



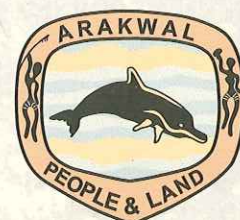
Arakwal National Park

SACRED ANCESTRAL PLACE OF THE BYRON BAY ARAKWAL PEOPLE

PLAN OF MANAGEMENT



Department of **Environment and Conservation** NSW



Acknowledgments

This plan could not be written without the approval and support of the Arakwal Elders and people. The Arakwal Elders approved David Edwards (former Senior Ranger, NPWS) to be the writer of this plan but wanted him to talk to as many people as possible. David worked closely with the Arakwal National Park Management Committee consisting of Yvonne Stewart (Committee Chairperson and Arakwal Aboriginal Corporation representative), Aunty Lorna Kelly (dec) (Elder and Arakwal Aboriginal Corporation representative), Aunty Linda Vidler (Elder and Arakwal Aboriginal Corporation representative), Norman Graham (Ranger and Committee Secretary, NPWS), Mark Johnston (Regional Manager, Northern Rivers Region, NPWS), Sue Walker (Area Manager, Byron Coast Area, NPWS) David Murray (former Area Manager, Richmond River Area, NPWS), and Mayor Jan Barham (Byron Shire Council).

Aunty Dulcie Nicholls (Elder and Arakwal Aboriginal Corporation Representative) and other members of the Arakwal Aboriginal Corporation and the wider Byron Bay community also provided valuable input to this plan of management.

Donna Turner (former Planning Officer, Northern Branch, NPWS) and David Major (former Cultural Policy Officer, NPWS) also assisted in the preparation of this plan. Valuable information and comments were provided by other NPWS staff of the Northern Rivers Region and members of the public.

All art in this plan is by Byron Bay Arakwal artist Sean Kay.

Inquiries about this plan of management should be directed to the NPWS, Byron Coast Area, PO Box 127, Byron Bay 2481 or by telephone on (02) 6685 8565.

February 2007

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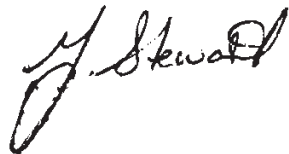
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Jingi wahlu widtha.... (Welcome to Country)

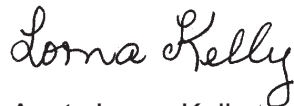
This plan talks about a special part of Byron Bay Arakwal Country that is now within Arakwal National Park. It includes the beach and area around the mouth of Tallow Creek where our Elders, Lorna Kelly (dec), Dulcie Nicholls and Linda Vidler, were born and raised.

This park was created under an Indigenous Land Use Agreement (ILUA) as part of resolving a native title claim. The ILUA recognises the rights and interests of our people as the traditional owners of Country that includes Arakwal National Park and has been acknowledged as a model for reconciliation across Australia.

This part of our Country has been managed as a national park for over five years now and joint management with the NPWS is working well. This plan is important to ensure joint management continues to work and everyone is aware of how Country will be managed into the future. This includes recognising the importance of this special Country and continuing to look after and share it with the wider community.



Yvonne Stewart – Chairperson
Arakwal National Park Management Committee
Member of the Arakwal Aboriginal Corporation



Aunty Lorna Kelly (dec)
Arakwal 'Bumberline' Elder
Member Arakwal National Park Management Committee
Member Arakwal Aboriginal Corporation



Aunty Linda Vidler
Arakwal 'Bumberline' Elder
Member Arakwal National Park Management Committee
Member Arakwal Aboriginal Corporation



Aunty Dulcie Nicholls
Arakwal 'Bumberline' Elder
Member Arakwal National Park Management Committee
Member Arakwal Aboriginal Corporation



Talking to People

The Arakwal National Park Management Committee has prepared this plan of management in consultation with the Arakwal Aboriginal Corporation and the Byron Bay community.

Consultation with the Arakwal Aboriginal Corporation included 'Back to Country' days held with the Arakwal Aboriginal Corporation members on 26 May 2003 and 27 March 2004. Park values and issues identified during this consultation included the following: caring for Country (plants, animals, special places and sites, bush tucker); recognition as traditional owners; joint management; maintaining family connections with Country; cultural tourism to share Country with others; protecting and accessing Country; the transfer of knowledge among family; cultural education; provisions for cultural use and activities; reconciliation; economic opportunities; and employment of young people with the NPWS. This information has been used for the development of this plan by the Arakwal National Park Management Committee.

Input from the wider community in the preparation of this plan was obtained through a stakeholder workshop held on 5 August 2003. The information obtained at this workshop and through other consultation (including exhibition of the draft plan in late 2004 - early 2005) has also assisted in the preparation of this plan.

A summary of values associated with the park identified by the wider community at the stakeholder workshop include: scenic landscape; wildness; spiritual qualities; cultural; Indigenous management and employment; habitat diversity and protection; accessibility; recreation and tourism; community involvement and education opportunities.

Issues identified by the wider community include the following: wildlife corridors and ecological links; integrated management with other agencies and of adjoining habitat; protection and return of threatened species; stormwater and erosion control, especially the erosion trench from Pacific Vista Drive; maintaining and monitoring water quality in swamps eg Cibum Margil; fire protection for adjoining development; maintaining natural fire regimes; weed control and bush regeneration; rehabilitation of wetlands and Tallow Creek; control of pest animals; exclusion of dogs and cats; providing for Indigenous access and use; acknowledgment of Arakwal Elders and people; low impact recreation; links with Cape Byron; neighbour education eg appropriate planting, dog impacts; community involvement and education; volunteer work; newsletters, meetings and information access; education links with local schools; guided tours; cultural awareness; interpretive signage and programs; conflict between Indigenous and non-Indigenous uses; and control of illegal and inappropriate use eg dog walking, camping and dumping.

The involvement of the Byron Bay Arakwal people and the wider community will continue to be facilitated by the NPWS through joint management and ongoing consultation respectively. The Byron Bay Arakwal people, Park Management Committee and the NPWS give the assurance that communication and involvement of the wider community will continue in the spirit of reconciliation.

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Cultural Landscape



1.1 Vision for Arakwal National Park

...from the Arakwal 'Bumberline' Elders

"We want to see Country how it used to be. We want to continue to look after Country and want it to look after us. We want our people to be back on Country, caring for and using Country like we always have. We want to share parts of our culture with the wider community so they learn about and respect Country like we do. We want everybody to work together to keep Country clean and healthy."

Aunties Lorna Kelly (dec) , Dulcie Nicholls and Linda Vidler, 2003

...from the Arakwal National Park Management Committee

LOOKING AFTER COUNTRY

We all work as partners to help look after Country: the Arakwal Aboriginal Corporation, National Parks and the wider community working together as one. We ensure Country is respected to fulfil past, present and future cultural obligations. Country is repaired so the native plants and animals continue to return and the water is clean. We care for Country by removing the weeds and managing fire to make Country safe and healthy. As many Byron Bay Arakwal people working to look after Country as possible.

USING COUNTRY

The Elders will be able to tell their children and grandchildren about Country so their culture lives on. We listen and learn from the Elders so that Country continues to look after their people's spirit, health and well-being.

Country is shared with all people so they enjoy and look after it too. Byron Bay Arakwal people are employed by sharing parts of their culture with visitors on Country. Country will be used in a respectful way.

KNOWING ABOUT COUNTRY

Byron Bay Arakwal people will talk about Country to visitors so they understand its importance and look after it when they are there. Cultural knowledge will be protected and used together with national parks' information to help manage Country.

1.2 Country that is now Arakwal National Park – Location, Gazettal and Regional Context

Arakwal National Park (the Park) is located approximately 2 km south-east of the township of Byron Bay in the far north coast of New South Wales (NSW). It is the first national park in Australia to be created under an Indigenous Land Use Agreement (ILUA) with the traditional owners, the Byron Bay Arakwal people, as joint managers with the National Parks and Wildlife Service (NPWS).

The Park was gazetted on the 26 October 2001 under an ILUA between the NSW State Government and the Arakwal Aboriginal Corporation (referred to herein as the 'Arakwal ILUA') that represents the rights and interests of the Byron Bay Arakwal people. This agreement was the result of the partial resolution of a Native Title Determination Application under the Commonwealth *Native Title Act 1993*. The Arakwal ILUA recognises the Byron Bay Arakwal people as the traditional owners of an area that is now the Park (refer to *Section 2.3*).

The Park is an important part of the coastal country adjoining the township of Byron Bay, a regional, national and international tourist destination. The Park is within less than two hours drive from the major population centres of northern NSW and south-east Queensland.

The Park is 185.2 hectares in size and includes a 3km stretch of Tallow Beach to mean low water mark. Tallow Beach Road delineates the northern extent of the Park where it adjoins the Cape Byron State Conservation Area (SCA). While the Cape Byron SCA has its own plan of management (Cape Byron Trust, 2002), both reserves are managed in an integrated way and with a high level of involvement by the Byron Bay Arakwal people.

The Park adjoins residential estate in the west. The South Byron Sewerage Treatment Plant and the Wilkinson foot-bridge over Tallow Creek adjoin the southern boundary of the Park. The Park includes the lower reaches of Tallow Creek including the creek mouth (see Map 2).

A recent addition to the western part of the Park of former privately owned land (1.09 ha) between Patterson Street and Pacific Vista Drive was gazetted in March 2004. This recent park addition contains important remnants of the Byron Bay Dwarf Graminoid Clay Heath endangered ecological community (refer to *Section 4.4*). Other possible additions to the Park in this area include adjoining crown lands/road reserves (2.35 ha). Any additions will come under this plan upon their gazettal as part of the Park.

The Park is within the Byron Shire local government area and is zoned 8(a) 'National Parks and Nature Reserves Zone' under the Byron Local Environment Plan 1988. The Park is within the Tweed Byron Local Aboriginal Land Council area.

The Park is a core component of protected areas along the Byron Bay coastline that includes Brunswick Heads Nature Reserve (NR), Tyagarah NR and Cape Byron SCA to the north, and Taylors Lake ('Woman's Lake') Aboriginal Place and Broken Head NR to the south (see Map 1).

The tidal areas adjoining the Park, including the area below mean high water mark on Tallow Beach and Tallow Creek, are also part of the Cape Byron Marine Park managed by the NSW Marine Parks Authority (MPA). A zoning plan and operations plan is being prepared for the Cape Byron Marine Park. The NPWS and MPA are working together to ensure plans for the Marine Park and this plan are consistent.

1.3 Relationship to Country – Cultural landscape context of the Park

“I could tell you the whole of Byron Bay. I’ve walked there and see the differences and changes and I still think this is where I really belong because it’s our place, our heritage, and I can’t forget it, and I never will...”

Aunty Lorna Kelly (dec), Byron Bay Arakwal Elder

Source: Special Places Video, Arakwal Aboriginal Corporation and Cape Byron Trust 1999

The notion of ‘Country’ to Aboriginal people

To Aboriginal people, the ‘landscape’ is made up of many features that are inter-related. These include the lands and waters, plants and animals, special places and stories, historical and current uses, and people and their interactions with each other and place. These features are seen as inseparable and make up what is known as ‘Country’ to Aboriginal people. While these inter-relationships are recognised, this plan addresses many of these topics individually for clarity and ease of use.

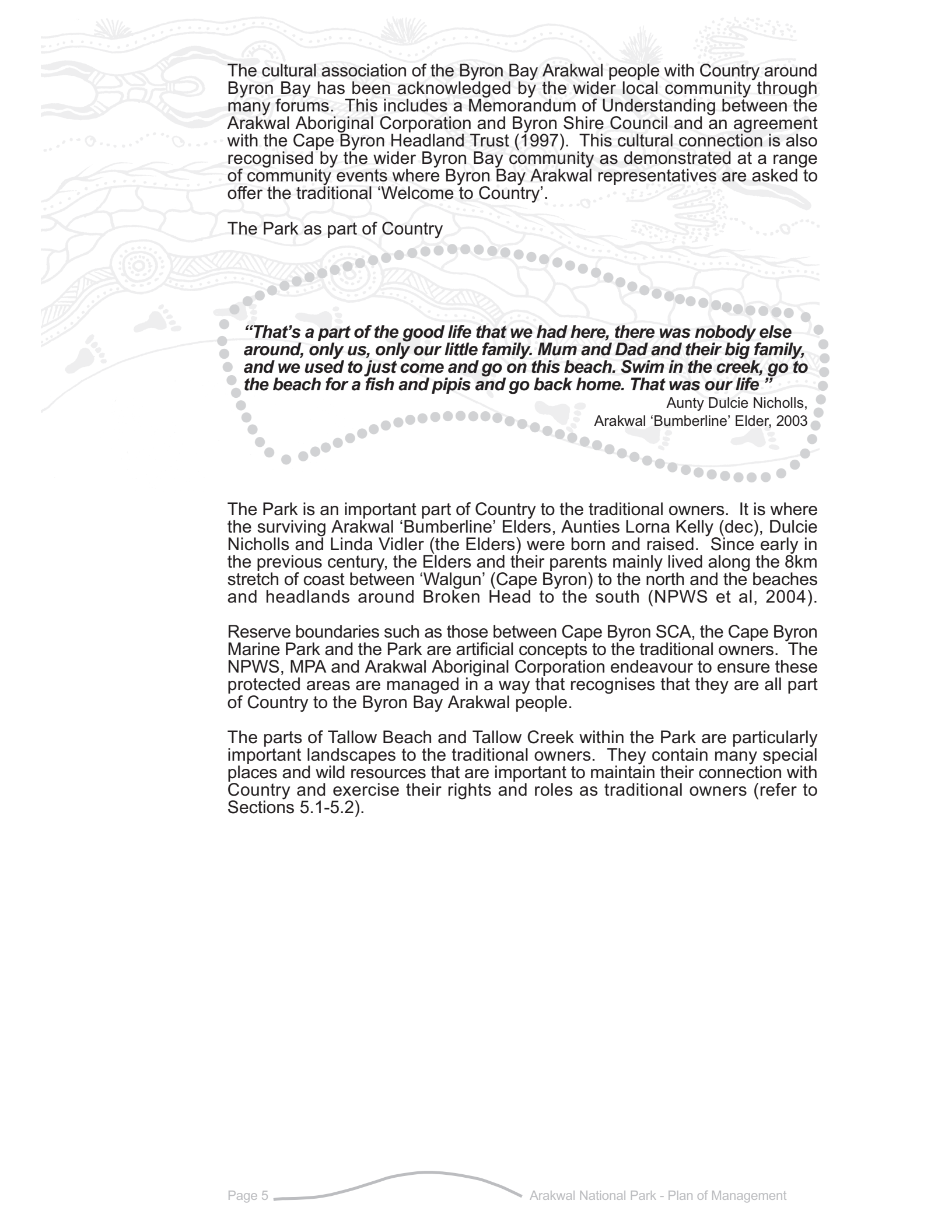
“People talk about Country, speak and sing to Country, visit and worry about Country, feel sorry for Country, long for Country. People say Country knows best, hears, smells, takes notice, takes care, is sorry or happy. It is consciousness and a will towards life. Because of this richness, Country is love and peace, nourishment for body, mind and spirit.”

Source: Interpretation Australia, 2003

The Country of Byron Bay Arakwal people

The Byron Bay Arakwal and other Bundjalung people have been associated with the coastal landscape around Byron Bay for at least 22,000 years. The Byron Bay Arakwal people lodged a Native Title Determination Application in 1995 (NC95/1 - ‘Bundjalung people of Byron Bay’) over the land and adjoining waters extending from the Brunswick River to the north, past Julian Rocks to the east, Broken Head to the south and around the hinterland areas of Mullumbimby, Coorabell and Bangalow to the west.

This Native Title Claim has been partially resolved through the Arakwal ILUA that includes the gazettal and joint management of this Park (refer to Section 2.3). The Arakwal ILUA recognises the Byron Bay Arakwal people as the traditional owners of Country that includes the Park. The Byron Bay Arakwal people are in the process of finalising resolution of this Native Title Claim through another ILUA (known as ‘Stage 2 - Arakwal ILUA’) with the NSW Government. The Stage 2 ILUA may include other protected areas within Country such as Tyagarah, Brunswick Heads, Cumbebin Swamp, Hayters Hill, Broken Head and Julian Rocks Nature Reserves. Taylors Lake (‘Woman’s Lake’) Aboriginal Place to the south of the Park is also a sacred area to the Byron Bay Arakwal and other Bundjalung people, particularly women.



The cultural association of the Byron Bay Arakwal people with Country around Byron Bay has been acknowledged by the wider local community through many forums. This includes a Memorandum of Understanding between the Arakwal Aboriginal Corporation and Byron Shire Council and an agreement with the Cape Byron Headland Trust (1997). This cultural connection is also recognised by the wider Byron Bay community as demonstrated at a range of community events where Byron Bay Arakwal representatives are asked to offer the traditional 'Welcome to Country'.

The Park as part of Country

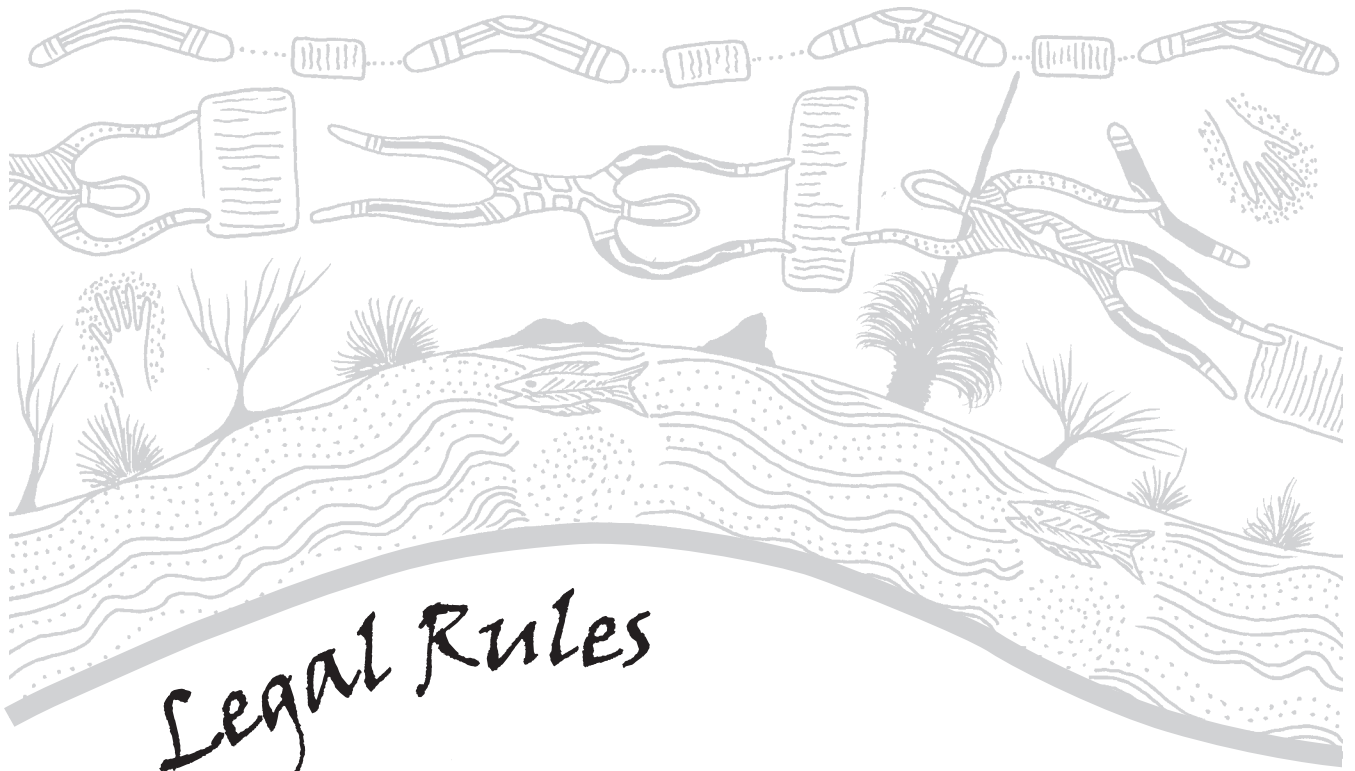
“That’s a part of the good life that we had here, there was nobody else around, only us, only our little family. Mum and Dad and their big family, and we used to just come and go on this beach. Swim in the creek, go to the beach for a fish and pipis and go back home. That was our life ”

Aunty Dulcie Nicholls,
Arakwal 'Bumberline' Elder, 2003

The Park is an important part of Country to the traditional owners. It is where the surviving Arakwal 'Bumberline' Elders, Aunties Lorna Kelly (dec), Dulcie Nicholls and Linda Vidler (the Elders) were born and raised. Since early in the previous century, the Elders and their parents mainly lived along the 8km stretch of coast between 'Walgun' (Cape Byron) to the north and the beaches and headlands around Broken Head to the south (NPWS et al, 2004).

Reserve boundaries such as those between Cape Byron SCA, the Cape Byron Marine Park and the Park are artificial concepts to the traditional owners. The NPWS, MPA and Arakwal Aboriginal Corporation endeavour to ensure these protected areas are managed in a way that recognises that they are all part of Country to the Byron Bay Arakwal people.

The parts of Tallow Beach and Tallow Creek within the Park are particularly important landscapes to the traditional owners. They contain many special places and wild resources that are important to maintain their connection with Country and exercise their rights and roles as traditional owners (refer to Sections 5.1-5.2).



Legal Rules



2.1 State Government laws and National Park policies

The management of national parks in NSW is in the context of a legislative and policy framework, primarily the *National Parks and Wildlife Act 1974* (NPW Act), the *Threatened Species Conservation Act 1995* (TSC Act) and the policies of the NPWS. Section 72AA of the NPW Act lists the matters to be considered in the preparation of a plan of management. The policies arise from the legislative background and internationally accepted principles of park management. They relate to nature conservation, Aboriginal and historic heritage conservation, recreation, commercial use, research and communication.

Other legislation, international agreements and charters may also apply to management of the area. In particular, the *Environmental Planning and Assessment Act 1979* (EPA Act) requires the assessment and mitigation of environmental impacts of any works proposed in this plan.

The plan of management is a statutory document under the NPW Act. Once the Minister has adopted a plan, no operations may be undertaken within the planning area except in accordance with the plan. The plan will also apply to any future additions to the Park. Where management strategies or works are proposed for the Park or any additions that are not consistent with the plan, an amendment to the plan will be required.

2.2 Management Principles for National Parks in NSW

National parks are reserved under the NPW Act to protect and conserve areas containing outstanding or representative ecosystems, natural or cultural features or landscapes or phenomena that provide opportunities for public appreciation and inspiration and sustainable visitor use.

Under Section 30E of the NPW Act, national parks are managed to:

- conserve biodiversity, maintain ecosystem functions, protect geological and geomorphological features and natural phenomena and maintain natural landscapes;
- conserve places, objects, features and landscapes of cultural value;
- protect the ecological integrity of one or more ecosystems for present and future generations;
- promote public appreciation and understanding of the park's natural and cultural values;
- provide for sustainable visitor use and enjoyment that is compatible with conservation of natural and cultural values;
- provide for sustainable use (including adaptive reuse) of any buildings or structures or modified natural areas having regard to conservation of natural and cultural values; and
- provide for appropriate research and monitoring.

2.3 The Arakwal Indigenous Land Use Agreement (ILUA)

“Creating the ILUA has been a rewarding journey. The agreement procedure has enabled a range of parties to discover new ways of recognising the rights and interests of the traditional owners. It has also been a community building process which has enabled the traditional owners to return to Country and fulfil their cultural aspirations now and into the future.”

Adam McLean, Barrister for the Arakwal People and the Arakwal Aboriginal Corporation, 2004

On 28 August, 2001 the Byron Bay Arakwal people achieved formal recognition of their rights as traditional owners to lands around Byron Bay including the Park. This was achieved through an Indigenous Land Use Agreement (ILUA) under the Commonwealth *Native Title Act 1993* between parties including the NSW Government, “the Arakwal people and the Arakwal Aboriginal Corporation” (‘Arakwal ILUA’).

The Arakwal ILUA was the result of at least seven years of negotiations initiated by the Elders, Aunties Lorna Kelly (dec), Linda Vidler, Dulcie Nicholls and Yvonne Graham (dec) in 1993. It acknowledged their rights as traditional owners and allowed the creation and joint management of the Park, separate land for the development of a cultural centre and housing of the Elders and their families, and employment, learning and development opportunities for their people with the NPWS.

It is the first ILUA in Australia to include the creation of a national park. The Byron Bay Arakwal people endorsed the declaration of the Park over part of their Country to protect it from development, to maintain cultural use and provide economic and employment opportunities for their people, in addition to cater for appropriate public enjoyment.

The Arakwal ILUA provides these opportunities through joint management with the NPWS. Joint management is facilitated under the operation of the Arakwal National Park Management Committee that is responsible for the care, control and management of the park (refer to *Section 4.1*). This allows the cultural skills and knowledge of the traditional owners to be combined with scientific information and land management experience of the NPWS to pursue ‘best practice’ park management.

The Arakwal ILUA has been recognised internationally as an effective model to resolve native title claims. The traditional owners have been honoured by an award from the World Conservation Union (IUCN) for distinguished achievements in wildlife conservation (Packard Award) presented at the World Parks Congress, October 2003 in South Africa, held only once every 10 years.

An audit of implementation of the Arakwal ILUA concluded that a very high level of implementation of the provisions of the ILUA relating to the Park has occurred.

Negotiations are being finalised on a Stage 2 ILUA between Byron Bay Arakwal people (refer to *Section 1.3*). These negotiations may also include amendments to the current Arakwal ILUA.



Importance of country



3.1 *Respecting Country - Key values associated with the Park*

The Park has many values and is important to the Byron Bay Arakwal people in many ways. This includes the following values that have been identified by the Byron Bay Arakwal people and the wider community for the Park:

Values associated with 'looking after Country' – Park conservation and management

- Joint management of the Park recognises the rights and responsibilities of the Byron Bay Arakwal people as traditional owners of the landscape that includes the Park;
- The Park protects the 'homelands' of the Elders and allows their connection to Country to continue;
- The Park protects Country from development and allows the traditional owners to continue to live in harmony with the environment;
- The Park protects cultural heritage values including sacred sites, special places and cultural stories of the traditional owners;
- The Park protects significant coastal habitat including a large area of 'honeysuckle country' (Banksia heathland) that is home to a range of native plants and animals including threatened ecological communities and species;
- The Park provides employment and training opportunities for Byron Bay Arakwal people with the NPWS to look after Country and assists the NPWS integrate cultural considerations into park management.

Values associated with 'using Country' – Cultural and visitor use of the park

- The Park provides opportunities for cultural use and cultural renewal by the Byron Bay Arakwal people associated with wild resources; the transfer of cultural knowledge, customs and stories; ceremonies and other cultural practices;
- The Park provides opportunities for the traditional owners to continue their sustainable use of wild resources in accordance with customary lore under the consent and conditions of the Elders and NPWS;
- The Park provides visitor opportunities such as coastal walking and beach related activities such as swimming, surfing, surf fishing and nature study and appreciation;
- The Park provides economic opportunities for the traditional owners such as conducting cultural and eco-tourism and educational programs on-park, particularly those associated with the proposed Arakwal cultural centre adjoining the northern part of the park;
- The Park provides cross-cultural and cultural exchange opportunities between the Byron Bay Arakwal people and other Bundjalung, Aboriginal and non-Aboriginal people.

Values associated with 'knowing about Country' – Interpretation, information and research

- The Park provides opportunities for visitors and the wider Byron Bay community to understand and respect the culture and heritage of the traditional owners.
- The Park provides environmental education opportunities relating to coastal processes, coastal heathland and forest, freshwater wetlands, post-sand mining rehabilitation, and the management of pests, fire, threatened species and endangered ecological communities in a way that incorporates cultural considerations.
- The Park provides opportunities for research and monitoring to complement the knowledge of the traditional owners to pursue best practice management.



Looking after Country



4.1 Joint Management by the Byron Bay Arakwal people and the NPWS

“The joint management of Arakwal National Park ensures that our people have a say in the management of the land. Everyone at a meeting sits here at the same level. It’s a two way process.”

Yvonne Stewart, Chairperson Arakwal National Park Management Committee, 2003

An important part of Aboriginal culture is looking after and caring for Country. This is an obligation of past, present and future generations of traditional owners in all parts of Australia.

The Byron Bay Arakwal people are recognised as the traditional owners of Country that includes the Park. As the traditional owners, their role in looking after the lands, waters and plants and animals of Country has always been and will always be their responsibility. They have chosen to exercise this responsibility in partnership with the NPWS under joint management arrangements for the Park.

Joint management of the Park benefits the entire community. It provides the traditional owners with a continuing role in looking after Country to maintain their identity and fulfil their cultural obligations. It also allows the NPWS to ensure the protection of an important area of coastal habitat and better integrate cultural heritage considerations into conservation and visitor use programs. Much of the wider community also support joint management as an act of reconciliation with Aboriginal people and benefit from being able to continue to enjoy the coastal landscapes of the Park into the future.

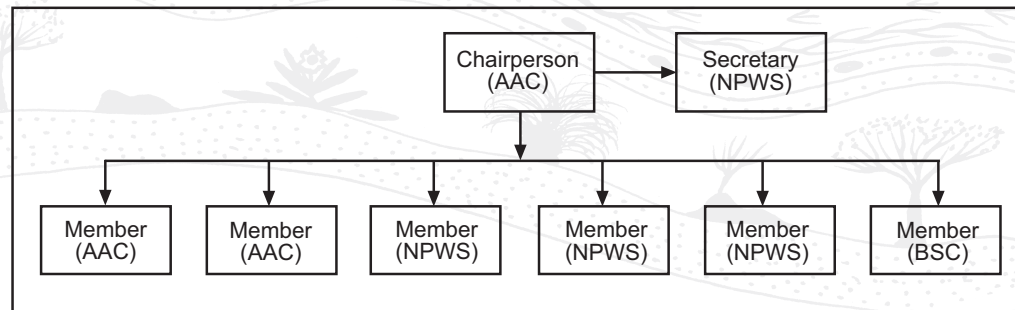
Joint management of the Park between the Arakwal Aboriginal Corporation and the NPWS is formally provided for under a legal framework set out in the Arakwal ILUA (refer to *Section 2.3*). This includes the establishment and operation of the Arakwal National Park Management Committee (the Park Management Committee) that are responsible for the overall management and administration of the Park.

Role of the Committee

The Park Management Committee is responsible for the care, control and management of the Park in accordance with the Arakwal ILUA and the plan of management for the Park. This includes considering issues and making decisions on park management programs, employment, staff learning and development, and community involvement. The Park Management Committee has been meeting at least on a monthly basis since gazettal of the Park in October 2001 to determine management programs and consider community issues relating to the Park.

Make-up of the Committee

The ILUA specifies that the composition of the Park Management Committee is three Arakwal Corporation members, three representatives of the NPWS and one Byron Shire Councillor. The Management Committee is chaired by an Arakwal Aboriginal Corporation member and currently includes two of the Elders.



Abbreviations: AAC – Arakwal Aboriginal Corporation
NPWS – National Parks and Wildlife Service
BSC – Byron Shire Council, Councillor who is a member of the Shire’s Aboriginal Consultative Committee

Role of Elders

The role of the Elders on the Committee is particularly important as they are the primary holders of cultural knowledge and can ensure cultural considerations are incorporated into park management programs. The NPWS understand that the Arakwal Aboriginal Corporation recognises that their Elders have primary authority to speak for Country as earned through customary lore and have the final say on Corporation decisions.

Decision-making by the Committee

The Park Management Committee provides a forum for the Arakwal Aboriginal Corporation and NPWS to have shared decision-making in managing Country that is now Park. The joint managers are committed to identify, evaluate and resolve issues in a cooperative, collaborative and inclusive manner. In doing this, the Park can be managed in a way that respects and incorporates the rights, interests, skills and knowledge of the traditional owners into park management programs.

Shared decision-making requires equal access to information and equal responsibility for decisions made. The process of evaluating issues and proposals at Park Management Committee meetings includes considering agenda papers containing best available and easy to understand information and accompanying presentations by NPWS staff or others.

The Park Management Committee has been operating efficiently and effectively with all members being highly satisfied with progress to date. The joint managers wish to ensure the continuing success of the Park Management Committee’s operation through documenting current meeting procedures and protocols for future Park Management Committee members to follow.

The Park Management Committee believes it is important to audit the implementation of planning and management decisions for the Park to ensure Country is cared for in the best possible way.

Joint management at the 'grass roots' level

“Joint management involves many aspects of working together on a day-to-day basis so that both NPWS and our people can learn from each other about looking after Country.”

Norm Graham, NPWS Ranger and Arakwal Aboriginal Corporation member, 2004

The involvement of Byron Bay Arakwal people in decision-making relating to the Park also occurs on a day to day basis through the employment of their people with the NPWS. Employment at various levels including Ranger, Cadet Ranger, Field Officer and Trainee Field Officer positions, and through placements under the Commonwealth Development and Employment Program, allow Byron Bay Arakwal people to work with the NPWS in the management of Country (refer to Section 4.2).

The Arakwal Aboriginal Corporation also involves the NPWS with community development projects that are either directly or indirectly associated with the Park. This includes planning associated with the proposed cultural centre on Arakwal Corporation land adjoining the park at Tallow Beach Road; discussions on proposed housing for the Elders and their families on Arakwal Corporation land adjoining the Park at Ironbark Avenue; and cultural renewal, interpretation and education programs of the Arakwal Aboriginal Corporation.

Arakwal vision for Country

“We work together as equal partners in managing Country.”

Yvonne Stewart, Chairperson, Arakwal National Park Management Committee,
1 December 2003

Guidelines

- **Committee meetings.** All issues and proposals relating to the care, control and management of the Park are to be submitted at Park Management Committee meetings for their consideration and recommendations.
- The Park Management Committee will meet at least once every two months and extraordinary meetings may be conducted on the request of the Arakwal Aboriginal Corporation or NPWS.
- Park Management Committee meetings will continue to be conducted in a manner that is inclusive, accountable and respects cultural protocols.
- Where practical, Park Management Committee meetings, briefings and other activities relating to joint management will be held on Country.
- Decision-making at Park Management Committee meetings will be by consensus wherever possible, or by other means in accordance with the Arakwal ILUA.

- **Arakwal ‘Bumberline’ Elders.** The NPWS will continue to hold separate discussions with Arakwal ‘Bumberline’ Elders as recognised by the Arakwal Aboriginal Corporation, in respect of their role as the primary decision-makers about Country in accordance with customary lore.
- **Working together.** The wider Arakwal Aboriginal Corporation membership will continue to be involved in important planning and management decisions for the Park through ‘Back to Country’ days, workshops or meetings as determined by the Park Management Committee.
- **Encouraging involvement.** The involvement of other members of the Arakwal Aboriginal Corporation in joint management activities including their young people will be encouraged such as attendance as guests to Park Management Committee meetings.
- Information and minutes of Park Management Committee meetings will be made available for public viewing to ensure a transparent process of decision making.
- Public access time will be made available at each Park Management Committee meeting for members of the public to make a short presentation on issues or proposals for the Park in accordance with Committee procedures and protocols.

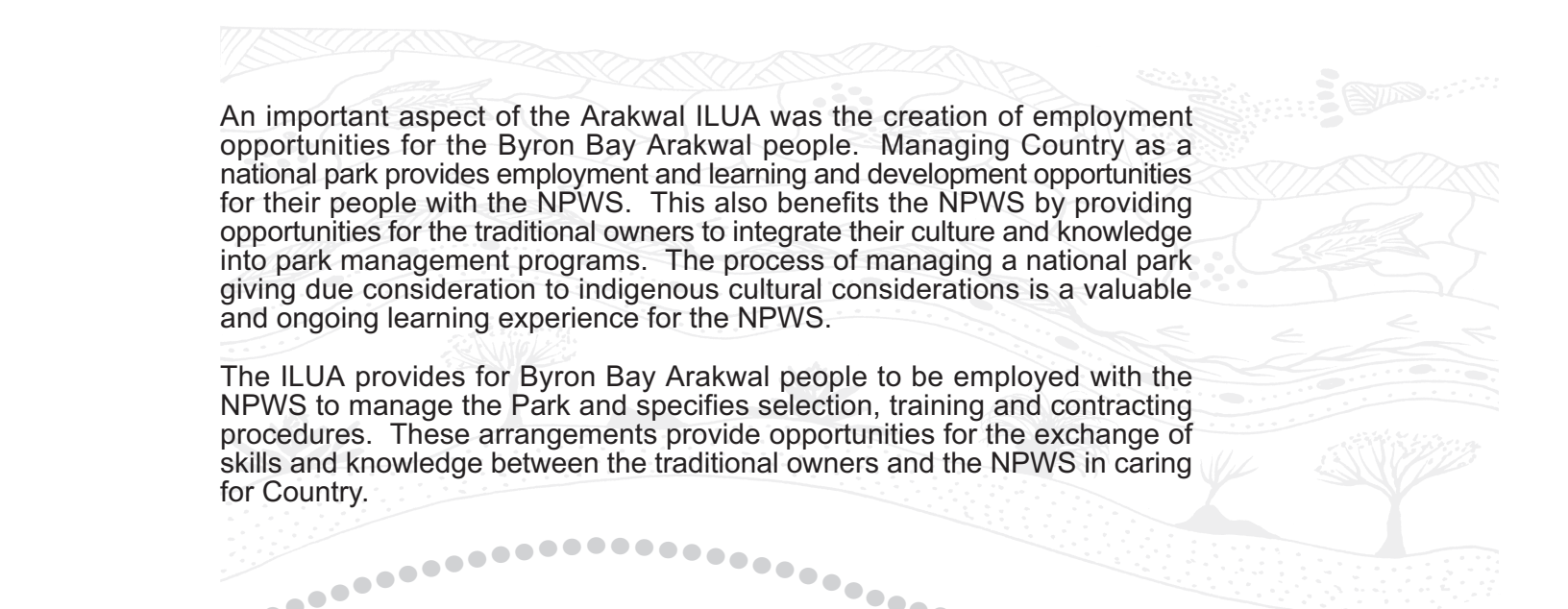
Actions

- **Committee procedures.** Develop procedures and protocols for the Park Management Committee in accordance with cultural protocols, the Arakwal ILUA, NPW Act, this plan and the publication ‘On board: guide to better practice for public sector governing and advisory boards’ (The Audit Office of NSW, 1998).
- **Auditing Committee** decisions and actions. Conduct an annual audit of implementation of plans and management programs which relate to the Park such as the plan of management, pest management plan and fire management strategy for presentation to the Park Management Committee.
- **Committee review.** Prepare an annual report reviewing the operation of the Park Management Committee as stated under the Arakwal ILUA and implement any resulting changes that are unanimously agreed to by the Park Management Committee.

4.2 *Working on Country – The employment of Byron Bay Arakwal people and shared-learning with the NPWS*

“We’ve been walking together towards the shared goal of looking after Country and learning from each other along the way. Its been fulfilling to see both science and cultural knowledge blended together to meet both legislative and cultural obligations. We will continue to share this pathway towards managing the land in a way that respects Aboriginal culture.”

Mark Johnston, Regional Manager
– Northern Rivers, NPWS, 2004



An important aspect of the Arakwal ILUA was the creation of employment opportunities for the Byron Bay Arakwal people. Managing Country as a national park provides employment and learning and development opportunities for their people with the NPWS. This also benefits the NPWS by providing opportunities for the traditional owners to integrate their culture and knowledge into park management programs. The process of managing a national park giving due consideration to indigenous cultural considerations is a valuable and ongoing learning experience for the NPWS.

The ILUA provides for Byron Bay Arakwal people to be employed with the NPWS to manage the Park and specifies selection, training and contracting procedures. These arrangements provide opportunities for the exchange of skills and knowledge between the traditional owners and the NPWS in caring for Country.

"It's been great to see the custodians battle for what they believe in and for their rights. It has created jobs for the youth and I'm very proud to be able to work for my people."

Dianne Harding, Arakwal Trainee Field Officer, 2002-2003

The traditional owners seek further employment opportunities with the NPWS so more of their people can be involved in managing Country. Training programs and work placement initiatives between the NPWS and Arakwal Aboriginal Corporation have been undertaken allowing their young people to obtain experience and skills to assist their prospects in securing permanent employment.

The traditional owners have important knowledge, skills and abilities that are integral to protecting Country. The NPWS are often required to engage the services of their people to help develop and implement management, research and interpretation programs.

Arakwal Vision for Country

As many of our people as possible are working to look after Country.

Guidelines

- **Jobs and training.** Employment, learning and development opportunities will be provided for Arakwal Aboriginal Corporation members in accordance with the Arakwal ILUA.
- Contract and casual employment arrangements for Arakwal Aboriginal Corporation members will be pursued by the NPWS as far as practical to engage their services and involvement in park related projects.

- The Park Management Committee will consider all employment proposals relating to the Park.
- All new NPWS employees who will work in the Park will be introduced to the Arakwal 'Bumberline' Elders on commencement of their employment.
- **Shared learning.** Opportunities will be sought to promote shared learning and cultural awareness between the Byron Bay Arakwal people and locally based non-Aboriginal NPWS staff.
- **Cultural briefings.** Anyone undertaking work associated with the Park must be appropriately briefed about the cultural importance of Country.

Actions

- **Cultural awareness.** Develop a cross-cultural awareness package with the Arakwal Aboriginal Corporation and provide to all people (including contractors) doing work associated with the Park.
- Undertake cross-cultural awareness training for all NPWS staff who work on the Park.

4.3 The Story of Country that is now the Park

A living ancestry and culture

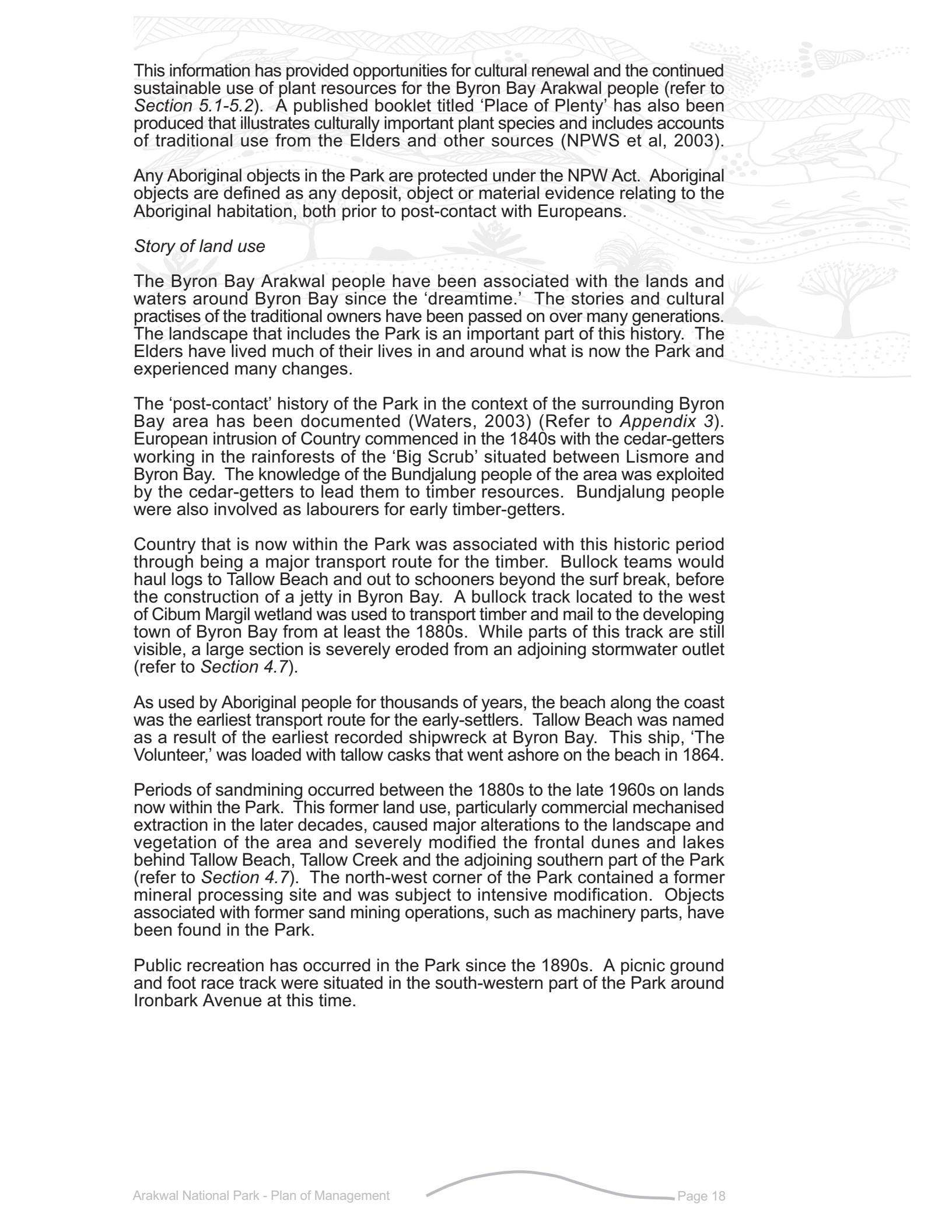
The Byron Bay Arakwal people are part of the Bundjalung Nation of Aboriginal people and are also known as the 'Bumberline' people of Byron Bay. Their history in the area predates the arrival of non-Aboriginal people with their ancestors, Bobby and Alice, Harry and Clara Bray, and Linda and Jimmy Kay having lived and raised families in the area that now includes the Park. They have passed on their traditions and cultural practises that are alive in many of their descendants today (NPWS et al 2003).

It is important to the Byron Bay Arakwal people that these cultural traditions and associations are maintained. This includes being able to continue to undertake cultural activities in Country that is now the Park. This is important to the traditional owners in maintaining their identity, well-being and respect for their ancestors (refer to *Section 5.1-5.2*).

Identifying and managing cultural values

A Reserve Aboriginal Heritage Values Assessment (RAHVA) is being undertaken by the NPWS with the Byron Bay Arakwal people to identify cultural values associated with the Park. This assessment has included the collection of oral histories from the Elders and includes the mapping of cultural information. This complements and incorporates other cultural information already collected such as records of Aboriginal sites and objects in the Park. The RAHVA will act as a 'filter' to assist in the assessment of proposals for visitor use and park management programs to ensure cultural values associated with the Park are protected.

The NPWS and the Arakwal Aboriginal Corporation completed an 'ethno-botanical' project that identified cultural values associated with plant resources in the Park and other nearby reserves. This project involved working with the Elders and other knowledge holders to identify, map and manage plant species that are culturally important to the traditional owners (EPM Consulting et al, 2003).



This information has provided opportunities for cultural renewal and the continued sustainable use of plant resources for the Byron Bay Arakwal people (refer to *Section 5.1-5.2*). A published booklet titled 'Place of Plenty' has also been produced that illustrates culturally important plant species and includes accounts of traditional use from the Elders and other sources (NPWS et al, 2003).

Any Aboriginal objects in the Park are protected under the NPW Act. Aboriginal objects are defined as any deposit, object or material evidence relating to the Aboriginal habitation, both prior to post-contact with Europeans.

Story of land use

The Byron Bay Arakwal people have been associated with the lands and waters around Byron Bay since the 'dreamtime.' The stories and cultural practises of the traditional owners have been passed on over many generations. The landscape that includes the Park is an important part of this history. The Elders have lived much of their lives in and around what is now the Park and experienced many changes.

The 'post-contact' history of the Park in the context of the surrounding Byron Bay area has been documented (Waters, 2003) (Refer to *Appendix 3*). European intrusion of Country commenced in the 1840s with the cedar-getters working in the rainforests of the 'Big Scrub' situated between Lismore and Byron Bay. The knowledge of the Bundjalung people of the area was exploited by the cedar-getters to lead them to timber resources. Bundjalung people were also involved as labourers for early timber-getters.

Country that is now within the Park was associated with this historic period through being a major transport route for the timber. Bullock teams would haul logs to Tallow Beach and out to schooners beyond the surf break, before the construction of a jetty in Byron Bay. A bullock track located to the west of Cibum Margil wetland was used to transport timber and mail to the developing town of Byron Bay from at least the 1880s. While parts of this track are still visible, a large section is severely eroded from an adjoining stormwater outlet (refer to *Section 4.7*).

As used by Aboriginal people for thousands of years, the beach along the coast was the earliest transport route for the early-settlers. Tallow Beach was named as a result of the earliest recorded shipwreck at Byron Bay. This ship, 'The Volunteer,' was loaded with tallow casks that went ashore on the beach in 1864.

Periods of sandmining occurred between the 1880s to the late 1960s on lands now within the Park. This former land use, particularly commercial mechanised extraction in the later decades, caused major alterations to the landscape and vegetation of the area and severely modified the frontal dunes and lakes behind Tallow Beach, Tallow Creek and the adjoining southern part of the Park (refer to *Section 4.7*). The north-west corner of the Park contained a former mineral processing site and was subject to intensive modification. Objects associated with former sand mining operations, such as machinery parts, have been found in the Park.

Public recreation has occurred in the Park since the 1890s. A picnic ground and foot race track were situated in the south-western part of the Park around Ironbark Avenue at this time.

Part of the south-western section of the Park and the adjoining Byron Bay High School, was reserved for public recreation in 1889 and a horse racing course developed and used until possibly 1938 (Waters, 2003). As children through to recent times, the Elders used the north-eastern half of 'the old racecourse' to access Tallow Beach from their former Ironbark Avenue camp (NPWS et al, 2004).

While part of 'the old racecourse' forms a section of the current pathway from Ironbark Avenue to Tallow Beach, much of this former track is now overgrown and not easily distinguished. The Elders would like to see the re-establishment of 'the old racecourse' route investigated to maintain cultural values associated with this area. (refer to *Section 5.4*).

A rifle range was also active in the northern part of the Park over the Cibum Margil wetland from 1900 to sometime before 1971 (Waters, 2003). Cement slabs and target blocks from this former land use remain in the Park.

Despite the changing natural, socio-economic and political environment bought about since European "settlement" of the area, the Byron Bay Arakwal people have maintained their links with Country that includes the Park.

Arakwal vision for Country

Our history with Country is recognised and protected.

Guidelines

- **Aboriginal heritage values.** The NPWS will continue to work with the Arakwal Aboriginal Corporation to document the Aboriginal cultural and heritage values associated with the Park. This includes the collection of oral histories from knowledge holders and the surveying, recording and preparation of conservation plans where necessary for special places and Aboriginal objects.
- **Historic heritage values.** Historic features associated with the Park, such as former sand mining operations and the racecourse track, will be interpreted in the context of the Byron Bay Arakwal people's history with this landscape.

Actions

- **Archaeological survey.** Undertake an archaeological survey of the Park to identify and provide management recommendations for Aboriginal and non-Aboriginal heritage objects.
- **Protecting heritage objects.** Undertake works to protect Aboriginal and non-Aboriginal heritage objects in the Park as necessary. If appropriate, remove any heritage objects in the Park that are unable to be protected from damage or deterioration if left 'in-situ' (ie at their current location). These objects will be recorded, and relocated to a safe 'keeping place' or to the proposed cultural centre adjoining the Park for display if appropriate (refer to *Section 6.1*).

4.4 Native Plants in the Park

The Park contains an important area of coastal heathland that is a significant component of the vegetation corridor along the coastline between Cape Byron and Lennox Head. The Byron Bay Arakwal people have a strong cultural association with this landscape and a long tradition of managing and use of its plant resources.

The Cultural Importance of Plant Resources

The Byron Bay Arakwal people have lived among, used and managed the plant resources of Country for a long time. The continued gathering and use of plant resources by the Byron Bay Arakwal people is an important cultural activity that maintains and renews their links to Country. During the 'ethnobotanical' project (refer to *Section 4.3*) the Elders identified 15 plant species that are of high cultural significance and a further 13 plant species that were also historically used (refer to *Appendix 2, Table 3*).

The traditional owners desire to continue the sustainable use of plant resources and to be actively involved in the restoration of plant communities in the Park (refer to *Sections 5.1-5.2*). For example, the Byron Bay Arakwal people are participating in a cultural renewal project involving nursery work to grow culturally important indigenous plant species for revegetation programs in the Park (refer to *Section 5.1*).

'The Bush' - Conservation Values & Cultural Uses

The Park contains a mosaic of coastal shrubland, heathland, sedgeland and wetland, in addition to brush box forest, wet sclerophyll forest and developing rainforest in moist, sheltered areas.

Despite a high level of disturbance from previous sandmining, the Park contains significant areas of intact and regenerating vegetation communities. These support a number of native plant species of high conservation significance including threatened species (refer to *Appendix 1, Table 1*). It is notable that the Park contains records of three endangered and one vulnerable species of ground orchid.

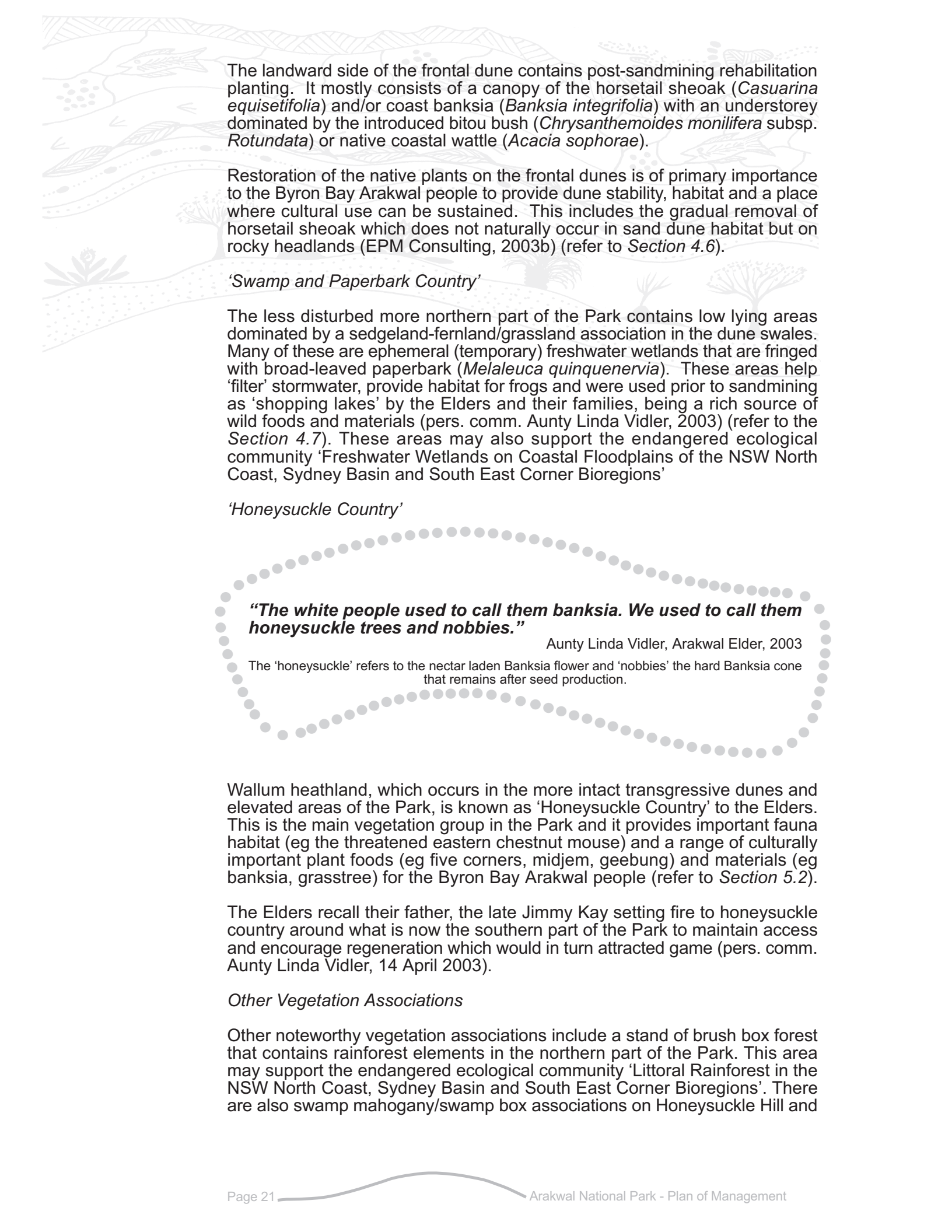
While disturbed vegetation and weed-dominated areas contribute to habitat complexity, the gradual and strategic control of weeds and restoration of the native plant communities will improve the biodiversity and cultural values associated with the Park (refer to *Section 4.6*).

While eight broad vegetation associations have been described in the Park (Landmark et al 1999), a typical cross-section of the Park from the coast inland can be summarised under the following vegetation groups.

'The Beach'

The modified foredune of Tallow Beach in the Park is of similar vegetation composition to other parts of the coast which have a history of sandmining. The seaward side of the frontal dune has been recolonised with native plants such as hairy spinifex (*Spinifex sericeus*) and creeping vines such as pigface (*Carpobrotus glaucescens*) and beach convolvulus (*Ipomoea pes-caprae*).

The sustainable harvest of pigface fruit along Tallow Beach in the Park is an important activity for traditional owners to maintain and renew links with Country (refer to *Section 5.2*). Pigface is successfully recolonising in this zone despite the disturbance caused by sand mining (EPM Consulting et al, 2003).



The landward side of the frontal dune contains post-sandmining rehabilitation planting. It mostly consists of a canopy of the horsetail sheoak (*Casuarina equisetifolia*) and/or coast banksia (*Banksia integrifolia*) with an understorey dominated by the introduced bitou bush (*Chrysanthemoides monilifera* subsp. *Rotundata*) or native coastal wattle (*Acacia sophorae*).

Restoration of the native plants on the frontal dunes is of primary importance to the Byron Bay Arakwal people to provide dune stability, habitat and a place where cultural use can be sustained. This includes the gradual removal of horsetail sheoak which does not naturally occur in sand dune habitat but on rocky headlands (EPM Consulting, 2003b) (refer to *Section 4.6*).

'Swamp and Paperbark Country'

The less disturbed more northern part of the Park contains low lying areas dominated by a sedgeland-fermland/grassland association in the dune swales. Many of these are ephemeral (temporary) freshwater wetlands that are fringed with broad-leaved paperbark (*Melaleuca quinquenervia*). These areas help 'filter' stormwater, provide habitat for frogs and were used prior to sandmining as 'shopping lakes' by the Elders and their families, being a rich source of wild foods and materials (pers. comm. Aunty Linda Vidler, 2003) (refer to the *Section 4.7*). These areas may also support the endangered ecological community 'Freshwater Wetlands on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions'

'Honeysuckle Country'

"The white people used to call them banksia. We used to call them honeysuckle trees and nobbies."

Aunty Linda Vidler, Arakwal Elder, 2003

The 'honeysuckle' refers to the nectar laden Banksia flower and 'nobbies' the hard Banksia cone that remains after seed production.

Wallum heathland, which occurs in the more intact transgressive dunes and elevated areas of the Park, is known as 'Honeysuckle Country' to the Elders. This is the main vegetation group in the Park and it provides important fauna habitat (eg the threatened eastern chestnut mouse) and a range of culturally important plant foods (eg five corners, midjem, geebung) and materials (eg banksia, grasstree) for the Byron Bay Arakwal people (refer to *Section 5.2*).

The Elders recall their father, the late Jimmy Kay setting fire to honeysuckle country around what is now the southern part of the Park to maintain access and encourage regeneration which would in turn attracted game (pers. comm. Aunty Linda Vidler, 14 April 2003).

Other Vegetation Associations

Other noteworthy vegetation associations include a stand of brush box forest that contains rainforest elements in the northern part of the Park. This area may support the endangered ecological community 'Littoral Rainforest in the NSW North Coast, Sydney Basin and South East Corner Bioregions'. There are also swamp mahogany/swamp box associations on Honeysuckle Hill and

adjoining the Cibum Margil wetland, small pockets of ironbark and scribbly gum forest, and coastal cyprus forest in the southern part of the Park.

The accuracy of existing vegetation mapping for the Park could be improved with higher resolution mapping to identify small scale vegetation changes and the condition of vegetation communities. This was identified as a constraint during the habitat assessment work associated with the frog and small mammal survey conducted in the Park (Phillips and Forsman, 2003a-b).

Endangered Ecological Community - Byron Bay Dwarf Graminoid Clay Heath

Of particular interest in the Park is the wallum banksia community that has been classified as the Byron Bay Dwarf Graminoid Clay Heath (Baker, 1998), and declared as an Endangered Ecological Community under the *Threatened Species Conservation Act 1995* (TSC Act).

Byron Bay Dwarf Graminoid Clay Heath (referred to herein as 'the endangered clay heath') occurs on shallow clay soils on elevated metasediments above Cibum Margil swamp in the north-western part of the Park. It is restricted to the Byron Bay area and less than 4.93 hectares (8%) remains, in the form of fragmented remnants, from an estimated original distribution of 68.5 hectares (Baker, 1998). Approximately 3 hectares (approx. 40%) of this community is currently reserved in the Park.

Threatened plant species that are found only in association with the endangered clay heath include an endangered ground orchid (*Diuris byronensis*). Strategic surveys to monitor the distribution of this ground orchid were undertaken in 2000-1. Only 22 specimens of this ground orchid species have been recorded to date (Stewart, 2000; 2001). A species of sheoak (*Allocasuarina defungens*) also found in association with the endangered clay heath is listed as vulnerable under the TSC Act. The conservation status of another species of sheoak also found in this community, *Allocasuarina defungens X simulans*, that may be a hybrid between *A. defungens* and *A. simulans*, is yet to be determined.

The main threats to this important node of the endangered clay heath in the Park include:

- the invasion of sclerophyll woodland and mesic plant species (ie plants requiring large amounts of water) due to this area of heath having exceeded the acceptable fire frequency threshold (refer to *Section 4.8*);
- weed invasion, particularly the invasive wild watsonia (*Watsonia meriana* cv. *Bulbillifera*) (refer to *Section 4.6*);
- fragmentation and disturbance caused by pedestrian tracks and a major erosion gully resulting from an urban stormwater discharge at Pacific Vista Drive (refer to *Section 4.7*).

As required under the TSC Act, a Recovery Plan is being prepared for the endangered clay heath and its associated threatened flora species that will identify actions required to manage threats and promote its recovery. The Recovery Plan, which is being prepared in consultation with the Arakwal Aboriginal Corporation and local conservation groups, will also address fire and pest management.

Arakwal vision for Country

Country is looked after so it is healthy and provides us with plants to use, for animals to live and for visitors to see.

Guidelines

- **Protecting the plants.** The knowledge of the Byron Bay Arakwal people will be integrated with scientific information for best practice conservation of native plants, to ensure cultural considerations are taken into account, and to facilitate the transfer of knowledge.
- **Cultural use.** The Byron Bay Arakwal people and other Bundjalung people as recognised by the Arakwal Aboriginal Corporation, can undertake the sustainable use of plant resources in the Park as listed in Appendix 2 Table 3 in accordance with the provisions of this plan relating to wild resource use (refer to *Section 5.2*).
- **Protecting threatened plants and communities.** The NPWS and Arakwal Aboriginal Corporation will work together to ensure the threatened plant communities and species are not affected by activities in the Park.
- Recovery plans for the endangered ecological communities and threatened plant species as they relate to the Park will be implemented in consultation with the Park Management Committee.
- **Community involvement.** Opportunities to involve local conservation groups in conservation programs, such as habitat monitoring and protection work, will be sought where appropriate.
- Community awareness programs will be undertaken as necessary, such as to assist in the protection of important habitat for threatened plant species.

Actions

- **Bush regeneration.** Restore native plant communities in the Park in accordance with the Pest Management Plan for the Park (refer to *Section 4.6*).
- **Culturally important plant species.** Continue to collect seed and cuttings, propagate, grow on and plant out culturally important plant species under the native plant nursery project with the Arakwal Aboriginal Corporation for revegetation projects in the Park.
- Survey the diversity, abundance and condition of culturally important plant species in the Park at least every 3 years to monitor the success of regeneration work and to ensure wild resource use is sustainable (refer to *Section 5.2*).
- **Threatened plants.** Implement recovery plans for threatened flora as they relate to the Park such as for the Byron Bay Dwarf Graminoid Clay Heath endangered ecological community and associated threatened plant species.
- Undertake a threatened flora and endangered ecological community study utilising existing information to identify critical habitat areas for threatened plant species and communities in the Park.
- **Fencing and signs.** Undertake fencing, signage or other actions as required to protect important habitats for threatened flora species and communities from human disturbance, such as along the edge of walking tracks that experience trampling of adjoining vegetation.
- **Mapping.** Undertake high resolution vegetation mapping (eg scale of 1:4000) to reduce inaccuracies associated with existing data to assist with habitat mapping and monitoring.

4.5 Native Animals in the Park

The Park provides important coastal habitat and forms part of a wildlife corridor between Cape Byron SCA and Broken Head Nature Reserve and beyond. The habitats of the Park support a range of sedentary, nomadic and migratory native animal species. These animals are important to the Byron Bay Arakwal people due to their conservation, totemic, wild resource and other cultural values. The Park is particularly important as it provides habitat for a number of native animal species of high conservation significance including threatened species (refer to *Appendix 1, Table 2*).

Important habitat areas in the Park include Tallow Beach, Tallow Creek mouth, 'swamp and paperbark country' and 'honeysuckle country' (Banksia heathland). These habitats are particularly important 'wintering' areas for migratory and nomadic birds, flying foxes and micro-bats. Many of these species move from higher elevation or higher latitude habitats occupied during Spring-Summer, to habitats of the north coast NSW during Autumn-Winter, where the longer growing, flowering and fruiting season provide a reliable and plentiful supply of food at that time of year (Scotts, 2003).

Tallow Beach and Creek

The intertidal sandy beach shallows of Tallow Beach are important nursery and feeding areas for many fish species and key foraging and roosting sites for seabirds and shorebirds. The beach also provides habitat for beach worms (polychaetes), pipis (molluscs), small organisms (isopods and amphipods) and nesting turtles such as the endangered loggerhead turtles (*Caretta caretta*) and the threatened green turtle (*Chelonia mydas*) that have been recorded on Tallow Beach (Marine Parks Authority, 2003).

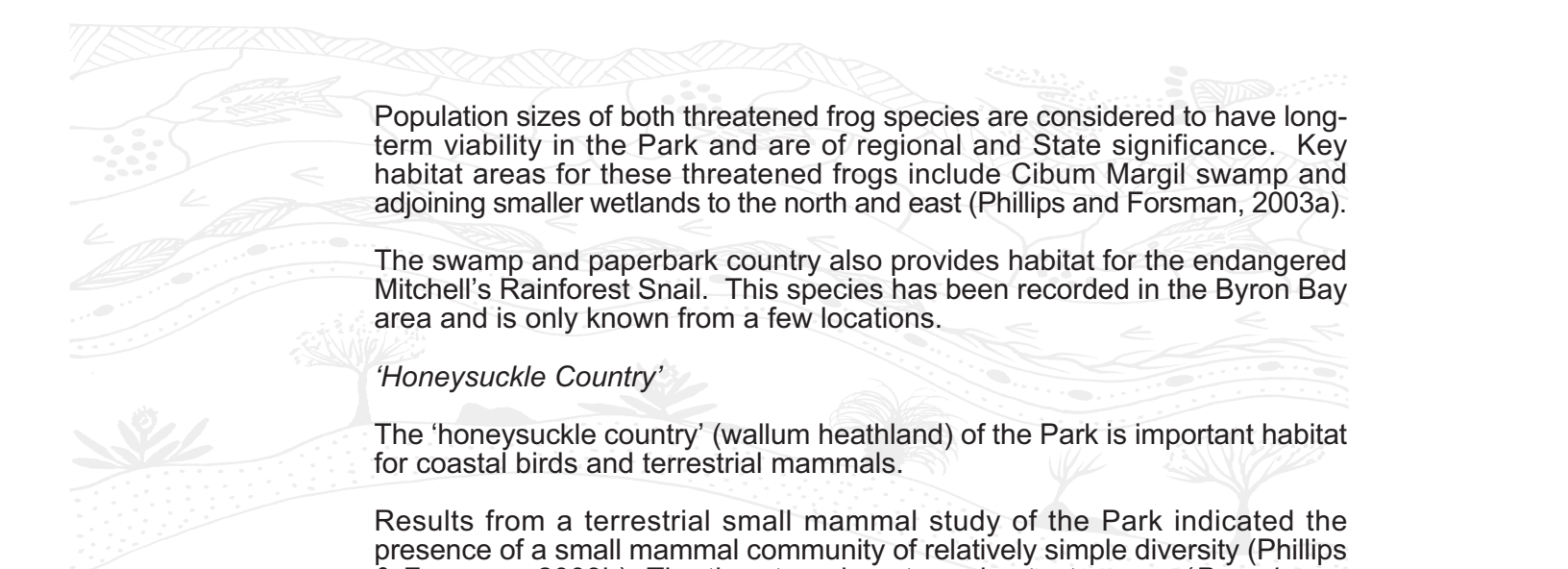
Threatened shorebirds such as the pied-oystercatcher (*Haematopus longirostris*) and little tern (*Sterna albifrons*) have also been recorded at Tallow Beach and Tallow Creek within the Park. In particular, the mouth of the Tallow Creek is an important high tide roosting area for these and other seabirds. Birds Australia representatives have undertaken bird surveys at this site for many years.

The beach environment is particularly important for the Byron Bay Arakwal people for sustainable wild resource use. As well as access for fishing, the traditional owners use the beach to harvest pipis for food and beach worms for fishing bait. The Elders and their families also used to catch mullet, flathead, prawns, mud crab, eel and duck in the Tallow Creek estuary before it was degraded by sand mining and pollution (pers. comm. Aunty Linda Vidler, 18 April 2003) (refer to *Section 4.9*).

'Swamp and Paperbark Country'

The northern part of the Park contains important ephemeral (temporary) freshwater wetlands, particularly Cibum Margil swamp and nearby smaller wetlands. These are particularly important habitat for native frogs. A frog study was conducted (Phillips and Forsman, 2003a) to determine the diversity, distribution and abundance of frogs in the Park and identify threats and management options. This study identified 11 key frog habitat areas and recorded 12 species of frogs including two threatened species.

Threatened frog species recorded in the Park include significant populations of the wallum froglet (*Crinia tinnula*) and wallum sedge frog (*Litoria olongburensis*), both listed as vulnerable under the TSC Act. The wallum sedge frog is also listed as vulnerable at a National level under the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999*, and has been recorded in four locations within the Park. Wallum froglet populations are more widespread and abundant in the Park.



Population sizes of both threatened frog species are considered to have long-term viability in the Park and are of regional and State significance. Key habitat areas for these threatened frogs include Cibum Margil swamp and adjoining smaller wetlands to the north and east (Phillips and Forsman, 2003a).

The swamp and paperbark country also provides habitat for the endangered Mitchell's Rainforest Snail. This species has been recorded in the Byron Bay area and is only known from a few locations.

'Honeysuckle Country'

The 'honeysuckle country' (wallum heathland) of the Park is important habitat for coastal birds and terrestrial mammals.

Results from a terrestrial small mammal study of the Park indicated the presence of a small mammal community of relatively simple diversity (Phillips & Forsman, 2003b). The threatened eastern chestnut mouse (*Pseudomys gracilicaudatus*) was recorded in the southern part of the Park as part of this study. Survey results indicate a small population size. The study recommends the need to manage threats, enhance habitat and undertake further monitoring. Recommended actions include fox (*Vulpes vulpes*) and cat (*Felis catus*) control (refer to *Section 4.6*), prescribed burning (refer to *Section 4.8*) and eastern chestnut mouse population monitoring (Phillips & Forsman, 2003b).

Other native animals recorded include the swamp wallaby (*Wallabia bicolor*), echidna (*Tachyglossus aculeatus*), brown bandicoot (*Isodon macrourus*), swamp rat (*Rattus lutreolus*), brush turkey (*Alectura lathami*) and a number of micro-bat species. A notable record of the New Holland mouse (*Pseudomys novaehollandiae*) was obtained in the endangered clay heath in the north-west of the Park.

Common animals in 'Honeysuckle Country' such as porcupine (echidna), goanna (monitors), carpet python, wallaby, brush turkey and duck were important food sources for the Elders and their families when they resided on the lands in and around the Park.

Threats to Native Animals

The results of the small mammal study also indicated an absence of carnivorous small mammals previously recorded in the vicinity of the Park such as *Antechinus sp.* and the threatened common planigale (*Planigale maculata*). The absence and possibly local extinction of these species has been attributed to the density of the introduced cane toad (*Bufo marinus*) in the Park, as has the decline of reptiles and frogs in the Park (Phillips & Forsman, 2003a-b).

A former sand mining dredge pond located in the Park between Cibum Margil wetland and Tallow Beach has been identified as a key threat to the native animal biodiversity of the Park. The pond contains the only permanent freshwater in the Park and, as such, is a major breeding habitat for the cane toad.

During the frog study of the Park, the pond was notable for its low abundance and diversity of native frogs and was dominated by various life stages of the cane toad (Phillips & Forsman, 2003b). Cane toads can displace native frog populations through competition for resources and predation (Lever 2001). A population of the introduced mosquito fish (*Gambusia holbrooki*) was also recorded in the pond (refer to *Section 4.6*).

The pond has been identified as a significant threat to biodiversity in the Park due to the dispersal of cane toad populations from this site. It has been recommended to fill or partially fill this pond and rehabilitate it as an ephemeral wetland. This proposal may involve excavation of the bund wall and stockpile of sand mining spoil adjoining the pond to the north-west. This will promote drainage of the pond and provide fill material to construct an ephemeral (temporary) wetland that will dry out seasonally and hence reduce cane toad breeding opportunities.

Surveys of reptiles in the Park have been limited, those active searches and anecdotal observations that have been recorded suggest a relatively simple reptile community. Goannas (monitors), freshwater and marine turtles, lizards (skinks) and snakes are present in the Park.

Key threats to native animal biodiversity in the Park include habitat degradation, wildfire (refer to *Section 4.8*), predation by foxes and domestic animals (refer to *Section 4.6*) and stormwater pollution of wetland habitats (refer to *Section 4.9*). These threats are specifically addressed in other sections of this plan and under other plans. For example, the pest management plan for the Park aims to ensure weed control and restoration work is undertaken in a strategic and gradual manner to avoid impacts to native fauna and to enhance the fauna habitat values of the Park.

Arakwal vision for Country

Country is repaired so the animals continue to return.

Guidelines

- **Protecting threatened species.** The NPWS and Arakwal Aboriginal Corporation will work together to ensure the threatened animal species and their habitat are not affected by activities in the Park.
- Recovery plans for threatened animal species as they relate to the Park will be implemented in consultation with the Park Management Committee.
- **Cultural use.** The Byron Bay Arakwal people and other Bundjalung people as recognised by the Arakwal Aboriginal Corporation can undertake the sustainable use of animals in the Park for cultural purposes in accordance with the provisions of this plan relating to wild resource use (refer to *Section 5.2*).
- **Community involvement.** Opportunities to involve local conservation groups in conservation programs such as shorebird surveys will be sought where appropriate.
- Community awareness programs will be undertaken as necessary to assist in the protection of important habitat for threatened animal species.

Actions

- **Threatened fauna.** Implement recovery plans for threatened fauna species as they relate to the Park such as the wallum froglet and wallum sedge frog, eastern chestnut mouse and threatened shorebirds.
- **Cane toad control.** Subject to environmental assessment, rehabilitate the former sand-mining dredge pond by draining, filling and revegetation to reduce cane toad breeding opportunities and create an ephemeral wetland.

- **Fencing and signs.** Undertake fencing and signage as required to protect important animal habitats such as turtle nest sites on Tallow Beach and threatened shorebird nesting areas around Tallow Creek.
- **Animal surveys.** Undertake a five year monitoring program for the threatened eastern chestnut mouse in the southern part of the Park to determine population densities and assess habitat manipulation proposals (refer to *Section 4.8*).
- Survey the distribution and abundance of culturally important animal species to increase knowledge on the recovery of local populations and to inform decisions on wild resource use proposals (refer to *Section 5.2*).
- Map nesting sites for turtles and threatened shorebirds and protect from human disturbance.

4.6 *Pests in Country*

“The pigface were mainly on the sand dunes. These bushes here come in and smothered everything up just about.”

Aunty Lorna Kelly (dec), Arakwal Elder, 2003

Talking about the decline in the availability of fruit from pigface, due to invasion of the frontal dunes by bitou bush and other introduced plants used for post-sandmining rehabilitation.

Pest Management Planning

A Pest Management Plan has been prepared for the Park (NPWS 2003). This Plan was prepared in consultation with the Arakwal people, the Tweed-Lismore Rural Lands Protection Board and the Byron Shire Council. The plan identifies pest species and their associated impacts and provides a strategic approach to the control of introduced plants and animals and the restoration of native plant communities. Introduced plant species that are common in the Park include bitou bush (*Chrysanthemoides monilifera*), winter senna (*Senna pendula* var. *glabrata*), lantana (*Lantana camara*), broad-leaved pepper tree (*Schinus terebinthifolia*), coastal morning glory (*Ipomoea cairica*), fishbone fern (*Nephrolepis cordifolia*) and ochna (*Ochna serrulata*). Introduced animal species known to occur in the Park include the red fox (*Vulpes vulpes*), cane toad (*Bufo marinus*), European rabbit (*Oryctolagus cuniculus*), mosquito fish (*Gambusia holbrooki*) and domestic dog (*Canis familiaris*) and cat (*Felis catus*).

The impact of weeds on Country

Disturbance and revegetation work associated with former sand mining operations in the Park has led to weed invasion in many of the native plant communities, particularly along the frontal dunes. Bird dispersal of weed propagules, the dumping of garden waste and urban stormwater discharge has also contributed to the introduction of invasive weeds.

In addition to reducing biological diversity in areas of the Park, this has resulted in the decline in wild resource use opportunities and other cultural values for the Byron Bay Arakwal people. Weed control and restoration of the native plant communities is important to maintain cultural and habitat values associated with the Park.

A planned approach to restoration

For weed control and coastal restoration, the Pest Management Plan divides the Park spatially into a number of strategic work zones and identifies the direction and priority of works to ensure effective and efficient use of resources. Priority areas for these works includes the Park's urban interface, the south-western part of the Park and the endangered clay heath (refer to *Section 4.4*).

Targeted weed control has been undertaken along the urban interface of the Park. This work has included the removal of the exotic coral tree at the Ocean Street park entry and the control of highly invasive weed species elsewhere along the Park boundary.

Weed control and restoration in the south-west of the Park will focus on rehabilitating areas disturbed by former land uses. 'Cultural use places' have been identified in this area and assessed as suitable for the continued sustainable use of plant resources by the Byron Bay Arakwal people (EPM Consulting et al 2003b) (refer to *Sections 5.1-5.2*).

Weed invasion in the endangered clay heath is mainly associated with disturbed areas such as along tracks and roads. Wild watsonia (*Watsonia meriana* cv. *Bulbillifera*) is a particularly invasive weed in these areas. Weed control needs to be undertaken carefully due to the sensitivity and high conservation value of the area and needs to be integrated with proposed fire management works (refer to *Section 4.8*).

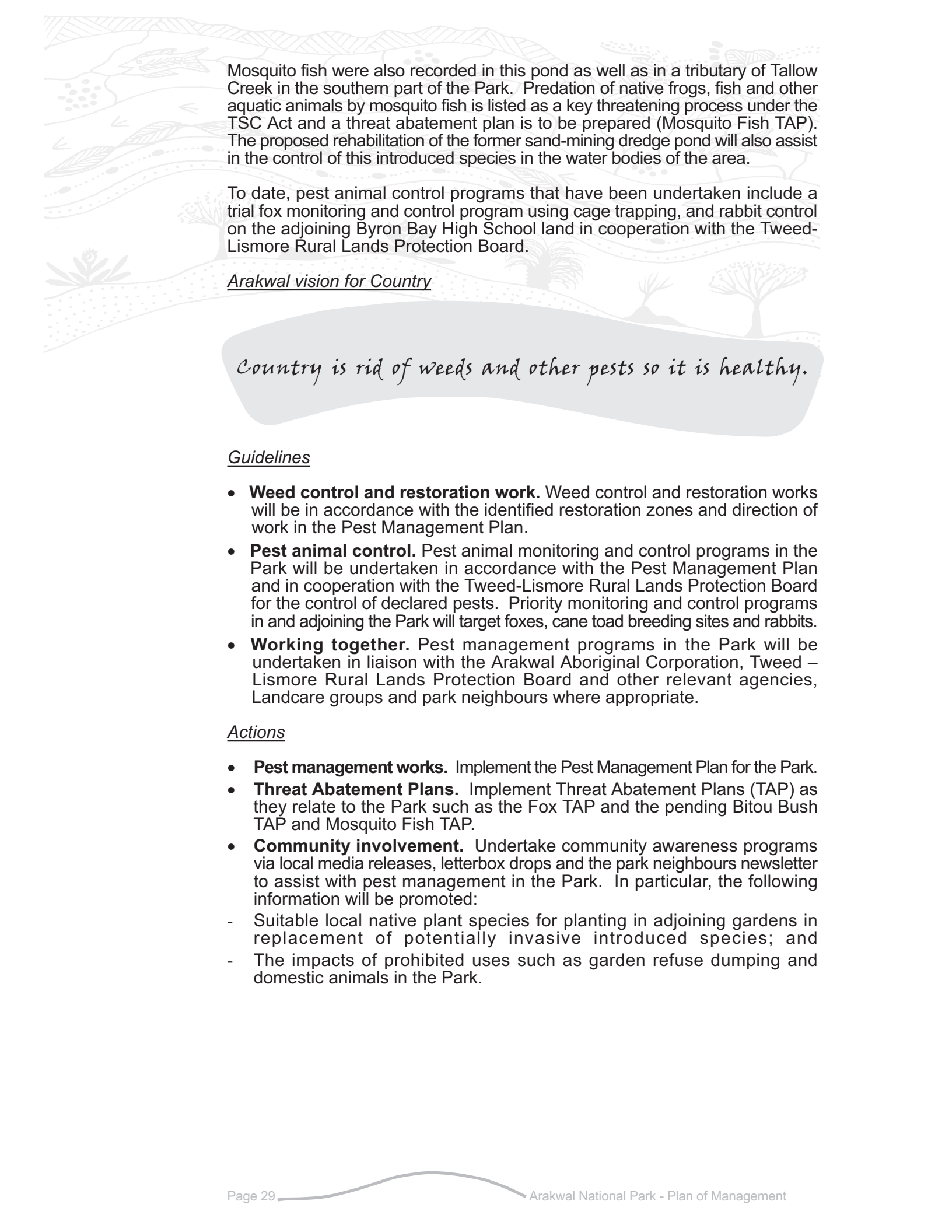
Bitou Bush

Bitou bush is the most dominant and invasive weed in the Park. While it was effective in recolonising disturbed areas post-sandmining, it has out-competed native plants to dominate the frontal dunes and invaded adjoining areas of native vegetation. It is responsible for the decline of coastal habitat and cultural resources and increased erosion and instability of frontal dunes (refer to *Section 4.6*). The frontal dune area of Tallow Beach in the Park requires a long-term approach with significant resources to rehabilitate it with native vegetation in a sustainable way.

The threat to biodiversity through invasion of native plant communities by bitou bush has been listed as a 'key threatening process' under the TSC Act. A draft Threat Abatement Plan for the control of bitou bush and bone seed (Bitou Bush TAP) has been prepared. Parts of the Park have been identified in the preparation of the Bitou Bush TAP as priority areas. This includes Cibus Margil wetland that is listed under SEPP14 (Coastal Wetlands), and the endangered clay heath. The Bitou Bush TAP will identify a control program for these and other priority areas.

Pest Animals

The Pest Management Plan also includes strategies to control the impacts of introduced animals such as the red fox, cane toad and rabbit. A key proposal is to reduce cane toad breeding and dispersal from a former sand-mining dredge pond located to the east of Cibus Margil wetland. This proposal arose from fauna studies of the Park (Phillips & Forsman, 2003a-b) and is addressed elsewhere in the plan (*Refer to Section 4.5*).



Mosquito fish were also recorded in this pond as well as in a tributary of Tallow Creek in the southern part of the Park. Predation of native frogs, fish and other aquatic animals by mosquito fish is listed as a key threatening process under the TSC Act and a threat abatement plan is to be prepared (Mosquito Fish TAP). The proposed rehabilitation of the former sand-mining dredge pond will also assist in the control of this introduced species in the water bodies of the area.

To date, pest animal control programs that have been undertaken include a trial fox monitoring and control program using cage trapping, and rabbit control on the adjoining Byron Bay High School land in cooperation with the Tweed-Lismore Rural Lands Protection Board.

Arakwal vision for Country

Country is rid of weeds and other pests so it is healthy.

Guidelines

- **Weed control and restoration work.** Weed control and restoration works will be in accordance with the identified restoration zones and direction of work in the Pest Management Plan.
- **Pest animal control.** Pest animal monitoring and control programs in the Park will be undertaken in accordance with the Pest Management Plan and in cooperation with the Tweed-Lismore Rural Lands Protection Board for the control of declared pests. Priority monitoring and control programs in and adjoining the Park will target foxes, cane toad breeding sites and rabbits.
- **Working together.** Pest management programs in the Park will be undertaken in liaison with the Arakwal Aboriginal Corporation, Tweed – Lismore Rural Lands Protection Board and other relevant agencies, Landcare groups and park neighbours where appropriate.

Actions

- **Pest management works.** Implement the Pest Management Plan for the Park.
- **Threat Abatement Plans.** Implement Threat Abatement Plans (TAP) as they relate to the Park such as the Fox TAP and the pending Bitou Bush TAP and Mosquito Fish TAP.
- **Community involvement.** Undertake community awareness programs via local media releases, letterbox drops and the park neighbours newsletter to assist with pest management in the Park. In particular, the following information will be promoted:
 - Suitable local native plant species for planting in adjoining gardens in replacement of potentially invasive introduced species; and
 - The impacts of prohibited uses such as garden refuse dumping and domestic animals in the Park.

4.7 *Repairing Country - Rehabilitation of Degraded Areas*

“Kids could be swimming but they don’t let you swim in it. It’s polluted now.”

Aunty Lorna Kelly (dec), Arakwal Elder, 10 December 2003

“Stop the sewerage so people could come and picnic here. Change it back to natural. They’ve damaged it enough and there’s enough pollution here.”

Aunty Linda Vidler, Arakwal Elder, 10 December 2003

Talking about the water quality of Tallow Creek that traverses the southern part of the Park.

The Park contains areas that have been degraded from former land uses and ongoing impacts from adjoining development. This includes specific management issues associated with the Tallow Beach frontal dune area, Tallow Creek and an erosion gully leading from near Pacific Vista Drive to Cibum Margil wetland.

Tallow Beach Dunes

The ridges behind Tallow Beach were formed in the Quaternary Period up to 130 000 years ago when the sea level was several metres above present levels. These old sand dunes extend to the present day coastline where they are overlaid with more recent sands that were modified by various periods of sand mining between the 1800’s and 1960’s (Cape Byron Trust, 2002).

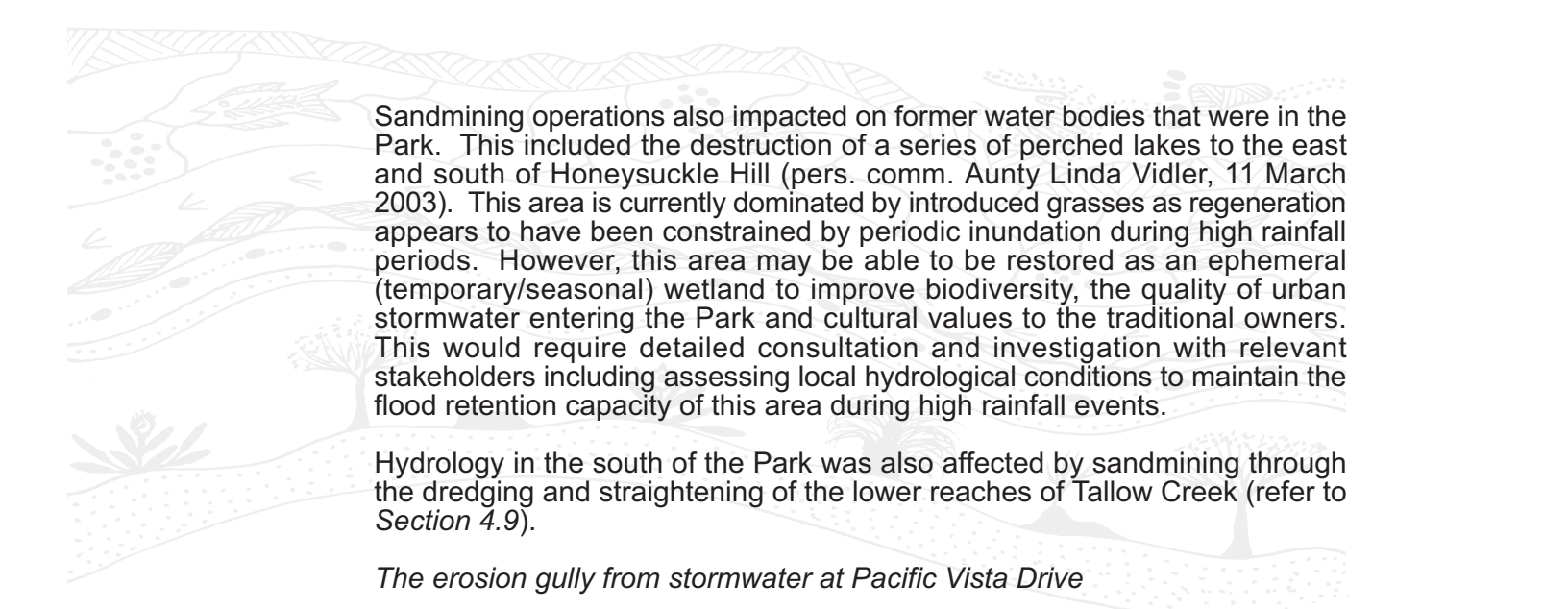
Prior to sand mining, the frontal dune systems consisted of a series of high ridges, dune swales and permanent lakes along Tallow Beach (pers. comm. Aunty Linda Vidler, 2003). Post sand mining extraction, the dunes were re-profiled to form the more uniform, flat and simplified landforms of today. Despite this, these dune systems have a range of cultural values and important places for the traditional owners and a diversity of habitats for native plants and animals.

While there are currently no major active sand blowouts along the Park’s frontal dunes, there are a number of smaller eroded areas that have the potential to expand should they not be monitored and managed. Many of these are associated with beach access points that require consolidation and management.

Other areas disturbed by sandmining operations

Two smaller dune blowouts occur adjacent to the water main in the north-west part of the Park. An eroded area also occurs to the east of Honeysuckle Hill adjoining the pathway between Pacific Vista Drive and Tallow Beach. This is undermining an adjoining area of the endangered clay heath. Erosion control, fencing and revegetation are the main strategies to rehabilitate these disturbed areas.

Degraded dunes also occur in the southern part of the Park on the track between Ironbark Avenue and the High School Trail and south of the Byron High School. Smaller areas of erosion are associated with other pathways in the Park that need to be addressed as part of track maintenance and closure works (refer to *Section 5.4*).



Sandmining operations also impacted on former water bodies that were in the Park. This included the destruction of a series of perched lakes to the east and south of Honeysuckle Hill (pers. comm. Aunty Linda Vidler, 11 March 2003). This area is currently dominated by introduced grasses as regeneration appears to have been constrained by periodic inundation during high rainfall periods. However, this area may be able to be restored as an ephemeral (temporary/seasonal) wetland to improve biodiversity, the quality of urban stormwater entering the Park and cultural values to the traditional owners. This would require detailed consultation and investigation with relevant stakeholders including assessing local hydrological conditions to maintain the flood retention capacity of this area during high rainfall events.

Hydrology in the south of the Park was also affected by sandmining through the dredging and straightening of the lower reaches of Tallow Creek (refer to *Section 4.9*).

The erosion gully from stormwater at Pacific Vista Drive

A major erosion gully aligned along part of a former logging trail occurs in the western part of the Park to the west of Cibum Margil wetland. The gully is approximately 130 metres in length and up to 9 metres wide and 5 metres deep in sections. This gully appears to have progressively eroded due to concentrated stormwater run off from an outlet at the Pacific Vista Drive cul-de-sac and adjoining lands. This erosion gully is actively undermining sections of heath and compromises the integrity of Cibum Margil wetland (Baker, 1998; DLWC 1998; Clements et al 1999).

Arakwal vision for Country

“Country needs a helping hand. It was damaged by large scale sand mining and needs equally intensive rehabilitation.”

Norman Graham, Arakwal Aboriginal Corporation member and NPWS Ranger,
16 December 2003

Guidelines

- **Rehabilitation.** Rehabilitation work will focus on returning Country to its pre-disturbance state ie prior to sandmining operations.
- **Working together.** Cooperation with other land managers is essential for Country to be restored.

Actions

- **Stabilisation works.** Undertake erosion control, fencing and revegetation works at the following locations:
 - dune blow outs adjoining the water main that traverses the north-west part of the Park;
 - eroded dune areas associated with visitor access points to Tallow Beach; and
 - the eroded area to the east of Honeysuckle Hill adjoining the beach access track from Pacific Vista Drive.

- **Constructed wetlands.** In consultation with Byron Shire Council and adjoining park neighbours, investigate the re-establishment of ephemeral wetlands in the area of the Park that experiences inundation to the east of the Beechcomber Drive cul-de-sac (see Map 2).
- **Pacific Vista Drive erosion gully.** Undertake erosion and sediment control measures to rehabilitate the erosion gully within the endangered clay heath to the west of Cibum Margil wetland. Consult with Byron Shire Council to ensure appropriate treatment of the Pacific Vista Drive stormwater outlet (refer to Section 4.9).

4.8 Fire and Country

“Dad used to get on the other side of the racecourse when the wind was blowing from the west. When it got really bushy. Set fire to it.... ..That’s when the place was clear for us to get grass trees and nobbies (Banksia).”

Lorna Kelly (dec), Arakwal Elder, 10 December 2002

Talking about Jimmy Kay (dec.) using fire to manage the land that is now in the southern part of the park.

Fire in the cultural landscape

Aboriginal people have used fire to care for and manipulate parts of Country for thousands of years. Traditional burning practices included the use of mosaic or patch burning, often in cooler months following rainfall. This has contributed to the fire regime to which many plant and animal communities have evolved and have become adapted.

The Byron Bay Arakwal people have in the past applied fire to Country that is now in the Park to improve physical access, promote new growth and encourage game (NPWS et al 2004). Fire is still an important part of life and caring for Country for the Byron Bay Arakwal people.

The involvement of Byron Bay Arakwal people in fire management for the Park is an important part of caring for Country. This includes the protection of culturally important places and features that could be damaged by bushfire or related fire fighting activities. The timing and extent of fires can also impact on the availability of wild resources.

The Byron Bay Arakwal people would like to safely continue the cultural practice of having a fire pit or place as part of cultural activities (pers comm. Y. Stewart, 2003). For example, seafood is typically cooked on an open fire on Tallow Beach (Aunty Linda Vidler, pers. comm. 31 March 2003). Certain places in the Park can safely accommodate a fire place for cultural activities under safe fire weather conditions. This includes around the mouth of Tallow Creek and in disturbed open areas in the southern part of the Park.



Fire History

While detailed fire history information for the Park is limited, available records and anecdotal information suggest a relatively low to moderate frequency of large bushfires have occurred in the recent past. This may be partly due to suppression of some ignitions by fire authorities before the ignitions developed to their potential. An intense wildfire burnt through the majority of the park in 1977-78 from an escaped hazard reduction burn to the south-west of the Park. A wildfire suspected to have been a result of arson also burnt approximately 13 ha, mostly within the Park, to the north of Byron Bay High School in 1999. Numerous other small fires have occurred behind the Tallow Beach dunes from unattended camp fires and along the urban interface of the Park, but have been suppressed before developing into larger fires.

Managing Country with fire

While fire is a natural event and one of the continuing physical factors influencing the Australian landscape, fire regimes need to be managed carefully. The 'fire regime' refers to the frequency, season, intensity and extent of fire in any area.

Species in different vegetation types display adaptations to different fire regimes. (refer to *Appendix 4*). The coastal heath and shrub vegetation that dominates approximately 70% of the Park is adapted to fire intervals ranging between about 8 to 30 years. Many plant species found in these vegetation communities such as 'honeysuckle' (*Banksia sp.*) require fire to stimulate seed release, new growth and complete their life cycle.

On the other hand, regenerating rainforest and other mesic (ie plants requiring large amounts of water) communities in the Park have few or no adaptations to survive fire. These communities evolved in the absence of fire and would be degraded by any fire event.

Inappropriate fire regimes can change the structure and species composition of plant communities, the distribution and abundance of plant and animal species and increase weed invasion and pest animal impacts. Inappropriate fire regimes have been identified as a 'key threatening process' affecting the biodiversity of NSW.

The majority of the Park has only burnt once in the past 25 years, with the exception of the area burnt in 1999 which is the only area of considerable size that has burnt twice. Continuation of this regime may lead to a decline in fire dependant plant and animal species and communities in relevant parts of the Park.

Two areas of the Park have been identified as requiring prescribed burning to maintain biodiversity. The clay heath endangered ecological community in the western part of the Park requires a relatively high intensity prescribed burn to control the invasion of sclerophyll woodland and mesic species and maintain the life cycles of fire dependant plant and animals species. A varied regime of relatively frequent small scale prescribed burning is also recommended in the vicinity of the Byron Bay High School in the Park to improve habitat conditions for the endangered eastern chestnut mouse recently recorded here (Phillips and Forsman, 2003b).

The exclusion of fire from remnant rainforest and mesic communities in the south-west and north-east areas of the Park is important to maintain biodiversity. Managing the impact of fire, especially high intensity fire, in key wetlands is also important for maintaining populations of threatened species of frogs. Minimising the impact of fire on riparian areas is also an important objective for managing biodiversity.

Protecting Life and Property from Bushfires

The urban interface of the Park occurs along its western boundary, which adjoins approximately 75 dwellings, a resort and two schools, and along the northern boundary which adjoins the sites of the proposed Arakwal cultural centre and NPWS offices. At specific locations on the Park's urban interface, the combination of steeper slopes, vegetation type, fuel loads and conditions on adjoining lands increases the threat of bushfire to adjoining property.

Hazard reduction work within and adjoining the Park is important to protect life and property. This requires the establishment and maintenance of Asset Protection Zones or 'fire breaks' along the urban interface of the Park (see below '*Fire management planning*'). Fuel loads should be kept very low and fire fighting vehicle access provided in these zones where possible. Asset Protection Zones within the Park are 20 to 50 metres wide.

The NPWS liaises on a regular basis with relevant park neighbours to promote these integrated Asset Protection Zones and other fire protection measures in cooperation with fire authorities such as the Rural Fire Service and NSW Fire Brigades. These zones are being established under the Byron Shire Bushfire Risk Management Plan (Byron Shire Bush Fire Management Committee, 2000) and the Fire Management Strategy for the Park (in preparation), and in accordance with the *Rural Fires Act 1997* and associated *Bushfire Environment Assessment Code 2003*.

Weed control work has been undertaken along the urban interface of the Park preceding the establishment of Asset Protection Zones. This work will reduce weed invasion following hazard reduction work and reduce fuel loads by removing weed material. Asset Protection Zones are also being established along the western park boundary between the Ocean Street and Ironbark Avenue entrances to the Park.

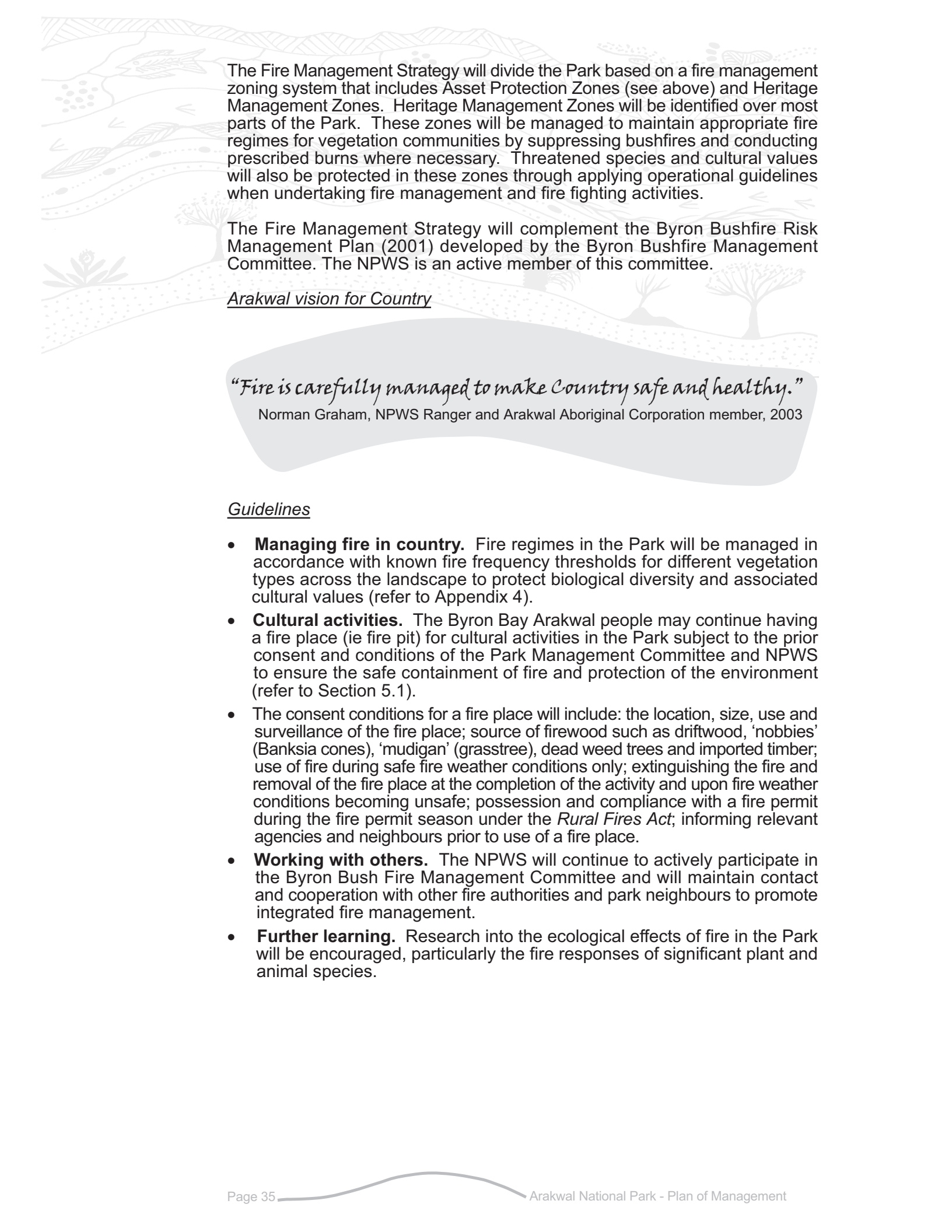
Management Trails

The Park contains a number of management trails that are important for fire fighting vehicle access (refer to *Section 5.4*). Regular maintenance of these trails is required to ensure they are trafficable and meet fire fighting standards. Maintenance includes slashing, surfacing boggy sections and removal of overhanging, fallen and encroaching vegetation. A 'Review of Environmental Factors' has been undertaken for the maintenance of these trails including a threatened flora survey.

In addition, there are a number of dormant trails through the Park from former sand mining operations and recreation use that are now either overgrown or maintained as walking tracks (see Map 2). If necessary, appropriate dormant trails could be temporarily reopened or widened to allow fire fighting vehicle access as part of prescribed burning or bushfire suppression.

Fire management planning

A Fire Management Strategy has been prepared for the Park. The Arakwal Aboriginal Corporation has also been actively involved in the preparation of the Fire Management Strategy to ensure cultural values associated with the Park are protected. In addition, a Reserve Aboriginal Heritage Values Assessment for the Park is being prepared to act as a 'filter' for fire management proposals to determine any associated cultural issues (refer to *Section 4.3*).



The Fire Management Strategy will divide the Park based on a fire management zoning system that includes Asset Protection Zones (see above) and Heritage Management Zones. Heritage Management Zones will be identified over most parts of the Park. These zones will be managed to maintain appropriate fire regimes for vegetation communities by suppressing bushfires and conducting prescribed burns where necessary. Threatened species and cultural values will also be protected in these zones through applying operational guidelines when undertaking fire management and fire fighting activities.

The Fire Management Strategy will complement the Byron Bushfire Risk Management Plan (2001) developed by the Byron Bushfire Management Committee. The NPWS is an active member of this committee.

Arakwal vision for Country

“Fire is carefully managed to make Country safe and healthy.”

Norman Graham, NPWS Ranger and Arakwal Aboriginal Corporation member, 2003

Guidelines

- **Managing fire in country.** Fire regimes in the Park will be managed in accordance with known fire frequency thresholds for different vegetation types across the landscape to protect biological diversity and associated cultural values (refer to Appendix 4).
- **Cultural activities.** The Byron Bay Arakwal people may continue having a fire place (ie fire pit) for cultural activities in the Park subject to the prior consent and conditions of the Park Management Committee and NPWS to ensure the safe containment of fire and protection of the environment (refer to Section 5.1).
- The consent conditions for a fire place will include: the location, size, use and surveillance of the fire place; source of firewood such as driftwood, ‘nobbies’ (Banksia cones), ‘mudigan’ (grasstree), dead weed trees and imported timber; use of fire during safe fire weather conditions only; extinguishing the fire and removal of the fire place at the completion of the activity and upon fire weather conditions becoming unsafe; possession and compliance with a fire permit during the fire permit season under the *Rural Fires Act*; informing relevant agencies and neighbours prior to use of a fire place.
- **Working with others.** The NPWS will continue to actively participate in the Byron Bush Fire Management Committee and will maintain contact and cooperation with other fire authorities and park neighbours to promote integrated fire management.
- **Further learning.** Research into the ecological effects of fire in the Park will be encouraged, particularly the fire responses of significant plant and animal species.

Actions

- **Fire planning.** Implement the Fire Management Strategy for the Park.
- **Trails.** Continue to maintain identified management trails to appropriate standards (see Map 2).

4.9 *The Beach, Creek and Swamps - Catchment Management*

“To me it looked like a black snake. It went zig-zag around like that. Then you had the big elbow at the corner of it going out to Tallow Beach. And the biggest sand hills, not there no more. The surf used to come over the creek and bring in fresh water, fresh fish. But it's different now, it's so contaminated now and I don't think it gets enough water.”

Aunty Linda Vidler, Arakwal Elder, 18 April 2003

Talking about Tallow Creek and Tallow Beach in the Park.

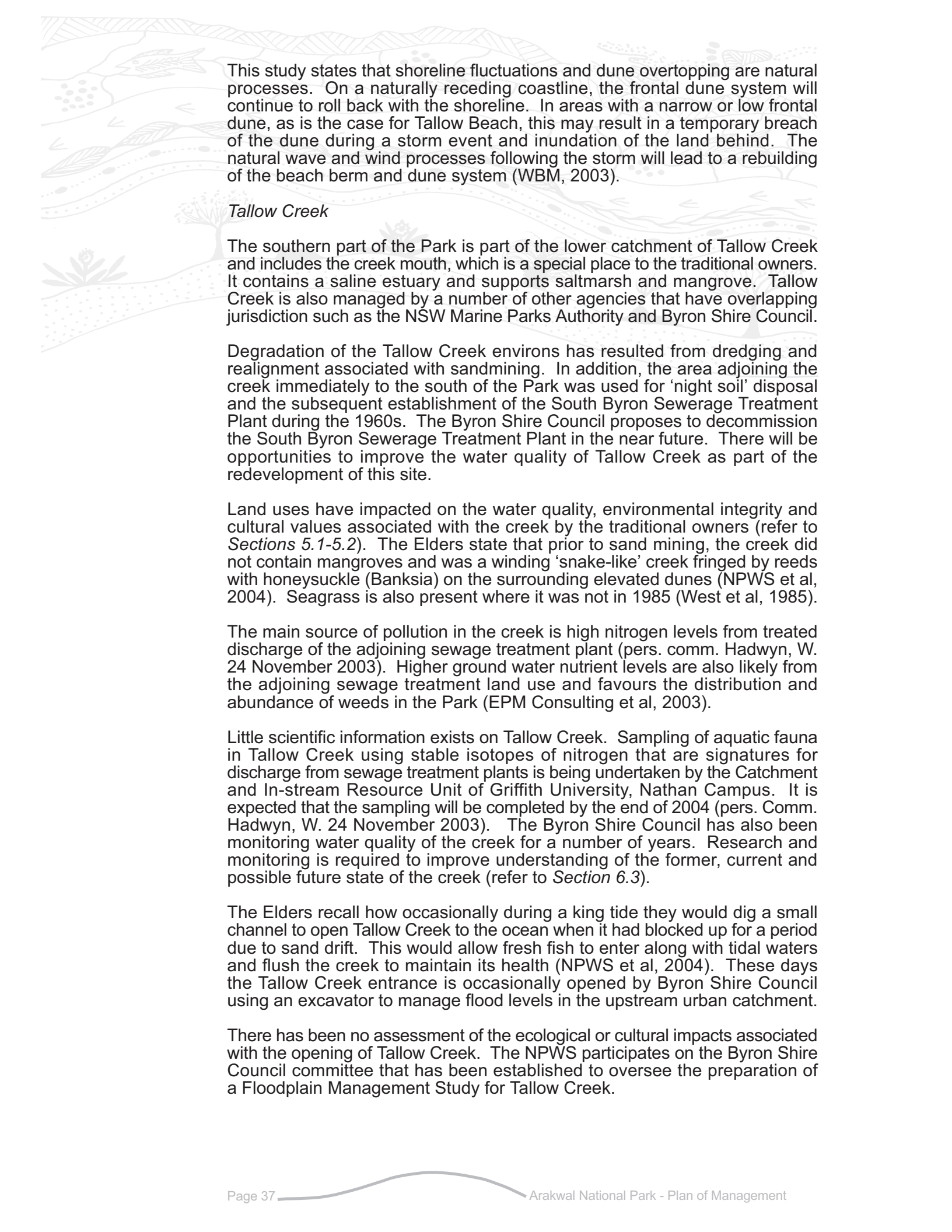
The Park contains a range of aquatic environments and forms a significant component of the lower catchments of the area. The Park contains a stretch of Tallow Beach to the east, the mouth and lower reaches of Tallow Creek in the south and ephemeral (temporary) freshwater wetlands and water courses in the north.

Tallow Creek and Tallow Beach are very important places for the Byron Bay Arakwal people. The Elders have spent much of their lives around the mouth of Tallow Creek. It is a special place where the traditional owners feel they can reconnect with their ancestors and is a focus for many of their cultural activities (refer to *Sections 5.1-5.2*).

Tallow Beach

The Park contains a 3km stretch of Tallow Beach and includes the inter-tidal area. This part of the Park between mean high and low water marks is also part of the Cape Byron Marine Park. Tallow Beach is a surf beach and is classified as a long sweeping fine sand beach (Marine Parks Authority, 2003). The beach provides habitat for a range of animals and is an important wild resource use place for the traditional owners (refer to *Sections 4.5, 5.2*).

The shoreline of Tallow Beach naturally fluctuates in response to beach processes (ie wind, wave and tidal conditions) and creek entrance movements. The Byron Coastline Management Study has considered beach erosion or shoreline recession for Tallow Beach (WBM, 2003). The NPWS will continue to participate on the Byron Shire Council Coastline Management Committee that is overseeing implementation of this study.



This study states that shoreline fluctuations and dune overtopping are natural processes. On a naturally receding coastline, the frontal dune system will continue to roll back with the shoreline. In areas with a narrow or low frontal dune, as is the case for Tallow Beach, this may result in a temporary breach of the dune during a storm event and inundation of the land behind. The natural wave and wind processes following the storm will lead to a rebuilding of the beach berm and dune system (WBM, 2003).

Tallow Creek

The southern part of the Park is part of the lower catchment of Tallow Creek and includes the creek mouth, which is a special place to the traditional owners. It contains a saline estuary and supports saltmarsh and mangrove. Tallow Creek is also managed by a number of other agencies that have overlapping jurisdiction such as the NSW Marine Parks Authority and Byron Shire Council.

Degradation of the Tallow Creek environs has resulted from dredging and realignment associated with sandmining. In addition, the area adjoining the creek immediately to the south of the Park was used for 'night soil' disposal and the subsequent establishment of the South Byron Sewerage Treatment Plant during the 1960s. The Byron Shire Council proposes to decommission the South Byron Sewerage Treatment Plant in the near future. There will be opportunities to improve the water quality of Tallow Creek as part of the redevelopment of this site.

Land uses have impacted on the water quality, environmental integrity and cultural values associated with the creek by the traditional owners (refer to *Sections 5.1-5.2*). The Elders state that prior to sand mining, the creek did not contain mangroves and was a winding 'snake-like' creek fringed by reeds with honeysuckle (*Banksia*) on the surrounding elevated dunes (NPWS et al, 2004). Seagrass is also present where it was not in 1985 (West et al, 1985).

The main source of pollution in the creek is high nitrogen levels from treated discharge of the adjoining sewage treatment plant (pers. comm. Hadwyn, W. 24 November 2003). Higher ground water nutrient levels are also likely from the adjoining sewage treatment land use and favours the distribution and abundance of weeds in the Park (EPM Consulting et al, 2003).

Little scientific information exists on Tallow Creek. Sampling of aquatic fauna in Tallow Creek using stable isotopes of nitrogen that are signatures for discharge from sewage treatment plants is being undertaken by the Catchment and In-stream Resource Unit of Griffith University, Nathan Campus. It is expected that the sampling will be completed by the end of 2004 (pers. Comm. Hadwyn, W. 24 November 2003). The Byron Shire Council has also been monitoring water quality of the creek for a number of years. Research and monitoring is required to improve understanding of the former, current and possible future state of the creek (refer to *Section 6.3*).

The Elders recall how occasionally during a king tide they would dig a small channel to open Tallow Creek to the ocean when it had blocked up for a period due to sand drift. This would allow fresh fish to enter along with tidal waters and flush the creek to maintain its health (NPWS et al, 2004). These days the Tallow Creek entrance is occasionally opened by Byron Shire Council using an excavator to manage flood levels in the upstream urban catchment.

There has been no assessment of the ecological or cultural impacts associated with the opening of Tallow Creek. The NPWS participates on the Byron Shire Council committee that has been established to oversee the preparation of a Floodplain Management Study for Tallow Creek.

The traditional owners consider the degradation of Tallow Creek as a major management issue for Country. They are concerned at the changes brought about by sand mining, the sewage treatment plant and urban development in the catchment and they wish the creek to be returned to a useable state. In particular, they wish for current and future generations to be able to swim and fish in the creek in order to maintain associated cultural values for all people.

Cibum Margil swamp and adjoining wetlands

The northern part of the Park is part of a separate small catchment to Tallow Creek. It drains through a series of freshwater wetlands and empties into the ocean via a small drainage line in the north-east corner of the Park.

These wetlands are also referred to as 'acid swamps' as their associated water and soils are acidic due to natural chemical processes. They are also referred to as ephemeral (temporary) wetlands as they are periodically inundated during the high rainfall period that typically occurs between December and May each year. These wetlands are inter-linked and have been observed to fill in a particular sequence after significant rainfall events (pers. comm. S. Phillips, 2003).

'Cibum Margil swamp' is the main wetland in this area. It is located below Paterson and Honeysuckle Hills and is clearly visible from the surrounding elevated urban area. It is listed under State Environmental Planning Policy (SEPP) 14 as Coastal Wetland No. 80. The wetland is a perched acid water dunal lake containing a stand of the rush *Lepironia articulata* surrounded by paperbark forest. This and other adjoining wetlands provide significant habitat for relatively large populations of the vulnerable wallum froglet (*Crinia tinnula*) and wallum sedge frog (*Litoria olongburensis*) (Phillips and Forsman, 2003) (refer to *Section 4.5*).

Key management issues associated with these wetlands include water quality impacts and weed invasion due to stormwater discharge from adjoining urban areas. This stormwater can cause erosion, soil water logging, pollution, dispersal of weed propagules and change in native plant composition.

Of particular concern is that urban stormwater can lead to progressive nutrient enrichment of wetlands, which can affect chemical processes that give rise to the acidic conditions that threatened frog species are adapted. This is an important issue for Cibum Margil wetland. Sediment and other pollutants from a major erosion gully arising from a stormwater outlet at the Pacific Vista Drive cul-de-sac and adjoining lands enters directly into this wetland (refer to *Section 4.7*).

Arakwal vision for Country

"Let the creek run out into the ocean and make it clean, running, Teatree water. See the big hills of sand dunes back along the beach with Honeysuckle and Teatree. And see the swamps rehabilitated so the reeds and ducks come back."

Aunty Linda Vidler, Arakwal Elder,
16 December 2003



Guidelines

- **Natural shoreline processes.** Natural coastal processes including shoreline fluctuations and dune overtopping will continue unimpeded. Dune protection and enhancement work will only be undertaken to maintain the integrity of the dune system and at designated visitor beach access points if necessary to address visitor safety and impacts.
- **Restoring Tallow Creek.** The restoration of Tallow Creek will be sought through liaison with other relevant agencies such as Byron Shire Council and the Marine Parks Authority to enhance ecological and cultural values.
- **Tallow Creek entrance.** As far as possible natural coastal processes at the entrance of Tallow Creek to the ocean will not be interfered with. Should the entrance channel need to be opened artificially at any time to flush the creek system (or for other environmental benefits), the excavated sand should be placed back within the active beach system to the north of the creek entrance (WBM, 2003).
- **Urban stormwater.** Existing stormwater outlets into the Park will be managed for erosion and pollution control as necessary through liaison with responsible landowners and Byron Shire Council. This may include installation of Stormwater Quality Improvement Devices (SQIDS) for stormwater outlets.
- No new direct discharges of stormwater from adjoining urban development will be permitted in the Park.
- **Working with others.** The NPWS will continue to participate in the Byron Shire Council Coastline Management Committee and Floodplain Management Committee for Tallow Creek catchment and work with relevant agencies to implement catchment management strategies related to the Park.

Actions

- **Tallow Creek restoration plan.** Investigate the preparation of a restoration plan for Tallow Creek with other relevant agencies such as Byron Shire Council and the Marine Parks Authority to address: tidal flushing, constructed wetland opportunities, urban stormwater management and community awareness to improve water quality and enhance natural and cultural values associated with the creek.
- **Opening the Tallow Creek entrance.** Develop criteria and conditions in partnership with relevant agencies to guide the timing and nature of any artificial opening of the Tallow Creek entrance channel to address potential impacts on wildlife and cultural values.
- **Pacific Vista Drive stormwater outlet.** Pursue the diversion or other appropriate treatment of the stormwater outlet at the Pacific Vista Drive cul-de-sac and adjoining lands with Byron Shire Council and other relevant agencies to control further gully erosion and the pollution of Cibum Margil wetland in the Park (refer to *Section 4.7*).
- **Water testing.** Undertake a water quality monitoring program for Cibum Margil wetland (ie water temperature, pH, nutrients) and Tallow Creek (ie dissolved oxygen, water temperature, pH, nutrients) in the Park in liaison with other relevant agencies to monitor habitat conditions for threatened frog species and culturally important wild resources respectively.
- **Community awareness.** Prepare and distribute a leaflet or other publication with information on the conservation values, water quality issues and best practice household water management for residents within the catchment of Cibum Margil wetland on at least an annual basis.
- Maintain signage in conjunction with other relevant agencies to advise visitors of the water quality of Tallow Creek.



Using Country



5.1 Keeping connected with Country - Cultural Renewal

“It is important to pass most of it on to the family. Keep it in the generations. It’s good that they can go and follow their older aunties and uncles.”

Aunty Yvonne Graham (dec.), Arakwal Elder

Source: Special Places Video, Arakwal Aboriginal Corporation and Cape Byron Trust 1999

Aboriginal people have adapted and sustained their cultural identity despite the impacts brought about by European settlement. Aboriginal people’s links with Country continue to be expressed through stories, descent, occupation and use (English, 2002).

Aboriginal people maintain their cultural identity and links with Country through cultural learning passed on by Elders to their following generations. Cultural learning opportunities are increasingly under threat from restricted access to Country, degradation of the landscape and the passing on of a generation of Aboriginal people who are important knowledge holders.

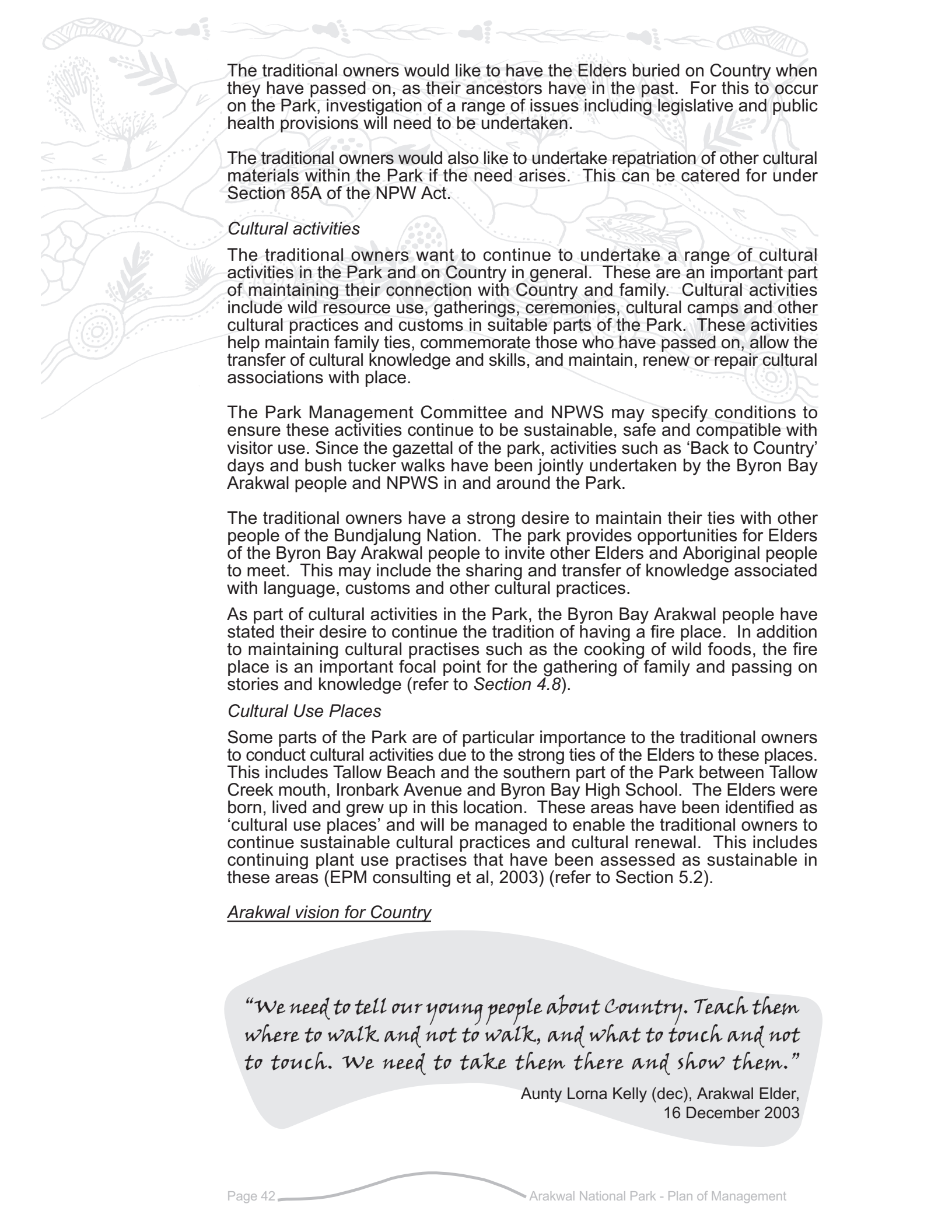
“Providing access and cultural use opportunities on public lands such as national parks is important as few areas of undeveloped Country remain where the transfer of cultural knowledge and skills can be undertaken”.

David Major, Conservation Program Coordinator,
NPWS, 2003

Reconnecting with the homelands of the Elders

The Elders were born, raised and maintain parts of their lifestyle on Country that is now the Park (refer to *Section 4.3*). The Elders wish to pass on knowledge and skills to the next generation of their people. This is particularly important for those who have lived away from Country and are able to return. The Park provides important opportunities for this cultural renewal to take place. This will require easier access opportunities for the Elders and their families within the Park (refer to *Section 5.4*). The Arakwal ILUA recognises the rights of the traditional owners to maintain and renew cultural practices on Country.

The ‘ethno-botanical’ project (EPM Consulting et al, 2003) provided opportunities for the Elders to renew associations with Country in identifying culturally important plant species and their uses. Also, as a result of this project, young people from the Byron Bay Arakwal community have commenced participation in a cultural renewal project involving nursery work to grow culturally important plant species for revegetation programs in the Park.



The traditional owners would like to have the Elders buried on Country when they have passed on, as their ancestors have in the past. For this to occur on the Park, investigation of a range of issues including legislative and public health provisions will need to be undertaken.

The traditional owners would also like to undertake repatriation of other cultural materials within the Park if the need arises. This can be catered for under Section 85A of the NPW Act.

Cultural activities

The traditional owners want to continue to undertake a range of cultural activities in the Park and on Country in general. These are an important part of maintaining their connection with Country and family. Cultural activities include wild resource use, gatherings, ceremonies, cultural camps and other cultural practices and customs in suitable parts of the Park. These activities help maintain family ties, commemorate those who have passed on, allow the transfer of cultural knowledge and skills, and maintain, renew or repair cultural associations with place.

The Park Management Committee and NPWS may specify conditions to ensure these activities continue to be sustainable, safe and compatible with visitor use. Since the gazettal of the park, activities such as 'Back to Country' days and bush tucker walks have been jointly undertaken by the Byron Bay Arakwal people and NPWS in and around the Park.

The traditional owners have a strong desire to maintain their ties with other people of the Bundjalung Nation. The park provides opportunities for Elders of the Byron Bay Arakwal people to invite other Elders and Aboriginal people to meet. This may include the sharing and transfer of knowledge associated with language, customs and other cultural practices.

As part of cultural activities in the Park, the Byron Bay Arakwal people have stated their desire to continue the tradition of having a fire place. In addition to maintaining cultural practises such as the cooking of wild foods, the fire place is an important focal point for the gathering of family and passing on stories and knowledge (refer to *Section 4.8*).

Cultural Use Places

Some parts of the Park are of particular importance to the traditional owners to conduct cultural activities due to the strong ties of the Elders to these places. This includes Tallow Beach and the southern part of the Park between Tallow Creek mouth, Ironbark Avenue and Byron Bay High School. The Elders were born, lived and grew up in this location. These areas have been identified as 'cultural use places' and will be managed to enable the traditional owners to continue sustainable cultural practices and cultural renewal. This includes continuing plant use practises that have been assessed as sustainable in these areas (EPM consulting et al, 2003) (refer to *Section 5.2*).

Arakwal vision for Country

"We need to tell our young people about Country. Teach them where to walk and not to walk, and what to touch and not to touch. We need to take them there and show them."

Aunty Lorna Kelly (dec), Arakwal Elder,
16 December 2003

Guidelines

- **Cultural activities.** Cultural activities may continue to be undertaken by members of the Arakwal Aboriginal Corporation in suitable parts of the park such as 'cultural use places,' in accordance with the consent of the Arakwal 'Bumberline' Elders, the Park Management Committee and NPWS.
- Conditions to undertake cultural activities may include specifying activity locations; desirable group size; waste management; temporary vehicle access, facilities and equipment; resting and reinstatement of areas.
- Other Bundjalung people will be able to undertake cultural activities in the Park only under the invitation and guidance of Arakwal 'Bumberline' Elders and in accordance with the approval of the Arakwal Aboriginal Corporation, Park Management Committee and NPWS licensing.
- Temporary facilities and equipment may be used by the Arakwal Aboriginal Corporation during cultural activities in the Park. This may include cooking and catering utilities, portable toilets, fire pits, marquees, seating and teaching aids in accordance with the approval of Arakwal 'Bumberline' Elders, the Park Management Committee and NPWS.
- **Cultural learning.** The NPWS will support the Arakwal Aboriginal Corporation in developing cultural renewal opportunities related to learning and development, interpretive and educational programs for the Park (refer to *Sections 5.5, 6.1*).
- **Repatriation.** The repatriation of cultural material can be undertaken in the Park subject to the necessary approvals under the NPW Act.

Actions

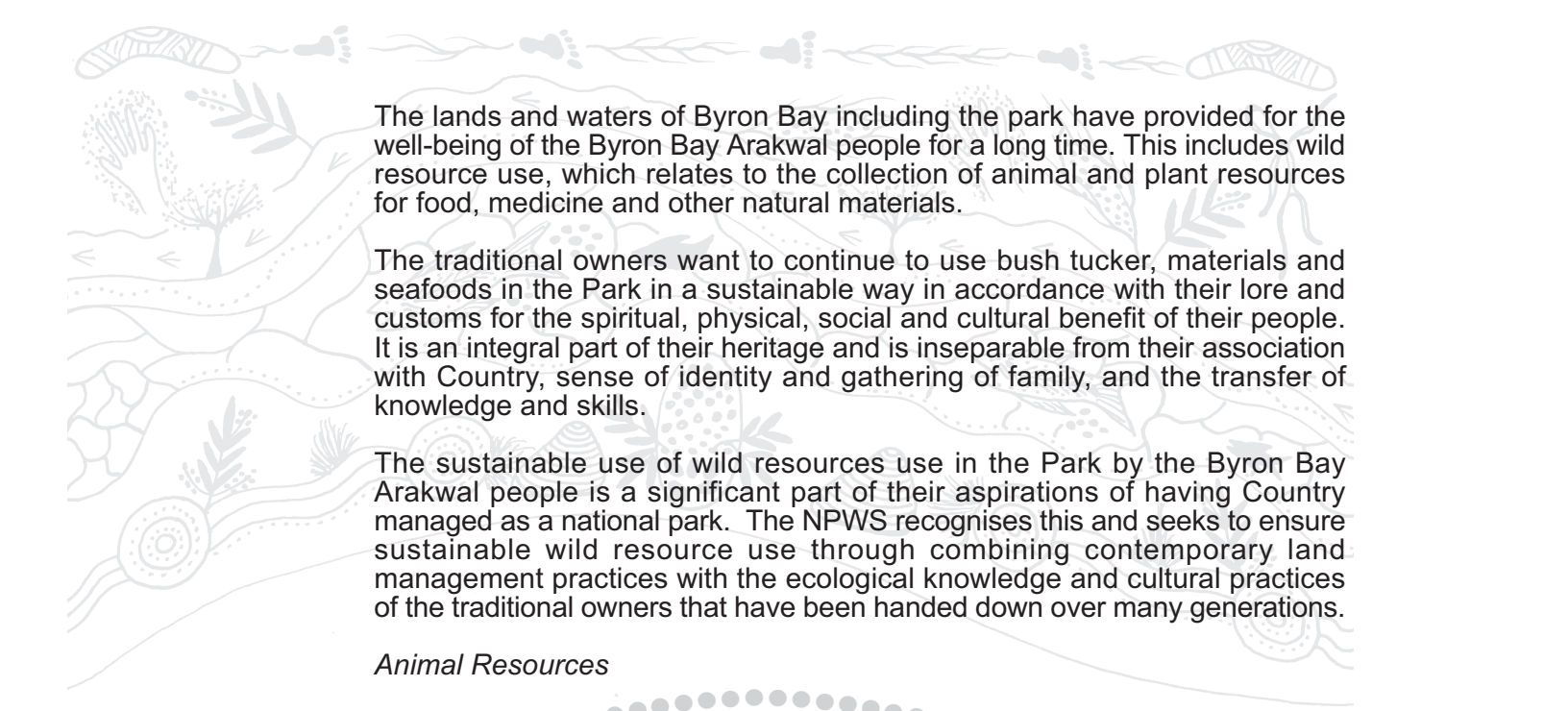
- **Cultural use places.** Continue to identify and actively manage 'cultural use places' in the Park for sustainable cultural, social and wild resource use.
- **Burials.** Investigate the legal, social and health requirements for burying the Elders in the Park and obtain the appropriate approvals should it be permissible.
- **Repatriation.** Identify appropriate areas of the Park for the repatriation of cultural material and prepare a specific conservation management plan for these places.

5.2 *Wild Foods, Medicines and Materials - Wild Resource Use*

The cultural importance of wild resources

"When I used to get up early with my mum and dad then we used to go out for the day on the beach, and on our way to the beach we'd collect some bush lollies and bush food. And on the sand hills we'd be eating the little pigface as we'd call them. And the men also they'd be fishing. My dad used to have a spear and he'd be spearing the flat-head and mullet and fish in the lake at Tallow."

Aunty Yvonne Graham (dec.), Arakwal Elder
Source: Special Places Video, Arakwal Aboriginal Corporation and Cape Byron Trust 1999



The lands and waters of Byron Bay including the park have provided for the well-being of the Byron Bay Arakwal people for a long time. This includes wild resource use, which relates to the collection of animal and plant resources for food, medicine and other natural materials.

The traditional owners want to continue to use bush tucker, materials and seafoods in the Park in a sustainable way in accordance with their lore and customs for the spiritual, physical, social and cultural benefit of their people. It is an integral part of their heritage and is inseparable from their association with Country, sense of identity and gathering of family, and the transfer of knowledge and skills.

The sustainable use of wild resources use in the Park by the Byron Bay Arakwal people is a significant part of their aspirations of having Country managed as a national park. The NPWS recognises this and seeks to ensure sustainable wild resource use through combining contemporary land management practices with the ecological knowledge and cultural practices of the traditional owners that have been handed down over many generations.

Animal Resources

“Because that’s how it used to be. Sit down and get pipis and cook them on the beach there... They were nice and salty, they were real natural. Boil the pipis on the beach.”

Aunty Linda Vidler, Arakwal Elder, 10 December 2003

Since pre-contact times to present, the Byron Bay Arakwal people have relied on animals as part of their diet including fish, eels, crabs, prawns and ducks from Tallow Creek and pipis from Tallow Beach (Aunty Lorna Kelly (dec), pers comm. 2003).

Other common animals used for food include wallaby, brush turkey, goanna (monitors) and porcupine (echidna). However, the availability of many of these species has been in decline due to impacts from former sandmining and existing land uses adjoining the Park (see below: *‘Loss of wild resources’*).

The traditional owners have a commitment to conservation and have stated that the populations of some animals need to recover before they are able to again undertake sustainable use. They would like research to be undertaken to complement their cultural knowledge of certain animals to ensure their availability into the future. This may require certain animal species to be collected elsewhere in Country to allow local populations to recover in response to management programs such as restoration works and pest animal control.

Plant Resources

“We used to climb the honeysuckle trees...when the nobbies come on them, we used to beat the parakeets to them. Just break them off and suck them and you’d get the honey. We were great tree climbers.”

Aunty Lorna Kelly (dec), Arakwal Elder,
10 December 2003

Wild resource use by the Byron Bay Arakwal people includes a long history of gathering plant materials for use as food, medicine, firewood and implements. The sweet fruits of midjem (*Austromyrtus dulcis*), five corners (*Styphelia viridis*), geebung (*Persoonia adenantha/P. virgata*) and pigface (*Carpobrotus glaucescens*) are harvested as ‘bush lollies’ without any harm to the plant. The seeds are mostly spat out on-site which assists in the regeneration of these species. These species are relatively widespread and abundant in parts of the Park and do not face any foreseeable threats (EPM Consulting et al 2003).

Other plants provide a source of nectar such as the flowers of ‘honeysuckle’ (*Banksia spp.*) and ‘mudigan’ (grasstree). These species also provided firewood materials, with the dry ‘nobbies’ (banksia cones) and trunks of ‘mudigan’ being traditionally used in camp fires by the Elders.

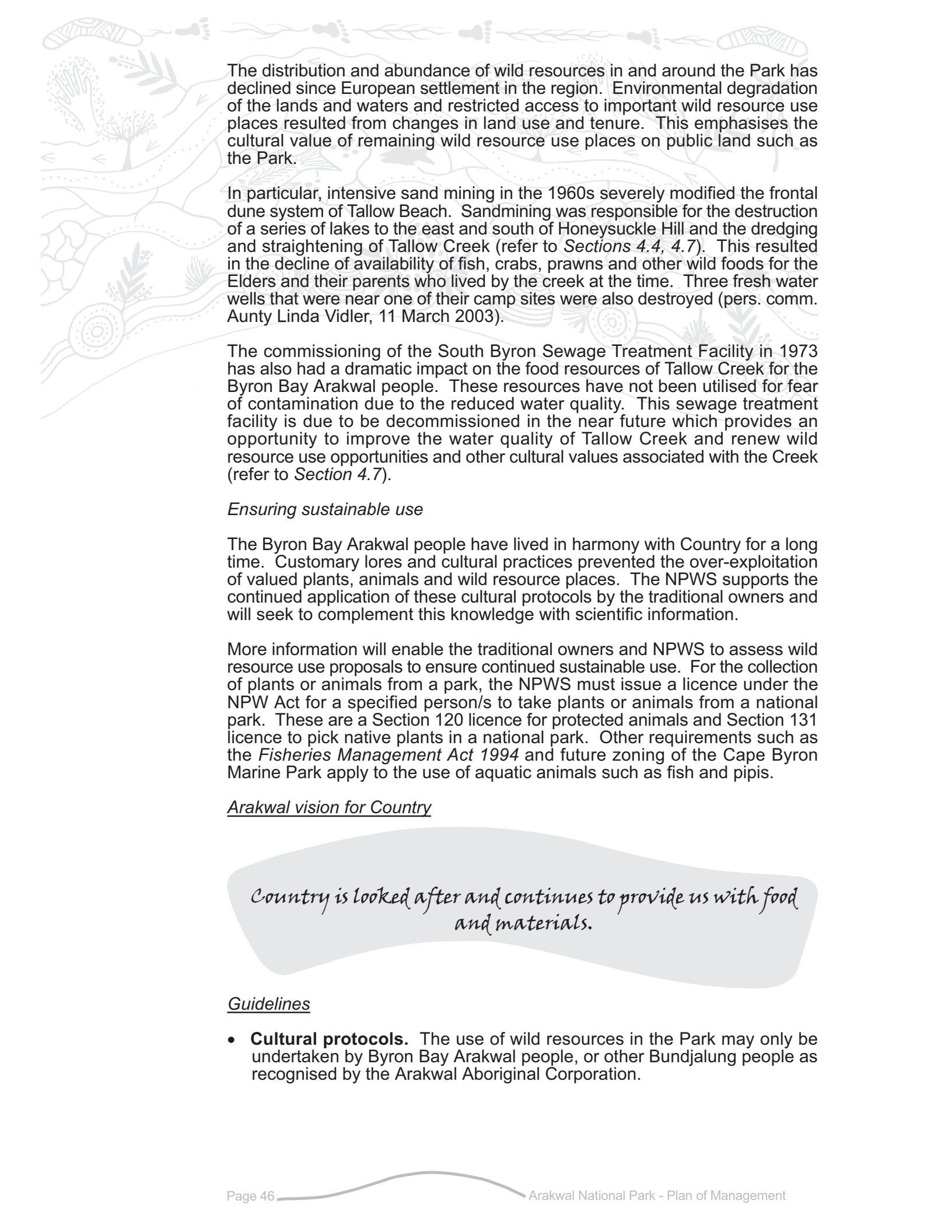
The use and values of plant resources by the traditional owners has been documented as part of an ‘ethno-botanical’ project undertaken for the NPWS and Arakwal Aboriginal Corporation (EPM Consulting et al 2003). The knowledge of the Elders was also relied on to identify and map culturally valued plants and has identified areas and practices to ensure the continuing sustainable use of certain species as identified in the report *Management of the Reserves in Byron Bay Arakwal Country* (EPM Consulting et al 2003).

These areas are part of ‘cultural use places’ that have been identified in this plan to be managed for cultural use (refer to *Section 5.1*). This includes Tallow Beach and southern part of the Park around Tallow Creek mouth and south of the Byron Bay High School known by the Elders as the ‘old race course’ (see Map 2).

The loss of wild resources

“Well we used to collect them pig face, they’re pink and they’re sweet. And then pipis and prawns. And then go fishing in the creek, we’d get tired of fishing in the sea we’d go fishing in the creek here, we’d get enough fish to eat, plenty of fish.”

Aunty Dulcie Nicholls,
Arakwal Elder, 2003



The distribution and abundance of wild resources in and around the Park has declined since European settlement in the region. Environmental degradation of the lands and waters and restricted access to important wild resource use places resulted from changes in land use and tenure. This emphasises the cultural value of remaining wild resource use places on public land such as the Park.

In particular, intensive sand mining in the 1960s severely modified the frontal dune system of Tallow Beach. Sandmining was responsible for the destruction of a series of lakes to the east and south of Honeysuckle Hill and the dredging and straightening of Tallow Creek (refer to *Sections 4.4, 4.7*). This resulted in the decline of availability of fish, crabs, prawns and other wild foods for the Elders and their parents who lived by the creek at the time. Three fresh water wells that were near one of their camp sites were also destroyed (pers. comm. Aunty Linda Vidler, 11 March 2003).

The commissioning of the South Byron Sewage Treatment Facility in 1973 has also had a dramatic impact on the food resources of Tallow Creek for the Byron Bay Arakwal people. These resources have not been utilised for fear of contamination due to the reduced water quality. This sewage treatment facility is due to be decommissioned in the near future which provides an opportunity to improve the water quality of Tallow Creek and renew wild resource use opportunities and other cultural values associated with the Creek (refer to *Section 4.7*).

Ensuring sustainable use

The Byron Bay Arakwal people have lived in harmony with Country for a long time. Customary lores and cultural practices prevented the over-exploitation of valued plants, animals and wild resource places. The NPWS supports the continued application of these cultural protocols by the traditional owners and will seek to complement this knowledge with scientific information.

More information will enable the traditional owners and NPWS to assess wild resource use proposals to ensure continued sustainable use. For the collection of plants or animals from a park, the NPWS must issue a licence under the NPW Act for a specified person/s to take plants or animals from a national park. These are a Section 120 licence for protected animals and Section 131 licence to pick native plants in a national park. Other requirements such as the *Fisheries Management Act 1994* and future zoning of the Cape Byron Marine Park apply to the use of aquatic animals such as fish and pipis.

Arakwal vision for Country

Country is looked after and continues to provide us with food and materials.

Guidelines

- **Cultural protocols.** The use of wild resources in the Park may only be undertaken by Byron Bay Arakwal people, or other Bundjalung people as recognised by the Arakwal Aboriginal Corporation.

- **Consent process to use wild resources.** The approval of Arakwal 'Bumberline' Elders and Arakwal Aboriginal Corporation Board is required for proposed wild resource use in the Park prior to seeking the consent of the Park Management Committee and NPWS licensing.
- **Conditions of consent.** Conditions for wild resource use may include: specifying the species and quantity that can be used; appropriate methods of take; compliance with traditional lore, customs and cultural practises; seasonal and other restrictions; monitoring; the protection of significant species and areas; and public safety.
- **Cultural use places.** Sustainable wild resource use in accordance with the consent process will be undertaken primarily within 'cultural use places' in the Park (refer to Section 5.1).
- **Plant use.** Culturally important plant species in the Park (refer to Appendix 2 Table 3) can be sustainably used in accordance with the recommendations of the ethno-botanical project (EPM consulting et al, 2003), the consent process and cultural protocols.
- **Animal use.** A moratorium on the use of live terrestrial (land) animals will remain in place until the preparation of a sustainable wild resource use plan and the determination of sustainable use levels by the Park Management Committee (see below: Wild resource use plan). Any dead animal carcasses found in the Park may be removed for use of materials such as feathers, fur, shell or bone in accordance with the cultural protocols and the consent process.
- **Restoring bush tucker.** Rehabilitation of degraded areas is to incorporate the restoration of culturally valued plant species and the provision of access for wild resource use (refer to Section 4.7).
- **Protecting wild resources.** The Park Management Committee and NPWS will consider the potential impacts of proposed management activities on wild resource use. This includes maintaining access, considering harvesting seasons when timing works and respecting intellectual property rights of Aboriginal wild resource knowledge.
- **Protecting threatened species.** The NPWS and Arakwal Aboriginal Corporation will work together to ensure threatened ecological communities and species are not affected by wild resource use (refer to *Sections 4.4-4.5*).
- Studies will be conducted if there are potential impacts on threatened or endangered species from wild resource use as stated in the Arakwal IULA.

Actions

- **Wild resource use plan.** Prepare and implement a sustainable wild resource use plan that will combine cultural knowledge with scientific assessment for the use of wild resources in the Park. This plan is to include the following information to ensure use is sustainable, culturally appropriate and socially acceptable:
 - cultural protocols (eg consent process, allocation of 'custodians' for each species, resources to be used, resources not to be used, purpose of use, sharing of resources, method of take);
 - scientific assessment (eg population monitoring of species to be utilised, conditions to ensure sustainable use {age, sex, season, location, method of take}, risk management, and animal ethics); and
 - consent process (eg Elders permission, Arakwal Aboriginal Corporation recommendations; Park Management Committee consent; NPWS licensing).
- **Monitoring use.** Monitor the distribution, abundance and conditions of wild resources in the Park such as continuing to map the distribution and abundance of culturally important plant species and a survey targeting culturally important animal species (refer to *Sections 4.4-4.5*).



5.3 Welcoming People to Country - Visitor Use and Community Involvement

"We have had a lot of broader community support and now we want to give back to the public and keep them informed."

Yvonne Stewart, Chairperson,
Park Management Committee, 2003

In addition to being a special part of the cultural landscape for the Byron Bay Arakwal people, the Park is of great importance to the wider community and visitors of Byron Bay. It forms an integral component of the natural and social fabric of the Byron Bay area.

Involvement of the wider community

The wider community of Byron Bay is known for their interest and involvement in protecting the unique coastline in and around the Park. Many park neighbours, local residents and community organisations have a high degree of interest and understanding of the values associated with the Park.

This includes a number of active local conservation groups such as the Byron Environment Centre, BEACON, and Paterson Hill Action Group. The latter community group campaigned to protect from development an important component of the endangered clay heath that has subsequently been acquired by the NSW government and included as part of the Park in March 2004 (refer to Section 1.2).

"I am proud to have been part of the Byron Shire's community support for the Arakwal and the development of the ILUA as an act of reconciliation. I respect the Arakwal people's spirit to be inclusive of the wider community and the Government's commitment to the process. I share their determination for us all to work together to protect this special place and to foster this relationship as a model for other communities."

Jan Barham, Mayor – Byron Shire Council &
Arakwal National Park Management Committee member, 2004

Much of the wider community acknowledge and respect the traditional owners' connection to Country and journey in achieving joint management of the Park. The traditional owners recognise this support and seek ways to foster ongoing community involvement and awareness in protecting all values associated with the Park.



Visitor use of Country

The Byron Bay Arakwal people welcome local residents and visitors to sustainably use and enjoy Country that is now within the Park. The Park provides a significant area of undeveloped coastline within walking distance to the township of Byron Bay. The long, sandy stretch of Tallow Beach and undulating hills of coastal heath that are part of the Park are important recreation areas for locals and visitors.

Visitor use in the Park is mainly associated with beach-related activities on Tallow Beach. Popular visitor activities include beach walking, jogging, swimming, surfing, and body boarding along Tallow Beach, in addition to bushwalking, bird watching and other forms of nature appreciation along pathways through the Park.

The main visitor entry point to the Park is to the north from the adjoining Cosy Corner day use area in Cape Byron SCA. A number of minor pedestrian access points occur along the western urban interface of the Park (refer to *Section 5.4*). These park entry points have limited parking in adjoining residential streets. Many visitors also enter the Park from the south along the adjoining area of Tallow Beach.

The northern part of Tallow Beach, which is within the Park and the adjoining Cape Byron SCA, is the most popular area for beach-related visitor use. This area is patrolled by surf-lifeguards during the busy summer holiday period. Beach emergency location signs are located at the beach entry points at Cosy Corner, Ocean Street and Tallow Creek mouth, to assist emergency authorities in locating incidents.

Visitor Facilities

Recreation settings and visitor use in the Park need to be managed in context with visitor opportunities provided in adjoining areas. The adjoining Cape Byron SCA and Main Beach area provide a range of visitor opportunities including an extensive walking track system, developed day use areas, a camping and caravan park and a range of organised activities. In particular, the Park has a strong link with the adjoining Cosy Corner day use area in the Cape Byron SCA that is managed under a separate plan of management (Cape Byron Trust, 2002). This day use area provides visitor parking, toilets, picnicking opportunities, beach access tracks and is the main area for visitor access to the Park.

The traditional owners and the wider community have indicated a desire to maintain a generally low level of visitor infrastructure in the Park (refer to *Prior Consultation*). Visitor infrastructure in the Park currently consists of tracks and signage. It is important that visitor infrastructure is located, designed and managed in keeping with the cultural landscape values of the Park.

The traditional owners want to share parts of their culture with park visitors through providing cultural learning and awareness opportunities (refer to *Sections 5.5, 6.1*). This will assist park visitors to understand and appreciate the traditional owners' values and aspirations associated with the Park. The proposed Arakwal cultural centre, when developed, will provide opportunities for shared learning and understanding. An interpretive walk is proposed to link the cultural centre site to the Park (refer to *Section 5.4*).

Inappropriate use

In accordance with the NPW Act, dogs are not permitted in NPWS estate. A dog exercise area on Tallow Beach adjoins the southern park boundary and is managed by Byron Shire Council. This dog exercise area can be accessed from Suffolk Park or via the pathway adjoining the southern park boundary near the Wilkinson footbridge across Tallow Creek.

Adventure-based recreation is a growing industry in Byron Bay. Hang-gliding from the adjoining Cape Byron SCA, which contains designated hang-gliding launch, landing and disassembly areas, occurs over the Park.

Demand for other adventure activities such as land-based kite boarding is likely to increase along the Byron coastline in the future. This type of activity is inappropriate in the park because the relatively high speed of the boards along the beach presents a potential public safety hazard and disturb shorebirds in the inter-tidal zone. Other recreation uses that are not permitted in the Park or in adjoining protected areas include horse riding (including on the beach) and the use of spearguns for fishing.

Arakwal vision for Country

Visitors are made welcome to share and enjoy Country in a way that respects our culture.

Guidelines

- **Visitor entry.** The Arakwal Aboriginal Corporation cultural centre site and Cosy Corner day use area adjoining the north-eastern part of the Park in Cape Byron SCA will be managed as the main areas for visitor access to the Park. All other visitor entries along the Park's boundary will be managed as minor entry points due to restricted parking and traffic management issues (see Map 2).
- **Visitor use.** The provision of visitor use in the Park will focus on day use activities such as beach-going and bushwalking, in addition to interpretive programs relating to natural and cultural heritage (refer to *Sections 5.5, 6.1*).
- **Visitor facilities.** Visitor facilities in the Park will be restricted to signage and pathways and associated infrastructure such as lookout areas. Visitor destinations adjoining the northern part of the Park such as the Cosy Corner day use area and the Arakwal Aboriginal Corporation cultural centre site will provide other infrastructure such as formal parking areas and public toilets.
- The provision for visitor use and facilities in the Park will be managed to minimise impacts on the landscape.
- **Surf safety.** Swimming will only be promoted for Tallow Beach at Cosy Corner where surf lifeguard services are provided during peak holiday periods. Surf safety information and emergency location signs will be maintained at key beach entry points.
- **Community involvement.** Community involvement in promoting and protecting Park values will be encouraged wherever possible through communications such as a park newsletter, media releases, information days, on-site meetings, displays at relevant community events and Park Management Committee meeting information.

- **Inappropriate use.** Camping, overnight staying and campfires will not be permitted in the Park except for approved cultural purposes.
- Spearguns will not be permitted in the Park.
- Adventure activities, including those conducted at high speed in the inter-tidal zone such as land-based kite boarding, will not be permitted in the Park.
- Horse riding will not be permitted in the park.

5.4 Pathways through Country – Walking Tracks and Management Trails

“No we never came through this way here. We used to come around the old racecourse from the Iron Bark camp. Around that hill over and come straight through that way. They’ve blocked it off.”

Linda Vidler, Arakwal Elder, 10 December 2003

Describing the old pathway between the family camp at Ironbark Avenue and Tallow Creek and Beach.

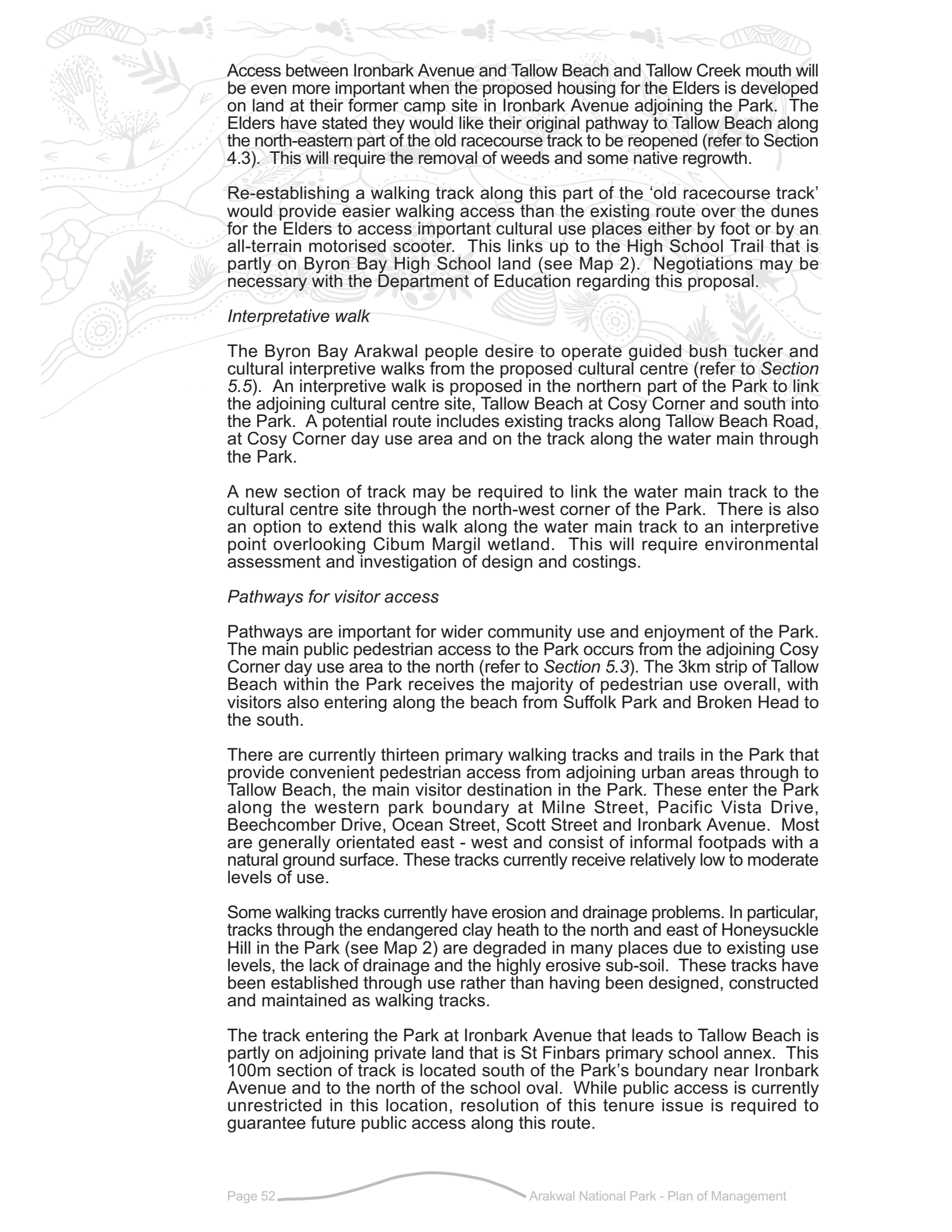
The Park contains a network of tracks and trails, many of which were created during former sand mining operations and subsequent recreation use prior to park gazettal. Parts of these follow traditional pathways used by Byron Bay Arakwal people, including the Elders when they lived in camps in and around the area that is now the Park.

Walking tracks can be defined as footpads that provide pedestrian access through the Park. While trails are typically defined as ‘management trails’ to cater for management vehicle access, they also provide important pedestrian and cycling links in the Park. Collectively, tracks and trails are defined as pathways in this plan to reflect the historical, cultural and visitor use values.

Pathways to Cultural Use Places

Pathways in and around the Park are important to the traditional owners as they provide access to special places and wild resources. The traditional owners want to ensure the provision of access in the Park, both in the physical and legal sense, to enable the continuation of social and cultural use that is fundamental to maintain their connection with Country.

In particular, the pathway between Ironbark Avenue and Tallow Beach and Tallow Creek mouth is of most importance to the Byron Bay Arakwal people (pers comm Y. Stewart 31 March 2003). The Elders and their families used to drive to the mouth of Tallow Creek via a former sand mining trail that is now part of the High School Trail (see Map 2). This vehicle access has not been available since the development of the Byron Bay High School. This has reduced opportunities for the Elders and some of their family members who are mobility impaired and experience physical difficulty to access important cultural use places like Tallow Creek and Tallow Beach (refer to *Section 5.1*). It is their desire to continue to visit these places which would on occasions require vehicle access along management trails and Tallow Beach.



Access between Ironbark Avenue and Tallow Beach and Tallow Creek mouth will be even more important when the proposed housing for the Elders is developed on land at their former camp site in Ironbark Avenue adjoining the Park. The Elders have stated they would like their original pathway to Tallow Beach along the north-eastern part of the old racecourse track to be reopened (refer to Section 4.3). This will require the removal of weeds and some native regrowth.

Re-establishing a walking track along this part of the 'old racecourse track' would provide easier walking access than the existing route over the dunes for the Elders to access important cultural use places either by foot or by an all-terrain motorised scooter. This links up to the High School Trail that is partly on Byron Bay High School land (see Map 2). Negotiations may be necessary with the Department of Education regarding this proposal.

Interpretative walk

The Byron Bay Arakwal people desire to operate guided bush tucker and cultural interpretive walks from the proposed cultural centre (refer to Section 5.5). An interpretive walk is proposed in the northern part of the Park to link the adjoining cultural centre site, Tallow Beach at Cosy Corner and south into the Park. A potential route includes existing tracks along Tallow Beach Road, at Cosy Corner day use area and on the track along the water main through the Park.

A new section of track may be required to link the water main track to the cultural centre site through the north-west corner of the Park. There is also an option to extend this walk along the water main track to an interpretive point overlooking Cibum Margil wetland. This will require environmental assessment and investigation of design and costings.

Pathways for visitor access

Pathways are important for wider community use and enjoyment of the Park. The main public pedestrian access to the Park occurs from the adjoining Cosy Corner day use area to the north (refer to Section 5.3). The 3km strip of Tallow Beach within the Park receives the majority of pedestrian use overall, with visitors also entering along the beach from Suffolk Park and Broken Head to the south.

There are currently thirteen primary walking tracks and trails in the Park that provide convenient pedestrian access from adjoining urban areas through to Tallow Beach, the main visitor destination in the Park. These enter the Park along the western park boundary at Milne Street, Pacific Vista Drive, Beechcomber Drive, Ocean Street, Scott Street and Ironbark Avenue. Most are generally orientated east - west and consist of informal footpads with a natural ground surface. These tracks currently receive relatively low to moderate levels of use.

Some walking tracks currently have erosion and drainage problems. In particular, tracks through the endangered clay heath to the north and east of Honeysuckle Hill in the Park (see Map 2) are degraded in many places due to existing use levels, the lack of drainage and the highly erosive sub-soil. These tracks have been established through use rather than having been designed, constructed and maintained as walking tracks.

The track entering the Park at Ironbark Avenue that leads to Tallow Beach is partly on adjoining private land that is St Finbars primary school annex. This 100m section of track is located south of the Park's boundary near Ironbark Avenue and to the north of the school oval. While public access is currently unrestricted in this location, resolution of this tenure issue is required to guarantee future public access along this route.

Proposed Closures of Informal Tracks

There is a proliferation of informal tracks in some areas of the Park. In particular, the 800m section of the western park boundary between Beechcomber Drive and Scott Street contains at least eight separate tracks that lead through the Park.

The main pathways in this area lead from Scott Street, Ocean Street and the northern and southern ends of Beechcomber Drive through to Tallow Beach and are up to approximately 300m apart. In contrast, informal tracks from the Oasis Resort site, Coral Court and a route half-way along Beechcomber Drive receive lower levels of use, cause unnecessary fragmentation of habitat and other environmental impacts and are close to one of the above main pathways. There is also a network of informal tracks through the endangered clay heath in possible additions to the Park to the south of the Paterson Hill water tower. Through formalising a 215 metre section of existing track between Paterson Street and Pacific Vista Drive (see Map 2), approximately 250 metres of track braiding and other informal footpads can be closed and rehabilitated to improve the ecological integrity of this area. At the knoll along this main route there is also a degraded area associated with a vantage point next to a permanent survey marker (trigonometry station). It is proposed to establish a small lookout at this location to avoid further trampling of adjoining vegetation and consequent erosion.

Management Trails

Two formal management trails exist in the Park that provide authorised vehicle access to the southern section of the Park (see Map 2). The High School Trail is also a thoroughfare for students attending Byron Bay High School.

Four-wheel drive access for authorised vehicles occurs along Tallow Beach accessible from Cosy Corner to the north and Broken Head to the south. Authorised vehicle use of the beach includes relevant licensed commercial fishers and patrols by the Police, NPWS, MPA, Byron Shire Council and other agencies.

While the beach and Park management trails essentially provide vehicle access for management purposes, they may also be used by the Arakwal Aboriginal Corporation to assist with transport requirements for cultural activities and the Elders and other mobility impaired family members (refer to *Section 5.1*).

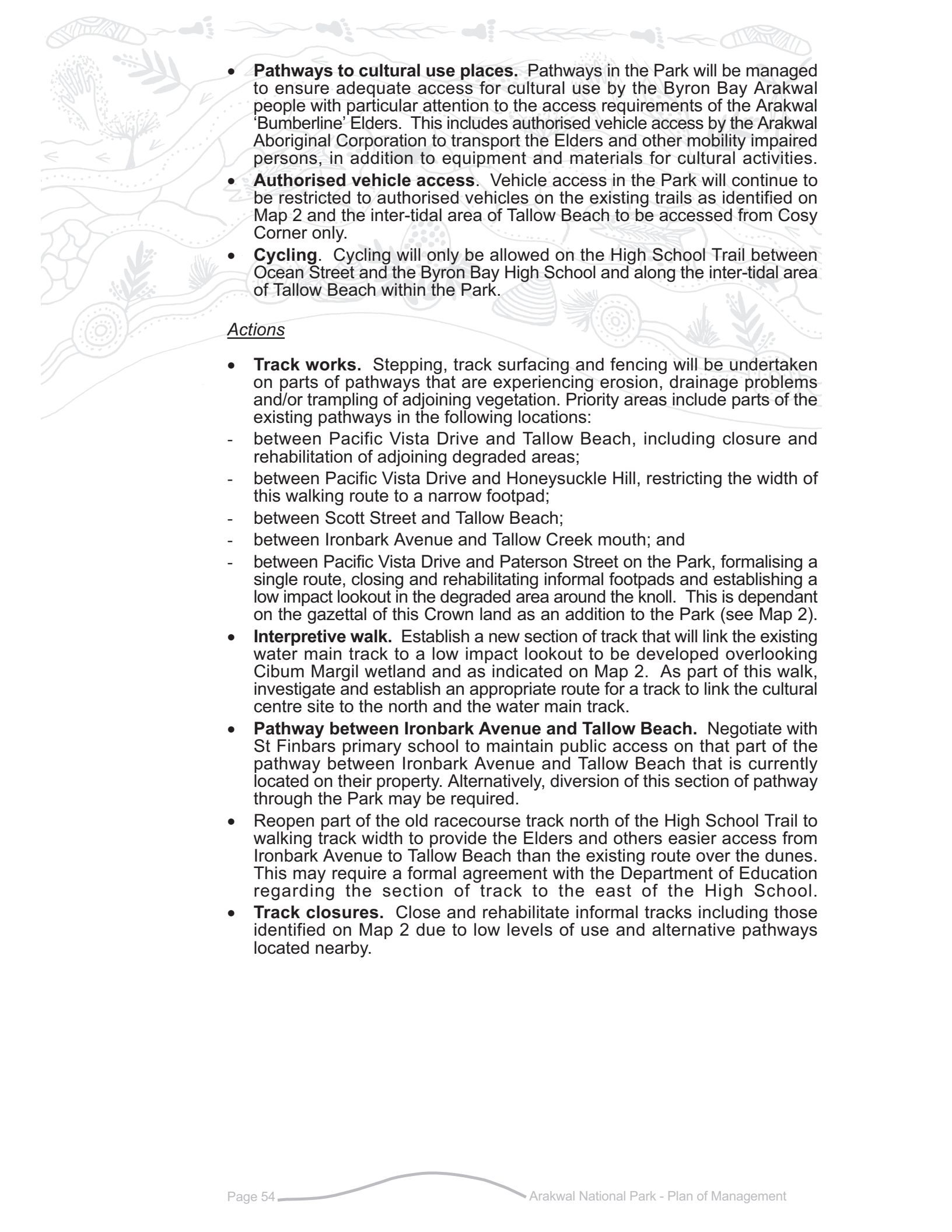
Arakwal vision for Country

“We want to be able to walk this Country like we always have.”

Aunty Linda Vidler, Arakwal Elder,
5 November 2003

Guidelines

- **Pathways.** The network of pathways in the Park as indicated on Map 2 will be maintained to a basic standard, including retaining the natural ground surface for stable sections of track.
- **Interpretive walk.** An interpretive walk will be provided between the Arakwal cultural centre site, Cosy Corner day use area and south into the Park to Cibum Margil wetland for guided ‘bush tucker’ and cultural tours (refer to *Section 5.5*).

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- **Pathways to cultural use places.** Pathways in the Park will be managed to ensure adequate access for cultural use by the Byron Bay Arakwal people with particular attention to the access requirements of the Arakwal 'Bumberline' Elders. This includes authorised vehicle access by the Arakwal Aboriginal Corporation to transport the Elders and other mobility impaired persons, in addition to equipment and materials for cultural activities.
 - **Authorised vehicle access.** Vehicle access in the Park will continue to be restricted to authorised vehicles on the existing trails as identified on Map 2 and the inter-tidal area of Tallow Beach to be accessed from Cosy Corner only.
 - **Cycling.** Cycling will only be allowed on the High School Trail between Ocean Street and the Byron Bay High School and along the inter-tidal area of Tallow Beach within the Park.

Actions

- **Track works.** Stepping, track surfacing and fencing will be undertaken on parts of pathways that are experiencing erosion, drainage problems and/or trampling of adjoining vegetation. Priority areas include parts of the existing pathways in the following locations:
 - between Pacific Vista Drive and Tallow Beach, including closure and rehabilitation of adjoining degraded areas;
 - between Pacific Vista Drive and Honeysuckle Hill, restricting the width of this walking route to a narrow footpad;
 - between Scott Street and Tallow Beach;
 - between Ironbark Avenue and Tallow Creek mouth; and
 - between Pacific Vista Drive and Paterson Street on the Park, formalising a single route, closing and rehabilitating informal footpads and establishing a low impact lookout in the degraded area around the knoll. This is dependant on the gazettal of this Crown land as an addition to the Park (see Map 2).
- **Interpretive walk.** Establish a new section of track that will link the existing water main track to a low impact lookout to be developed overlooking Cibum Margil wetland and as indicated on Map 2. As part of this walk, investigate and establish an appropriate route for a track to link the cultural centre site to the north and the water main track.
- **Pathway between Ironbark Avenue and Tallow Beach.** Negotiate with St Finbars primary school to maintain public access on that part of the pathway between Ironbark Avenue and Tallow Beach that is currently located on their property. Alternatively, diversion of this section of pathway through the Park may be required.
- Reopen part of the old racecourse track north of the High School Trail to walking track width to provide the Elders and others easier access from Ironbark Avenue to Tallow Beach than the existing route over the dunes. This may require a formal agreement with the Department of Education regarding the section of track to the east of the High School.
- **Track closures.** Close and rehabilitate informal tracks including those identified on Map 2 due to low levels of use and alternative pathways located nearby.

5.5 Showing people Country - Cultural Tourism and Commercial Use

Byron Bay is a major tourism destination in Australia. The Byron Bay Arakwal people welcome visitors to Country and seek to provide cultural learning opportunities to broaden visitor understanding and appreciation of the values of Country.

The ILUA provides that the Arakwal Aboriginal Corporation or a person nominated by the Corporation may undertake commercial activities in the Park. The traditional owners wish to focus commercial activities on the delivery of local Aboriginal cultural experiences to visitors through undertaking interpretive and educational programs. Commercial activities in NPWS reserves require a commercial license to be granted by the NPWS.

The proposed Arakwal cultural centre site

The Byron Bay Arakwal people, with assistance from the NPWS, are currently in the planning stage to develop a cultural centre. The centre is to be located on Arakwal Aboriginal Corporation land adjoining the north-west corner of the Park near the intersection of Lighthouse and Tallow Beach Roads. It is anticipated that the cultural centre will be a primary visitor destination in Byron Bay and will have an integral role in the delivery of visitor information about Country, including the Park (refer to *Section 6.1*).

Interpretive tours and educational programs

The traditional owners aspire to having interpretive and educational programs operated by their people as the primary theme for any commercial use associated with the Park. Activities may include 'bush tucker' tours, school excursions, cross-cultural training, story telling, artefact making, cultural dance, art tuition and nature appreciation and other activities relating to cultural learning and exchange.

While the Arakwal Aboriginal Corporation desire to undertake all interpretive and educational programs relating to the Park, it may provide consent for other operators to deliver some of these programs. However, conditions will be imposed such as tour-operator accreditation, appropriate locations and types of activities, remuneration for the Arakwal Aboriginal Corporation and employment and training of its members.

Recognising adjoining commercial uses

Providing interpretive and educational programs in the Park as a focus for commercial use will complement other types of commercial activities that currently occur in adjoining areas, such as refreshment outlets and adventure-based activities in Cape Byron SCA.

Arakwal vision for Country

We want to show people our Country so they understand our culture and provide employment for our young people.



Guidelines

- **Appropriate commercial use.** Any commercial use of the Park is to be primarily of an interpretive and educational nature and provide social, cultural and economic opportunities for the Arakwal Aboriginal Corporation or its members.
- Any commercial activity in the Park is required to meet the following criteria:
 - the activity includes acknowledgment of Country and the traditional owners;
 - the activity provides opportunities for learning, development, employment and/or remuneration for the Arakwal Aboriginal Corporation or its members; and
 - the activity is sustainable and compatible with the protection of the Park's values and is in accord with other provisions of this Plan.
- Commercial activities in the Park require the prior endorsement of the Arakwal Aboriginal Corporation in accordance with the Arakwal ILUA, and the subsequent consent of the Park Management Committee and granting of an NPWS commercial license.

Actions

- **Commercial use strategy.** Develop a strategy in partnership with the Arakwal Aboriginal Corporation for commercial interpretive and educational programs associated with the Park to ensure they are safe, sustainable, culturally appropriate, accredited and financially viable.

5.6 Field Services Centre Site

A field services centre has been developed within the degraded north-west corner of the Park (see Map 2). The field services centre will be utilised by the NPWS, Cape Byron Trust and the Marine Park Authority for the operation of field-based duties and as office accommodation associated with the management of the park and the adjacent marine park. It includes a building, storage yard and associated vehicle access and parking.

The NPWS, Cape Byron Trust and MPA are negotiating with the Arakwal Aboriginal Corporation to also use office space in the cultural centre adjoining the Park. In association with this development, it is proposed to locate a staff car park (approximately 30 spaces) in the adjoining area of the Park to the west of the field services centre. Vehicle access to this parking area is proposed to be linked to the adjoining field services centre access from Tallow Beach Road (see Map 2).

The site of the field services centre and proposed staff parking in the Park is highly degraded from former land uses including a Council tip and a mineral processing plant associated with sand mining in the area. The site is highly modified consisting of relatively flat terrain and regrowth vegetation including open grassy areas and weed thickets of lantana, bitou bush and tobacco bush.

Arakwal vision for Country

We want staff who help manage Country work from our cultural centre to keep joint management working at the ground level.

Guideline

- The field services centre and staff car parking for the adjoining cultural centre site will be managed within the existing disturbed areas and will not incrementally encroach on the adjoining native vegetation.

Action

- Establish a staff car parking area for up to 30 cars in the north-west corner of the Park subject to the development of the adjoining cultural centre site.

5.7 Other uses in the Park

Other uses in the Park include an underground water main that traverses the northern part of the Park that is managed by Rous Water. The section of this water main in the Park is located between the Milne Street park entry and north-east to Tallow Beach Road where it continues through the adjoining Cape Byron SCA to service the Wategos Beach urban area. A service track that is now overgrown to walking track width is located along the top of the water main route (see Map 2). There are no lease, license or other agreement in place regarding this use of the Park.

In the event of failure of part of the water main in this area, this track would need to be reopened for heavy machinery. An incident plan needs to be developed to accommodate repair work while minimising impacts. It is important that access, vegetation management and erosion and sediment control are addressed for maintenance or emergency repairs of this infrastructure.

Commercial fishers access Tallow Beach within the Park for licensed activities such as beach hauling and bait collection. Potential impacts on the environment and cultural values of the Park associated with this use need to be managed.

Other special purpose uses in the Park include stormwater outlet infrastructure managed by Byron Shire Council (refer to *Section 4.9*).

Arakwal vision for Country

“We want to see the place managed like a national park, not like a cow paddock.”

Aunty Lorna Kelly (dec), Arakwal Elder,
16 December 2003

Guidelines

- **Special purpose uses.** Proposals for special purpose uses in the Park will not be permitted unless they are consistent with the purposes of the Park and are in accordance with this plan.
- All special purpose uses that are permitted in the Park will have a lease or licence agreement and be managed in accordance with NPWS policies.



Actions

- **The water main.** Prepare a licence agreement and incident response plan for the water main in the Park with Rous Water and other relevant agencies to minimise impacts of any maintenance and emergency repair work.
- **Commercial fishing.** Liaise with the MPA and NSW fisheries regarding commercial fishing activities to ensure the protection of cultural values and the environment of the inter-tidal zone in the Park.



Knowing about country



6.1 *Talking about Country – Visitor information, Interpretation and Promotion*

The Byron Bay Arakwal people welcome visitors to the Park and desire to ‘talk about Country’ to encourage a shared understanding and appreciation of their culture and Country.

Sharing the stories

It is important to the traditional owners that interpretation, education and other learning opportunities for visitors are delivered by their own people. They rightfully wish to tell their cultural stories and represent their culture and Country in all forms of communication to park visitors. The NPWS and other tour operators and businesses need to respect their rights and intellectual property in this regard (refer to *Section 6.2*).

The style of interpretation for the Park needs to reflect the relationship that the traditional owners have with Country. Typically, interpretive material will integrate natural, cultural and social history information in recognition that these attributes are inseparable to Aboriginal people (refer to *Section 4.3*). For example, the colour booklet titled ‘*Place of Plenty*’ illustrates culturally important plant species and includes stories of traditional use by the Elders inter-woven with historical accounts from the early settlers in the region.

An existing activity by the Arakwal Aboriginal Corporation is the popular ‘Dolphin Dreaming’ educational program that is currently run in various locations including at the Cosy Corner day use area in the adjoining Cape Byron SCA. This activity is generally targeted towards primary school age groups. An ‘Arakwal Education Kit’ is also available as a teaching resource for this age group.

The proposed cultural centre

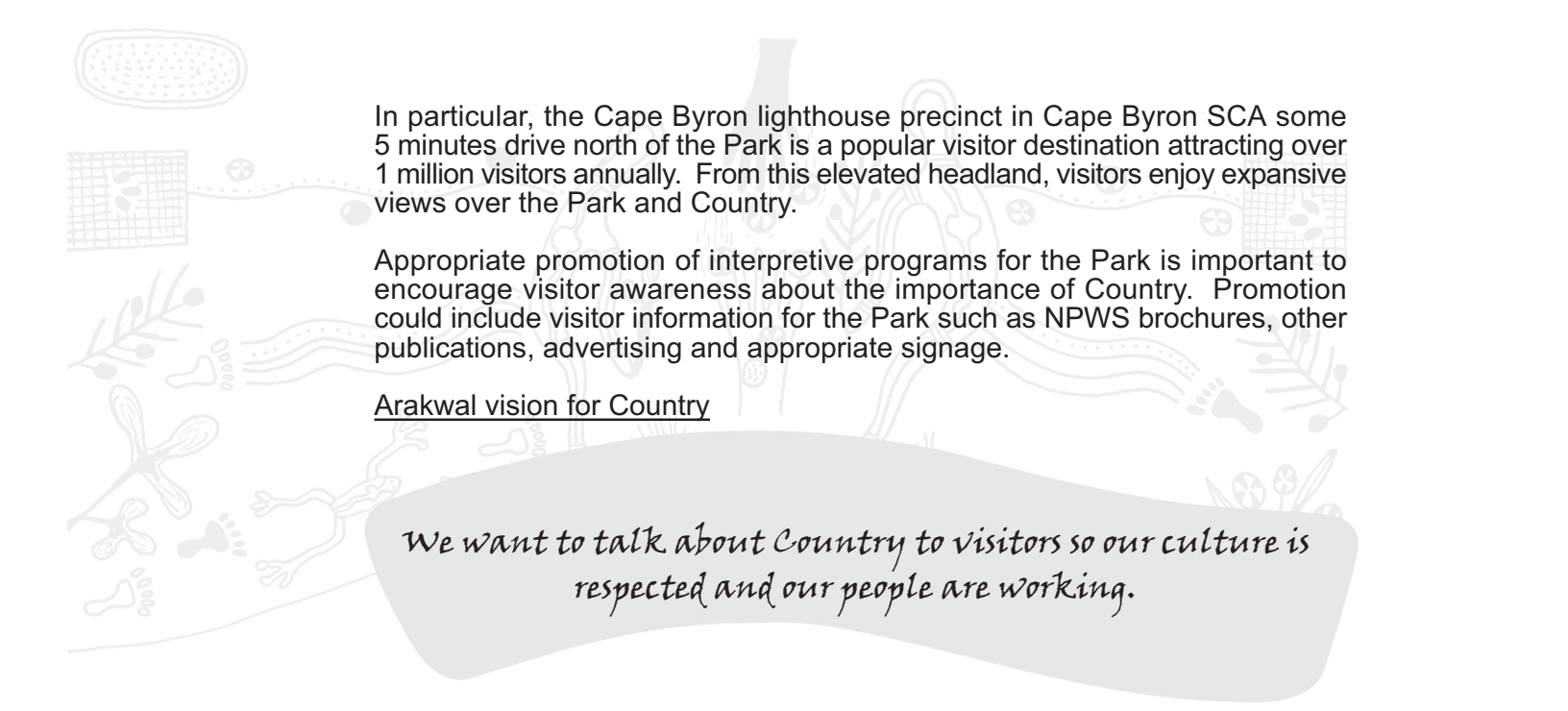
The traditional owners propose to ‘talk about Country’ to visitors through various means such as interpretive walks (refer to *Section 5.4*), organised activities such as guided tours (refer to *Section 5.5*) and signage. The proposed cultural centre will be an integral part of these interpretive and educational programs for visitors to the area.

The centre is planned to include interpretive displays, areas for cultural talks, a base for tour operations and a visitor information outlet for the NPWS and MPA. This will assist visitors to gain an understanding and appreciation of values associated with the Park by the traditional owners.

The traditional owners and NPWS see a strong link between the proposed cultural centre and the Park. It is proposed that the cultural centre will be the ‘gateway’ to the Park. The Park will provide the ‘bush experience’ component of the cultural centre giving visitors a first-hand experience of the Park’s natural and cultural heritage values (pers comm Y. Stewart, 2003).

Interpretive Plans

An Interpretive Strategy for the NPWS Northern Rivers Region has identified cultural heritage, both indigenous and non-indigenous, and coastal habitat communities as being key interpretive themes for the Cape Byron area. In accordance with this Strategy, an Interpretive Plan is being prepared for the Cape Byron SCA and Arakwal National Park in recognition that they are part of the same cultural landscape and to ensure consistent and integrated interpretation.



In particular, the Cape Byron lighthouse precinct in Cape Byron SCA some 5 minutes drive north of the Park is a popular visitor destination attracting over 1 million visitors annually. From this elevated headland, visitors enjoy expansive views over the Park and Country.

Appropriate promotion of interpretive programs for the Park is important to encourage visitor awareness about the importance of Country. Promotion could include visitor information for the Park such as NPWS brochures, other publications, advertising and appropriate signage.

Arakwal vision for Country

We want to talk about Country to visitors so our culture is respected and our people are working.

Guidelines

- **Interpretation plan.** Interpretation programs for the Park will be developed as part of Interpretive Plans for Arakwal National Park and the adjoining Cape Byron SCA, in addition to the proposed cultural centre adjoining the Park to ensure integrated and consistent interpretation of the landscape. Interpretive topics associated with the Park include:
 - the importance of Country to the traditional owners;
 - joint management between the NPWS and Arakwal Aboriginal Corporation including the process in developing and implementing the ILUA;
 - the impact of land use changes since European settlement and restoration requirements for modified landscapes; and
 - the clay heath endangered ecological community and associated threatened plant species, and other threatened and noteworthy species such as the Park's 'acid frog' populations and associated management issues (refer to *Sections 4.4-4.5*).
- **Cultural protocols.** The NPWS will support the Arakwal Aboriginal Corporation in ensuring that interpretive programs relating to the Park respect their intellectual property and cultural protocols.
- Interpretative material relating to the Park will be in accordance with '*The IAA Charter of Best Practice for Interpreting Aboriginal Culture and Country*' (Interpretation Australia Association, 2003).
- The Arakwal Aboriginal Corporation will have the opportunity to be the sole provider of interpretation programs associated with the Park such as the operation of interpretive tours and activities (refer to *Section 5.5*).
- **Visitor information.** Upon its development, the proposed cultural centre adjoining the Park will be promoted as the first information point for visitors to the Park and other reserves in Country.
- On-park interpretive signage and self-guided interpretative material will be kept to a minimum to maintain the visual quality of the Park, and to respect cultural protocols and the desire of the Arakwal Aboriginal Corporation to provide interpretive programs.

Actions

- **Interpretive programs.** Assist the Arakwal Aboriginal Corporation to develop interpretation and education programs associated with the Park, such as tours and displays (refer to *Section 5.5*).
- **Promotion of interpretive programs.** Promote interpretive and educational programs associated with the Park in NPWS visitor information such as signage, brochures and other publications.
- **Other operators.** Monitor promotions, interpretative programs or material provided by other businesses regarding the Park to ensure use of information concerning the Park complies with the provisions of this Plan.

6.2 Respecting Cultural Information

While the Byron Bay Arakwal people welcome people to Country and wish to share culturally appropriate information, there is some information that is culturally sensitive. The traditional owners expect to manage their own cultural information to respect cultural protocols, maintain intellectual property rights, provide for cultural renewal and ensure appropriate information use by others.

Oral history and cultural information that has been collected for the Park is owned and managed by the Arakwal Aboriginal Corporation. Oral histories have been recorded in association with the Native Title process, the Reserve Aboriginal Heritage Values Assessment and the 'ethno-botanical' project (refer to *Sections 4.3, 5.1-5.2*). As part of the 'ethno-botanical' project, a colour booklet titled '*Place of Plenty*' was produced on these culturally important plants and released as a saleable item under the approval of the Park Management Committee (NPWS et al 2003).

The Arakwal 'Bumberline' Elders and the Arakwal Aboriginal Corporation expect the NPWS and others to recognise their intellectual property and to discuss proposals to use cultural information such as for interpretive programs or to assess potential impacts of proposed works in the Park. The Park Management Committee provides a forum for Arakwal Aboriginal Corporation members to initially consider proposals relating to the Park but may refer them on to the Corporation's board for further consideration.

Some information is culturally sensitive and may not be provided outside of the Arakwal Aboriginal Corporation. In these cases, it is anticipated that feedback can instead be provided from the Corporation in a way that adequately addresses issues without revealing sensitive information.

Arakwal vision for Country

We want to ensure our cultural knowledge is respected and is only used with our consent.



Guidelines

- **Protecting cultural knowledge.** Any cultural information provided by the Arakwal Aboriginal Corporation or its members relating to the Park will remain the property of the Arakwal Aboriginal Corporation.
- **Cultural information requests.** Requests by the NPWS and others for cultural information or cultural impact assessment of proposals relating to the Park are to be submitted to the Park Management Committee for their initial consideration. Requests that are approved by the Committee may also (if considered necessary) be forwarded to the Arakwal Aboriginal Corporation for their subsequent approval.
- **Publications.** Arrangements for printing, distribution and sale of any joint initiative publications by the NPWS and Arakwal Aboriginal Corporation are to be approved by the Park Management Committee and in accordance with an information agreement.

Actions

- **Information agreement.** Prepare an information agreement between the NPWS and Arakwal Aboriginal Corporation to manage information obtained under joint initiative projects such as the ethno-botanical study and the Reserve Aboriginal Heritage Values Assessment.

6.3 Understanding Country – Research and Monitoring

The Byron Bay Arakwal people have a broad knowledge of Country including the Park. The oral history as told by the Elders includes knowledge of the plants, animals, habitats, wild resources, special places, stories and history of this Country. Many of these values associated with the Park have been identified and mapped as part of the Reserve Aboriginal Heritage Values Assessment (refer to *Section 4.3*).

The NPWS respects this intellectual property and desires to add to this body of knowledge. Research is an important part of 'looking after Country' by ensuring park values are clearly identified and managed as well as possible.

Monitoring assists in assessing the success of park management programs. In particular, monitoring of plant and animal communities, species and habitats is important to identify changes in their distribution and abundance due to human impacts, management activities and in response to natural phenomenon.

The Park is part of the NPWS 'State of the Parks' monitoring and reporting program. This program monitors the condition of the park and assists with making informed park management decisions. A range of natural, social and cultural indicators are monitored to identify changes in conditions in relation to baseline data. This assists in assessing the effectiveness of management programs and can be used to provide feedback to the Park Management Committee.

Monitoring programs undertaken to date include the presence and distribution of the endangered orchid (*Diuris byronensis*). Given that baseline data on the distribution and abundance of frogs and small mammals in the Park has been collected (Phillips and Forsman, 2003a-b), ongoing monitoring of the distribution and abundance of these species can occur. Representatives of Birds Australia have collected survey data on birds in the Park over a number of years and the NPWS has begun undertaking an annual shorebird census.

It is important that any research and monitoring is culturally appropriate, ethical, does not lead to degradation and provides useful information for management.

More information about the Park is collected and used with our knowledge to help manage Country.

Guidelines

- **Research proposals.** All research proposals are to be submitted to the Park Management Committee for approval and if necessary to the Arakwal Aboriginal Corporation.
- **Sharing knowledge.** All results obtained from any research, study or monitoring associated with the Park will be made available to the Arakwal Aboriginal Corporation.
- The Arakwal Aboriginal Corporation will identify a representative to be involved in any research, study or monitoring in the Park to promote the sharing of knowledge and skills wherever possible.

Actions

- **Research strategy.** A research and monitoring strategy will be developed in negotiation with the Arakwal Aboriginal Corporation to guide proposals. Research topics to be considered include:
 - research and monitoring projects that provide objective data to meet the State of the Parks reporting requirements;
 - research into stormwater management options to address erosion and pollution control at the urban stormwater outlet at the Pacific Vista Drive near cul-de-sac including restoration of the resulting erosion trench (refer to *Section 4.7*);
 - monitoring of populations of threatened frog species as an indicator for the health of wetland habitat in the Park (refer to *Section 4.5*);
 - monitoring of water quality at Tallow Creek mouth, Cibum Margil and other wetlands (refer to *Section 4.8*);
 - collaborative research with other relevant agencies on options to improve the water quality of Tallow Creek (refer to *Section 4.8*);
 - monitoring of the population response of the threatened Eastern Chestnut Mouse to proposed habitat manipulation in the southern part of the Park (refer to *Sections 4.5, 4.7*).
 - monitoring of culturally important plant and animal species to ensure sustainable wild resource use (refer to *Section 5.2*).



Byron Bay Arakwal Community members, Department of Environment and Conservation staff with Arakwal Elder Linda Vidler

Section 81 of the NPW Act requires that this plan of management shall be carried out and given effect and that no operations shall be undertaken in relation to the planning area unless they are in accordance with the plan.

Implementation of this plan will be undertaken within the annual programs of the NPWS Northern Rivers Region. The actions identified in the plan are those to which priority will be given in the foreseeable future. Other management actions may be developed consistent with the desired outcomes, guidelines and actions of the plan.

Relative priorities for identified activities are set out in the table below. These priorities are determined in the context of directorate and regional strategic planning, and are subject to the availability of necessary staff and funds and to any special requirements of the Director-General or Minister for the Environment.

The environmental impact of proposed activities will be assessed at all stages in accordance with established environmental assessment procedures. Where the potential impacts of a proposed activity are found to be unacceptable, the activity may be modified or rejected, in accordance with the plan and NPWS policies. Ongoing assessment and monitoring may also result in the modification of activities, where practicable, in response to identified impacts.

This plan of management will stay in force until amended or replaced in accordance with section 73(B) of the Act. Implementation of the plan will be monitored and its success in achieving the identified objectives will be periodically assessed.

As a guide to the orderly implementation of this plan, actions identified in this plan are prioritised within the following categories:

- H (high)** Actions that are imperative to achievement of the objectives of this plan. They must be undertaken in the near future to avoid significant deterioration in natural, cultural or management resources.
- M (medium)** Actions that are necessary to achieve the objectives of this plan but are not urgent.
- L (low)** Actions that are desirable to achieve the objectives of this plan but can wait until resources become available.
- O (ongoing)** Actions that are undertaken as required.

Section - Ref No	Summary of Actions	Priority
4.1 – 1	Develop procedures and protocols for the Park Management Committee.	H
4.1 – 2	Conduct an annual audit of implementation of plans and management programs.	O
4.1 – 3	Prepare an annual report reviewing operations of the Park Management Committee.	O
4.2 – 4	Develop a cross-cultural awareness package and provide to all people (including contractors) doing work associated with the Park.	M
4.2 – 5	Undertake cross-cultural awareness training for all staff working on the Park.	O
4.3 – 6	Undertake an archaeological survey of the Park for heritage objects.	L
4.3 – 7	Undertake works to protect heritage objects. If appropriate, remove any heritage objects that are unable to be protected from damage or deterioration.	L
4.4 – 8	Restore native plant communities in accordance with the Pest Management Plan.	H
4.4 – 9	Continue the native plant nursery project with the Arakwal Aboriginal Corporation for revegetation projects.	O
4.4 – 10	Survey culturally important plant species at least every three years to monitor regeneration and ensure sustainable wild resource use.	M
4.4 – 11 & 4.5 - 15	Implement recovery plans for threatened flora and fauna as they relate to the Park.	H
4.4 – 12	Undertake a threatened flora and endangered ecological community study to identify critical habitat areas.	M
4.4 – 13	Undertake fencing, signage or other actions to protect important habitats from human disturbance.	M
4.4 – 14	Undertake high resolution vegetation mapping.	M
4.5 – 16	Rehabilitate the former sand-mining dredge pond.	H
4.5 – 17 & 20	Map and undertake fencing and signage to protect important animal habitats such as turtle and threatened shorebird nesting areas.	O
4.5 – 18	Undertake a five year monitoring program for the threatened eastern chestnut mouse.	M
4.5 – 19	Survey the distribution and abundance of culturally important animal species	H
4.6 – 21	Implement the Pest Management Plan.	H
4.6 – 22	Implement Threat Abatement Plans as they relate to the Park.	M

Section - Ref No	Summary of Actions	Priority
4.6 – 23	Undertake community awareness programs to assist with pest management programs.	O
4.7 – 24	Undertake erosion control, fencing and revegetation works at identified locations adjoining the water main, at access points to Tallow Beach and east of Honeysuckle Hill.	H
4.7 – 25	In consultation with Byron Shire Council and adjoining park neighbours, investigate the re-establishment of ephemeral wetlands east of the Beechcomber Drive cul-de-sac.	L
4.7 – 26 & 4.9 - 31	Pursue the diversion or other treatment of the stormwater outlet at Pacific Vista Drive with relevant agencies and rehabilitate the associated erosion gully within the endangered clay heath.	H
4.8 – 27	Implement the Fire Management Strategy.	H
4.8 – 28	Maintain identified management trails to appropriate standards.	M
4.9 – 29	Investigate the preparation of a restoration plan for Tallow Creek with other relevant agencies.	M
4.9 – 30	Develop criteria and conditions with relevant agencies to guide any artificial opening of the Tallow Creek entrance channel.	M
4.9 – 32	Undertake a water quality monitoring program for Cibum Margil wetland and Tallow Creek in liaison with other relevant agencies.	M
4.9 – 33	Prepare and distribute a publication for residents within the catchment of Cibum Margil wetland on at least an annual basis.	O
4.9 – 34	Maintain signage in conjunction with other relevant agencies to advise visitors of the water quality of Tallow Creek.	O
5.1 – 35	Continue to identify and actively manage 'cultural use places' for sustainable cultural, social and wild resource use.	M
5.1 – 36	Investigate the legal, social and health requirements for burying the Elders in the Park and obtain the appropriate approvals should it be permissible.	M
5.1 – 37	Identify appropriate areas for the repatriation of cultural material and prepare conservation management plans for these places.	L
5.2 – 38	Prepare and implement a sustainable wild resource use plan.	H
5.2 – 39	Monitor wild resources such as continuing to map culturally important plant species and a survey targeting culturally important animal species.	O
5.4 – 40	Undertake erosion and drainage works on pathways commencing with identified priority tracks leading from Pacific Vista Drive, Scott Street, Ironbark Avenue and Paterson Street.	M

Section - Ref No	Summary of Actions	Priority
5.4 – 41	Establish a new section of track that will link the existing water main track to a lookout to be developed overlooking Cibum Margil wetland, and investigate and establish a track to link the cultural centre site and the water main track.	H
5.4 – 42	Negotiate with St Finbars primary school to maintain public access on the pathway between Ironbark Avenue and Tallow Beach that is currently located on their property. Alternatively, divert this section of pathway through the Park.	H
5.4 – 43	Reopen part of the old racecourse track north of the High School Trail to walking track width under an agreement with the Department of Education.	M
5.4 – 44	Close and rehabilitate informal tracks.	M
5.5 – 45 & 6.1 – 49	Develop a strategy and promote commercial interpretive and educational programs for the Park with the Arakwal Aboriginal Corporation.	H
5.6 – 46	Establish a staff car parking area for up to 30 cars in the north-west corner of the Park subject to the development of the adjoining cultural centre site.	M
5.7 – 47	Prepare a licence agreement and incident response plan for the water main in the Park with Rous Water and other relevant agencies.	M
5.7 – 48	Liaise with the MPA and NSW fisheries regarding commercial fishing activities in the inter-tidal zone in the Park.	O
6.1 – 50	Promote interpretive and educational programs associated with the Park in NPWS visitor information such as signage, brochures and other publications.	O
6.1 – 51	Monitor promotions, interpretative programs or material provided by other businesses regarding the Park to ensure information concerning the Park complies with the provisions of this Plan.	O
6.2 – 52	Prepare an information agreement between the NPWS and Arakwal Aboriginal Corporation to manage information obtained under joint initiative projects.	M
6.3 – 53	Develop a research and monitoring strategy in negotiation with the Arakwal Aboriginal Corporation to guide proposals.	L

GLOSSARY

- Arakwal Aboriginal Corporation: Refers to the Corporation established the *Aboriginal Councils and Association Act 1976*, as a prescribed body to represent the Byron Bay Arakwal people as native titleholders and their rights, interests and benefits in trust.
- Byron Bay Arakwal people: Refers to the members of the Arakwal Aboriginal Corporation (see above).
- Cultural activities: Refers to activities such as, but not limited to, wild resource use, gatherings, ceremonies, cultural camps and other cultural practices and customs.
- Cultural renewal: Refers to programs and processes that provide opportunities for Aboriginal people to renew links with their culture and heritage.
- Cultural use places: Refers to identified parts of the Park that will be managed to accommodate sustainable cultural activities to continue to be undertaken by the Byron Bay Arakwal people.
- Arakwal 'Bumberline' Elders: Refers to existing and future Elders of the Byron Bay Arakwal people as recognised by the Arakwal Aboriginal Corporation.
- The Elders: Refers to Lorna Kelly (dec), Linda Vidler and Dulcie Nicholls, Elders of the Byron Bay Arakwal people.
- Country: Refers to the 'landscape' where a particular group/clan of Aboriginal people are from. This landscape is all encompassing, and the natural, cultural and historical features are seen as inseparable.
- Reserve Aboriginal Heritage Values Assessment (RAHVA): An assessment of the Aboriginal culture and heritage values associated with a national park or nature reserves that can be used by the NPWS to assess management proposals to determine any associated cultural issues.
- Threatened species: A species listed under the *Threatened Species Management Act 1997* (NSW) as either endangered (Schedule 1) or vulnerable (Schedule 2).
- Traditional owners: Refers to the Byron Bay Arakwal people that are the registered native title claimants under the Native Title Claim NC95/1 ('Bundjalung people of Byron Bay') under the *Native Title Act 1993*.
- Wild resource use: Refers to the use of wild resources including plant, animal earth and water by Aboriginal people.

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APPENDICES

Appendix 1. Flora and fauna of conservation significance for the Park.

Table : Flora species of conservation significance - list of known records and potential habitat

Scientific name	Common name	Potential habitat	Recorded on-park
Endangered species under TSC Act (NSW)			
<i>Acronychia littoralis</i> *	Scented Acronychia	Brush Box forest	no
<i>Diuris byronesis</i>	Byron Bay Diuris	Clay heath	yes
<i>Phaius australis</i> *	Southern Swamp Orchid	Paperbark, grassy swamp	no
<i>Phaius tankarvilleae</i> *	Lady Tankarville's Swamp Orchid	Paperbark, grassy swamp	no
<i>Geodorum densiflorum</i>	Ground Orchid	Heath, grassy hillsides	yes
<i>Allocasuarina defungens</i>	A Sheoak	Clay heath	yes
Vulnerable species under TSC Act (NSW)			
<i>Archidendron hendersonii</i>	White Laceflower	Developing littoral rainforest	
<i>Pterostylis nigricans</i>	Ground Orchid	Coastal heath	yes
<i>Xylosma terrareginae</i>	Xylosma	Developing littoral rainforest	
<i>Cryptocarya foetida</i> *	Stinking Cryptocarya	Developing littoral rainforest	yes
Rare Species			
<i>Cordyline congesta</i>	Coast Palm Lily	Rainforest, swamps	
Regionally significant (near southern limit)			
<i>Strangea linearis</i>	Strangea	Heath	yes
Regionally significant (disjunct distribution)			
<i>Blandfordia grandiflora</i>	Christmas Bells	Heath	
Significance yet to be recognised			
<i>Geodorum neocaledonicum</i>	Pink Nodding Orchid	Heath, grassy hillsides etc	yes
<i>Allocasuarina defungens</i> <i>X simulans</i>	A Sheoak	Clay heath	yes

* an asterisk beside the species name denotes that the species is also listed under the Commonwealth's Environment Protection and Biodiversity Conservation Act, 1999.

Table : Fauna species of conservation significance - list of known records and potential habitat.

Common name	Scientific name	Potential habitat/ recorded near park	Recorded in Park
Endangered species under TSC Act (NSW)			
Mollusc			
Mitchell's Rainforest Snail	<i>Thersites mitchellae</i>	X	
Birds			
Black-necked Stork	<i>Ephippiorhynchus asiaticus</i>	X	
Little Tern	<i>Sterna albifrons</i>	X	X
Red Goshawk	<i>Erythrotriorchis radiatus</i>	X	
Marine Reptiles			
Green Turtle	<i>Chelonia mydas</i>		
Loggerhead Turtle*	<i>Caretta caretta</i>	X	X
Vulnerable species under TSC Act (NSW)			
Amphibians			
Wallum Froglet	<i>Crinia tinnula</i>	X	X
Wallum Sedge Frog*	<i>Litoria olongburensis</i>	X	X
Birds			
Bush-hen	<i>Amauornis olivaceus</i>	X	
Black Bittern	<i>Ixobrychus flavicollis</i>	X	
Black-tailed Godwit	<i>Limosa limosa</i>	X	
Collared Kingfisher	<i>Todiramphus chloris</i>	X	
Great Knot	<i>Calidris tenuirostris</i>	X	
Lesser Sand Plover	<i>Charadrius mongolus</i>	X	
Mangrove Honeyeater	<i>Lichenostomus fasciularis</i>	X	
Osprey	<i>Pandion haliaetus</i>	X	X
Pied-Oystercatcher	<i>Haematopus longirostris</i>	X	X
White-eared Monarch	<i>Monarcha leucotis</i>	X	
Square-tailed Kite	<i>Lophoictinia isura</i>	X	
Superb Fruit-Dove	<i>Ptilinopus superbus</i>	X	
Mammals			
Black Flying-fox	<i>Pteropus alecto</i>	X	
Grey-headed Flying-fox	<i>Pteropus poliocephalus</i>	X	
Little Bentwing-bat	<i>Miniopterus australis</i>	X	X
Common Bentwing Bat	<i>Miniopterus schreibersii</i>	X	
Large-footed Myotis	<i>Myotis adversus</i>	X	
Eastern Long-eared Bat	<i>Nyctophilus bifax</i>	X	
Greater Broad-nosed Bat	<i>Scoteanax rueppellii</i>	X	
Common Blossom-bat	<i>Syconycteris australis</i>	X	X
Koala	<i>Phascolarctos cinereus</i>	X	
Common Planigale	<i>Planigale maculatus</i>	X	X
Eastern Chestnut Mouse	<i>Pseudomys gracilicaudatus</i>	X	X

* an asterisk beside the species name denotes that the species is also listed under the Commonwealth's Environment Protection and Biodiversity Conservation Act, 1999.

Appendix 2. Plants and animals important for wild resource use by the Byron Bay Arakwal people.

Table : List of plant species used by the Byron Bay Arakwal people

The following list of culturally significant plant species has been developed based on information collected from the Elders, Aunties Lorna Kelly (dec), Linda Vidler and Dulcie Nicholls (EPM Consulting et al, 2003).

Plants of high cultural significance	Uses
Midjem (<i>Austromyrtus dulcis</i>)	Edible fruit
Wallum Banksia (<i>Banksia aemula</i>)	Edible nectar; fuel, combs
Coast Banksia (<i>Banksia integrifolia</i>)	Edible nectar; fuel, combs
Lawyer Cane (<i>Calamus muelleri</i>)	Canes for weaving
Pigface (<i>Carpobrotus glaucescens</i>)	Edible fruit
Strangler Fig (<i>Ficus watkinsiana</i>)	Edible fruit
Supplejack (<i>Flagellaria indica</i>)	Canes for weaving
Coast Pandanus (<i>Pandanus tectorius</i>)	Edible fruit
Geebung (<i>Persoonia adenantha</i>)	Edible fruit
Wallum Geebung (<i>Persoonia virgata</i>)	Edible fruit
Molucca Bramble (<i>Rubus moluccana</i>)	Edible fruit
Five Corners (<i>Styphelia viridis</i>)	Edible fruit
Blue lillypilly (<i>Syzygium oleosum</i>)	Edible fruit
Native Parsnip (<i>Trachymene incisa</i>)	Edible taproot
Grasstree (<i>Xanthorrhoea latifolia</i>)	Edible nectar; firewood.
Other plants also used but of lower cultural significance	
Mushrooms (<i>Agaricus species</i>)	Edible
Cunjevoi (<i>Alocasia brisbanensis</i>)	Medicine
Bangalow palm (<i>Archontophoenix cunninghamiana</i>)	Sled, etc.
Bush Lemon (<i>Citrus limon</i>)	Edible fruit
Sandpaper fig (<i>Ficus coronata</i>)	Leaves for sandpaper
Supplejack (<i>Flagellaria indica</i>)	Stems for basket-weaving
Blady Grass (<i>Imperata cylindrica</i>)	Leaves for mattress, pillow
Beach Morning Glory (<i>Ipomoea pes-caprae</i>)	Skipping rope
Lantana (<i>Lantana camara</i>)	Edible fruit, flowers
Vasey Grass (<i>Paspalum urvillei</i>)	Base of stem sucked
Gooseberry (<i>Physalis species</i>)	Edible fruit
Roseleaf Raspberry (<i>Rubus rosifolius</i>)	Edible fruit
Paddy's Lucerne (<i>Sida rhombifolia</i>)	Leaves chewed
Chocolate Flowers (<i>Sowerbaea juncea</i>)	Flowers gathered

NB. Some of the above species may not/ no longer be present in Arakwal National Park.

Appendix 3. Summary of post-contact history associated with land within and around the Park.

- “European settlement” of the Byron Bay area associated with cedar-getting in the 1840s. Aboriginal people of the area were involved as labourers and sources of knowledge regarding their Country (Waters, 2003:11; Daley, 1959).
- Use of Tallow Beach as part of the ‘beach highway’ along the coast up until the development of the Byron Bay wharf in 1888.
- Tallow Beach was used for bullock teams to transport cedar logs out through the surf to be winched on board to moored schooners (Waters, 2003:11; Prentis, pp116-127).
- An account of Aboriginal people catching sand-crabs on Tallow Beach in 1880 (Meston, 1880 – Waters:15).
- Black sand gold mining peaked in the 1880s to the late 1890s and focused on the Tallow Beach area. The presence of miners on the beaches had cultural and economic impacts on the lives of coastal Aboriginal people (Waters, 2003:14). By 1896, most miners had left and timber-getting was still the main industry at Byron Bay.
- “Settlement” of the Byron Bay area by the early land selectors in the 1880s, associated with the agricultural development of the ‘Big Scrub,’ initially for dairying (Waters, 2003:16).
- Development of Byron Bay as a coastal holiday settlement in the 1890s.
- Two Aboriginal Reserves were created by the Aboriginal Protection Board immediately to the south of the existing park boundary. An Aboriginal Reserve of 40 acres was notified in 1890 and revoked in 1896. In 1908, a new reserve of 10 acres was notified in the vicinity of the initial reserve and following boundary modifications, was revoked in 1924 (Waters, 2003:50-53).
- The memoirs of George Flick, the child of an early settler in Byron Bay, documented in 1910 that the main area occupied by the Arakwal people stretched along the coast between Broken Head to the south, Cosy Corner to the north and west through the old racecourse (in the vicinity of the existing Byron Bay High School) to Cooper’s Shoot, which includes all of the Park. This area also included the main camp of the Arakwal elder Harry Bray (dec.) and his family near the mouth of Tallows Creek (Ryan, 1984: pp99-100; Waters: 21).
- The Park contained many traditional pathways used by the Arakwal people for travel (Waters: 32).
- The park contained the earliest known transport track in Byron Bay regularly used by the cedar getters and early settlers between Tintenbar and Main Beach, Byron Bay. The track ran roughly parallel to the western park boundary and was used from at least the early 1880s as a mail and timber track (Waters, 2003:30).
- The southern part of the park contained part of ‘Coopers Shoot’. Shoots were tracks made by timber getters for bullock teams to transport logs from the hinterland down to the lowlands, in this case to Tallow Beach to transport timber to moored boats (Carr, 1973).
- The southern part of the park contained an 100 acre area reserved for a racecourse and public recreation in 1889 (Waters, 2003:36). The oval shaped racecourse was in operation possibly until 1938 (Waters, 1003:39). The eastern part of the racecourse was later used as part of a sandmining road in the 1960s.
- An area of 78 acres in the northern part of the park around Cibus Margil swamp was originally reserved in 1900 as a rifle range. A second area to the south was also reserved for these purposes in 1918. Both reserves were revoked in 1971.

- The southern part of the park near Ironbark Avenue was used as a 'picnic ground and foot race track' according to a 1922 town map of Byron Bay. While this area was never reserved for public recreation, it implies such use by Europeans around the time (Waters, 2003: 38).
- Black sand mining for gold, tin and platinum by individual prospectors continued on Tallow Beach with smaller numbers of prospectors through to the 1930s when intensive commercial mining (Waters, 2003:41).
- Commercial black sand mining for zircon and rutile had commenced at Tallow Beach in 1933-34 (Morley: 42; Waters, 2003:42). The development of more efficient extraction techniques followed which increased the extent of sandmining and resultant disturbance, most extensive in the 1960s. By 1969, the area had largely been mined out (Waters, 2003: 48-9).
- An area immediately to the south of the existing park boundary was reserved for use as a 'night soil depot' where human waste was collected and disposed prior to the development of a reticulated sewerage system for Byron Bay. This area subsequently became the South Byron Sewerage Treatment plant which remains to this day (Waters, 2003:55).
- Immediately to the north of the park an area of 4 acres was reserved for use as a rubbish depot in 1910 and remained in use until the 1970s.

Appendix 4. Fire frequency thresholds to maintain biodiversity of different vegetation types

The biodiversity thresholds to be applied (adapted from Bradstock *et al.* 1995 and Keith, 1996). These thresholds define a domain of acceptable fire regimes. Fire regimes outside this domain are predicted to cause significant declines in species populations, particularly if they prevail over > 50% of the area of each community.

Class ID	Vegetation Communities	Biodiversity Thresholds
a	Dry Sclerophyll Forest	<ul style="list-style-type: none"> • Avoid 3 or more consecutive fires, with each of the fires < 5 years apart. • Avoid inter-fire periods of > 30 years. • Avoid 2 or more successive fires that totally scorch or consume the tree canopy. • Avoid 3 or more consecutive fires of low intensity.
b	Heathland/Scrubland	<ul style="list-style-type: none"> • Avoid 3 or more consecutive fires, with each of the fires < 8 years apart.
	Swamp Sclerophyll Forest	<ul style="list-style-type: none"> • Avoid 3 or more consecutive fires, with each of the fires > 15 years apart.
	Wet Heath	<ul style="list-style-type: none"> • Avoid inter-fire periods of > 30 years. • Avoid 2 or more successive fires that consume < 10 t/ha of surface fuel.
c	Wet Sclerophyll Forest	<ul style="list-style-type: none"> • Avoid more than 1 fire every 30 years. • Avoid inter-fire periods of > 200 years.
d	Rainforest Sedgeland/Rushland Mangrove/Saltmarsh Palm Forest Riparian Forest Sand/Rock/Bare Ground/Water Hardwood Plantation Pine Plantation	<ul style="list-style-type: none"> • Any fire occurrence (a limited recovery ability exists).

