

# Daintree National Park

Management Plan  
2019



Queensland  
Government



Jabalbina



Prepared by: **Queensland Parks and Wildlife Service, Department of Environment and Science**



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MP202. March 2019

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*The Jabalbina Yalanji Aboriginal Corporation approves the current Daintree National Park Management Plan as of February 2019. However Joint Management is currently being negotiated between Jabalbina Yalanji Aboriginal Corporation and the Queensland Government through the Cape York Tenure Resolution Program. This will see the Daintree National Park become Cape York Peninsula Aboriginal Land with joint management governed through an Indigenous Management Agreement. The Jabalbina Yalanji Aboriginal Corporation RNTBC therefore reserves the right to have a statutory review of the current management plan undertaken after 12 months from the date of execution of this IMA.*

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# 1. Introduction

The *Nature Conservation Act 1992* (Qld) (NCA) requires a management plan to set high level strategies and priorities for managing each of Queensland's national parks. Management plans are succinct, management-oriented documents, which focus on maintaining or improving the condition of key park values and outlining how we will meet management standards (or 'levels of service') for the park.

This plan should be read alongside the Daintree National Park 'resource information' document and the Indigenous Protected Area (IPA) plans (*Eastern Kuku Yalanji Protected Area Plan Stage 2, Jalunji-Warra Land and Sea Country* and *Eastern Kuku Yalanji Indigenous Protected Area Management Plan Stage 3, Yalanjiwarra Land and Sea Country*). These IPA plans contain the aspirations, goals and actions for Kuku Yalanji Bama to manage their Land and Sea Country. Resource information supplies more detailed background information on Daintree National Park, providing an understanding of the park's purpose, values, resources, issues, management considerations and legal and administrative framework. The resource information document may be used for a quick overview of the park, or to gain a more in-depth understanding of the park's management issues and background.

The management plan and the resource information document is available on the Department of Environment and Science website at [www.des.qld.gov.au](http://www.des.qld.gov.au).

The Daintree National Park Management Plan will provide the framework for joint management of the park by the Queensland Parks and Wildlife Service and the Kuku Yalanji Bama. It builds on the provisions for cooperative management agreed to in the 2007 Eastern Kuku Yalanji Indigenous Land Use Agreements (ILUAs). Joint management will include a greater role for Traditional Owners in decision-making for the park, as well as increased employment opportunities for Kuku Yalanji Bama in park management.

The NCA sets out the 'Cardinal Principle' for managing national parks - "A national park is to be managed to provide, to the greatest possible extent, for the permanent preservation of the area's natural condition and the protection of the area's cultural resources and values." Daintree National Park will be managed consistently with all management principles for national parks, as defined in the NCA and supporting regulations, the *Cape York Peninsula Heritage Act 2007* (Qld), *Native Title Act 1993* (Cwlth), *Wet Tropics World Heritage Protection and Management Act 1993* (Qld) (and any management plan prepared under this Act), Eastern Kuku Yalanji Indigenous Land Use Agreements 2007, and relevant government policies, procedures, and protocols. This plan recognises the management partnership between Queensland Parks and Wildlife Service (QPWS), Eastern Kuku Yalanji and the Wet Tropics of Queensland World Heritage Area Management Authority (WTMA).

## 2. Daintree National Park

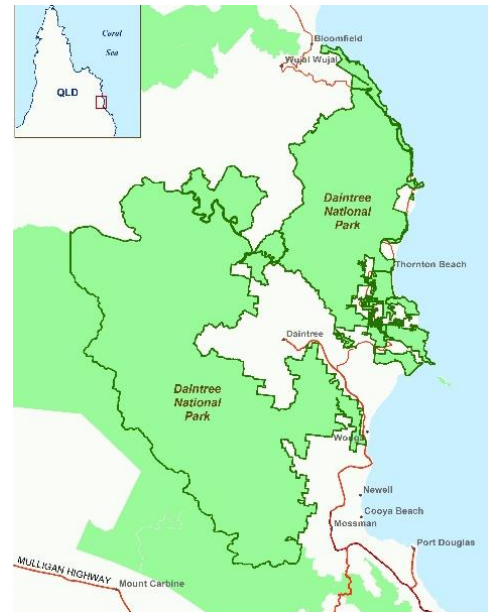
### 2.1 Park overview

Daintree National Park is located 100km north of Cairns, in the state electorate of Cook and the local government areas of Douglas and Cook Shire Councils: **Figure 1**.

Daintree National Park is one of Queensland's iconic parks. It is part of the largest tropical rainforest area in Australia and one of the country's most biologically diverse parks. The park is within the significant tourism region of Cairns and has outstanding scenic amenity—it is internationally valued for its spectacular scenery and diverse range of ecosystems, plants and animals.

These exceptional values contributed to Daintree National Park's inclusion as part of the Wet Tropics of Queensland World Heritage Area, which was listed on the UNESCO register of World Heritage sites on 9 December 1988.

QPWS's primary purpose for conserving Daintree National Park is to protect its diverse ecosystems, plants and animals, many of which are internationally significant. The Upper Daintree Catchment, Mossman Gorge and Cape Tribulation areas are considered biodiversity 'hotspots'. The park contains an almost complete representation of the major stages in the evolution of plant life on Earth.



**Figure 1. Daintree National Park location map.**

### 2.2 Eastern Kuku Yalanji Bama

Daintree National Park is within the Bubu, or land, of the Eastern Kuku Yalanji Bama. Eastern Kuku Yalanji Bama continue to use the area for cultural activities and have ongoing commitments and cultural obligations to the management of the area. The continued connection to country and the ongoing use of cultural resources is of great importance to the Kuku Yalanji Bama of this Bubu. An Indigenous Land Use Agreement (ILUA) over the entirety of the park recognises the rights and interests of the Eastern Kuku Yalanji Bama.

Eastern Kuku Yalanji words used in this document are shown in **Table 1**.

In recognition of strong continuing cultural connections, Traditional Owners and the State's protected area managers have established strong partnerships ensuring that both the natural and cultural values of protected areas are conserved for the benefit of all. In Cape York Peninsula this includes the joint management of national park, Cape York Peninsula Aboriginal Land (CYPAL). To create national park CYPAL, land acquired by the State is converted to Aboriginal freehold land, which is then jointly managed by the Traditional Owners and QPWS. In addition, existing national parks on Cape York Peninsula are being converted to jointly managed national park CYPAL, with Aboriginal freehold as the underlying tenure. Eastern Kuku Yalanji Bama and the State are currently negotiating tenure arrangements for the future joint management of Daintree National Park, by applying the national park CYPAL approach. To establish joint management through their creation, parties will negotiate a new Indigenous Land Use Agreement (ILUA) and an Indigenous Management Agreement (IMA). Once the ILUA and IMA are established, joint management will progress with QPWS and Eastern Kuku Yalanji Bama. The IMA sets out how Eastern Kuku Yalanji Bama and QPWS will consult each other; make joint decisions and work together to manage the park and provide for public use of the national park CYPAL.

**Table 1. Eastern Kuku Yalanji words used in this document**

<b>Kuku Yalanji word</b>	<b>Definition</b>
<i>Bama</i>	an Aboriginal person
<i>balay</i>	valley or lower ground
<i>bilngkumu</i>	estuarine crocodile
<i>Bubu</i>	land; a person's country – where he or she belongs
<i>Jabalbina</i>	Home of the Ancestors
<i>Jalun</i>	sea
<i>Julaymba</i>	Daintree River/Daintree Area
<i>Kaway</i>	Cowie Beach
<i>kiju</i>	mud crab
<i>Kubirri</i>	The Good Shepherd rock on Mt Demi
<i>kurrnji</i>	cassowary
<i>kuyu</i>	fish
<i>madja</i>	rainforest
<i>mangkuru</i>	mangroves
<i>mandi</i>	moiety
<i>manjal</i>	mountain
<i>Manjal Dimbi</i>	Mt Demi
<i>Manjal Jamalji</i>	Devil's Thumb
<i>mayi</i>	generic term for food
<i>minya</i>	generic term for meat/animal
<i>mulkal-mulkal</i>	totem
<i>Ngalba-bulal</i>	Mt Pieter Botte
<i>ngawiya</i>	sea turtle
<i>Ngujakura</i>	Dreaming, Aboriginal lore
<i>wakal</i>	fresh water prawns
<i>wawubaja</i>	river
<i>wuburr</i>	hills
<i>Wundu</i>	Thornton Peak
<i>yalmba</i>	beach, coast
<i>Yibuy-karrbaja</i>	Snapper Island
<i>yilki</i>	creek
<i>yiri</i>	waterfall
<i>yirri</i>	running water
<i>yirrimbal</i>	sacred story place
<i>yarru</i>	rainbow snake (mythical serpent)
<i>yulba</i>	saltwater mussel

## Cultural landscape of the Eastern Kuku Yalanji Bama

The Daintree National Park Management Plan recognises five natural components (mountains, hills and valleys, coast, and waterways) that provide habitat for many plants and animals that form part of the cultural landscape of the Eastern Kuku Yalanji Bama and are a focus of the joint management by Jabalbina and QPWS. **Figure 2** shows how these values relate to each other. Note: *Wet Tropics World Heritage Area Outstanding Universal Values* and aesthetic value overlays many of these values across the park.

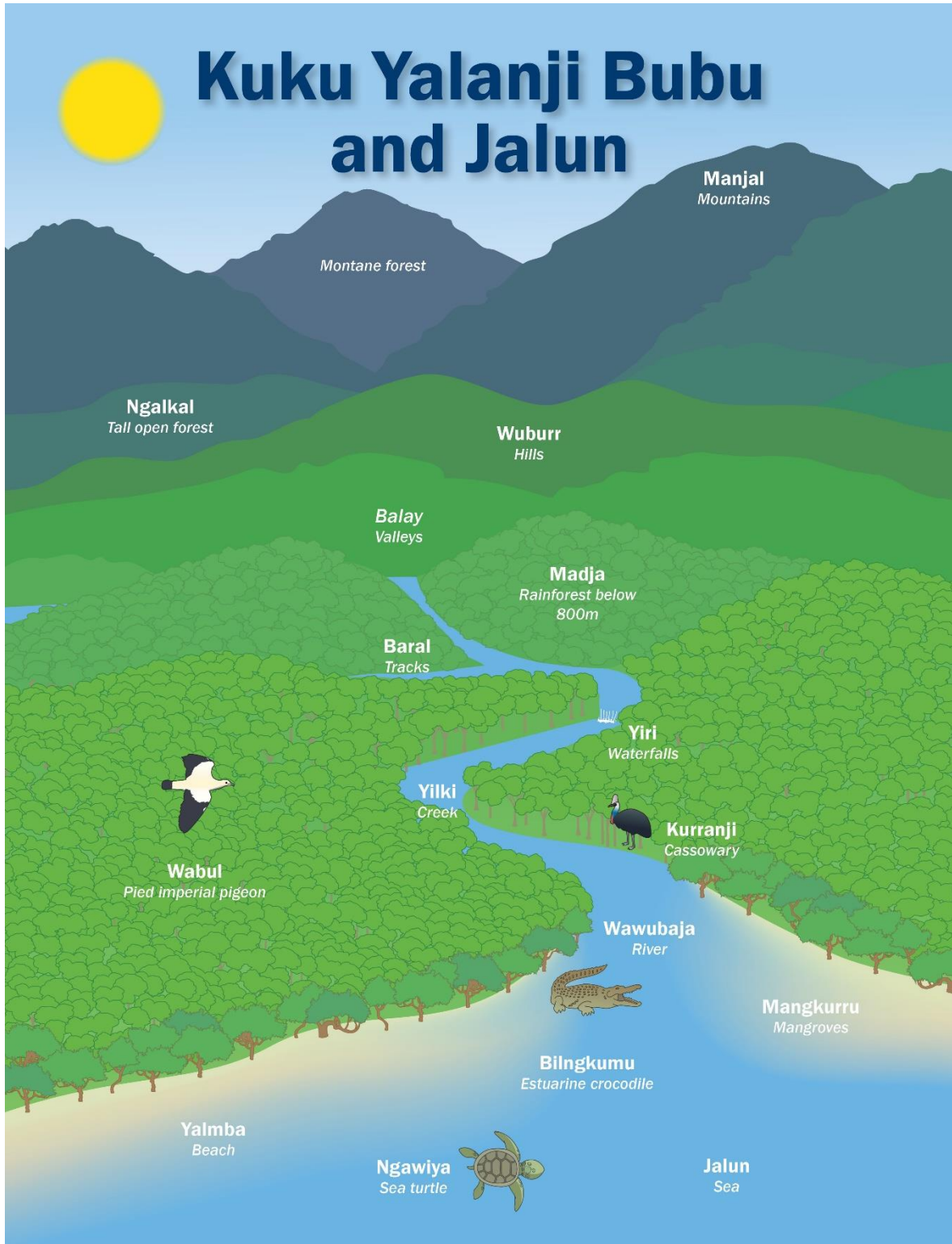


Figure 2. A graphical representation of the Eastern Kuku Yalanji's cultural landscape. This diagram shows the cultural landscape features that have been identified as key values in this document

## 2.3 Jabalbina Yalanji Aboriginal Corporation (Jabalbina)

Eastern Kuku Yalanji clans lodged a native title claim in 1994 over land which was mainly timber reserve and unallocated state land. In 1997, Eastern Kuku Yalanji proposed a settlement with the Queensland Government that was agreed to by most parties in 2005 (Cape York Land Council and Queensland Government 2007). To put this in place, Eastern Kuku Yalanji signed 15 ILUAs with the Queensland Government, Cook Shire Council, Douglas Shire Council, Telstra, Ergon, the Wet Tropics Management Authority (WTMA) and other stakeholders in 2007. In the same year, the Federal Court of Australia recognised the Eastern Kuku Yalanji Bama's native title rights and interests over 126 900 hectares of land in the Daintree region.

As part of the Determination and ILUAs, Jabalbina Yalanji Aboriginal Corporation (Jabalbina) was established in 2008 as the Registered Native Title Body Corporate (RNTBC) for the native title and as the sole grantee of the Jabalbina Yalanji Land Trust holding the Aboriginal freehold land. It has since become the registered Cultural Heritage Body. Jabalbina means "home of our ancestors". Jabalbina looks after the native title interests of Eastern Kuku Yalanji Bama, land rights, cultural heritage matters and agreements, and is responsible for supporting the planning and other work for the Indigenous Protected Areas.

The Eastern Kuku Yalanji Estate is comprised of three broad clan groups Nyungkal, Jalunji and Yalanji. An Indigenous Protected Area plan has been developed for each clan group that sets out Traditional Owners' vision, goals and strategies for each clan estate. Jalunji and Yalanji IPA plans have informed the development of the Daintree Management Plan. Further information on IPA planning can be found at <http://www.environment.gov.au/land/indigenous-protected-areas>

## 2.4 World Heritage and National Heritage listing

Daintree National Park is part of the Wet Tropics World Heritage Area, inscribed upon the World Heritage List of the Convention Concerning the Protection of the World Cultural and Natural Heritage (see map in **Figure 3**). Inscription on this list confirms the Outstanding Universal Value of a cultural or natural property that deserves protection for the benefit of all humanity (Department of the Environment and Energy n.d.). The listing criteria for the Wet Tropics World Heritage Area is noted with the park's associated key value in **Table 2**.

In 2012 the Australian Government recognised the importance of the Aboriginal Rainforest Peoples, comprising of Eastern Kuku Yalanji Bama, as part of the existing National Heritage Listing for the Wet Tropics of Queensland (DEE, n.d.).

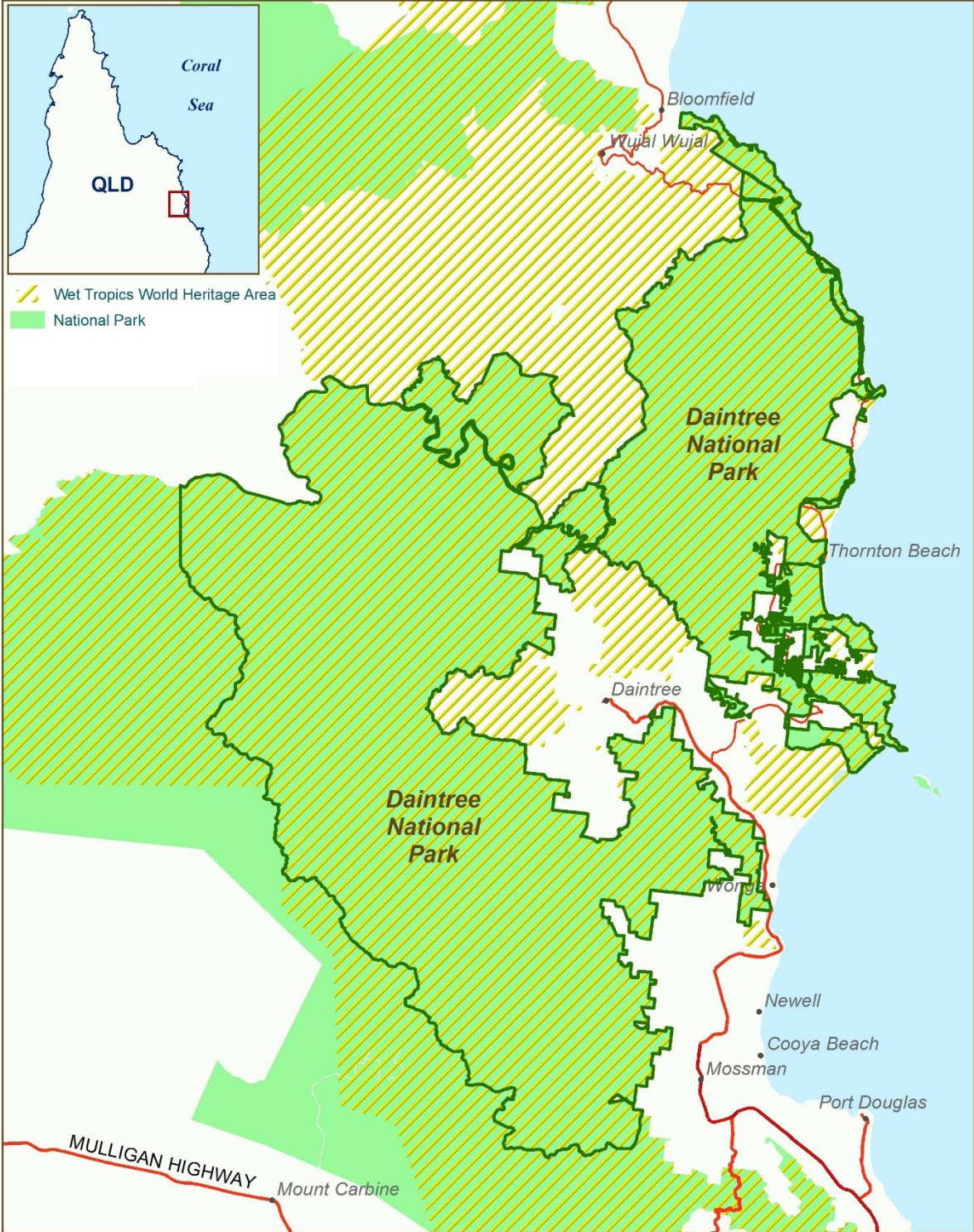
Eastern Kuku Yalanji Bama have lived continuously in the madja (rainforest environment) for at least 5 000 years. This is the only place in Australia where Aboriginal people have permanently inhabited a tropical rainforest environment.

Eastern Kuku Yalanji Bama developed a distinctive cultural heritage determined by their Ngujukura, or dreaming and creation stories and their traditional food gathering, processing and land management techniques. The distinctiveness of the traditions, technical innovation and expertise needed to process and prepare toxic plants as food and their uses of fire are of outstanding heritage value to the nation and are now protected for future generations under national environmental law.



Table 2. UNESCO World Heritage Convention criteria		Key value
<p><b>Criterion 7</b></p> <p><b>Natural beauty and aesthetic value of the Wet Tropics World Heritage Area. Contains superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.</b></p> <p>Daintree National Park was specifically used as an example to satisfy Criterion 7 of the Wet Tropics World Heritage Area listing:</p> <p><i>'This is particularly apparent between Daintree River and Cedar Bay, where exceptional coastal scenery combines tropical rainforest and white sandy beaches with fringing offshore coral reefs.'</i></p> <p>All of the key values identified for Daintree National Park feature elements of natural beauty and aesthetic value. It is present in the manjal (mountains), wuburr (hills) and the yalmba (coast). The aesthetic value of Daintree National Park is particularly important and is one of the main reasons as to why the area is an internationally recognised tourism destination.</p>	<ul style="list-style-type: none"> <li>• Montane and upland areas (p16)</li> <li>• Tall open forests (p18)</li> <li>• Madja (rainforest) (p21)</li> <li>• Kuku Yalanji coastal values (p28)</li> </ul>	
<p><b>Criterion 8</b></p> <p><b>Outstanding examples representing major stages of Earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features.</b></p> <p>Aspects of Daintree National Park can be attributed to Criterion 8, which recognises that the Wet Tropics contains one of the most complete and diverse living records of the major stages in the evolution of land plants. It is present in the manjal (mountains), wuburr (hills), yalmba (coast), wawubaja (rivers), yilki (creeks), yirri (running waters) and yiri (waterfalls), all of which have been identified as key values of Daintree National Park.</p>	<ul style="list-style-type: none"> <li>• Montane and upland areas (p16)</li> <li>• Madja (rainforest) (p21)</li> <li>• Wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls) (p24)</li> <li>• Mangkurru (mangroves) (p26)</li> <li>• Kuku Yalanji coastal values (p28)</li> </ul>	
<p><b>Criterion 9</b></p> <p><b>Outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals.</b></p> <p>Daintree National Park provides outstanding examples of significant ongoing ecological processes and biological evolution. It is present in the manjal (mountains), wuburr (hills), yalmba (coast), wawubaja (rivers), yilki (creeks), yirri (running waters) and yiri (waterfalls), all of which have been identified as key values of Daintree National Park.</p>	<ul style="list-style-type: none"> <li>• Montane and upland areas (p16)</li> <li>• Tall open forests (p18)</li> <li>• Madja (rainforest) (p21)</li> <li>• Wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls) (p24)</li> <li>• Mangkurru (mangroves) (p26)</li> <li>• Kuku Yalanji coastal values (p28)</li> </ul>	
<p><b>Criteria 10</b></p> <p><b>Contain the most important and significant natural habitats for <i>in-situ</i> conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.</b></p> <p>There are a number of species endemic to Daintree National Park; an attribute considered under Criterion 10 of the Wet Tropics World Heritage Area listing. Some plant communities and animal habitats associated with the key values identified for Daintree National Park are recognised under Criterion 10 as being the most floristically and structurally diverse in Australia.</p>	<ul style="list-style-type: none"> <li>• Montane and upland areas (p16)</li> <li>• Tall open forests (p18)</li> <li>• Madja (rainforest) (p21)</li> <li>• Wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls) (p24)</li> <li>• Mangkurru (mangroves) (p26)</li> <li>• Kuku Yalanji coastal values (p28)</li> </ul>	

Figure 3. Daintree National Park sits within the Wet Tropics World Heritage Area



Note: This map is for planning purposes only and does not reflect Eastern Kuku Yalanji Estate boundaries







# 3. Key values

While all parks are important, and all values make parks worth protecting, park managers need to focus on protecting and presenting the most important values—the ‘key’ values. These are the values that will form the basis of ongoing evaluation of management effectiveness. This management plan provides high level, strategic direction for protecting and managing key park values.

Each key value has a **key value statement** that shows the value’s current condition, trend of condition and the level of confidence for this assessment (see **Figure 4** for the key and definitions). A brief description of the value is provided, followed by threats to the value and the ‘strategic management directions’ that aim to protect the value over the long term. As well as managing and monitoring these values, there will be further focus on monitoring the condition and trend of some plants and animals within these broader identified values. This will provide a more detailed picture of the effectiveness of park management.

Daintree National Park has eight key values. The key values and their relationship to Eastern Kuku Yalanji Bama’s cultural landscape are summarised in **Table 3** and illustrated in the map in **Figure 5**. More detailed key values mapping is provided for the northern section (Map 1), western section (Map 2), southern section (Map 3) and south-eastern section (Map 4) after the key value statements (pages 33-36). These maps are for planning purposes only and do not reflect Eastern Kuku Yalanji Estate boundaries.

**Table 3. Daintree National Park key values (KV)**

	<p><b>Kuku Yalanji Country</b> KV1: Kuku Yalanji cultural values of the national park and surrounds</p>		<p><b>Wawubaja, Yilki, Yirri, and Yiri</b> KV5: Wawubaja, Yilki, Yirri, and Yiri (rivers, creeks, running waters and waterfalls)</p>
	<p><b>Manjal</b> KV2: Montane and uplands areas KV3: Tall open forests</p>		<p><b>Yalmba</b> KV6: Mangkurru (mangroves) KV7: Kuku Yalanji coastal values</p>
	<p><b>Wuburr and Balay</b> KV4: Madja (rainforest)</p>		<p><b>Visitors</b> KV8: Sustainable tourism</p>

**Figure 3. Key to condition, trend and confidence icons**












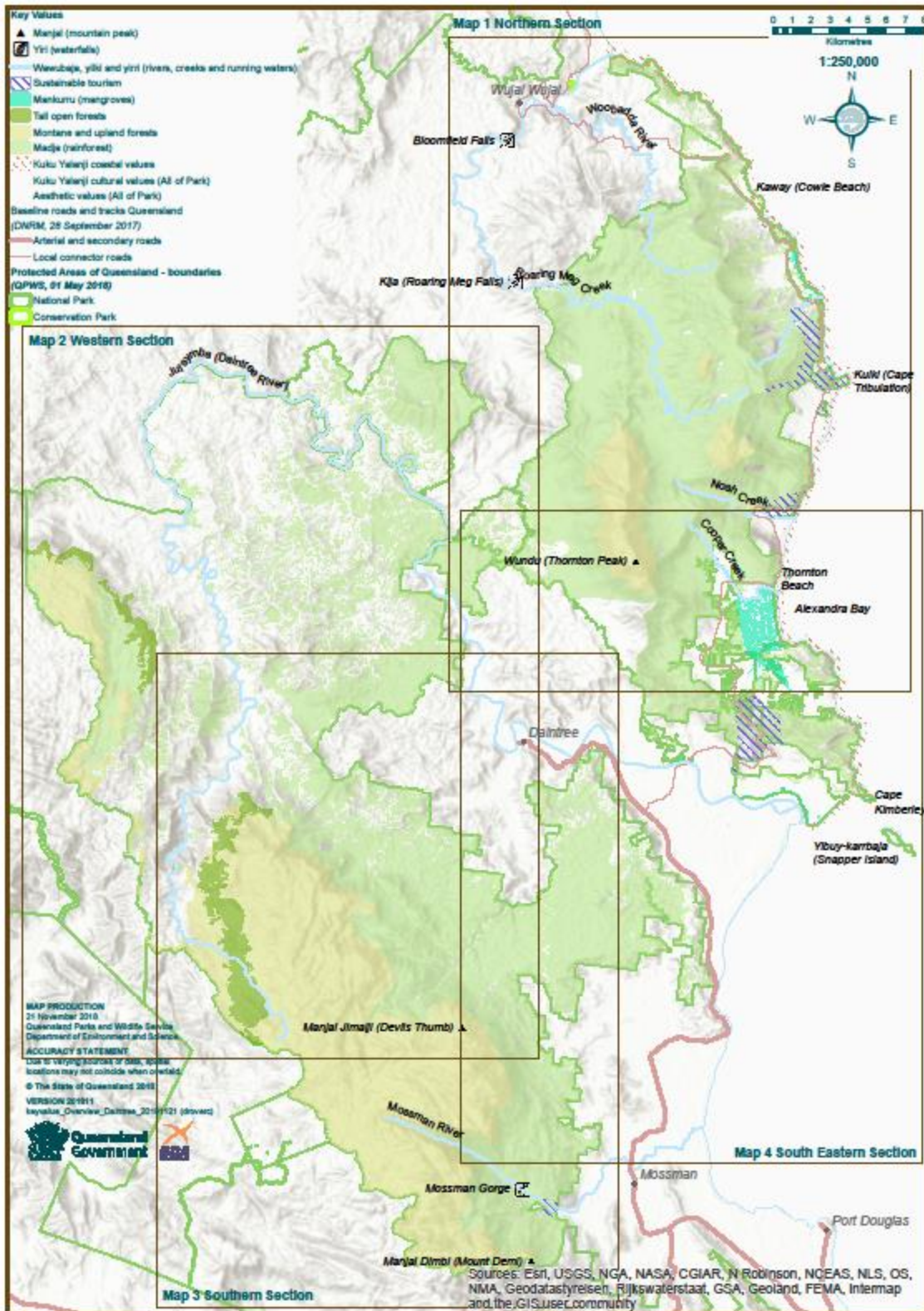
<b>Condition of key value</b>	<p><b>Good</b> </p> <p>The value is in good condition and is likely to be maintained for the foreseeable future, provided that current measures are maintained</p>	<p><b>Good with some concern</b> </p> <p>The value is likely to be maintained over the long-term with minor additional conservation measures to address existing concerns</p>	<p><b>Significant concern</b> </p> <p>The value is threatened by a number of current and/or potential threats. Significant additional conservation measures are required to preserve the value over the medium to long-term</p>	<p><b>Critical</b> </p> <p>The value is severely threatened. Urgent additional large-scale conservation measures are required or the value may be lost</p>
<b>Trend rating of condition</b>	<p><b>Improving</b> </p>	<p><b>Stable</b> </p>	<p><b>Deteriorating</b> </p>	<p><b>No consistent trend</b> </p>
<b>Confidence in assessment</b>	<p><b>Inferred</b> </p>	<p><b>Limited</b> </p>	<p><b>Adequate</b> </p>	

Figure 4 Daintree National Park key values map



Note: This map is for planning purposes only and does not reflect Eastern Kuku Yalanji Estate boundaries

# Kuku Yalanji Country

*“Kuku Yalanji Country is a complex cultural landscape. Kuku Yalanji Country comprises the Bubu (land), Jalun (sea), manjal (mountain), wuburr (hills), madja (rainforest), yirri (running water), yilki (creek), wawubaja (river) and yalmba (seashore/beach).”*

Yalanjiwarra People, Jabalbina Yalanji Aboriginal Corporation 2016

The key value for Kuku Yalanji Country is:  
Kuku Yalanji cultural values of the national park and surrounds

Image 1. Wundu (Thornton Peak), Daintree National Park. © Terry Carmichael



## 3.1 Kuku Yalanji cultural values of the national park and surrounds

### Key value statement

Indigenous heritage values were included as a part of the National Heritage listing for the Wet Tropics of Queensland (which includes Daintree National Park) in November 2012:

*“Kuku Yalanji Country is a complex cultural landscape. Kuku Yalanji Country comprises the Bubu (land), Jalun (sea), manjal (mountain), wuburr (hills), madja (rainforest), yirri (running water), yilki (creek), wawubaja (river) and yalmba (seashore/beach).” (Yalanjiwarra People, Jabalbina Yalanji Aboriginal Corporation 2016).*

*Our Country, both Bubu and Jalun, is famous around Australia and the world as the place where the “rainforest meets the reef”. Our Country has a very high biodiversity of different animals and plants. The World Heritage listing of both our land and sea Country shows our strong land and sea management over thousands of years, protecting our landscapes and seascapes and the plants and animals that live here.*

*Bama need to be on Country practicing culture including Traditional land and sea management. This keeps our Bama, our Bubu and our Jalun healthy. We have many obligations and responsibilities for our Country. These include our lore, our Traditional knowledge, our language, our cultural activities and our sacred sites.*

*Our cultural activities are an important part of caring for Bubu and Jalun.*

*Our lore comes from our Country and our ancestors. We follow our Ngujukura, our Dreaming, which gives us the rules for respecting our Country and each other. Our management is based on our stories of the plants and animals, our story places, and our seasonal calendars.*

*Our mandi and mulkal-mulka (moiety and totem) and our cultural connections to Bubu through food, law/lore, healing, medicine and ceremonies are part of our identity. Knowing our family relationships, our roles, responsibilities and obligations to be on Country is part of caring for Country. We need to be on Country to properly understand our connections to Country, and Traditional boundaries of our estates. Our lore is kept alive through talking and listening, painting, crafts, books, photos, videos and digital media on computers (Yalanjiwarra People, Jabalbina Yalanji Aboriginal Corporation 2016).*

## Threats

The Kuku Yalanji Bama have identified threats to the cultural values of their lands. In Daintree National Park, these threats include:

- Not being on Bubu – from the 1870s, many Kuku Yalanji Bama moved or were removed from the Daintree National Park area, disrupting the active Traditional management of Bubu and reducing its health. **Threat rating: High**
- Lack of resources for caring for Bubu and Jalun work and lack of power in decision-making – these factors have hindered Kuku Yalanji Bama returning to their traditional role in managing Bubu. Progress has been made to address these threats through the 2007 Eastern Kuku Yalanji ILUAs, establishing the Jabalbina rangers in 2013 and current negotiations towards dedicating Daintree National Park as a ‘National Park (Cape York Peninsula Aboriginal Land)’. **Threat rating: Medium**
- Culture losing strength – much culture, including knowledge about Bubu and Jalun and traditional land management practices, has been lost, leading to less well-informed and less effective management of Bubu. **Threat rating: Very High**
- Wrong fires and forest management – lack of Traditional burning has allowed areas, including parts of the north Daintree Coast, to transition from open forest to rainforest. This has reduced the diversity of forest types and habitats for animals such as wallabies. Fires at the wrong times can damage plants or promote weeds. Early selective logging of species, including kauri pine *Agathis microstachya* and red cedar *Toona ciliata*, has also reduced the diversity of tree species in many rainforest areas. **Threat rating: Very High**
- Many native frogs have disappeared from mountain streams because of Chytridiomycosis, an infectious disease caused by the chytrid fungus *Batrachochytrium dendrobatidis* (DEE 2016).
- Prohibited and restricted invasive plants such as miconia *Miconia* spp., pond apple *Annona glabra* and siam weed *Chromolaena odorata* can have significant adverse impacts on rainforest and coastal ecosystems (DAF 2016a, b & c).
- Feral pigs and other feral animals damage native plants and animals, cause erosion and pollute waterways, as well as disturbing springs, wells, burial places and other cultural sites. Although these are known threats to Yalanji cultural values, the extent and severity of impacts from feral pigs have not been extensively investigated. Until further investigation has been undertaken, QPWS and Jabalbina will continue to manage impacts in identified key areas, where disturbance is known to occur and can be appropriately monitored. **Threat rating: unknown**
- Other pests include feral cats, cane toads and feral bees displacing other native bee species. Although these are known threats to Yalanji cultural values, the extent and severity of impacts from these feral species, have not been extensively investigated. Until further investigation has been undertaken, QPWS and Jabalbina will continue to manage impacts in identified key areas, where disturbance is known to occur and can be appropriately monitored. **Threat rating: unknown**
- Ill-informed or disrespectful visitors – Kuku Yalanji Bama are proud of our madja (rainforests), manjal (mountains), wawubaja (rivers), yilki (creek), yirri (running water), yiri (waterfalls), and yalmba (sea shore/beaches), and welcome people to visit our Bubu and Jalun and behave in a respectful way. Daintree National Park contains significant places with strong cultural protocols about visiting—for example, women’s and men’s sacred sites and places that should not be visited at all. Cultural values are damaged when people visit sacred places without permission. Other visitor impacts include rubbish and erosion. **Threat rating: Medium**
- Climate change – warmer temperatures, and a potential increase in large floods, droughts and more intense cyclones are likely to have serious impacts on our Bubu and Jalun. Species now restricted to cooler mountaintops may not survive a warming climate. Kuku Yalanji seasonal calendars show the links in the timing of natural events; for example, when a certain tree flowers, Bama know that certain fish species are ready to be caught for food. As some events are triggered by temperature and others by day length, climate change might break links between these events. Rising sea levels threaten coastal ecosystems such as Daintree National Park’s extensive mangrove forests. **Threat rating: Medium**

**Desired outcome and strategic management directions**

Desired outcome		
<p>Kuku Yalanji cultural values are supported and sustained through jointly developing and implementing opportunities for the continuation and transmission of culture, in particular by QPWS, the Kuku Yalanji Bama and WTMA working together with a goal of a successful joint approach to park management.</p> <p>Kuku Yalanji Lore is recognised and supported in decision-making for the park.</p> <p>Traditional land and sea management is sustained and renewed through the employment of additional Kuku Yalanji Bama in park management.</p> <p>Kuku Yalanji cultural information is supplied to visitors to increase cultural awareness of visitors, enriching visitor experience and encouraging visitor behaviour that respects Kuku Yalanji culture.</p> <p>Kuku Yalanji language names are used on interpretative signs to deepen park users' understanding of Kuku Yalanji culture.</p>		
Threatening process	Strategic management direction	Priority
<b>Loss of Kuku Yalanji connection to Bubu and Jalun</b>	Build management capacity and opportunities through the Indigenous Management Agreement process, including additional employment, contract and training opportunities for Kuku Yalanji Bama.	<b>1</b>
	Maintain and strengthen access to Bubu and Jalun for Kuku Yalanji Bama.	<b>1</b>
	Jointly develop opportunities and processes to build and support culture.	<b>1</b>
	Maintain and renew traditional management practices by incorporating them into ongoing and agreed park management.	<b>1</b>
	Recognise and support Kuku Yalanji Lore in decision-making for the Daintree National Park.	<b>1</b>
<b>Fire</b>	Maintain Kuku Yalanji cultural values through appropriate fire management.	<b>1</b>
	Manage traditional pathways and cultural landscapes through the reintroduction of traditional burning practices.	<b>1</b>
<b>Pest plants</b>	Eradicate miconia <i>Miconia calvescens</i> and <i>M. nervosa</i> , from identified key Kuku Yalanji cultural areas throughout Daintree National Park.	<b>2</b>
	Eradicate coffee <i>Coffea liberica</i> , from identified key Kuku Yalanji cultural areas throughout Daintree National Park.	<b>3</b>
	Prevent the establishment of miconia <i>Miconia calvescens</i> and <i>M. nervosa</i> , hiptage <i>Hiptage benghalensis</i> and siam weed <i>Chromolaena odorata</i> within identified key Kuku Yalanji cultural areas throughout Daintree National Park	<b>2</b>
	Reduce impacts of pond apple <i>Annona glabra</i> , hiptage <i>Hiptage benghalensis</i> and brillantaisia <i>Brillantaisia lamium</i> in identified key Kuku Yalanji cultural areas throughout Daintree National Park.	<b>2</b>
<b>Pest animals</b>	Reduce impacts of feral pigs on identified key Kuku Yalanji cultural areas throughout Daintree National Park.	<b>1</b>
<b>Ecosystem modification</b>	Investigate opportunities to replant species previously selectively logged.	<b>2</b>
<b>Impacts to visitor experience</b>	Enhance visitor interpretation, including advice on appropriate cultural protocols and use of Kuku Yalanji language names, and infrastructure. (See Sustainable Tourism key value).	<b>2</b>
<b>Climate Change</b>	Protect Kuku Yalanji cultural values in Daintree National Park through adaptive management of threats to the landscape (increase in severity of weather events; hotter/drier conditions leading to more severe and frequent wildfire events; rainforest expansion); likely to be exacerbated by climate change.	<b>2</b>
	Jabalbina and QPWS to jointly develop a Daintree National Park climate adaptation strategy.	<b>3</b>

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).



# Manjal

## The mountains

High mountains contain story places and lore areas that can be seen from a wide area of the surrounding lowlands. These areas are intrinsically linked to the scenery and scenic amenity of the park.

*Our Bubu has important landscape and cultural values. Our mountains are especially significant places; Ngalba-bulal (Mt Pieter Botte), Wundu (Thornton Peak) and Kubirri (the Good Shepherd rock on Mt Demi) are very important story places that should not be visited.*

*Some of the plants and animals on our Country only live on the high mountains, especially Thornton Peak and the Main Coast Range, where it is cooler than the surrounding areas, and might not survive if these areas become warmer.*

Yalanjiwarra IPA Management Plan 2016

The key values for Manjal are:

Montane and upland areas

Tall open forests

Image 2. Manjal in cloud, Daintree National Park. © Qld Govt.



## 3.2 Montane and upland areas

### Key value statement

Description		Current condition	Current trend	Desired condition
Montane and upland forests (above 800m elevation)	Condition and trend	2017 ●●●	↔	●●●●
	Assessment confidence	Inferred ○	Inferred ○	

#### World Heritage Criteria 7, 8, 9 and 10

The montane and upland areas includes areas high altitude cloud forests. These forests support many endemic species and tree assemblages that rely on high moisture habitat from precipitation and mist from cloud cover that currently sit at a level of cloud base at 800-900m. Forest health is most sensitive to expansion of drier rainforest assemblages primarily driven by loss of cloud cover and precipitation and increased temperatures (Laidlaw *et al* 2011, Williams *et al* 2007).

The montane and upland areas of the Daintree National Park contain a range of endangered ecosystems and provide important habitats for 53 species of conservation significance (DSITI 2018; Williams 2006). Montane forests occur on the slopes and peaks of the higher mountains and consist of simple microphyll vine-fern forests and thickets. A high level of endemism exists within these upland rainforest communities. Endemic species such as the tapping nursery frog *Cophixalus aenigma*, golden bowerbird *Prionodura newtoniana* and mountain silkwood *Flindersia oppositifolia* have populations that occur in these upland habitats (DSITI 2018; Williams 2006). Many of these species can be considered ‘evolutionary relic species’ from previous ice ages and they are representative of the processes for which the World Heritage Area was listed.

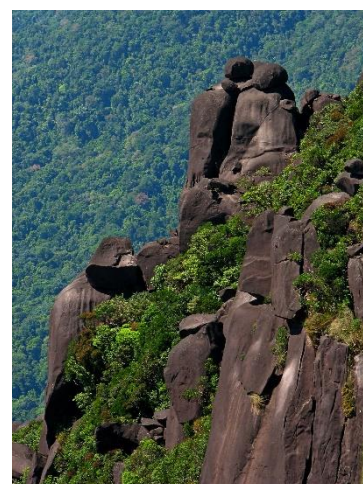


Image 3. Highland madja (rainforest), Wundu (Thornton Peak). © Terry Carmichael

Many locations in the montane and upland areas are fragile and highly sensitive to disturbance, and according to Traditional Kuku Yalanji Lore, visitors to the montane and upland areas need to be correctly welcomed to Bubu. For too long, Kuku Yalanji Bama have been visited by researchers and tourists who are attracted to the natural appeal of the area without being smoked or welcomed to Bubu by Kuku Yalanji Bama. These areas are very popular for research as they contain so much diversity of wildlife and are pathways to mountain peaks, and although we believe science is important, it should only be conducted in ways that respect the cultural importance of the areas to Kuku Yalanji Bama.

#### Threats

- Feral pigs disturbing rainforest, fernland, forbland and herbfield communities in areas above 800m elevation, causing soil disturbance, increased erosion, and direct predation on plants and native animals (i.e. potential impacts of pig predation on frog populations in this area). Although feral pig impacts on montane and upland forest communities are known to exist, the extent and severity of impacts, have not been extensively investigated. Until further investigation has been undertaken, QPWS and Jabalbina will continue to manage impacts in identified key areas, where disturbance is known to occur and can be appropriately monitored. **Threat rating: Unknown**
- The presence of visitors (researchers, local community members and tourists) in some areas compromises culture. **Threat rating: High**

- Visitor impacts in montane and upland areas include trampling of sensitive vegetation, spread of weeds and pathogens and disturbance of wildlife. **Threat rating: Low**
- During dry conditions, unplanned fire events may cause impacts over an extensive area when fires move up-slope from forests and woodlands and natural barriers to fire are less reliable. **Threat rating: Low**
- The impact of bush camping needs monitoring in montane ecosystems at Thornton Peak, where recovery from site impacts is slow. **Threat rating: Medium**
- Climate change causing hotter temperatures could result in some animals and plants disappearing. **Threat rating: High**
- Many native frogs have disappeared from mountain streams because of Chytridiomycosis, an infectious disease caused by the chytrid fungus *Batrachochytrium dendrobatidis* (DEE 2016). **Threat rating: High**

**Desired outcome and strategic management directions**

Desired outcome		
●●●●	<p>The natural and cultural values of mountain areas are maintained and improved, with a focus on montane and upland forests, by reducing impacts of feral pigs, fire and visitors, and by gaining better understanding of significant species including identifying climate change impacts.</p> <p>The aesthetic values and scenic vistas of Daintree National Park are retained through the continued management of Montane and upland areas.</p>	
Threatening process	Strategic management direction	Priority
<b>Fire</b>	Mitigate the potential severity and impact of wildfire within fire sensitive ecosystems in montane and upland areas.	<b>2</b>
	Manage the ecological function of fire adapted communities in montane and upland areas, through appropriate fire management.	<b>2</b>
<b>Pest animals</b>	Reduce impacts of feral pigs on montane and upland forests.	<b>3</b>
<b>Disease</b>	Prevent the human mediated spread of chytrid fungus <i>Batrachochytrium dendrobatidis</i> to or within montane and upland areas.	<b>2</b>
<b>Visitor impacts</b>	Protect montane and upland forest values by reducing visitor impacts, in particular to sites where visitor presence compromises cultural values.	<b>1</b>
<b>Climate change</b>	Protect critical montane and upland areas in Daintree National Park through adaptive management of the threats to these landscapes (increase in the severity of weather events; hotter/drier conditions leading to more severe and frequent wildfire events; rainforest expansion) that will be exacerbated by climate change.	<b>2</b>

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

### 3.3 Tall open forests

#### Key value statement

Description		Current condition	Current trend	Desired condition
<i>Eucalyptus resinifera</i> and <i>E. grandis</i> forests in the Mossman Gorge uplands areas	Condition and trend	2017 ●●	↓	●●●
	Assessment confidence	Inferred ○	Inferred ○	

*World Heritage Criteria 7, 9 and 10*

Tall open forests are a transitional ecotone that occur in a narrow band between upland rainforest and drier sclerophyll communities to the west. Tall open forests are characterised by a variety of species such as red stringybark *Eucalyptus resinifera*, rose gum *Eucalyptus grandis*, white stringybark *Eucalyptus acmeniodes*, pink bloodwood *Corymbia intermedia* and turpentine *Syncarpia glomulifera* (Queensland Herbarium 2018). These forests undergo structural changes over time as a result of the major ecological element that drives these cycles.

Managing these forests requires focused effort by QPWS and Eastern Kuku Yalanji. These forests provide important habitat for a number of species of conservation significance and form part of the historical distribution of the endangered northern bettong *Bettongia tropica* (Dennis 2001) and yellow-bellied glider *Petaurus australis* (DERM 2011). Substantial areas of tall open forests have undergone significant change towards a closed forest condition and significant effort will be required to improve the condition of these ecosystems. Given the scope of the issue and the significant effort required to improve the condition of these ecosystems, a target has been established to achieve a forest health condition of ‘good with some concern’.




Image 4. Tall open forest of Daintree National Park. © Qld Govt

It is recognised that these open forests represent important areas for travel across the landscape and are significant areas for food and cultural resources for the Kuku Yalanji Bama. Vegetation communities adjacent to tall open forests in the Wuburr (hills), Balay (valleys and lower ground), and coastal landscapes will be managed to maintain and improve the values in these areas. By identifying traditional Kuku Yalanji Bama pathways, traditional land management activities can occur on Bubu, such as weed management and fire activities.

**Threats**

- Wrong fires and forest management – lack of Traditional burning has allowed areas to transition from open to closed forest. This is often irreversible and causes some of these ecosystems to be listed as endangered. Loss of open structure threatens suitable habitat for species (i.e. yellow-bellied glider) reliant on these ecosystems and also results in removing traditional pathways and food resources for the Kuku Yalanji Bama (DERM 2011). **Threat rating: Very high**
- Grazing, ground disturbance, reduced water quality and spreading of pathogens and weeds by cattle has the potential to alter forest structure and damage ecosystem integrity. **Threat rating: High**
- Feral cats have been known to predate on small mammals, birds, reptiles and frogs that occur in tall open forest communities, some of which are rare, threatened and/or endangered such as the northern bettong *Bettongia tropica*. Although feral pig and cat impacts on tall open forest communities and significant species occurring in these areas, are known to exist, the extent and severity of impacts, have not been extensively investigated. Until further investigation has been undertaken, QPWS and Jabalbina will continue to manage impacts in identified key areas where disturbance/predation is known to occur and can be appropriately monitored (Dennis 2001). **Threat rating: Unknown**
- Lantana *Lantana camara* causes significant structural change to the ecosystem by shading and displacing grassy ground cover, and alters fire regimes. **Threat rating: Medium**
- Invasive weeds such as siam weed *Chromolaena odorata*, grader grass *Themeda quadrivalvis* and thatch grass *Hyparrhenia rufa* cause significant structural change to ecosystems. The risk of ecosystem changing weeds being introduced or spread throughout tall open forest communities is greater along access roads (DAF 2016). **Threat rating: Medium**

**Desired outcome and strategic management directions**

Desired outcome		
Desire 2025 	The condition of the tall open forests is improved, through effective fire management and reduced impacts of invasive species. Fire management is effective in maintaining an open forest structure and Traditional pathways.  The aesthetic values and scenic vistas of Daintree National Park are retained through the continued management of tall open forest communities.	
Threatening process	Strategic management direction	Priority
<b>Fire</b>	Manage fire in tall open forests to achieve representation of the full spectrum at various structural states through appropriate fire management.	<b>1</b>
	Manage traditional pathways and cultural landscapes through the reintroduction of traditional burning practices.	<b>1</b>
	Manage fuel loads in adjacent fire adapted communities to allow for appropriate management of fire in tall open forests.	<b>1</b>
<b>Pest plants</b>	Reduce impacts of <i>Lantana camara</i> on upland tall open forests.	<b>2</b>
	Prevent the establishment of ecosystem changing weeds in tall open forests.	<b>2</b>
<b>Pest animals</b>	Reduce impacts of feral cattle on tall open forests.	<b>2</b>
	Reduce impacts of feral pigs on tall open forests.	<b>2</b>
	Reduce impacts of feral cats on significant fauna populations of tall open forests.	<b>2</b>

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

# Wuburr and Balay

## The hills and valleys

This area includes the slopes and hills that comprise the Daintree lowlands. Specific components within this area, such as rainforest and open forests, hold high natural values. Cultural values exist throughout this area as story places and lore areas.

*We have some of the wettest tropical rainforest in Australia, especially around the Noah and Cooper Creek catchments. Our madja (rainforest) have been scientifically proven to be some of the oldest rainforests in the world. More than half of the world's primitive flowering plant families are found in these madja (rainforests).*

Jalunji-Warra IPA Management Plan 2012

The key value for Wuburr and Balay is:

madja

Image 5. Noah Creek estuary. © Terry Carmichael



## 3.4 Madja (rainforest)

### Key value statement

Description		Current condition	Current trend	Desired condition
Rainforest (below 800m elevation)	Condition and trend	2017 ●●●	↓	●●●●
	Assessment confidence	Inferred ○	Inferred ○	

#### World Heritage Criteria 7, 8, 9 and 10

Even though the rainforests of the Wet Tropics region only cover 0.2% of the continent's land mass, a large proportion of Australia's biodiversity is found in these areas. The Daintree rainforests are considered a world acclaimed biodiversity 'hotspot' and contain representative species of at least 12 of the 19 primitive flowering plant families found in the Wet Tropics bioregion. Many plants and animals are endemic, rare or endangered and keystone species such as cassowaries play an integral role as seed dispersers in these ecosystems. Rare rainforest plants found here are very similar to some of the original Gondwanan plants, as they have been preserved in fire and drought-resistant rainforest refuges. The Noah Creek and Cooper Creek Valley are known as refugial areas rich in endemic genera and models suggest that these rainforests have been key refuge areas for the last 15, 000 years (Hopkins *et al.* 1996).



Image 6. Madja (rainforest) below 800m. © Terry Carmichael

Eastern Kuku Yalanji Bama are connected spiritually, emotionally and physically to all aspects of the Bubu, but the madja is the common feature that links Bama. Madja contains mayi and minya, story places and cultural areas as well as many other elements that connect Bama to Bubu.

#### Threats

- Degradation of rainforest ecosystems by feral pigs through soil disturbance, increased erosion spread of pathogens and direct predation. Although feral pig impacts in madja (rainforest) are known to exist, the extent and severity of impacts have not been extensively investigated. Until further investigation has been undertaken, QPWS and Jabalbina will continue to manage impacts in identified key areas, where disturbance is known to occur and can be appropriately monitored. **Threat rating: Unknown**
- Ecosystem modification by pest plants including *Miconia calvescens* and *M nervosa*, hiptage *Hiptage benghalensis*, and siam weed *Chromolaena odorata* (DAF 2016a & c). **Threat rating: Very High**
- Ecosystem modification by pest plants including coffee *Coffea liberica* and brillantaisia *Brillantaisia lamium*. **Threat rating: Low**
- Climate change causing an increased intensity of severe storms, and changes to the rainfall regime resulting in changes to the forest composition and structure. **Threat rating: Very High**
- The cultural landscape of the wuburr (hills) and balay (valleys) are threatened by changes to traditional burning practices. **Threat rating: Low**
- Transition of open forest ridges to rainforest due to a lack of fire, removing access to traditional pathways. **Threat rating: Very High**
- Many native frogs have disappeared from streams due to Chytridiomycosis, an infectious disease caused by the chytrid fungus *Batrachochytrium dendrobatidis* (DEE 2016). **Threat rating: High**

### Desired outcome and strategic management directions

Desired outcome		
	<p>The condition of rainforest communities is maintained and improved through invasive species management, identifying climate change impacts and improving knowledge of significant species.</p> <p>The cultural landscape of the wuburr (hills) and balay (valleys) in Daintree National Park is re-vitalised through the (Traditional) application of fire enabling the continued use of traditional pathways and access to cultural resources.</p> <p>The aesthetic values and scenic vistas of Daintree National Park are retained through the continued management of madja (rainforest).</p>	
Threatening process	Strategic management direction	Priority
<b>Fire</b>	Manage cultural values (i.e. pathways, significant sites, camp areas) within madja (rainforest) through the implementation of traditional burning.	1
<b>Pest plants</b>	Eradicate miconia <i>Miconia</i> spp. and hiptage <i>Hiptage benghalensis</i> from priority areas within madja (rainforest).	2
	Eradicate coffee <i>Coffea liberica</i> from priority areas within the Cape Tribulation madja (rainforest).	3
	Prevent the establishment of siam weed <i>Chromolaena odorata</i> , <i>Miconia calvescens</i> , <i>M. nervosa</i> , hiptage <i>Hiptage benghalensis</i> and other ecosystem changing weeds within madja (rainforest).	2
	Reduce impacts of brilliantasia <i>Brilliantaisia lamium</i> and hiptage <i>Hiptage benghalensis</i> on madja (rainforest).	3
<b>Pest animals</b>	Reduce impacts of feral pigs on madja (rainforest).	2
<b>Disease</b>	Prevent the human mediated spread of chytrid fungus <i>Batrachochytrium dendrobatidis</i> to or within madja (rainforest).	3
<b>Climate change</b>	Manage change and improve resilience of madja (rainforest) through active management of known threats that will be exacerbated by climate change.	2

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).



# Wawubaja, Yilki, Yirri and Yiri

## The rivers, creeks, running waters and waterfalls

*Our waterways are very important places on our Bubu. The Bloomfield and Daintree estuaries are part of our Country, and we have many rainforest creeks, including upper Trevethan Creek, Gap Creek, Emmagen Creek, Noah Creek and Cooper Creek. There are sacred sites along our creeks. There are Yirrbal (rainbow serpent) story places along our waterways. Some sacred sites are for men or women only, with one family line as Traditional Custodians. Some are healing places. Visitors need to be especially careful to talk first with Traditional Owners before going to waterways.*

*Waterways are important for many animals like kuyu (fish) and freshwater prawns (wukuju). Some of these fish may only live in creeks along the Daintree coast and could go extinct if anything happens to their habitat. We need to continue to look after these fish. Bilngkumu (estuarine crocodiles) are important story animals, and part of our culture, although there are too many bilngkumu now in places where Bama live.*

*We want to be involved in managing these numbers in a traditional way.*

*Estuaries are important fishing and hunting areas for our Bama, but we need to look after the animals that live there too. For example, Jalunji-Warra Elders have made a voluntary agreement that we will not fish in the Cooper Creek mouth and want to educate others about our decision.*

*We also have important wetlands. The fan palm forests in Alexandra Bay and the mangrove forests of Alexandra Bay and the Lower Daintree River are listed as nationally important wetlands (SEWPAC 2011).*

Jalunji-Warra IPA Management Plan 2012

The key values for Wawubaja, Yilki, Yirri and Yiri are:

Wawubaja, yilki, yirri and yiri (rivers, creeks, running waters and waterfalls)

Mangkurru (Mangroves)

Image 7. Upper Mossman Gorge. © Terry Carmichael



### 3.5 Wawubaja, yilki, yirri and yiri (rivers, creeks, running waters and waterfalls)

#### Key value statement

Description		Current condition	Current trend	Desired condition
Wawubaja, yilki, yirri and yiri (rivers, creeks, running waters and waterfalls).	Condition and trend	2017 ●●●	↓	●●●●
	Assessment confidence	Inferred ○	Inferred ○	

The aquatic ecosystems of Daintree National Park are considered a biodiversity hot spot. Forty-two percent of freshwater fish species of Australia occurs in the Wet Tropics, with a further 29 species considered as madja (rainforest) specialists. Nine endemic species have been identified including rainbowfish, catfish, grunTERS, cod and gobies (Trennery & Werren 1991).

Waterways provide a cultural, physical and biological connection between the different parts of Kuku Yalanji Bubu and Jalun, from springs high on Thornton Peak and the main coast range to the mangrove-lined estuary of the Daintree River flowing into the Coral Sea. With its high rainfall and varied terrain, Daintree National Park has a great diversity of aquatic habitats, many with Yirrbal (sacred story places) cultural significance, supporting highly biodiverse ecosystems.


#### Threats

- During the wet season, silt from the unsealed creek crossings along the Bloomfield Track flows down the creeks compromising cultural values and damaging cultural resources before it runs out onto the fringing reefs. **Threat rating: Medium**
- Pest plants, such as pond apple *Annona glabra* and non-native pest plants like hymenachne *Hymenachne amplexicaulis* and salvinia *Salvinia molesta* threaten aquatic ecosystems (DAF 2016a, d & e). **Threat rating: High**
- Feral pigs and non-native fish threaten aquatic ecosystems. **Threat rating: High**
- Uninformed visitors can access cultural sites contrary to cultural protocols and can disturb river and creek banks leading to vegetation damage and bank erosion. **Threat rating: Medium**
- Climate change could have some big effects on our Bubu and Jalun. Scientists believe that the air and sea temperatures will become warmer, there will be more floods and droughts, more intense cyclones and the sea level could rise. Existing coastal freshwater swamps could be taken over by mangroves. Some creeks, like Pannikan Creek, don't flow as much as they used to. **Threat rating: High**
- Climate change breaking the natural cycle and connections of Bubu and Jalun. For example our seasonal calendars show how different things happen at certain times. We are already seeing some climate change impacts changing the timing of flowering or animal activities. **Threat rating: Very High**



Image 5. Noah Creek, Daintree National Park. © Terry Carmichael

## Desired outcome and strategic management directions

Desired outcome		
Threatening process	Strategic management direction	Priority
 <p>The condition of wawubaja, yilki, yirri and yiri (rivers, creeks running waters and waterfalls) is maintained and improved by minimising visitor impacts on rivers and creeks, managing pest plants and pest animals and by mitigating climate change associated impacts.</p>		
<b>Pest plants</b>	Reduce impacts of pond apple <i>Annona glabra</i> and hymenachne <i>Hymenachne amplexicaulis</i> on wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls) in identified key areas of Daintree National Park.	2
	Prevent the establishment of salvinia <i>Salvinia molesta</i> in wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls) of Daintree National Park	3
	Prevent the establishment of emerging non-native aquatic weeds in wawubaja, yilki, yirri, and yiri (rivers, creeks, running water and waterfalls) throughout the Daintree National Park.	3
<b>Pest animals</b>	Reduce impacts of feral pigs on wawubaja, yilki, yirri, and yiri (rivers, creeks, running water and waterfalls).	2
	Prevent the establishment of non-native fish in wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls) throughout the Daintree National Park.	2
<b>Visitor impacts</b>	Minimise visitor impacts through awareness of Bama's cultural protocols associated with swimming in creeks and respecting Kuku Yalanji Bama's sacred places along waterways and at waterfalls.	1
	Encourage road managers to install and service sediment traps, culverts, causeways or bridges on the unsealed sections of the Bloomfield Track to reduce the direct input of sediment into wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls) at crossings.	2
<b>Climate change</b>	Manage change and improve resilience of wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls) through active management of known threats that will be exacerbated by climate change.	3

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 3.6 Mangkurru (mangroves)

### Key value statement

Description		Current condition	Current trend	Desired condition
Mangrove communities within the Noah and Cooper Creek catchments.	Condition and trend	2017 ●●●	↓	●●●●
	Assessment confidence	Inferred ○	Inferred ○	

*World Heritage Criterion 8, 9 and 10*

***Mangkurru (mangrove) and mudflat areas are very important breeding areas for kuyu (fish) and other important food animals like yulba (saltwater mussel) and kiju (mud crab).***

The mangrove forest provides shelter and food for a wide range of animals, especially invertebrates and juvenile marine species, and is an important refuge area and movement corridor for sub-adult and juvenile cassowaries. Mangroves are a buffer between the Bubu and the Jalun. The dense silt around their root systems prevents erosion in fringing Bubu communities and minimises erosion from wave activity. The forest bears the brunt of storm activity, allowing the coast behind it to remain protected, making it a key contributor to resilience to climate change. Within this landscape component there are wetlands of national importance, and a CSIRO long-term study plot and the Madja Botanical Walk.



Image 6 Mangkurru (mangroves) of Noah Creek estuary. © Terry Carmichael

#### Threats

- Climate change is likely to impact mangroves as they are located in the intertidal zone, an area highly vulnerable to climate change effects. Tidal wetlands are extremely sensitive to sea level rise—too much flooding and mangroves will “drown”, too little and they will be less productive and may be replaced with salt marsh or blue-green algae communities. They are also susceptible to high ocean temperatures resulting in tree death. **Threat rating: Very High**
- The pest plant pond apple can form dense thickets, excluding most native plant species. Pond apple’s ability to grow in flooded areas and to tolerate salt water has enabled it to spread through much of the Wet Tropics area. **Threat rating: High**

#### Desired outcome and strategic management directions

Desired outcome		
●●●●	The condition of mangroves is maintained and improved through climate change mitigation measures and by managing invasive species.	
Threatening process	Strategic management direction	Priority
Pest plant	Reduce impacts of pond apple in key mangkurru (mangrove) areas within Daintree National Park.	2
Climate change	Manage change and improve resilience of mangkurru (mangroves) through active management of known threats that will be exacerbated by climate change.	3

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

# Yalmba

## The sea shore/beach

*Our traditional ecological knowledge shows us how to look after land and sea Country. Our lore about cultural sites, about how to collect bush foods and how to cook foods on open fires, comes from our old Bama and our Country and shows the way to care for Bama and Bubu. Ngujakura has seasonal calendars about hunting and using special places.*

*Our Bubu has a very high biodiversity of vegetation types, including madja (rainforest), open forest, swamps and shrublands and heathlands on rocky headlands and mountain peaks. Many stories connect our Bubu and our Jalun. Like our Bubu, our Jalun is full of Yirrbal (sacred story places).*

*Our beaches have great cultural importance. Some of our beaches are very popular visitor areas. Ngawiya (sea turtle) nest on our beaches, but there is less nesting than before. Important food plants live next to the beach.*

*Along the Daintree coast are important living areas for kurrnji (cassowary) and other important animals.*

Jalunji-Warra IPA Management Plan 2012

The key value for Yalmba is:

Kuku Yalanji coastal values

Image 10. Cape Tribulation. Adam Creed © Qld Govt



### 3.7 Kuku Yalanji coastal values

#### Key value statement

Description		Current condition	Current trend	Desired condition
Coastal landscape including sandy beaches, littoral rainforest, coastal vine thickets and broad leaf tree-tree communities	Condition and trend	2017 		
	Assessment confidence	Inferred 	Inferred 	


Coastal places have great importance for Kuku Yalanji Bama. There are many cultural sites along the Kuku Yalanji coastline, along with an abundance and diversity of mayi (food plants) and minya (food animals) from both Jalun (sea) and Bubu (land). Sandy coastal habitats are preferred traditional camping areas, including coastal littoral forest with its shade, soft ground and access to food and water resources. Ngawiya (marine turtles) also use these coastal habitats for feeding and nesting grounds and although nesting is limited within this area, predation of nests from feral animals can occur.

The Wet Tropics exhibit exceptional natural beauty. This is particularly apparent between the Daintree River and Cedar Bay, where exceptional coastal scenery combines tropical rainforest and white sandy beaches with fringing and offshore coral reefs (IUCN criterion 7). The coastal zone encompasses the components of the nationally ‘critically endangered’ Littoral Rainforest and Coastal Vine Thickets of Eastern Australia and the endangered Broad leaf tea-tree *Melaleuca viridiflora* woodlands in high rainfall coastal north Queensland Ecological Community (DEWHA 2009).

#### Threats

- Ecosystem modification by pest plants such as pond apple *Annona glabra* are a potential threat to the Kuku Yalanji coastal values and traditional food resources. **Threat rating: Very high**
- Emerging invasive pests, such as tramp ants are a potential threat to the Kuku Yalanji coastal values. Tramp ants such as the red imported fire ant, yellow crazy ant, electric ants and Argentine ants are easily dispersed by humans. Tramp ants are aggressive and will prey on litter and canopy fauna resulting in a reduction of species diversity in an area. Tramp ants represent a potential health risk to visitors and staff and can reduce the amenity values of key areas Daintree National Park. **Threat rating: Very high**
- Feral pig disturbance of the Kuku Yalanji coastal values. Although feral pig impacts on Kuku Yalanji coastal values are known to exist, the extent and severity of impacts have not been extensively investigated. Until further investigation has been undertaken, QPWS and Jabalbina will continue to manage impacts in identified key areas, where disturbance is known to occur and can be appropriately monitored. **Threat rating: Unknown**
- Climate change threatens the coastal area through warmer temperatures, more intense storms and the disruption of normal cycles through increasing temperatures, higher variation in rainfall, and increased threats from fire and pest plants. Sandy beaches could be washed away or covered by sea, meaning less nesting areas for ngawiya (sea turtles). More floods and droughts and intense cyclones could also cause problems. **Threat rating: Very High**
- Potential construction of park and external infrastructure that interrupts or detracts from the Kuku Yalanji coastal areas. **Threat rating: Low**
- Visitor impacts include damage to cultural values through inappropriate visitation, rubbish and erosion. **Threat rating: Medium**
- Wrong burning practices are sometimes being used when Bubu is burned, both in frequency, resulting in a loss of open habitats, and in timing, resulting in a change in plant composition. **Threat rating: Very high**

## Desired outcome and strategic management directions

Desired outcome		
Threatening process	Strategic management direction	Priority
	<p>Kuku Yalanji coastal values are maintained by monitoring and managing pests, weeds, fire and visitor infrastructure and access.</p> <p>The aesthetic values and scenic vistas of Daintree National Park are retained through the continued management of Kuku Yalanji Coastal Values.</p>	
	<b>Fire</b>	Reintroduce traditional burning practices in collaboration with the Kuku Yalanji Bama to maintain cultural sites located along the coast line.
<b>Pest plants</b>	Reduce impacts of pond apple along Yalmba (sea shore/beach).	<b>2</b>
	Prevent ecosystem changing weeds impacting on traditional food resources along Yalmba (sea shore/beach).	<b>3</b>
<b>Pest animals</b>	Reduce impacts of feral pigs on Kuku Yalanji coastal values.	<b>2</b>
	Prevent the establishment of tramp ants in Daintree National Park.	<b>3</b>
<b>Visitors impacts</b>	Reduce visitor impacts on the Kuku Yalanji coastal values of Daintree National Park.	<b>1</b>
	Minimise impacts of highly visible infrastructure on Kuku Yalanji coastal values.	<b>1</b>
<b>Climate change</b>	Manage change to the Kuku Yalanji coastal values of Daintree National Park through active management of known threats that will be exacerbated by climate change.	<b>2</b>

\*KEY: Priority ratings: **M** – maintain current priorities; Scale **1** (extremely urgent and extremely necessary) to **5** (optional and not urgent).

# Visitors

*To properly look after visitors, as well as other Bama living and working on our Country, we need to let people know about our Country and how to respect it. There needs to be a lot more information about us and our Country available for everyone who comes here. We are proud of our rainforests, mountains, rivers, waterfalls, beaches, sea and reef and welcome people to visit our Country and behave in a respectful way. We want to be much more involved in tourism on our Country. We need to have our Bama working as tour guides and other jobs in tourism on our Bubu, and to research opportunities for us to set up tour companies and other tourism businesses. To properly look after visitors, as well as other Bama living and working on our Country, we need to let people know about our Country and how to respect it. There needs to be a lot more information about us and our Country available for everyone who comes here.*

(Jalunji-Warra IPA Management Plan 2012).

The key value for Visitors is:

Sustainable tourism

Image 6. Dubuji interpretation shelter. © CRC





## 3.8 Sustainable tourism

### Key value statement

Description		Current condition	Current trend	Desired condition
Internationally recognised tourism destinations at Mossman Gorge and Cape Tribulation.	Condition and trend	2017 		
	Assessment confidence	Inferred 	Inferred 	

The coastal area of Daintree National Park is an internationally recognised tourism destination, delivering world-class visitor experiences through the conservation of the area's special natural places and unique Kuku Yalanji cultural heritage (QPWS 2016). It provides a tropical rainforest experience with ready access to the plants and animals of the World Heritage rainforest. Extensive sweeping and undisturbed forest vistas can be observed from most sections of the park, allowing visitors to appreciate and experience Daintree National Park's exceptional natural beauty and aesthetic values. Tourism and recreation in the Wet Tropics plays an important role in community use and enjoyment, and helps educate locals and visitors about the area's outstanding universal value.

Tourism and recreation contributes substantially to the region's economy and it is easily accessible from tourism hubs such as Cairns and Port Douglas. Tourism is centred on two main areas of the park—Mossman Gorge in the south and along the narrow coastal corridor from the Daintree River crossing to Cape Tribulation. Access to Mossman Gorge is managed through the Mossman Gorge Centre, operated by Voyages Indigenous Tourism Australia, a subsidiary of the Indigenous Land Corporation. Voyages Indigenous Tourism Australia provides opportunities for visitors to gain a greater understanding of Kuku Yalanji lives, culture and beliefs. Kuku Yalanji has aspirations to further expand these cultural enterprises to Cape Tribulation and other areas. Visits to lookouts, short walks, particularly on boardwalks, and nature appreciation are the main activities undertaken.


Daintree National Park and surrounds are very significant to the Kuku Yalanji Bama. QPWS is working with Jabalbina to meet the aspirations of the Kuku Yalanji Bama to ensure:

- visitors appreciate the significance of the area to Kuku Yalanji Bama
- culturally appropriate tourism
- visitors gain an appreciation of traditional land management practices
- support for Kuku Yalanji aspirations to develop new commercial tourism activities and facilities.

### Threats

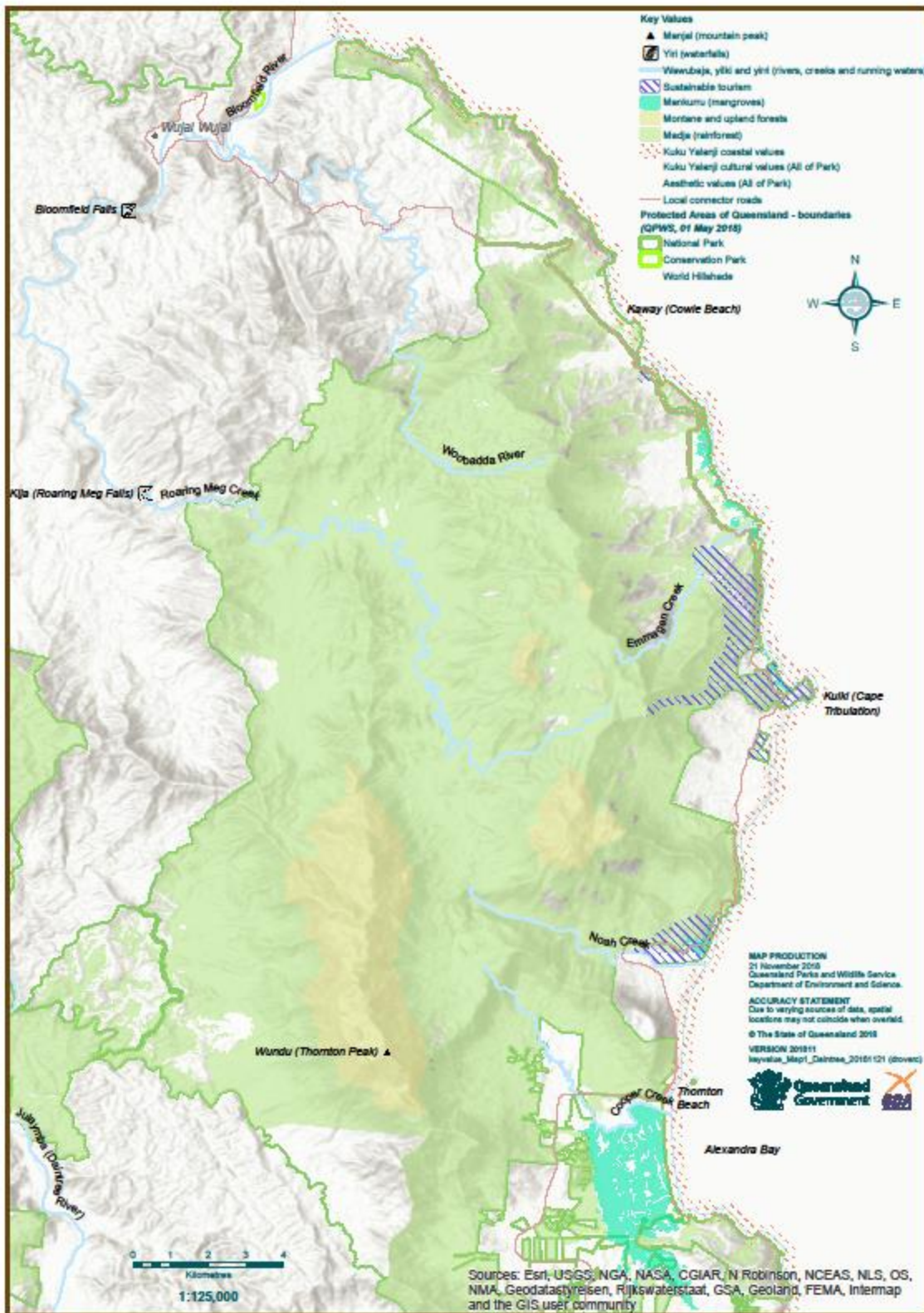
- Visitors’ expectations of a high-quality experience may not be met at key tourism sites due to ageing infrastructure, limited on-site promotion of available experiences and sites, ageing interpretive material and limited directional signs. The capacity of key visitor nodes is restricted to the existing footprint and these areas may not cope with increasing visitation. **Threat rating: Medium**
- Infrastructure that straddles tenures may be poorly designed or maintained, particularly carparks and signs on public roads, and other tourism infrastructure. **Threat rating: Medium**

### Desired outcome and strategic management directions

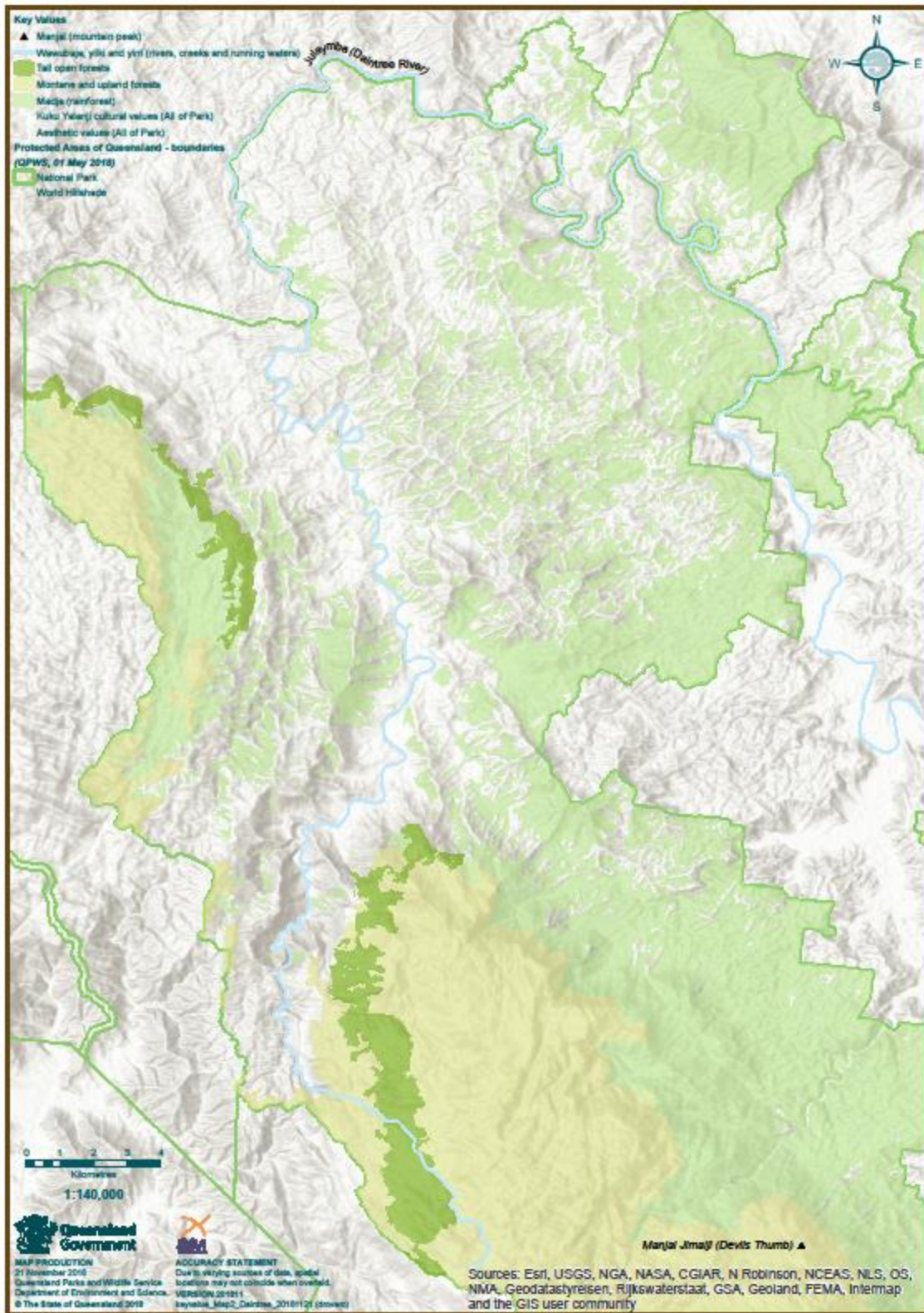
Desired outcome		
	<p>The condition of tourism values is improved by enhancing visitor experiences, promoting opportunities, and developing and maintaining strong cross-tenure partnerships.</p> <p>There are increased opportunities for Kuku Yalanji Bama businesses, and employment in and roles within the tourism sector for Kuku Yalanji Bama to be able to work on and earn from Country.</p> <p>Sustainable tourism recognises and respects Kuku Yalanji culture.</p> <p>The aesthetic values and scenic vistas of Daintree National Park are retained through appropriately designed and sited tourism infrastructure.</p>	
Threatening process	Strategic management direction	Priority
Impacts on visitor experience	Enhance visitor experience through improved infrastructure standards.	2
	Enhance visitor experience through improved interpretation focusing on Kuku Yalanji cultural values.	1
	Enhance visitor access to the Daintree experience by building the Daintree brand.	2
	Enhance visitor experience through support of Kuku Yalanji aspirations and commercial opportunities.	1

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

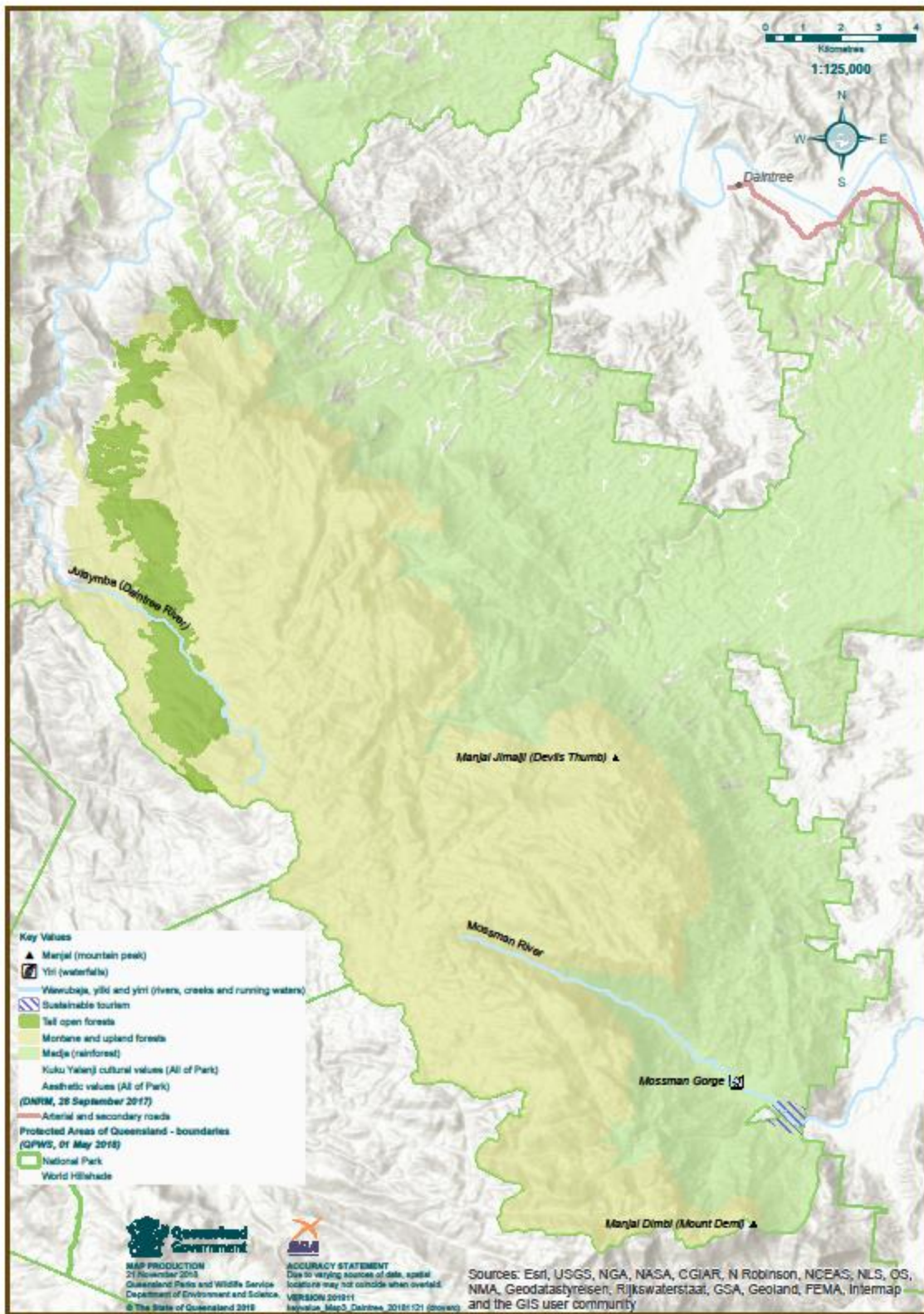
# Map 1. Daintree National Park key values map, northern section



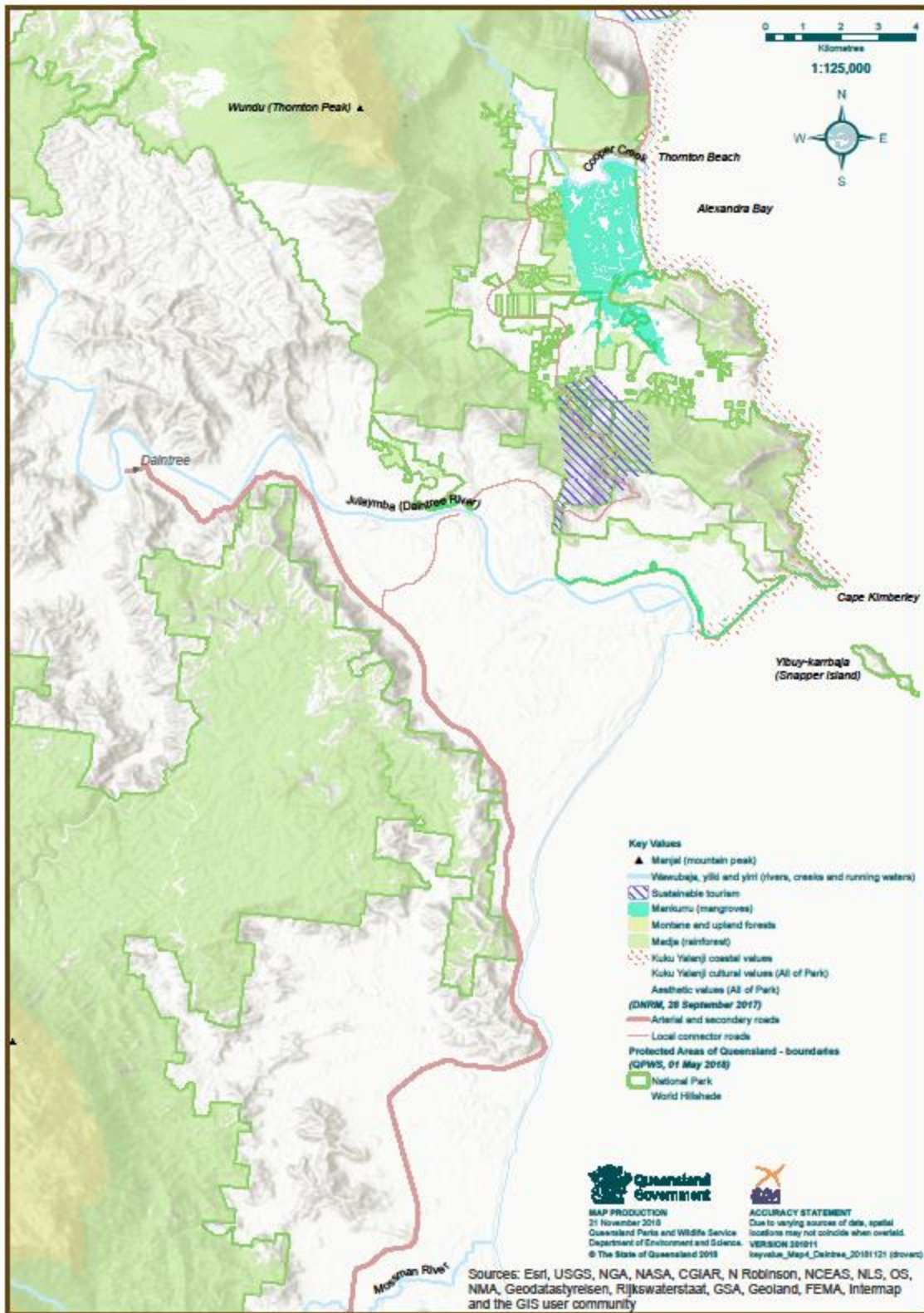
## Map 2. Daintree National Park key values map, western section



### Map 3. Daintree National Park key values map, southern section



## Map 4. Daintree National Park key values map, south-eastern section



# 4. Management direction

Protected areas are managed to protect particular values and deliver our custodial obligations as land managers. Levels of service (LoS) is a QPWS planning tool used to identify the acceptable management standard, or level of resourcing, that is required to maintain an area based on its values, threats and the complexity of management.

There are five LoS ratings ranging from 'acceptable' to 'exceptional' noting that an acceptable rating is the minimum standard required to deliver good management and meet custodial obligations under law as land managers to ensure that our parks contribute to the wellbeing of our communities.

The key areas for management in Daintree National Park are the aspirations for Eastern Kuku Yalanji Bama Traditional Owners to continue their close connection to Bubu and Jalun, and the declaration of the park as 'National Park Cape York Peninsula Aboriginal Land'. This section provides a **management direction statement** for each core management element, identifying its current LoS, desired LoS and the strategic management direction for management.

## Summary of Daintree National Park's management direction

Figure 7 Summary of the current and desired LoS for Daintree National Park's nine management elements.

	Current LoS		Desired LoS	
1. Eastern Kuku Yalanji Bama engagement		High		Very High
2. Fire management		Medium		High
3. Pest management		High		Exceptional
4. Natural values management		Medium		Exceptional
5. Historic cultural heritage management		Acceptable		Acceptable
6. Visitor management		Very high		Exceptional
7. Community, partnerships and other interest		High		High
8. Field management capability		Very high		Exceptional
9. Operational planning and management support		High		Exceptional

Figure 8 Key to condition, trend and confidence icons

Acceptable	Medium	High	Very high	Exceptional
				
Values, risks and threats, community interface challenges and requirement for special management intervention is at a level that can be managed with an acceptable level of service.	Values, risks and threats, community interface challenges and requirement for special management intervention is at a level that can be managed with a medium level of service.	Values, risks and threats, community interface challenges and requirement for special management intervention is at a level that can be managed with a high level of service.	Values, risks and threats, community interface challenges and requirement for special management intervention is at a level that can be managed with a very high level of service.	Values, risks and threats, community interface challenges and requirement for special management intervention is at a level that can be managed with an exceptional level of service.

## 4.1 Eastern Kuku Yalanji Bama partnership and culture

### Management direction statement

Description	Current level of service
Eastern Kuku Yalanji Bama	

Central to all QPWS work is the recognition of the critical role that the Eastern Kuku Yalanji Bama have as custodians of their land and sea country. The agency is committed to recognising and respecting native title rights and interests, working collaboratively to better manage land and sea, and building capacity.


QPWS is committed to enhancing the partnership with the Eastern Kuku Yalanji Bama, who have a continuing and close connection with Daintree National Park, including cultural activities and responsibilities. The Eastern Kuku Yalanji Bama are the Traditional Owners of the park (Native Title Determination 2007). Daintree National Park will be managed at a **very high** LoS due to the strong Bama connection to Bubu and Jalun and level of cooperative management currently in place.

Jabalbina has commenced negotiations with QPWS for CYPAL nomination of Daintree National Park and joint management.

Activity guidelines have been agreed around Native Title Rights and Interests to:

- camp
- bury
- use firearms, and
- bring dogs onto the Agreement Area.

### Desired level of service and strategic management directions

Desired level of service	
	<ul style="list-style-type: none"> <li>• Levels of knowledge relating to Indigenous cultural heritage is improved by working collaboratively with Eastern Kuku Yalanji Bama to share information and map sites where appropriate.</li> <li>• Levels of consultation and engagement are improved through formal relationship building and collaborative management arrangements for managing the Daintree National Park.</li> <li>• The approach to protecting known Bama cultural heritage sites is improved through collaborative development of management objectives to maintain and protect the Bama cultural values of the park, with efforts to support Eastern Kuku Yalanji Bama to develop management capacity.</li> <li>• Daintree National Park continues to be managed cooperatively with the Eastern Kuku Yalanji Bama until the Queensland Government enters into a joint management arrangement with the Eastern Kuku Yalanji Bama under the <i>Cape York Peninsula Heritage Act 2007</i> (Qld) at which time Joint Management will commence.</li> <li>• The Eastern Kuku Yalanji Bama are supported in collecting and managing cultural heritage data including the Eastern Kuku Yalanji Bama Cultural Information System (EKYBCIMS).</li> <li>• The Eastern Kuku Yalanji Bama are supported in their aspiration to build and operate an on-Country keeping place.</li> </ul>



Strategic management directions	Priority
<b>Level of service:</b>	
Increase the level of Bama cultural resource information in collaboration with Kuku Yalanji Bama including investigating support for the Eastern Kuku Yalanji Bama Cultural Information System.	1
Improve the levels of engagement and collaboration with Eastern Kuku Yalanji Bama to meet indigenous land-use agreement and memorandum of understanding requirements.	1
Improve collaboration with Eastern Kuku Yalanji Bama to develop management objectives and priorities to maintain and protect Bama cultural values.	2
Increase support for Eastern Kuku Yalanji Bama to develop management capacity for park management activities.	1
Increase public awareness of Traditional Kuku Yalanji land management practices to maintain healthy Bubu and Jalun.	3

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 4.2 Fire management

### Management direction statement

Description	Current level of service
Fire management for Daintree National Park	

Fire management is core business in order to protect life and property, mitigate wildfires and maintain natural diversity. We work cooperatively with state and local government agencies, rural fire brigades, adjoining landholders and local communities to manage fire across the landscape.


The strategic management directions in this management plan, combined with Kuku Yalanji Bama knowledge and the Queensland Government’s *Planned Burn Guidelines: Wet Tropics Bioregion of Queensland*, will guide the formation of the *Daintree National Park Fire Strategy*.

The Kuku Yalanji Bama and QPWS consider fire critical to managing Bubu and maintaining their culture.

Natural values in the park will be managed to a **high** LoS due to significant fire-affected key values requiring critical attention and lower life and property risks.

The *Daintree National Park Fire Strategy* will address custodial obligations for protecting life and property and fire management objectives for maintaining key values through the use of fire management zones and cultural burn practices.

#### Desired level of service and strategic management directions

Desired level of service	
	<ul style="list-style-type: none"> <li>Levels of knowledge relating to the fire requirements of key values currently meet desired standards and will be maintained.</li> <li>A jointly developed fire strategy that incorporates a return to Traditional fire regimes.</li> <li>There is an improved focus on fire management ensuring it is prioritised to achieve key values and higher priority conservation and Bama cultural landscape objectives.</li> </ul>
Strategic management directions	
Level of service:	
Increase priority of fire management to meet the objectives of protecting life and property, maintaining healthy key values and high priority conservation outcomes.	1
Increased operational capacity and support to complete planned burn programs.	3
Build cooperative fire management capacity with Eastern Kuku Yalanji to protect Bama cultural landscapes and where possible instigate a return to Traditional fire regimes.	1
Improve the level of knowledge of how stray cattle impact fire management.	3

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 4.3 Pest management


### Management direction statement

Description	Current level of service
Pest management for Daintree National Park	

Pest management is core business to mitigate the threats to biodiversity. All landholders have a responsibility under the *Biosecurity Act 2014* (Qld) to take all reasonable and practical steps to minimise the risks associated with plant and animal pests on lands under their control. Recognising that effective management of pests across the landscape is a shared responsibility, we will work cooperatively with other state and local government agencies, landholders and natural resource management groups.

The strategic management directions in this management plan guide the formation of the *Daintree National Park Pest Strategy*. This strategy will detail pest management objectives for preventing and mitigating pest impacts on key values and our custodial obligations for managing pests and priority pest species.

### Desired level of service and strategic management directions

Desired level of service	
	<ul style="list-style-type: none"> <li>• Where possible, pests are managed jointly by Eastern Kuku Yalanji and QPWS.</li> <li>• Improved pest distribution mapping and understanding of some pests through knowledge sharing between management partners.</li> <li>• Increased pest planning and coordinated joint pest management activity with Eastern Kuku Yalanji and QPWS to improve levels of consultation and engagement.</li> <li>• An increase in management capacity and regional support ensures that all pest programs are achieved.</li> </ul>
Strategic management direction	Priority


#### Level of service:

Increase the level of knowledge and mapping of pests and their impacts on all values.	3
Improve the level of knowledge of impacts caused by feral cats and cane toads on significant endangered and native species such as northern bettong <i>Bettongia tropica</i> in tall open forest communities.	3
Improve the level of knowledge of impacts caused by feral pigs and the appropriate management actions required to address these impacts across all key values.	2
Improve the level of knowledge of cattle impacts in tall open forest communities.	3
Improve the level of QPWS cooperation with Eastern Kuku Yalanji on pest management.	3
Increase the priority and support for the protection of all values from pest threatening processes.	1

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 4.4 Natural values management

### Management direction statement

Description	Current level of service
Natural values management for Daintree National Park	

Natural values will be managed in accordance with Eastern Kuku Yalanji Traditional knowledge, the *Nature Conservation Act 1992* (Qld) and its supporting regulations, species recovery plans, and relevant international agreement guidelines such as the United Nations Convention on Biological Diversity (CBD).


The Kuku Yalanji Bama wish to jointly work with QPWS to manage the natural values of Daintree National Park, using shared resources and shared knowledge.

Natural values will be managed to an **exceptional** LoS due to the park’s outstanding universal value and the high level of threats to key park values.

The condition of natural values will be monitored through the development and implementation of the *Daintree National Park Monitoring and Research Strategy*.

Threatening processes will be managed through the implementation of the *Daintree National Fire Strategy*, *Daintree National Park Pest Strategy*, and *Daintree National Park Visitor Strategy*.

### Desired level of service and strategic management directions


Desired level of service	
	<ul style="list-style-type: none"> <li>• Levels of knowledge relating to natural values are improved, specifically relating to regional ecosystem mapping to a finer resolution in areas of coastal littoral rainforest, broad leaf tea-tree, restricted montane forests and the boundaries of the tall open forests.</li> <li>• Traditional knowledge of landscape function and management is incorporated (where appropriate) into jointly managed activities.</li> <li>• Levels of consultation and community engagement are currently meeting the desired level, and cooperative relationships with other government agencies are fostered to better understand and respond to key species management requirements.</li> <li>• The overall approach to natural values management is improved, including increasing the management effort to improve the condition of all park values, including greater regional and central office support.</li> <li>• Kuku Yalanji representatives and Jabalbina rangers are actively engaged to identify where shared capacity can produce a coordinated outcome.</li> <li>• Monitoring and research is improved to better coordinate the basic monitoring of key park values. There is a greater investment in partnerships to support improved detailed monitoring and research to focus on filling knowledge gaps, and providing data on the condition of key species values within the park.</li> <li>• Existing research and detailed monitoring is being reviewed to ensure that outcomes provide condition and trend data for park values as well as review of park management objectives relating to the management of threats to values. Kuku Yalanji Bama through Jabalbina are developing a Cultural Heritage Framework with the assistance of QPWS that guides all research, major projects or significant activities. In future researchers and visitors to the area will need to adhere to the Framework before any project, activity or research can commence. Other ethical processes should complement the requirements of the Cultural Heritage Framework.</li> <li>• There is a jointly agreed management research prospectus within the Permit to Take, Use, Keep or Interfere (PTUKI) protocol/framework, with a focus on solutions based research and including climate change adaption and mitigation.</li> </ul>

Strategic management direction	Priority
<b>Level of service:</b>	
Improve the level of knowledge and detailed mapping of the key values and species or ecosystems of conservation concern including incorporating appropriate Traditional knowledge.	2
Improve the level of knowledge of significant endangered species such as the northern bettong <i>Bettongia tropica</i> and spotted-tailed quoll <i>Dasyurus maculatus</i> .	2
Increased formal engagement with other government agencies and research institutions to improve cooperative species monitoring and management programs.	3
Increased focus on proactively managing key and significant natural values to improve condition and to gain knowledge on threats to these values.	1
Improve natural values monitoring and research programs through proactively developing internal and external partnerships with the Jabalbina Yalanji Aboriginal Corporation and/or the appropriate Kuku Yalanji Bama.	2
<b>Health check monitoring:</b>	
Monitor the condition of natural key values through health check monitoring.	1

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 4.5 Historic cultural heritage management


### Management direction statement

Description	Current level of service
Historic cultural heritage management for Daintree National Park	

Historic sites, including the Bloomfield clearing and the old township of Whitby, will be managed in accordance with the *Nature Conservation Act 1992* (Qld) and the *Queensland Heritage Act 1992* (Qld).

The area has no significant sites listed on the *Queensland Heritage Register* or *Australian National Heritage List*.

### Desired level of service and strategic management directions

Desired level of service	
	<ul style="list-style-type: none"> <li>• Current levels of knowledge, consultation and engagement relating to known sites meet requirements and are maintained.</li> <li>• Current management approaches for the Bloomfield clearing and the old township of Whitby ('managing as a ruin') meet management requirements and are maintained.</li> </ul>
Strategic management direction	Priority
<b>Level of service:</b>	
Maintain the current management approach to historic cultural heritage.	5

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 4.6 Visitor management

### Management direction statement

Description	Current level of service
Visitor management for Daintree National Park	

Queensland's parks and forests provide local communities and visitors from around the world the opportunity to experience our rich natural and cultural heritage as well as a diverse range of recreational and ecotourism opportunities. Permitted commercial tour activities, agreements and events are administered in accordance with the *Nature Conservation Act 1992* (Qld) and other relevant legislation and policy.

The strategic management directions in this management plan will guide the formation of the *Daintree National Park Visitor Strategy*.

The condition of, and visitor satisfaction with, visitor experiences will be monitored through the development and implementation of the *Daintree National Park Monitoring and Research Strategy*.


### Desired level of service and strategic management directions

Desired level of service	
	<ul style="list-style-type: none"> <li>Knowledge is improved about visitor-use patterns and industry trends, tourism industry and free and independent traveller demand, visitor expectations and levels of satisfaction with existing experiences and facilities provided on the park.</li> <li>Consultation and engagement with the tourism industry meets requirements with scheduled formal meetings undertaken regularly.</li> <li>Improved visitor understanding of Kuku Yalanji culture, specifically respecting sacred sites and cultural activities such as Traditional burning and hunting.</li> <li>Improved planning and delivery of new and improved asset solutions, to enhance visitor opportunities and manage visitor impacts on park values, are required to improve levels of service standards with the Kuku Yalanji Bama.</li> <li>A very high priority is placed on ensuring visitors are safe and have a high quality experience, by providing diverse opportunities for visitors, and ensuring visitors are made aware of these opportunities so they can make informed choices. This includes a stronger focus on public contact and compliance patrols.</li> <li>Priority is placed on investigating any new visitor opportunities that are safe, ecologically sustainable, and meet visitor expectations and industry trends.</li> <li>Develop, implement and support the Kuku Yalanji Bama's aspirations for greater engagement and involvement in the tourism sector.</li> <li>Support from regional and state-wide teams, for visitor management, interpretation and asset management, is given higher priority.</li> </ul>

Strategic management direction	Priority
<b>Level of service:</b>	
Increase current understanding of visitor use patterns, industry trends, demand and satisfaction.	3
Foster and develop partnerships with the tourism industry and Kuku Yalanji representatives (Jabalbina) to develop new tourism initiatives and tourism opportunities.	2
Increase management support to assist delivery of world-class visitor experiences.	2
Increase public contact at key visitor sites.	2
Increase compliance patrols of keys visitor sites	4
<b>Health check monitoring:</b>	
Monitor the condition of visitor key values through health check monitoring.	1

## 4.7 Community, partnerships and other interests

### Management direction statement

Description	Current level of service
Community, partnerships and other interests associated with Daintree National Park	

Queensland’s parks and forests provide sustainable environmental, economic and social benefits. We are committed to working with the community and our partners to ensure activities and infrastructure are ecologically sustainable and continue to benefit Queensland’s economic and social wellbeing. Permitted activities are administered in accordance with the requirements of the *Nature Conservation Act 1992* (Qld) and other relevant legislation.

Daintree National Park is an important park for tourism and neighbouring residents. Daintree’s high level, and moderately complex, interactions with community, stakeholders and other interested parties will continue to be managed at a high level of service.

### Desired level of service and strategic management directions


Desired level of service	
	Current levels of consultation and engagement with neighbours, community, government stakeholders and other interested parties meet requirements and are maintained.
Strategic management direction	Priority
<b>Level of service:</b>	
Maintain the current management approach to community, partnerships and other interests.	2

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).




## 4.8 Field management capability

### Management direction statement

Description	Current level of service
Field management capability for Daintree National Park	

Managing natural and cultural areas has varying degrees of complexity. Field management capability is a measure of this complexity and considers the significance of the planning area’s values, potential threats, intensity of visitor use, risk management and community expectations. It considers the required proximity, frequency and intensity of on-ground management that is needed to sustain key values and meets custodial obligations. The rating provides a means for gauging resource requirements and staff training needs.


### Desired level of service and strategic management directions

Desired level of service	
	<ul style="list-style-type: none"> <li>• Increase approach to field management capability to meet desired LoS.</li> <li>• Once land transfers have been completed, the park is jointly managed with Kuku Yalanji Bama through Jabalbina as the Land Holding body.</li> </ul>
Strategic management direction	Priority
<b>Level of service:</b>	
Increase the current approach to field management capacity	<b>2</b>

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 4.9 Operational planning and management support

### Management direction statement

Description	Current level of service
Operational planning and management support for Daintree National Park	

Operational planning and management support covers all aspects of management direction including information, assessments, systems, tool and monitoring. As with field management capability, the area’s values, potential threats, intensity of visitor use and community expectations are considered when determining the appropriate levels of service.

### Desired level of service and strategic management directions

Desired level of service	
	<ul style="list-style-type: none"> <li>Increased priority for additional support from regional and central office units helps strategic fire and pest management programs, visitor planning and asset planning and management.</li> <li>Additional expert support is provided for operational planning and service delivery, particularly of large strategic fire, pest and visitor management programs, to achieve large-scale shifts in overall levels of service.</li> <li>Additional support is provided by the regional joint management team to enhance Traditional Owner engagement and cooperative management outcomes.</li> </ul>
Strategic management direction	Priority
<b>Level of service:</b>	
Increase support from regional and centric experts around key management challenges, issues and planning.	3
Maintain support from regional joint management team for enhanced engagement with Kuku Yalanji Bama and cooperative management outcomes.	1

\*KEY: Priority ratings: M – maintain current priorities; Scale 1 (extremely urgent and extremely necessary) to 5 (optional and not urgent).

## 5. Thematic strategies

Thematic strategies translate strategic management directions, outlined in this management plan, into measurable objectives, providing links between high-level strategy and on-ground actions. Strategies provide a more detailed guide to delivering key management elements or activities, such as fire and pest management.

One or more 'thematic strategies' are required for each park, depending on its key values, threats to those values, or the complexity of management issues and risk. Levels of service indicate which strategies are required for each park, and the type or level of strategy required.

### **Thematic strategies required for Daintree National Park:**

**Fire strategy**

**Pest strategy**

**Monitoring and research strategy**

**Visitor strategy**

**Climate change**

## 6. Evaluation and reporting

Every five years we will evaluate and report on how effectively the Daintree National Park is being managed. 'Adaptive management' helps us to set clear benchmarks for management, ensure the condition of key values is within acceptable thresholds, delivers transparent and accountable reporting and informs future management. Management effectiveness will evaluate the following.

- Are we maintaining or improving the condition and trend of the park's key values?
- Are we achieving the desired levels of service standards for the park?
- Are we implementing thematic strategy objectives, and are the objectives effective?
- Are strategic management directions delivering the desired outcomes?

Once the national park becomes 'National Park (Cape York Peninsula Aboriginal Land)', the evaluation and reporting cycles will be synchronised to avoid repetition.

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


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# Appendix 1. Summary of strategic management directions

A summary of strategic management directions for key values (Table 1) and management direction (Table 2).



**Table 1. Summary of strategic management direction for key values**

Key value	Current	Desired	Threatening processes	Strategic management directions	Priority (1-5) *
Kuku Yalanji cultural values of the national park and surrounds			<b>Loss of Kuku Yalanji Bama connection to country</b>	Build management capacity and opportunities through the Indigenous Management Agreement process, including additional employment, contract and training opportunities for Kuku Yalanji Bama.	1
				Maintain and strengthen access to Bubu and Jalun for Kuku Yalanji Bama.	1
				Jointly develop opportunities and processes to build and support culture.	1
				Maintain and renew traditional management practices by incorporating them into ongoing and agreed park management.	1
				Recognise and support Kuku Yalanji Lore in decision-making for the Daintree National Park.	1
			<b>Fire</b>	Maintain Kuku Yalanji cultural values through appropriate fire management.	1
				Manage traditional pathways and cultural landscapes through the reintroduction of traditional burning practices.	1
			<b>Pest Plants</b>	Eradicate miconia <i>Miconia calvenscens</i> and <i>M. nervosa</i> , from identified key Kuku Yalanji cultural areas throughout Daintree National Park	2
				Eradicate coffee <i>Coffea liberica</i> , from identified key Kuku Yalanji cultural areas throughout Daintree National Park	3
				Prevent the establishment of miconia <i>Miconia calvenscens</i> and <i>M. nervosa</i> , hiptage <i>Hiptage benghalensis</i> and siam weed <i>Chromolaena odorata</i> within identified key Kuku Yalanji cultural areas throughout Daintree National Park	2
				Reduce impacts of pond apple <i>Annona glabra</i> , hiptage <i>Hiptage benghalensis</i> and brillantaisia <i>Brillantaisia lamium</i> in identified key Kuku Yalanji cultural areas throughout Daintree National Park.	2
			<b>Pest animals</b>	Reduce impacts of feral pigs on identified key Kuku Yalanji cultural areas throughout Daintree National Park.	1
			<b>Ecosystem modification</b>	Investigate opportunities to replant species previously selectively logged.	2
			<b>Impacts on visitor experience</b>	Enhance visitor interpretation, including advice on appropriate cultural protocols and use of Kuku Yalanji language names, and infrastructure. (See Tourism section below).	2
			<b>Climate change</b>	Protect Kuku Yalanji cultural values in Daintree National Park through adaptive management of threats to the landscape (increase in severity of weather events, hotter/drier conditions leading to more severe and frequent wildfire events, rainforest expansion) likely to be exacerbated by climate change.	2

Key value	Current	Desired	Threatening processes	Strategic management directions	Priority (1-5) *
				Jabalbina and QPWS to jointly develop a Daintree National Park climate adaptation strategy.	3
<b>Manjal (Mountains): Montane and upland areas</b>			<b>Fire</b>	Mitigate the potential severity and impact of wildfire within fire sensitive ecosystems in montane and upland areas.	2
				Manage the ecological function of fire-adapted communities in montane and upland areas, through appropriate fire management.	2
			<b>Pest animals</b>	Reduce impacts of feral pigs on montane and upland areas.	3
			<b>Disease</b>	Prevent the human mediated spread of chytrid fungus <i>Batrachochytrium dendrobatidis</i> to, or within, montane and upland areas.	2
			<b>Visitor impacts</b>	Protect montane and upland areas values by reducing visitor impacts, in particular to sites where visitor presence compromises cultural values.	1
			<b>Climate change</b>	Protect critical montane and upland areas in Daintree National Park through adaptive management of the threats to these landscapes (increase in the severity of weather events; hotter/drier conditions leading to more severe and frequent wildfire events, rainforest expansion) that will be exacerbated by climate change.	2
<b>Manjal (Mountains): Tall open forest</b>		2025 	<b>Fire</b>	Manage fire in tall open forests to achieve representation of the full spectrum at various structural states through appropriate fire management.	1
				Manage traditional pathways and cultural landscapes through reintroducing traditional burning practices.	1
				Manage fuel loads in adjacent fire adapted communities to allow for appropriate management of fire in tall open forests.	1
			<b>Pest plants</b>	Reduce impacts of <i>Lantana camara</i> on upland tall open forests.	2
				Prevent the establishment of ecosystem changing weeds in tall open forests.	2
			<b>Pest animals</b>	Reduce impacts of feral cattle on tall open forests.	2
				Reduce impacts of feral pigs on tall open forests.	2
Reduce impacts of feral cats on significant fauna populations of tall open forests.	2				
<b>Wuburr (Hills): Rainforest</b>			<b>Fire</b>	Manage cultural values (i.e. pathways, significant sites, camp areas) within madja (rainforest) through the implementation of traditional burning.	1
				<b>Pest plants</b>	Eradicate Miconia <i>Miconia</i> spp. and hiptage <i>Hiptage benghalensis</i> from priority areas within madja (rainforest).
				Eradicate coffee <i>Coffea liberica</i> from priority areas within the Cape Tribulation madja (rainforest).	3
				Prevent the establishment of siam weed <i>Chromolaena odorata</i> , <i>Miconia calvescens</i> and <i>M. nervosa</i> , hiptage <i>Hiptage benghalensis</i> and other ecosystem changing weeds within madja (rainforest).	2
				Reduce impacts of brillantasia <i>Brillantaisia lamium</i> and hiptage <i>Hiptage benghalensis</i> on madja rainforests.	3
			<b>Pest animals</b>	Reduce impacts of feral pigs on madja (rainforest).	2

Key value	Current	Desired	Threatening processes	Strategic management directions	Priority (1-5) *
			<b>Disease</b>	Prevent the human mediated spread of chytrid fungus <i>Batrachochytrium dendrobatidis</i> to or within madja (rainforest).	3
			<b>Climate change</b>	Manage change and improve resilience of madja (rainforest) through active management of known threats that will be exacerbated by climate change.	2
<b>Wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls)</b>			<b>Pest plants</b>	Reduce impacts of pond apple <i>Annona glabra</i> and hymenachne <i>Hymenachne amplexicaulis</i> on wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls) in identified key areas of Daintree National Park.	2
				Prevent the establishment of salvinia <i>Salvinia molesta</i> in wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls) of Daintree National Park.	3
				Prevent the establishment of emerging non-native aquatic weeds in wawubaja, yilki, yirri, and yiri (rivers, creeks, running water and waterfalls) throughout the Daintree National Park.	3
			<b>Pest animals</b>	Reduce impacts of feral pigs on wawubaja, yilki, yirri, and yiri (rivers, creeks, running water and waterfalls).	2
				Prevent the establishment of non-native fish in wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls) throughout the Daintree National Park.	2
			<b>Visitor impacts</b>	Minimise visitor impacts through awareness of Bama's cultural protocols associated with swimming in creeks and respecting Kuku Yalanji Bama's sacred places along waterways and at waterfalls.	1
				Encourage road managers to install and service sediment traps, culverts, causeways or bridges on the unsealed sections of the Bloomfield Track to reduce the direct input of sediment into wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls) at crossings.	2
			<b>Climate change</b>	Manage change and improve resilience of wawubaja, yilki, yirri and yiri (rivers, creeks, running water and waterfalls) through active management of known threats that will be exacerbated by climate change.	3
<b>Mangkurru (mangroves)</b>			<b>Pest plants</b>	Reduce impacts of pond apple in key mangkurru (mangrove) areas within Daintree National Park.	2
			<b>Climate change</b>	Manage change and improve resilience of mangkurru (mangroves) through active management of known threats that will be exacerbated by climate change.	3
<b>Kuku Yalanji coastal values</b>			<b>Fire</b>	Reintroduce traditional burning practices in collaboration with the Kuku Yalanji Bama to maintain cultural sites located along the coast line.	1
			<b>Pest plants</b>	Reduce impacts of pond apple along yalmba (sea shore/beach).	2
				Prevent ecosystem changing impacting on traditional food resources along yalmba (sea shore/beach).	3
			<b>Pest animals</b>	Reduce impacts of feral pigs on Kuku Yalanji coastal values.	2
				Prevent the establishment of tramp ants in Daintree National Park.	3
			<b>Visitor impacts</b>	Reduce visitor impacts on the Kuku Yalanji coastal values of Daintree National Park.	1
				Minimise impacts of highly visible infrastructure on Kuku Yalanji coastal values.	1



Key value	Current	Desired	Threatening processes	Strategic management directions	Priority (1-5) *
			<b>Climate change</b>	Manage change to the Kuku Yalanji coastal values of Daintree National Park through active management of known threats that will be exacerbated by climate change.	<b>2</b>
<b>Sustainable tourism</b>			<b>Visitor impacts</b>	Enhance visitor experience through improved infrastructure standards.	<b>2</b>
				Enhance visitor experience through improved interpretation focusing on Kuku Yalanji cultural values.	<b>1</b>
				Enhance visitor access to the Daintree experience by building the Daintree 'brand'.	<b>2</b>
				Enhance visitor experience through support of Kuku Yalanji aspirations and commercial opportunities.	<b>1</b>

\*KEY: M – maintain current priorities; 1 – extremely urgent and extremely necessary; 2 – very necessary and very urgent; 3 – moderately necessary and moderately urgent; 4 – somewhat necessary and somewhat urgent; 5 – optional and not urgent.

**Table 2. Summary of strategic management direction for management direction**

Management element	Current LoS	Desired LoS	Strategic management directions	Priority (1-5) *
<b>Eastern Kuku Yalanji Bama partnership and culture</b>			Increase the level of Bama cultural resource information in collaboration with Kuku Yalanji Bama including investigating support for the Eastern Kuku Yalanji Bama Cultural Information System.	1
			Improve the levels of engagement and collaboration with Eastern Kuku Yalanji Bama to meet indigenous land-use agreement and memorandum of understanding requirements.	1
			Improve collaboration with Eastern Kuku Yalanji Bama to develop management objectives and priorities to maintain and protect Bama cultural values.	2
			Increase support for Eastern Kuku Yalanji Bama to develop management capacity for park management activities.	1
			Increase public awareness of Traditional Kuku Yalanji land management practices to maintain healthy Bubu and Jalun.	3
<b>Fire</b>			Increase priority of fire management to meet the objectives of protecting life and property, maintaining healthy key values and high priority conservation outcomes.	1
			Increased operational capacity and support to complete planned burn programs.	3
			Build cooperative fire management capacity with Eastern Kuku Yalanji to protect Bama cultural landscapes and, where possible, instigate a return to Traditional fire regimes.	1
			Improve the level of knowledge of how stray cattle impact fire management.	3
<b>Pests</b>			Increase the level of knowledge and mapping of pests and their impacts on all values.	3
			Improve the level of knowledge of impacts caused by feral cats and cane toads on significant endangered and native species such as northern bettong <i>Bettongia tropica</i> in tall open forest communities.	3
			Improve the level of knowledge of impacts caused by feral pigs and the appropriate management actions required to address these impacts across all key values.	2
			Improve the level of knowledge of cattle impacts in tall open forest communities.	3
			Improve the level of cooperation with Eastern Kuku Yalanji on pest management.	3
			Increase the priority and support for the protection of all values from pest threatening processes.	1
<b>Natural values</b>			Improve the level of knowledge and detailed mapping of the key values and species or ecosystems of conservation concern including incorporating appropriate Traditional knowledge.	2
			Improve the level of knowledge of significant endangered species such as the northern bettong <i>Bettongia tropica</i> and spotted-tailed quoll <i>Dasyurus maculatus</i> .	2
			Increased formal engagement with other government agencies and research institutions to improve cooperative species monitoring and management programs.	3

Management element	Current LoS	Desired LoS	Strategic management directions	Priority (1-5) *
			Increased focus on proactively managing key and significant natural values to improve condition and to gain knowledge on threats to these values.	1
			Improve natural values monitoring and research programs through proactively developing internal and external partnerships with the Jabalbina Yalanji Aboriginal Corporation and/or the appropriate Kuku Yalanji Bama.	2
			Monitor the condition of natural key values through health check monitoring.	1
<b>Historic cultural heritage</b>			Maintain the current management approach to historic cultural heritage.	5
<b>Visitor</b>			Increase current understanding of visitor use patterns, industry trends, demand and satisfaction.	3
			Foster and develop partnerships with the tourism industry and Kuku Yalanji representatives (Jabalbina) to develop new tourism initiatives and tourism opportunities.	2
			Increase management support to assist delivery of world-class visitor experiences.	2
			Increase public contact at key visitor sites.	2
			Increase compliance patrols of key visitor sites.	4
			Monitor the condition of visitor key values through health check monitoring.	1
<b>Community, partnerships and other interests</b>			Maintain the current management approach to community, partnerships and other interests.	2
<b>Field management capability</b>			Increase the current approach to field management capacity.	2
<b>Operational planning and management support</b>			Increase support from regional and centric experts around key management challenges, issues and planning.	3
			Maintain support from regional joint management team for enhanced engagement with Kuku Yalanji Bama and cooperative management outcomes	1

\*KEY: M – maintain current priorities; 1 – extremely urgent and extremely necessary; 2 – very necessary and very urgent; 3 – moderately necessary and moderately urgent; 4 – somewhat necessary and somewhat urgent; 5 – optional and not urgent.