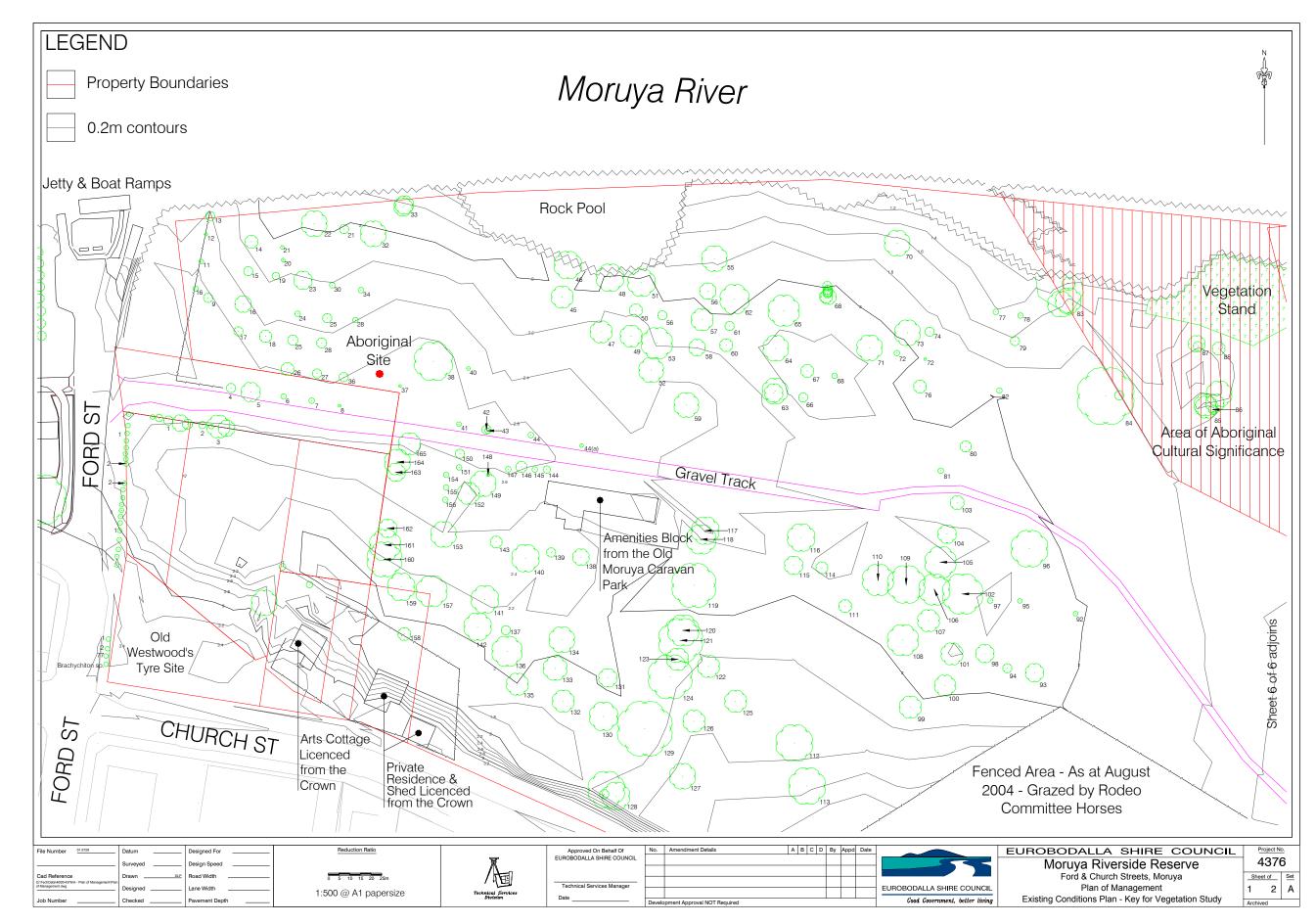


Fig Psyllids — fact sheet

The Fig Psyllid (*Mycopsylla fici*) is responsible for periodic defoliation of Moreton Bay Fig trees (*Ficus macrophylla*). These psyllids are small insects which live in colonies and produce a protective sticky 'lerp' or cover, under which they live. The lerp is constructed communally from wax and honeydew excreted by the psyllids as they feed and can be up to 35mm wide. The lerp protects the psyllid from changing weather and from attacks by natural enemies. Given the right conditions, psyllid populations can build up in large numbers, and the tree can be quite damaging.

Life Cycle: Adult psyllids are winged insects which fly between leaves in search of mates, food, and egg-laying sites. The female psyllid will lay small orange-brown eggs 0.5 mm in diameter, in tightly-packed clusters of up to 50 eggs per cluster, on the margins of the leaf. Occasionally, they may be found near the mid-vein or the centre of the leaf blade. Females can lay a number of egg clusters. Eggs within a cluster will hatch simultaneously, the wingless juvenile psyllids (nymphs) emerging and walking a short distance across the leaf where they settle down to feed in a group. As the psyllid nymphs feed, they excrete honeydew (water and unused plant sugars) and two sets of waxlike filaments. The honeydew fills up the spaces between the curling filaments, forming the lerp. The nymphs moult progressively until they reach the preadult stage, at which point they emerge from under the lerp and undergo their final moult to become adults, anchoring themselves to the leaf tissue while the moult takes place. After expanding their wings, the adults feed and fly off in search of mates. In the earlier stages of lerp formation, the lerp is vulnerable to moisture, being mostly a dehydrated sugar solution: the lerp absorbs water, and starts to flow over the leaf. While this deprives the psyllids their protective covering, it has consequences for the leaf, since the flowing sugar solution blocks the leaf's breathing pores, thus (it is thought) suffocating the tissue underneath.

Damage: Psyllids can cause the trees to totally defoliate, but usually the damage is less. The greater the psyllid load, the greater the defoliation can be. The lerp can play a major part in this defoliation, possibly by the blocking of leaf breathing pores mentioned above. The side effects of leaf loss are a reduction in plant nutrition, and sunburn on the bare branches. When these effects occur in conjunction with other stressful events such as drought, soil compaction or root disturbance (or a combination of these), severe and sometimes permanent disruption of the tree may result. Weakened trees are also much more susceptible than healthy trees to attack by other insects such as borers and termites, and pathogenic fungi.

Control options

Chemical Control: The use of pesticides is unacceptable because of the broad spectrum of insects and spiders affected (including beneficial ones), the large amounts of insecticide needed to treated a single tree and the consequent high risk of off-target spray drift. Injection of systemic insecticides into the trunks of figs will badly damage the figs both by the drilling process and invasion of pathogens through the injection holes.

Biological Control: The young psyllid is attacked by a number of natural enemies. It is parasitised by a wasp (Psyllaephagus sp.); the female adult wasp lays an egg into the psyllid nymph before the lerp becomes impenetrable to the wasp, the wasp larva hatches and develops inside the living psyllid nymph. The psyllid nymph is killed when the wasp pupates to become an adult. It is important to mulch fallen psyllid-affected leaves near trees so that the wasp can emerge and continue to parasitise psyllids. Lacewing and ladybird larvae also feed on the psyllid nymphs. Birds, particularly swallows, have been observed flying around fig trees when adult psyllids are numerous, and eat adult psyllids. Webspinning spiders account for a large number of adults.

The use of light spray oils as a 'soft-pesticide' option is currently being investigated, as is the use of water for washing early-stage lerps off the leaves before they become hardened and established. It is important to minimise any stress on mature figs. There is good evidence that stressed trees are more affected by the insect than unstressed trees.

Scientific research at the Royal Botanic Gardens Sydney is being conducted on the psyllid problem, with the ultimate aim of developing an integrated management strategy for the fig trees. Knowledge of the psyllid and its natural enemies, and other factors involved in the ecology and urban cultivation of Moreton Bay figs, acquired during this project, will enable us to better understand the psyllid and hence to control it.

The fact sheet was produced by the Plant Disease Diagnostic Unit of the Sydney Botanic Gardens Trust.

18.0 Appendix 5: Bibliography

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