

Mooloolah River National Park

Management plan



South East Queensland Biogeographic Region

November 1999



QUEENSLAND
PARKS AND
WILDLIFE
SERVICE

Summary

This management plan provides the framework and guidelines on how Mooloolah River National Park will be managed. It sets out the considerations, outcomes and strategies that are proposed to form the basis on which day-to-day management decisions are made.

The draft management plan for Mooloolah River National Park was released for public comment in March 1999 for a period of 2 months in accordance with s 115 of the *Nature Conservation Act 1992*. Eight submissions were received from organisations and individuals including comments received in response to notification under the *Native Title Act 1993*. All submissions were considered in the drafting of this final management plan by the Minister in accordance with s 116 of the *Nature Conservation Act 1992*.

This plan was prepared in July 1999 and, in accordance with s 125 of the *Nature Conservation Act 1992*, will be reviewed not later than 10 years after its approval. For further information on this plan or the planning process, please contact the Queensland Parks and Wildlife Service Southern Regional Centre in Moggill, Brisbane, on (07) 3202 0200 during business hours.

This management plan was prepared by Queensland Parks and Wildlife Service staff. Thanks are due to those groups and individuals who made submissions in response to the draft plan.

Cover photograph: Heath plain

ISSN 1037-4689

© The State of Queensland, Queensland Parks and Wildlife Service, 1999.

Copyright protects this publication. Except for purposes permitted by the Copyright Act, storage, transmission or reproduction of all or any part by any means is prohibited without the prior written permission of the Queensland Parks and Wildlife Service. Direct inquiries to the Manager, Education and Information Unit PO Box 155 BRISBANE ALBERT STREET QLD 4002.

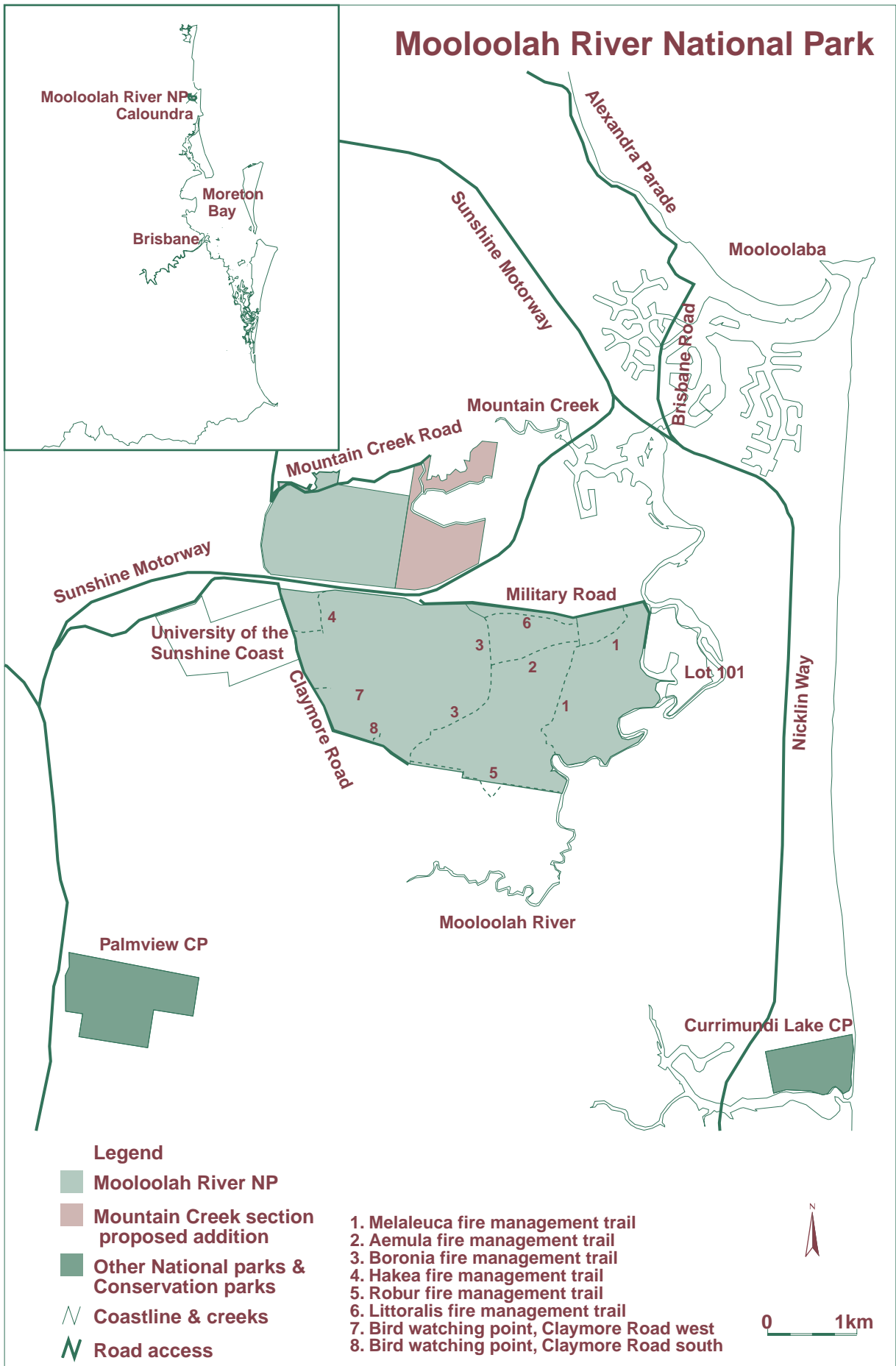
RE292

Recycled paper saves energy and resources

Contents

1	Introduction	2
<hr/>		
2	Management directions and purposes	2
	2.1 Management directions	2
	2.2 Management purposes	2
<hr/>		
3	Management basis	2
	3.1 Location and planning area	3
	3.2 Regional context	3
	3.3 Values of Mooloolah River National Park	3
	Geology and landform	
	Plants	
	Animals	
	Cultural heritage	
	Scenic and aesthetic	
	Scientific and educational	
	Recreation	
<hr/>		
4	Management strategies	5
	4.1 Native plants	5
	4.2 Native animals	6
	4.3 Introduced plants and animals	6
	4.4 Fire management	7
	4.5 Soil and catchment protection	8
	4.6 Cultural heritage	9
	4.7 Recreation and access	9
	4.8 Education and interpretation	10
	4.9 Plan implementation and monitoring	11
<hr/>		
5	References	11
<hr/>		
6	National Park map	1

Mooloolah River National Park



Map produced by Conservation Resource Unit
Qld Parks & Wildlife Service, Oct 1999.

I Introduction

Mooloolah River National Park on the Sunshine Coast conserves coastal lowland vegetation including open heath, Eucalypt forest and mangrove forest fringing the Mooloolah River. The name Mooloolah is considered to be the derivation of the Aboriginal word 'mullu' meaning red bellied black snake.

The park has recently been expanded to 830.9ha with the addition of 161.93ha of Moreton Mill Land to the north of the Sunshine Motorway. This land was purchased in June 1998 with funding from Maroochy Shire Council's Vegetation Conservation Levy and State and Federal Government payments under the Sugar Coast Environmental Package. A further parcel of land to the east of the addition also purchased under the same funding arrangement is to be added to the park in the future.

2 Management directions and purposes

2.1 Management directions

Mooloolah River National Park will be managed to protect the extremely high conservation values of the plant communities and their resident animals from the considerable pressures of the surrounding expanding residential landscape. Fire management and monitoring of plant communities and rare or threatened species will provide a management focus.

Low-key nature based recreation consisting of bushwalking and interpretive opportunities will be provided in certain sections of the park.

2.2 Management purposes

The major purposes of management will be to ensure that:

- the diversity and integrity of plant and animal communities are maintained;
- sensitive communities and threatened species are monitored and their requirements are reflected in management programs;
- appropriate fire regimes protect plant and animal communities from wildfires;
- cultural heritage values are protected;
- scientific research and educational opportunities focus on the sensitivity of the plant and animal communities to changes in the adjacent environments; and
- nature-based recreation is controlled to maintain the area in a natural state.

3 Management basis

Mooloolah River National Park is dedicated under the *Nature Conservation Act 1992* as a national park and will be managed in accordance with s 17.1 of the Act which sets out the following principles for management:

- to provide, to the greatest possible extent, for the permanent preservation of the area's natural condition and the protection of the area's cultural resources and values;
- to present the area's cultural and natural resources and their values; and
- to ensure that the only use of the area is nature based and ecologically sustainable.

The *Native Title Act 1993* places obligations on the management of areas designated under the *Nature Conservation Act 1992*. In relation to the southern section of Mooloolah River National Park, notification must be given to any Native Title Representative Bodies in the area and native title claimants on the development of a fire management plan and the undertaking of prescribed burning, where possible.

Notification on such actions will not be required for the park addition to the north of the Motorway as native title has been extinguished due to its previous freehold tenure.

The Environmental Protection Agency provides input into Local Government Planning Schemes and development assessment under the *Integrated Planning Act 1997*. The level of input is dependent on the relevance of State Government legislation and policies and/or types of development proposed. In addition the Environmental Protection Agency extension officers also liaise with Local Government on broad planning issues.

The requirements of other legislation administered by the Service and other State agencies will be met where necessary.

3.1 Location and planning area

Mooloolah River National Park lies 85km north of Brisbane within Maroochy Shire between the townships of Caloundra and Mooloolaba on the Sunshine Coast. Mooloolah River National Park was initially gazetted in 1960 with an area of 676 hectares. Previous to this it was Vacant Crown Land and was proclaimed national park in exchange for another national park in Maroochy Shire which was cancelled for use as an aerodrome site. Development of the Sunshine Motorway and the toll booth in 1993 revoked a small parcel of land off the north western side of the park.

The park abuts part of Mountain Creek to the north and Mooloolah River to the east. Surrounding land use currently consists of rural and urban development and the University of the Sunshine Coast campus.

3.2 Regional context

Mooloolah River National Park is the second largest mainland park on the south-east Queensland coastal lowlands, next to Noosa National Park. The park is the best remaining sample of coastal lowland vegetation found within Maroochy Shire and forms part of one of the largest remaining areas of valuable habitat left on the Sunshine Coast. However the Sunshine Coast region is undergoing rapid residential development which is encroaching on these remaining areas of native vegetation. The park is therefore becoming increasingly isolated from adjacent natural areas especially to the west and north.

3.3 Values of Mooloolah River National Park

Geology and landform

The national park conserves an example of the low-lying, gently undulating coastal floodplain landform which is distinctive to the Sunshine Coast. The geology is predominantly Quaternary sands with areas of Landsborough sandstone. A small, deep window lake has been located in the new park addition. The national park forms part of the Mooloolah River and Mountain Creek catchments and helps maintain water quality and protects aquatic ecosystems.

Plants

The park is one of the most significant parcels of land in south-east Queensland having exceptionally high regional conservation values with respect to the diversity of ecosystems and species present.

Seven of the 10 vegetation communities occurring in the park are regionally significant:

- the forest red gum *Eucalyptus tereticornis* open forest is considered to be vulnerable throughout south-east Queensland;

- five communities are included as part of the 'Endangered Regional Ecosystems' south of Noosa:- paperbark teatree *Melaleuca quinquenervia* open forest/ woodland, wallum banksia *Banksia aemula* woodland, scribbly gum *Eucalyptus racemosa* open forest, sedgelands and closed heath; and
- the blackbutt-tallowwood *Eucalyptus pilularis*-*E. microcorys* tall open forest is vulnerable.

Heath communities along the south-east Queensland Coast have been substantially cleared for residential and commercial development. Mooloolah River National Park contains one of the few substantial areas of mainland heath remaining between Noosa and the Queensland/New South Wales border.

The significant diversity of plants includes seven scheduled species under the *Nature Conservation (Wildlife) Regulation 1994*. Endangered species include the swamp stringybark *Eucalyptus conglomerata* and the Mt Emu she-oak *Allocasuarina emuina*. Vulnerable species include *Acacia attenuata* and tiny wattle *Acacia baueri*, while rare species include *Schoenus scabripes*, Christmas bells *Blandfordia grandiflora*, and Wide Bay boronia *Boronia rivularis*.

A further seven species are regarded as noteworthy being either at the limit of their distribution or not commonly occurring on the Sunshine Coast: narrow-leaf *Acacia longissima*, *Acacia cincinnata*, *Acacia oshanesii*, conesticks *Petrophila canescens*, giant waterlily *Nymphaea gigantea*, *Westringia tenuicaulis* and king fern *Todea barbara*.

The park includes 1.5km of estuarine habitat along the Mooloolah River which supports five of the seven species of mangroves found in south-east Queensland. These mangroves provide riverbank stability as well as food and habitat for fish.

Animals

Mooloolah River National Park plays a fundamental role in conserving a diversity of animals in the highly fragmented Sunshine Coast region. Scheduled animal species recorded on the park include three vulnerable acid frogs: the wallum froglet *Crinia tinnula*, wallum sedgefrog *Litoria longburensis* and the wallum rocketfrog *Litoria freycineti*, the culturally significant short beaked echidna *Tachyglossus aculeatus* and rainbow bee-eater *Merops ornatus* and the vulnerable Richmond Birdwing butterfly *Ornithoptera richmondia*.

Other noteworthy species include the eastern grass owl *Tyto capensis*, swamp crayfish *Tenuibranchiurus glypticus* and the eastern grey kangaroo *Macropus giganteus* and osprey *Pandion haliaetus* which are locally threatened.

A significant diversity of birds use the park with 79 species recorded. The park has a number of very old trees providing many hollows for birds and arboreal mammals.

Cultural heritage

Mooloolah River and the surrounding landscape played an important role in the lives of Aboriginal people on the Sunshine Coast. Oyster middens have been recorded along its banks while several bora rings occur within the river's general vicinity.

Scenic and aesthetic

The naturally vegetated areas of the park have green space and scenic values and form part of the green gateway for visitors and residents entering the Sunshine Coast via the Motorway.

Scientific and educational

Many aspects of the national park are worthy of scientific and educational interest and provide valuable resources for monitoring and benchmark studies. These include:

- the high diversity of plant communities and species;
- representation of the original coastal ecosystems and landforms;
- rare and threatened species; and
- the impact of surrounding development and transport corridors on natural communities.

Recreation

The park provides opportunities for low key nature based recreation including walking, nature appreciation and birdwatching.

4 Management strategies

4.1 Native plants

Background information

The vegetation communities and rare and threatened plant species have been mapped for the park at 1:25 000 scale.

Environmental impacts such as changes in the water table, altered fire regimes, increased soil and water nutrient levels, weeds, fragmentation, edge effects and increased human access threaten the integrity of the communities and species.

The Queensland Parks and Wildlife Service supports the preservation of natural areas outside the park to assist in the long term survival of the parks flora and fauna communities. Liaison with adjacent land holders is required to establish an understanding of the value of remnants and their ecological linkages with the park.

A Regional Coastal Management Plan for south-east Queensland is currently being prepared by the Environmental Protection Agency in accordance with the National Strategy for Ecologically Sustainable Development.

Desired outcome

The diversity and integrity of the plant communities and species are protected.

Proposed guidelines and actions

- Suitable fire regimes are designed taking into account the requirements of the sensitive plant communities and species. (see Fire management section).
- The effects of weeds are minimised. (see Introduced plants and animals).
- Liaise with Maroochy Shire Council on:
 - the proposal to acquire Lot 101 for addition to the park; and
 - developments affecting groundwater conditions and nutrient inflows to the park.
- Establish monitoring programs for the *E. conglomerata* and *Allocasuarina emuina* populations on the park in consultation with QPWS Southern Region staff.
- Liaise with the University of the Sunshine Coast staff on a study of the reproductive biology of *E. conglomerata* and *Acacia attenuata* and baseline monitoring projects.
- Liaise with Maroochy Shire Council, University of the Sunshine Coast and other adjacent landholders on protection of habitat close to the park.
- Implement relevant strategies from the Regional Coastal Management Plan.

4.2 Native animals

Background information

A fauna survey was conducted for the southern section of the park in 1993 recording a total of 78 birds, 7 mammals, 5 reptiles, 4 frogs, and 2 invertebrates. A survey of frog species of the low-lying heath areas in the new park addition was undertaken in 1998 recording significant populations of the three vulnerable 'acid frogs'.

Factors affecting the continued survival of fauna on the park include increased nutrient levels, inappropriate fire regimes and disturbance and fragmentation of habitat. The conservation of fauna on the park is therefore dependent on protecting the following conditions:

- diversity of plant communities to provide a range of habitats and food sources;
- the number and distribution of community ecotones to provide foraging and refuge areas;
- mosaic pattern of post fire recovery in the vegetation;
- old hollow bearing trees for nesting; and
- open bodies of water and seasonally inundated areas.

Historical records exist for the vulnerable ground parrot *Pezoporus wallicus* in the park but due to increasing isolation and too frequent fires it has not been recorded there in recent times. However suitable habitat does occur in the park and may act as refuge areas for them in the future.

Desired outcomes

Species diversity, particularly rare or threatened species is enhanced.
The presence of ground parrots using the park.

Proposed guidelines and actions

- Conduct a fauna survey for the new park addition to assist management decisions and update existing database.
- Implement a fire management plan (see section of Fire management)
- Monitor populations of the 'acid' frogs to assess changes in their conservation status and implement any approved recovery plans for the species.
- Monitor the park on an annual basis for the potential presence of the ground parrot.

4.3 Introduced plants and animals

Background information

Weed threats occur mostly along the edges of the park and include dumping of garden waste, lantana and encroachment of whisky grass. Groundsel is a declared noxious weed and is prevalent in the wetter communities such as the sedgelands and paperbark woodland. South African pigeon grass is also a serious threat to the park especially the heath plains.

Feral animals occurring on the park include cane toads, foxes and feral cats. The fox is a declared animal under the *Rural Lands Protection Act 1985* and as such must be eradicated. Cattle enter the park along the southern boundary and trample and graze on young native seedlings.

Desired outcomes

The extent of declared noxious weeds is reduced within the park and no new weed species are established.

The impact of feral animals on the park is reduced.

Proposed guidelines and actions

- Implement a weed control program with priority given to declared noxious weeds and weeds impacting on threatened communities and species with the initial aim to maintain the south western portion of the park weed free. Include in the weed program a component on neighbour education to encourage sympathetic planting programs adjacent to the park.
- Link the park weed control program into the South East Queensland Environmental Weeds Strategy.
- Liaise with Maroochy Shire Council and adjacent land owners on:
 - preventing the practice of dumping garden rubbish on or adjacent to the park; and
 - the control of whisky grass adjacent to the park.
- Liaise with Maroochy Shire Council and adjacent property owners on erecting fences around new estates adjacent to the park with the purpose of controlling access, limiting waste dumping and straying of domestic animals.
- Investigate and implement a coordinated feral animal control program in conjunction with Maroochy Shire Council and the Department of Natural Resources.
- Survey and fence all sections of the park adjacent to road reserves and secure fencing along the southern boundary to prevent cattle straying into the park.

4.4 Fire management

Background information

Under the *Native Title Act 1993* notification procedures are required on actions in relation to fire management. These include developing a fire management plan and undertaking prescribed burning where possible. Actions which do not require a notification procedure include backburning or the construction of fire breaks.

All of the plant communities and species present on the park require appropriate fire regimes for their continued survival. Communities such as *Banksia aemula* woodland, *M. quinquenervia* woodland and *Eucalyptus pilularis* tall open forest and all 7 scheduled rare and threatened plants are dependent on fire for regeneration. Fire management should also consider the requirements of fauna including providing suitable habitat for the ground parrot.

The southern section of the park has a history of too frequent fires usually resulting from illegal activities such as car dumping and arson.

Six fire management trails have been defined on the park and are illustrated on the map. The Robur fire management trail runs off the park onto an adjacent property to avoid a swampy area with the agreement of the neighbour. A photo-monitoring site was established in 1993 to monitor fire effects at the main *Eucalyptus conglomerata* site on the western boundary.

Military Road can be accessed off the Motorway for fire management access. Access to Mooloolah River is available on the northern and southern boundaries along Military Road and the Robur fire management trail respectively.

Desired outcome

Fire management acknowledges plant and animal community and species requirements and protects the life and property of surrounding areas.

Proposed guidelines and actions

- Prepare a scientifically based fire management plan in consultation with Maroochy Shire Council and adjacent landholders detailing:
 - site-specific requirements for the plant and animal communities;
 - appropriate fire regimes within each identified fire block;
 - fire risk to human life, park infrastructure and private property;
 - fire access trails, staff and equipment requirements,
 - fire detection and liaison with ranger staff, neighbours, fire wardens and Queensland Fire Services; and
 - compilation and mapping of fire reports, research and monitoring information.
- Set up fire monitoring points in critical habitats in accordance with current QPWS procedures.
- Involve the University of the Sunshine Coast in fire management planning-quantitative measurements at monitoring sites.
- Provide directional signs for fire management trails.
- Notify the Undumbi people and the Foundation for Aboriginal and Islander Research Action (FAIRA) on the development of the fire management plan and undertaking prescribed burning where possible in accordance with the *Native Title Act 1993*.

4.5 Soil and catchment protection

Background information

The park is low-lying and poorly drained and forms part of the catchment of two waterways, Mountain Creek to the north and Mooloolah River to the east. Drainage from the park is generally in an easterly direction. As the vegetation communities, and frogs in particular, are dependent on the maintenance of low nutrient and low pH water and soils and specific water table requirements, it is necessary to minimise any changes to this balance.

Desired outcome

Alterations to drainage patterns and influx of pollutants and higher nutrient water on the park is prevented.

Proposed guidelines and actions

- Continue to liaise with Maroochy Shire Council on planning controls for adjacent developments to minimise impacts on the park.
- Liaise with the University of the Sunshine Coast in regard to:
 - the constructed wetland adjacent to the park and the planting of locally native species; and
 - setting up water quality monitoring on the western edge of the park.
- Liaise with adjacent landholders on water quality issues affecting the park.

4.6 Cultural heritage

Background information

Although there are no sites listed for the park, Aboriginal occupation in the area is supported by the existence of middens near the Mooloolah River and the location of a Bora Ring south of the park.

A native title claim covering Mooloolah River National Park has been lodged with the National Native Title Tribunal on behalf of the Undumbi people.

Following successful native title determination, it is anticipated that this management plan will be amended by the QPWS to reflect joint management arrangements with the Undumbi consistent with the intent of the *Nature Conservation Act 1992*.

Desired outcome

Aboriginal people's interests are taken into account in park management.

Proposed guidelines and actions

- Establish the indigenous cultural values of the park through liaison with local Aboriginal groups.
- Ensure the involvement of local Aboriginal people in developing methods for protecting sites of cultural significance.

4.7 Recreation and access

Background information

Given the highly sensitive nature of the communities and threatened species present on the park and the aim of maintaining their integrity to retain high conservation values, recreational use will be limited to low key nature based activities. These include bushwalking and birdwatching, predominantly along the park's fire management trails.

The southern section of the park can be accessed via a pedestrian/bikeway path which runs along part of the northern boundary and parallel to the Sunshine Motorway.

While some recreational fishing and camping currently occurs on the banks of Mooloolah River, there is no intention to develop any associated recreational facilities.

Trailbike riding is occurring adjacent to and in the park particularly along the southern side of the new addition. It is an inappropriate activity for a national park and will need to be restricted from the park.

As part of the 10% park contribution for the development area adjacent to the Mountain Creek park addition, two areas have been set aside for Public Purposes. The first area for Public Purposes (Conservation) covers approximately 1.6ha to the north of the estate. The second area of 1.4ha set aside for Public Purposes will be the responsibility of Maroochy Shire Council and provides for recreation around the edge of the estate, a buffer for fire management, and rubbish control.

A future 40m wide road corridor immediately north of Military Road has been proposed to enable access to the proposed Bundilla Lakes urban development. The potential impact of the development of the road and the estate has implications for national park management in relation to protecting the park's natural values and Military Road access.

Desired outcome

A range of low-key nature based recreation opportunities are available which do not compromise the park's high conservation values.

Proposed guidelines and actions

- Vehicle access to be restricted for management purposes only.
- No camping or day use facilities to be provided on the park.
- Rationalise walking track system and upgrade any tracks if necessary.
- Develop a walking track along the drainage line linking the birdwatching points along Claymore Road to Boronia fire management trail.
- Carparking will not be provided on the park with the possible exception of a carpark associated with an interpretation node. (refer to Education and interpretation section)
- Investigate opportunities for commercial activities using an interpretation node and formed track network.
- Undertake discussions with Maroochy Shire Council on controls for trailbike riding in and around the park.
- Control illegal camping through patrols and erecting 'no camping' signs along the park side of the Mooloolah River.
- Liaise with Maroochy Shire Council and the Department of Local Government and Planning on the future Bundilla Lakes development and its associated road corridor.
- Liaise with the Main Roads Department and Queensland Transport in relation to works on Military Road.
- Liaise with Maroochy Shire Council and adjacent landholders on controlling access to the new northern addition to the park.
- Consider options for the movement of fauna between the southern and northern sections of the park with Queensland Transport, Department of Main Roads and Maroochy Shire Council.

4.8 Education and interpretation

Background information

The park's close proximity to urban centres and its regionally significant natural resources provide suitable opportunities for interpretation and education.

The University of the Sunshine Coast is interested in becoming involved in projects which have an applied academic content and would be suited to honours and postgraduate students and staff. The University has compiled a field herbarium for the Mooloolah River section.

Off park activities have a significant impact on park values and an emphasis on community environmental education and interpretation will assist community support for park management.

Desired outcomes

Community awareness and appreciation of the natural and cultural values of the park.
Community support for the implementation of expressed management guidelines and actions.

Proposed guidelines and actions

- Initially develop an interpretation node at the birdwatching point at Claymore Road west to interpret natural and cultural values and management issues.
- Park and boundary signs to be improved especially along Mooloolah River.
- Liaise with the University of the Sunshine Coast on particular projects for the southern section of the

park relating to fire management and baseline flora and fauna studies including environmental audits. All projects to be approved by QPWS.

- Initiate a neighbour education program to motivate revegetation of private land, promote the planting of locally native species and explain the detrimental impacts of weeds.
- Discuss options with Maroochy Shire Council on appropriate location/s for signs for the new addition to the park.

4.9 Plan implementation and monitoring

Background information

The management plan will be implemented by the North Moreton District staff based at Maleny and Maroochydore with assistance from the QPWS Southern Region staff.

Desired outcome

- Mooloolah River National Park has staff and resources to implement the management plan.

Proposed guidelines and actions

- Develop a plan implementation schedule within 12 months of plan approval which includes resourcing guidelines and costing and:
 - ties in with the business plan for the Service and the annual works programs for the park; and
 - considers the specialist expertise and seasonal requirements for staffing, training and monitoring.
- Conduct a review of the management plan within 10 years from approval as prescribed under s 125 of the *Nature Conservation Act 1992*.

5. References

Chenoweth Environmental Planning & Landscape Architecture. (1998) Planning & Environment Court Appeal No 3211 of 1997. Moreton Sugar Ltd -v- Maroochy Shire Council

Drake, W. (1996) Conservation Significance of Lots 2,3,4 parish of Mooloolah (Moreton Mill Land). Unpublished report Department of Environment.

