

Curtis Island National Park

Incorporates: Curtis Island National Park, Curtis Island Conservation Park, Southend Conservation Park, Cape Capricorn Conservation Park, Garden Island Conservation Park, Curtis Island State Forest, North Curtis Island State Forest, Curtis Island Environmental Management Precinct and Great Barrier Reef Coast Marine Park adjoining QPWS estate



Management Statement

2019

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



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Contents

1. Introduction	2
1.1 Approach to best practice management.....	2
1.2 Management planning	3
2. Curtis Island National Park	4
2.1 Management statement and thematic strategies	4
2.2 Park overview	4
2.3 Aboriginal and Torres Strait Islander peoples	5
2.4 World Heritage.....	5
Map 1: Curtis Island Tenure	6
3. Key values	7
3.1 Parabolic and foredune communities	9
a. Parabolic and foredune communities	9
b. Flatback turtle <i>Natator depressus</i>	10
3.2 Marine plain	11
a. Marine plain	11
b. Capricorn yellow chat <i>Epthianura crocea</i> subsp. <i>macgregori</i>	12
3.3 Rainforest	13
3.4 Coastal headland and beach ridge communities	14
a. Headland communities	14
b. Beach ridge communities	15
3.5 Alluvial eucalypt forest and woodland communities	16
Map 2: Curtis Island National Park key values	17
4. Management direction	18
4.1 Traditional Owner engagement and cultural heritage	19
4.2 Fire management	20
4.3 Pest management	21
4.4 Natural values management.....	22
4.5 Historic cultural heritage management.....	23
4.6 Visitor management.....	24
4.7 Community, partnerships and other interests.....	25
4.8 Field management capability.....	26
4.9 Operational planning and management support	27
Appendix 1. Summary of strategic management directions	28
Appendix 2. Glossary	32

1. Introduction

The Queensland Parks and Wildlife Service works with Aboriginal and Torres Strait Islander peoples to manage protected areas and forests, to ensure the protection of cultural sites, and to enhance their connection with Country.

We acknowledge that Aboriginal peoples and Torres Strait Islander peoples are the Traditional Owners of this country and they retain their relationship and connection to the land, sea and community. We pay our respects to all Traditional Owners, and to the Elders past, present and in the future for land and sea on which we work, live and walk.

1.1 Approach to best practice management

Queensland's parks, forests and reserves are places we want to protect for future enjoyment and wellbeing. What makes these places special are the presence and diversity of natural, cultural, social and economic values. These areas experience natural cycles—they live and breathe—and therefore our management needs to be dynamic too. The Queensland Parks and Wildlife Service (QPWS), within the Department of Environment and Science (DES), applies a contemporary management process that is based on international best practice and targets management towards the most important features of each park: their **key values**.

The **Values-Based Management Framework** (VBMF) is an **adaptive management** cycle that incorporates planning, prioritising, doing, monitoring, evaluating and reporting into all areas of our business. This enables the agency to be more flexible and proactive and to improve management effectiveness over time. We want to keep our parks, forests and reserves healthy by:

- managing and protecting the things that matter most—our key values
- strategically directing management effort towards priorities
- delivering our custodial obligations as a land manager
- setting a level of service for all parks, forests and reserves
- building systems that support decision making for adaptive management
- building support for what we do through accountability and transparency
- striving for improvement through structured learning and doing.

As a land manager, QPWS has a **custodial obligation** to ensure our estate is managed to provide appropriate and safe access, protect life and property, be a good neighbour and work cooperatively with partners across the landscape. The agency does this as part of setting a **level of service** for each park. Level of service is a management standard that considers an area's values, threatening processes, custodial obligations, risks and overall management complexity.

By assessing an area's key values and level of service, QPWS can prioritise management efforts, balancing the importance of values and threats with our custodial obligations. Each year, we track work programs, monitor the condition of values and evaluate our performance across all aspects of management. The evaluation process documents how efficiently and effectively we are working toward achieving the objectives we set for managing parks, forests and reserves, and how the condition of key values is changing in response to our management efforts. This evaluation supports transparent and accountable reporting, enabling us to continuously improve park management and demonstrate outcomes to the community.

Figure 1 illustrates phases of the VBMF cycle for management planning. A glossary of the key concepts (in **bold**) used throughout the document is listed in Appendix 2.

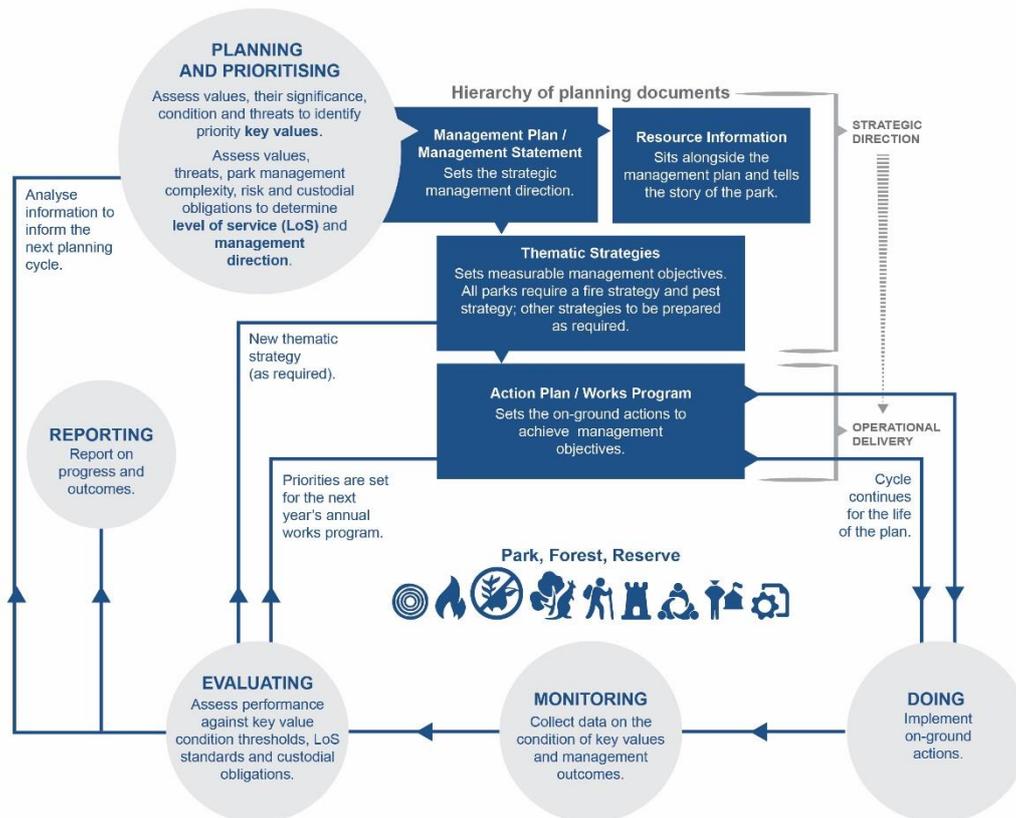


Figure 1. Phases of the values-based management framework cycle for planning and the hierarchy of planning documents.

1.2 Management planning

Management plans and statements are developed through a process of research, assessment and consultation to establish priorities and set **strategic management direction** for the park. They are legislative requirements under the *Nature Conservation Act 1992* (Qld) (NCA). Some planning areas may include forest and reserves (*Forestry Act 1959* (Qld)) and marine parks (*Marine Park Act 2004* (Qld)). All planning documents are prepared in keeping with legislation's management principles, supporting regulations, government policies and procedures, and international agreements. Planning for each park is brought together and communicated through a number of planning documents:

- Management plans and management statements provide the high-level strategic direction for managing an area's key values, levels of service and custodial obligations. Management plans and statements are statutory documents and are generally reviewed every 10 years.
- Resource information documents support management plans and statements and provide a compendium of park information that tells the story of the park. These documents accompany management plans and management statements, providing contextual information. They support information provided in the plan but do not provide management direction.
- Thematic strategies provide specific objectives to achieve the strategic management directions identified in management plans and statements. While all parks and forests require a fire strategy and pest strategy, others are developed based on a protected area's management requirements and priorities. Thematic strategies are generally reviewed every three to five years to enable adaptive management.
- Action plans outline the work program for delivering on-ground actions.

Further information on the VBMF, copies of management plans/statements and resource information documents are available on the Department's website at www.des.qld.gov.au.

2. Curtis Island National Park

2.1 Management statement and thematic strategies

The Curtis Island National Park Management Statement provides the strategic management direction for managing its keys values (Section 3) and meeting our custodial obligations across nine **management elements** (Section 4). The strategic management direction set out in this management statement link to a set of thematic strategies that detail management objectives, providing the connection between high-level strategies and on-ground operations. The complexity of a park's values and custodial obligations determine the requirements for specific strategies. Curtis Island National Park has four thematic strategies:

- Fire
- Pest
- Visitor
- Monitoring and research

2.2 Park overview

Curtis Island (Figure 2) is the third largest continental island in Queensland. Located in the southern region of the Great Barrier Reef World Heritage Area the island contains a very high diversity of landforms and ecosystems.

Curtis Island contains a high diversity of regional coastal vegetation and landscape types that are in near 'natural condition' and are considered excellent examples of their type. This diversity, within well-defined boundaries, presents Curtis Island as a major natural asset where connectivity and resilience of ecosystems and habitats has been maintained.

The vegetation communities, many of which are 'endangered' or 'of concern', include wetlands, littoral rainforests, eucalypt forests and woodlands, lowland melaleuca swamps, open heathlands, low shrublands and dune communities. Although the island occurs in one of the drier zones of the Queensland coast, it contains a diversity of vegetation with both tropical and sub-tropical floristics.

Curtis Island has biogeographical significance for species and communities that are at their distribution limits including 33 plant species including four mangrove species, the southernmost rookery site of the 'vulnerable' flatback turtle *Natator depressus* and the most southern occurrence of a tropical marine plain community. These features supported the listing of the eastern half of Curtis Island on the Register of the National Estate in 1993.

The 4 000ha marine plain is major habitat for the critically endangered Capricorn yellow chat *Epthianura crocea* subsp *macgregori*, migratory waders and other significant wetland species. Located in the north of the island, the marine plain is part of the 'Northeast Curtis Island' listing in the Directory of Important Wetlands in Australia. 'Northeast Curtis Island' is a highly significant wetland at regional, state and national levels.

There are also significant historical values such as the Cape Capricorn lighthouse precinct, Sea Hill pilot station, quarantine station and recent years marked the end of 150 years of cattle grazing.



Figure 2. Locality Map: Curtis Island National Park

Curtis Island and adjoining marine park waters provide both water and land based low-impact, remote, nature based recreational opportunities in close proximity to a major industrial city and port. There are diverse opportunities for providing enhanced public access and visitor facilities.

Note: The National Park, Conservation Parks, State Forests, Curtis Island Environmental Management Precinct, and Marine Park will be referred to collectively as 'Curtis Island National Park' in this management statement (Map 1).

2.3 Aboriginal and Torres Strait Islander peoples

Curtis Island and the adjoining waters have special importance to the Bailai People, Tarebilang Bunda People, Gooreng Gooreng People and the Gurang People. Important known cultural heritage sites include shell middens, stone artefact scatters, quarry sites and scarred trees.

2.4 World Heritage

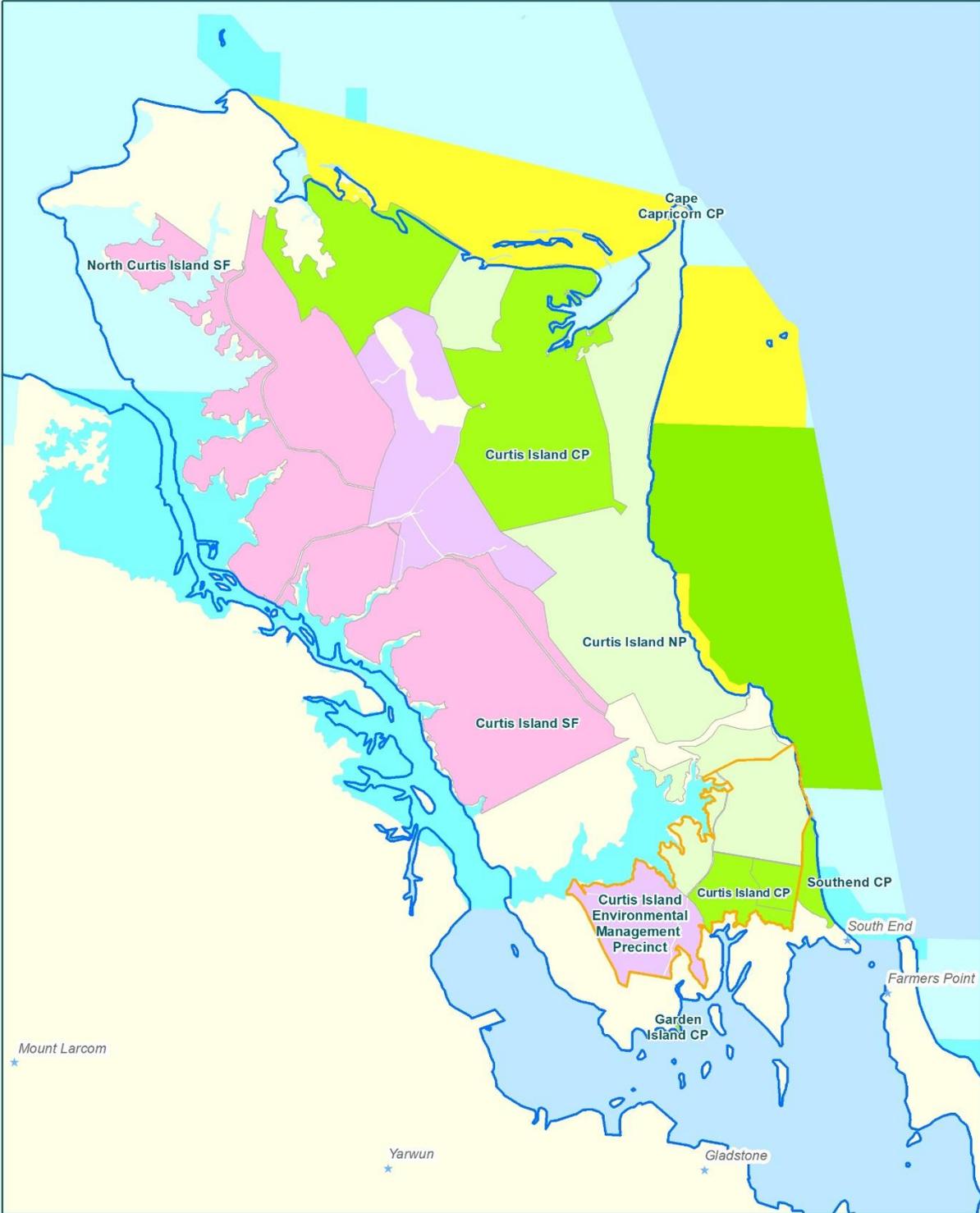
Curtis Island National Park is part of the Great Barrier Reef World Heritage Area and has been inscribed on the World Heritage List of the *Convention Concerning the Protection of the World Cultural and Natural Heritage*. Inscription on this list confirms the Outstanding Universal Value of a cultural or natural property that deserves protection for the benefit of all humanity.

The listing criteria for the Great Barrier Reef World Heritage Area (GBRWHA), and the park's associated key value, is noted in Figure 3.

UNESCO World Heritage Convention criteria		Associated key value
Criterion vii	Contains superlative natural phenomena or area of exceptional natural beauty and aesthetic importance.	<ul style="list-style-type: none"> • Marine plain
Criterion viii	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.	<ul style="list-style-type: none"> • Parabolic and foredune communities • Flatback turtle <i>Natator depressus</i>
Criterion ix	Outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals.	<ul style="list-style-type: none"> • Parabolic and foredune communities • Flatback turtle <i>Natator depressus</i> • Rainforest
Criterion x	Contains the most important and significant habitats for in-situ conservation of biological diversity, including those containing threatened species of Outstanding Universal Value from the point of view of science or conservation.	<ul style="list-style-type: none"> • Parabolic and foredune communities • Flatback turtle <i>Natator depressus</i> • Rainforest

Figure 3: UNESCO World Heritage Convention criteria

Map 1: Curtis Island Tenure



Curtis Island Protected Area Tenure
Including State Marine Park zoning

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★ Towns
 Curtis Island Environmental Management Precinct
 National Park
 Conservation Park
 State Forest
 QPWS Other Lands
 Queensland State Marine Parks
 General Use Zone
 Conservation Park Zone
 Marine National Park Zone
 Habitat Protection Zone
 Australian Coastline


 1:200,000





3. Key values

All parks, forests and reserves have an array of natural, cultural, social and/or economic values that are important and contribute to the state’s comprehensive and representative protected area and forest estate. The VBMF supports a process for identifying and protecting the most important values, the key values, and this directs the allocation of resources.

In this section, a **key value statement** is provided for each key value, identifying the current **condition and trend**, and a desired condition. The main threatening processes are identified and rated from high to low. A strategic management direction provides a broad strategy to address the threatening process to achieve the **desired outcome** over time. Each strategic management direction is prioritised according to the need for action to prevent further decline, stabilise current condition, or restore and enhance the value (refer to **priority rating** in Appendix 2).

The condition of all key values is (or will be) assessed through regular **health checks** or other monitoring. The monitoring and research strategy outlines opportunities and needs for scientific monitoring and research programs that will enhance our knowledge. Any change to a key value’s condition will be identified through health checks and/or monitoring, enabling QPWS to act quickly, applying best practice adaptive management.

Summary of Curtis Island National Park’s key values

A summary of the key values for Curtis Island National Park is detailed below. The location of each key value is shown in Map 2; Figure 4 provides a key to interpreting the condition and trend icons used in this section.

	Current condition	Confidence in condition assessment	Current trend	Confidence in trend assessment	Desired condition
3.1 Parabolic and foredune communities					
a. Parabolic and foredune communities:					
North					
Foredune communities at Southend Beach					
b. Flatback turtle <i>Natator depressus</i>					
3.2 Marine plain					
a. Marine plain					
b. Capricorn yellow chat <i>Epthianura crocea</i> subsp. <i>macgregori</i>					
3.3 Rainforest					
3.4 Coastal headland and beach ridge communities					
a. Headland communities					
b. Beach ridge communities					
3.5 Alluvial eucalypt forests and woodland communities					

Condition of key value	<p>Good</p> <p>●●●●</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>Good with some concern</p> <p>●●●</p> <p>The value is likely to be maintained over the long-term with minor additional conservation measures to address existing concerns</p>	<p>Significant concern</p> <p>●●</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>Critical</p> <p>●</p> <p>The value is severely threatened. Urgent additional large-scale conservation measures are required, or the value may be lost</p>
Trend rating of condition	<p>Improving</p> <p>↑</p>	<p>Stable</p> <p>↔</p>	<p>Deteriorating</p> <p>↓</p>	<p>No consistent trend</p> <p>⊖</p>
Confidence in assessment	<p>Inferred</p> <p>○</p>	<p>Limited</p> <p>◐</p>	<p>Adequate</p> <p>●</p>	

Figure 4: Key to condition, trend and confidence icons



Figure 5. Southend Beach flatback turtle rookery, Curtis Island © DES



Figure 6. Foredune communities of Southend Beach © DES

3.1 Parabolic and foredune communities

Key value statement

World Heritage Criterion xiii, ix & x

a. Parabolic and foredune communities

Description		Current condition	Current trend	Desired condition
Parabolic and foredune communities support a diverse range of vegetation, landscape values and nesting habitat for turtles.	Condition and trend	2016 Northern 		
	Assessment confidence	Inferred 	Inferred 	
Foredune communities at Southend Beach.	Condition and trend	2016 Southern 		
	Assessment confidence	Inferred 	Inferred 	

The parabolic and foredune communities in the northeast (*Regional ecosystem (RE) 12.2.14, 12.2.2 12.2.11*) and foredunes in the southeast (*RE 12.2.14 and 12.2.11*) of Curtis Island are coastal dune systems that support diverse vegetation communities, important landscape values and provide nesting habitat for the ‘vulnerable’ flatback turtle *Natator depressus*. The high parabolic dunes (up to 61 metres high) and coloured sand in the northeast of Curtis Island are considered outstanding examples of this type of coastal landform. As an interconnected ecosystem to the adjacent marine plain, the parabolic dune system is also part of the ‘Northeast Curtis Island’ national wetland.

Threats

Primary threat (north): Pest species including feral horses and pest plant species, especially lantana and rubber vine displace native species reducing biodiversity **Threat rating: Medium**

Primary threat (south): Pest animals including feral cattle and feral horses have contributed to dune impacts through grazing, trampling, hoof damage and weed spread. On Southend Beach hoof damage, grazing of dune building plants and characteristic fine sand has contributed to erosion and destabilisation of foredune. Impacts to the foredune reduces available flatback turtle nesting area. **Threat rating: High**

Secondary threat: Visitor impacts caused by illegal 4WD driving in the hind dunes of Southend Beach has created informal tracks causing degradation to dunes, loss of vegetation cover and spread of weeds. **Threat rating: High**

Desired outcome and strategic management direction

Desired outcome		
	The condition of parabolic and foredune communities will be improved to <i>good</i> by reducing the impacts of pest species and visitor impacts. Particular attention will be directed towards managing weeds, feral cattle, feral horses and visitor impacts on the southern beach dunes.	
Threatening process	Strategic management direction	Priority
Pest animals	Reduce impacts of feral cattle and feral horses in parabolic and foredune communities.	1
Visitor impacts	Reduce vehicle impacts on dune communities.	2
Fire	Exclude fire from parabolic and foredune communities.	3

See Appendix 2. Glossary for priority rating definitions.

b. Flatback turtle *Natator depressus*

Description		Current condition	Current trend	Desired condition
The flatback turtle <i>Natator depressus</i> is only found in the tropical waters of northern Australia.	Condition and trend	2016 		
	Assessment confidence	Inferred 	Inferred 	

Six of the world's seven species of marine turtles occur in the Great Barrier Reef World Heritage Area. The parabolic and foredune communities on Curtis Island provide important nesting habitat for the flatback turtle. Classified as 'vulnerable' under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC) and *Nature Conservation Act 1992* (Qld) (NCA) the flatback turtle is the only marine turtle that is endemic to the Australian continental shelf.



Figure 7. Flatback turtle *Natator depressus* © DES

The majority of nesting by flatback turtles on Curtis Island occurs at the turtle rookery at Southend Beach where there is also the occasional nesting by loggerhead and green turtles. Flatback and green turtles nest in small numbers in the foredunes of the northern parabolic dunes.

Southend Beach is the southernmost rookery for flatback turtles and supports a medium density population of 50-100 nesting turtles. The rookery site is one of the major eastern Australian breeding aggregations in the southern Great Barrier Reef and operates as an important overflow for nesting activity from Peak Island in the Keppel Islands with 300–400 nesting turtles.

Threats

Primary threat: Predation of adult turtles and nests by wild dogs, foxes and feral pigs. However, since 2012 the island-wide pest animal management program has maintained low predation of flatback turtles and nests.

Threat rating: Medium

Secondary threat: Impacts on nesting sites by pest species (feral cattle and feral horses) from potential trampling of nests. **Threat rating: High**

Other threat: Visitor impacts on nesting turtles and hatchlings through disturbances by noise and light pollution and inappropriate vehicle use. **Threat rating: High**

Desired outcome and strategic management direction

Desired outcome		
Threatening process	Strategic management direction	Priority
	The condition of flatback turtle's nesting habitat will be improved to <i>good</i> by reducing the impacts of visitors, vehicles and pest species.	
Pest animals	Reduce impacts of foxes, wild dogs, feral pigs, feral cattle and feral horses on flatback turtles, nests and nesting habitat.	1
Visitor Impact	Reduce noise and light pollution from visitors in turtle nesting areas.	1
Visitor Impact	Reduce vehicle impacts on nests and turtle hatchlings.	1

See Appendix 2. Glossary for priority rating definitions.

3.2 Marine plain

Key value statement

World Heritage Criterion vii

a. Marine plain

Description		Current condition	Current trend	Desired condition
Marine plain containing saltpan vegetation including grassland, herbland and sedgeland, mangrove shrubland to low closed forest.	Condition and trend	2016 		
	Assessment confidence	Adequate 	Adequate 	

The 4 000ha marine plain in the northeast of the island is the southern limit for a tropical marine plain community. This vast wetland is the most prominent feature of the 9 541ha ‘Northeast Curtis Island’ wetland, listed in the Directory of Important Wetlands in Australia.

The marine plain on Curtis Island captures an entire transition from freshwater to tidal ecosystems in fresh, slightly saline to hypersaline environments. The mangrove ecotone supports four mangrove species that are at, or near, their southern distribution limit. It contains the regional ecosystem (RE) *Mangrove shrubland to low closed forest* (12.1.3).

The *Grassland, herbland and sedgeland* community (RE 12.1.2) provides critical habitat for birds and supports breeding populations of threatened fauna including the Capricorn yellow chat *Epthianura crocea* subsp. *macgregori*, zitting cisticola *Cisticola juncidis* and radjah shelduck *Tadorna radjah*. A number of internationally protected migratory wader birds feed and roost throughout the wetland. The mangroves and offshore tidal flats of Yellow Patch inlet support a number of wader bird species and are important breeding and nutrient supply areas for regional fish and crustacean populations.

The extent of the marine plain at the southern limit of this habitat type, the presence of threatened fauna and migratory waders, and the overall natural condition and protected area status, combine to make this site a highly significant wetland at regional, state and national levels.

Threats

Primary threat: The introduced weed olive hymenachne occurs in the melaleuca wetlands on the edges of the marine plain and other upstream locations. If allowed to spread on the marine plain this weed species has potential to have significant impacts on diversity and habitat values. Rubber vine also occurs along the margins and on the small hill in the middle of the marine plain. **Threat rating: Medium**

Secondary threat: Wildfire and peat fires potentially threaten the marine plain. **Threat rating: Medium**

Desired outcome and strategic management direction

Desired outcome		
	The condition of marine plain ecosystems will be improved to <i>good</i> by managing feral animals and associated impacts, and wildfire.	
Threatening process	Strategic management direction	Priority
Pest plants	Reduce the impacts of olive hymenachne and rubber vine on marine plain including upstream hymenachne infestations.	1
Fire	Protect marine plain from wildfire and peat fires by undertaking planned burns under appropriate conditions.	2

See Appendix 2. Glossary for priority rating definitions.

b. Capricorn yellow chat *Epthianura crocea* subsp. *macgregori*

Description		Current condition	Current trend	Desired condition
The endemic Capricorn yellow chat <i>Epthianura crocea</i> subsp. <i>macgregori</i> .	Condition and trend	2016 ●●	↑	●●●●
	Assessment confidence	Adequate ●	Adequate ●	

The endemic Capricorn yellow chat *Epthianura crocea* subsp. *macgregori* is critically endangered under the EPBC and endangered under the NCA. The Capricorn subspecies of the yellow chat is only found in three localities in Central Queensland – Torilla Plain, the Fitzroy Delta and Curtis Island. It was discovered on the marine plain on Curtis Island in 1992 and further localities in 2003 and 2004 when it was formally recognised as a subspecies. The marine plain on Curtis Island is the only Capricorn yellow chat habitat under protected area tenure.



Figure 8. Capricorn yellow chat *Epthianura crocea* subsp. *macgregori* © DES

The habitat is critical to the survival of the Capricorn yellow chat as are the seasonally inundated marine plain wetlands with varying degrees of fresh and saltwater influence.

Threats

Primary threat: High densities of feral pigs cause extensive uprooting of sedge and associated grassland habitat. Substantial damage by cattle grazing and trampling to important breeding and shelter sites has also been recorded. Post removal of cattle grazing leases, feral cattle and feral horses are ongoing threats.

Threat rating: High

Desired outcome and strategic management direction

Desired outcome		
●●●●	The condition of yellow chat habitat will be improved to <i>good</i> by reducing feral animal impacts to the marine plain.	
Threatening process	Strategic management direction	Priority
Pest animals	Reduce the impacts of feral cattle, feral horses and feral pigs on marine plain and Capricorn yellow chat habitat.	1

See Appendix 2. Glossary for priority rating definitions.



Figure 9. The marine plain habitat of the Capricorn yellow chat © DES

3.3 Rainforest

Key value statement

World Heritage Criterion ix and x

Description		Current condition	Current trend	Desired condition
The littoral rainforests on Curtis Island are recognised nationally as representatives of the Littoral Rainforest and Coastal Vine Thickets of Eastern Australia, which have a critically endangered status under the EPBC and are endangered under <i>Vegetation Management Act (1999)</i> (Qld).	Condition and trend	2016 		
	Assessment confidence	Inferred 	Inferred 	

Microphyll/notophyll vine forest on beach ridges are ‘endangered’ (RE 12.2.2) and semi-evergreen vine thickets are ‘of concern’ ecosystems (RE 12.11.4). Vine forest/vine thicket rainforests are nationally uncommon vegetation communities. They occur in numerous locations on Curtis Island with many as relic communities, which may be indicative of past distribution and climates and/or fire regimes.

Littoral (beach) rainforests occur in the protected depressions behind frontal dune vegetation. On the western foot-slopes of the parabolic dune system in the northeast well-developed littoral rainforests occur as a narrow band forming the transition between the dune system and the marine plain. Littoral rainforests also occur in the swales of the dune system with rainforest species scattered through the understorey in areas. These are complex communities that contain *Melaleuca spp.* and native hibiscus *Hibiscus tiliaceus* in addition to rainforest species. In the parallel beach ridges in the north of the island, littoral rainforests are interspersed with other vegetation communities.

Threats

Primary threat: Pest plant species including lantana and rubber vine have been identified as significant threats to rainforests on Curtis Island. Lantana forms dense thickets that smother out the existing flora and creates impenetrable undergrowth increasing the risk of fire entering rainforest. Rubber vine has similar aggressive growth, which can also smother tall vegetation. These infestations have the potential to transform these endangered ecosystems. **Threat rating: High**

Secondary threat: Rainforests are extremely fire sensitive. Fire is able to break the typically dense cover of foliage that is critical to preserving available moisture, which maintains a suitable local environment for regeneration and persistence of rainforest and vine thicket species. Fire causes vegetation loss and retreat of rainforest edges. **Threat rating: High**

Desired outcome and strategic management direction

Desired outcome		
Threatening process	Strategic management direction	Priority
	The condition of rainforest ecosystems will be improved to <i>good</i> by managing fire and invasive species.	
Pest plants	Reduce the impacts of lantana and rubber vine in rainforests in parabolic dunes.	2
Fire	Exclude fire from rainforests and protect from scorch damage along edges.	2

See Appendix 2. Glossary for priority rating definitions.

3.4 Coastal headland and beach ridge communities

Key value statement

a. Headland communities

Description		Current condition	Current trend	Desired condition
Headland communities: Vegetation complex of exposed rocky headlands R.E. 12.12.19 (Of Concern).	Condition and trend	2016 		
	Assessment confidence	Inferred 	Inferred 	

The headlands on the east coast of Curtis Island with their steeply dipping and contorted bedding of rock and high energy wave-cut rock platforms are considered important geologic features. This cliff coastline also supports significant vegetation communities that are found only on Curtis Island. *Themeda triandra* grasslands, wind-sheared heath and shrubland communities dominate the exposed faces of the headlands. The grasslands are dotted with forbs including *Helichrysum boormanii*, *Helichrysum lanuginosum*, *Brunonia australis* and *Velleia spathulata*. The dwarf *Melaleuca nervosa* shrublands with diverse ground layer species and dense canopies are the most visually distinctive of the communities along the coastline extending from Connor Bluff to south of the parabolic dunes. This area also includes the plant species *Xanthorrhoea pumilio*, a prominent feature of the headland communities that is now known only from a limited area of coastal Queensland.

Threats

Primary threat: Large introduced animals like feral cattle and feral horses cause destructive impacts to native vegetation and soils. Occurring on exposed aspects on skeletal soils the headland communities are slow to recover from vegetation and soil loss. Grazing and trampling of vegetation by feral cattle and feral horses results in changes to species composition and vegetation structure, development of bare ground and trails, soil compaction, erosion, weed spread and altered fire ecology. **Threat rating: High**

Secondary threat: The wind sheared vegetation and grasslands on the exposed faces of the headlands are also susceptible to severe wildfires and vegetation recovery is slow in the salt and wind exposed conditions. **Threat rating: High**

Other threat: Inappropriate off-road vehicle use has resulted in damage to vegetation, areas of bare ground and erosion in the headland communities. **Threat rating: Medium**

Desired outcome and strategic management direction

Desired outcome		
	The condition of headland ecosystems will be improved to <i>good</i> by managing feral cattle, feral horses, fire and visitor impacts.	
Threatening process	Strategic management direction	Priority
Pest animals	Reduce the impacts of feral cattle and feral horses in headland communities.	2
Fire	Implement planned burns to conserve species diversity and vegetation structure in <i>Melaleuca nervosa</i> shrublands.	2
	Exclude fire from <i>Themeda triandra</i> grasslands and wind sheared vegetation.	2
Visitor Impacts	Reduce impacts of vehicles on headland communities with road upgrade.	2

See Appendix 2. Glossary for priority rating definitions.

b. Beach ridge communities

Description		Current condition	Current trend	Desired condition
Beach ridge communities: Coastal sand dune eucalypt woodlands R.E.12.2.11, and <i>Melaleuca quinquenervia</i> open forest 12.3.5.	Condition and trend	2016 		
	Assessment confidence	Inferred 	Inferred 	

The beach ridge communities on Curtis Island are considered outstanding examples of this type of landform with communities that are intact and in good condition. Parallel beach ridge communities occur east and west of Cape Keppel, with smaller occurrences on the east coast south of the parabolic dunes.

Beach ridge communities are low parallel dune crests and swales typified by distinctive bands of *Melaleuca spp.*, *Livistona decora*, *Corymbia tessellaris* and *Eucalyptus tereticornis* dominated woodlands and open forests. Interspersed with these communities are *Acacia julifera* and/or *Leptospermum neglectum* dominated open forests and rainforests with emergent *Melaleuca spp.* and *C. tessellaris*.

On the crests of the dunes *E. tessellaris* occurs with rainforest species in the understorey and *Melaleuca dealbata*, and *L. decora* in the swales forming a canopy of grey and green bands. *Livistona decora* is a species of particular interest as an endemic palm to the sclerophyll forests of Queensland. Beach ridge communities are fragile communities due to their sandy substrate.

Threats

Primary threat: Wildfire is the main threat to beach ridge communities. Intense fires are likely to cause crown scorch in the associated eucalypt communities and scorch damage in areas of rainforest. **Threat rating: High**

Secondary threat: This ecosystem is sensitive to weed invasion particularly Guinea grass which alters fire regimes and fire intensity. An infestation of Guinea grass has been identified in the beach ridge communities. Groundsel has also been identified and is one of the highest risk weeds on Curtis Island. Tolerant of a wide range of soil salinity and pH it is a serious threat to the adjacent melaleuca wetlands, marine couch and sedgeland of the marine plain. **Threat rating: High**

Desired outcome and strategic management direction

Desired outcome		
Threatening process	Strategic management direction	Priority
	The condition of beach ridge communities will be improved to <i>good</i> by managing weed species and fire.	
Fire	Implement planned burns to conserve species diversity and vegetation structure.	2
Pest plants	Reduce the impacts of groundsel and Guinea grass in beach ridge communities.	3

See Appendix 2. Glossary for priority rating definitions.

3.5 Alluvial eucalypt forest and woodland communities

Key value statement

Description	Current condition	Current trend	Desired condition
Alluvial eucalypt forest and woodland communities including R.E.12.3.3; R.E.12.3.3b R.E.12.3.11 and 12.3.7.	Condition and trend 2016 		
	Assessment confidence Inferred 	Inferred 	

Eucalyptus tereticornis and *E. moluccana* dominated forest and woodland communities on alluvium are endangered (RE 12.3.3, 12.3.3b) and of concern ecosystems (RE 12.3.11). These communities occur on the alluvial plains and associated stream channels and are among the taller forests on Curtis Island. *Lophostemon suaveolens* and *Melaleuca quinquenervia* often occur in these communities forming a low tree layer. These alluvial communities occur on the floodplains and drainage lines throughout most parts of Curtis Island.

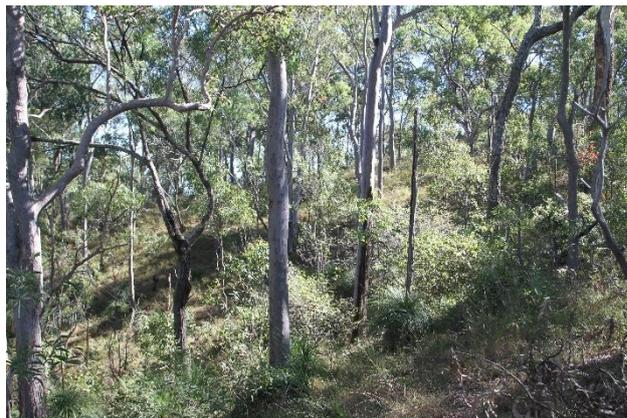


Figure 10. Sub-tropical and tropical eucalypt species dominate sclerophyll communities on Curtis Island © DES

On the mainland, alluvial communities such as the woodland and open forest *E. tereticornis* have been subject to clearing for grazing and agriculture due to their occurrence on fertile soils near available water. The pure stands of *E. tereticornis* on Curtis Island are of particular importance for being relatively undisturbed remnants of this community. In addition, *E. tereticornis* grow into very large hollow-forming trees making the species of special significance for fauna, especially in drier climatic zones.

Threats

Primary threat: Eucalypt forest and woodland communities are threatened by grazing and trampling by feral cattle and feral horses that results in altered species composition and vegetation structure, erosion and soil compaction, weed spread, damage to aquatic ecosystems, altered fire ecology and fire behaviour. These impacts post removal of cattle grazing leases are ongoing threats by feral cattle and feral horses.

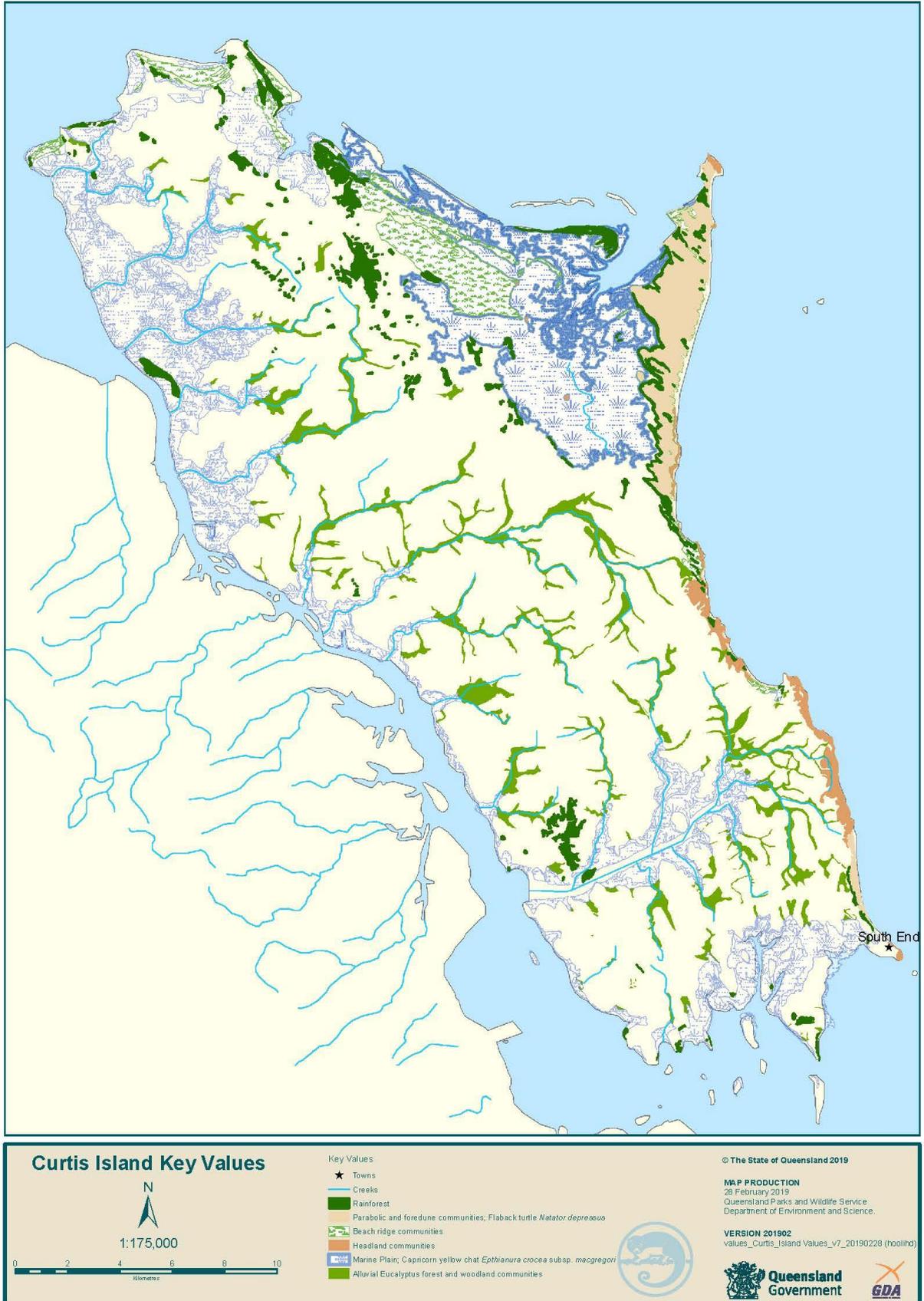
Threat rating: High

Desired outcome and strategic management direction

Desired outcome		
Threatening process	Strategic management direction	Priority
	The condition of alluvial eucalypt forest and woodland communities will be improved to good by managing feral cattle and feral horses.	
Pest animals	Reduce the impacts of feral cattle and feral horses in alluvial eucalypt forest and woodland communities.	1
Fire	Implement planned burns to maintain ecosystem function and health of fire adapted communities.	2

See Appendix 2. Glossary for priority rating definitions.

Map 2: Curtis Island National Park key values



4. Management direction

QPWS manages protected areas and forests to protect their values and deliver our custodial obligations as a land manager. Level of service (LoS) assessment allows QPWS to consider the management of each park in a State-wide context and determine desired levels of management effort for each park in a consistent and equitable way. LoS assessment lets QPWS staff and the public know what type or level of management activity to expect on each park or forest. There are five LoS ratings ranging from 'acceptable' to 'exceptional': an acceptable rating is the minimum standard required to deliver good management and meet our legislative custodial obligations.

This section provides a **management direction statement** for each management element, identifying its current LoS, desired LoS and the strategic management direction for management.

Summary of Curtis Island National Park's management direction

A summary of the current and desired LoS Curtis Island National Park is shown below; Figure 11 provides a key to the LoS icons.

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



Figure 11: Key to level of service icons

4.1 Traditional Owner engagement and cultural heritage

Management direction statement

Description	Current level of service
Aboriginal and Torres Strait Islander peoples' cultural heritage	

QPWS respects the rights, responsibilities, knowledge and aspirations of Aboriginal and Torres Strait Islander peoples. Central to all QPWS work is the recognition of the critical role that Aboriginal and Torres Strait Islander people 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.

Desired level of service and strategic management direction

Desired level of service	
	Aboriginal peoples' cultural heritage will be managed to a <i>very high</i> LoS through improved knowledge, engagement and involvement to enhance park management and protect World Heritage Values.
Strategic management direction	Priority
Level of service:	
Increase the level of Traditional Owner cultural resource information to a high level with input from Bailai People, Tarebilang Bunda People, Gooreng Gooreng People and the Gurang People.	1
Develop a Traditional Owner cultural thematic strategy and identify desired outcomes and management requirements for key and cultural values with regional support and input of Bailai People, Tarebilang Bunda People, Gooreng Gooreng People and the Gurang People.	2

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



Figure 12. Stone Hut beach with Cape Capricorn in the background © DES

4.2 Fire management

Management direction statement

Description	Current level of service
Fire management for Curtis Island National Park	

Fire management is core business for QPWS to protect life and property, mitigate wildfires and maintain natural diversity in accordance with the *Nature Conservation Act 1992* (NCA) and the *Fire and Emergency Services Act 1990* for the control and prevention of fires. QPWS also works cooperatively with Aboriginal and Torres Strait Islander peoples, 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 statement and the Queensland Government's *Planned Burn Guidelines: South East Queensland Bioregion of Queensland* will guide the formation of the Fire Strategy.

The strategy details QPWS's custodial obligations for protecting life and property and fire management objectives for maintaining key values through the use of fire management zones.

Desired level of service and strategic management direction

Desired level of service	
	Fire will be managed to a <i>high</i> level of service through improved consultation with adjoining land managers to reduce the risks to life and property.
Strategic management direction	Priority
Custodial obligations: Life and property	
Protection of LNG industry precinct from wildfire.	1
Protection of visitor facilities and QPWS management infrastructure.	2
Level of service:	
Improve the current knowledge and understanding of fire requirements of headland and alluvial eucalypt forest and woodland communities.	3
Improve the current level of stakeholder engagement with South End community, Qld Rural Fire Service and LNG proponents.	1
Maintain the level of priority of fire management by protecting life and property and key values.	M

*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 Curtis Island National Park	

Pest management is core business for QPWS to mitigate the threats to biodiversity in accordance with the NCA. QPWS has 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 our control. Recognising that effective management of pests across the landscape is a shared responsibility, QPWS works cooperatively with Aboriginal and Torres Strait Islander peoples, other state and local government agencies, landholders and natural resource management groups.

The strategic management direction in this management statement guides the formation of the Pest Strategy. The strategy details pest management objectives for preventing and mitigating pest impacts on key values and QPWS’s custodial obligations for managing pests and priority pest species.

Desired level of service and strategic management direction

Desired level of service	
	Pests will be managed to a <i>high</i> level of service through increased strategic management to protect World heritage values.

Strategic management direction	Priority
Level of service:	
Improve the level of knowledge of pests and their impacts on key values and record emerging threats.	2
Develop joint initiative to manage pest threats with key stakeholders and neighbours.	3
Key values are protected from pest threatening process as a priority.	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 Curtis Island National Park	

QPWS manages natural values in accordance with the NCA, *Environmental Protection Act 1994* (Qld), *Environmental Protection and Biodiversity Conservation Act 1999* (Cwlth), and relevant international agreement guidelines.

Curtis Island National Park has significant natural values including endangered regional ecosystems and threatened species. Threatening processes will be managed through the implementation of the Fire Strategy, Pest Strategy and Visitor Strategy.

The condition of natural values will be monitored through the implementation of the Monitoring and Research Strategy.

Desired level of service and strategic management direction

Desired level of service	
	Natural values will be managed to a <i>very high</i> level of service through increased knowledge and partnerships to protect World Heritage Values.
Strategic management direction	Priority
Level of service:	
Prioritise resourcing toward programs which proactively manage key values.	1
Evaluate effectiveness of management of key values and rehabilitation of identified sites with regional support.	2
Health check monitoring:	
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 Curtis Island National Park	

QPWS manages historic sites in accordance to the NCA, *Queensland Heritage Act 1992* (Qld) and *Historic Shipwrecks Act 1976* (Cwlth).

The Cape Capricorn Lightstation is listed on the Queensland Heritage Register. There are no sites listed on the Australian National Heritage List.

Desired level of service and strategic management direction

Desired level of service	
	Historic cultural heritage will be managed to a <i>medium</i> LoS through increased knowledge and strategic management to protect heritage values.

Strategic management direction	Priority
Level of service:	
Increase the level of knowledge of significant cultural heritage values and threats.	3
Develop a simple cultural heritage thematic strategy and identify the desired outcomes and management requirements of key values with regional support.	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 Curtis Island National Park	

Queensland's parks, forests and reserves provide local communities and visitors from around the world with opportunities to experience our rich natural and cultural heritage as well as a diverse range of recreational and ecotourism opportunities. QPWS seeks a responsible balance between visitor needs and sensitive park resources in accordance with the NCA and government policies and procedures. Permitted commercial tour activities, agreements and events are administered in accordance with the NCA and other relevant legislation.

The strategic management direction in this management statement guides the formation of the Visitor Strategy. The strategy details management objectives for key values and the desired management outcomes for visitor sites through zoning. Zoning and visitor site management objectives consider the physical, social and managerial impacts of the visitor experiences and sustainability of the sites; visitor strategies clearly state the desired site capacity to provide a diversity of experiences for visitors and achieve site sustainability. The strategy also explores visitor opportunities that complement other experiences in the landscape and region.

The condition of visitor sites and visitor satisfaction with park experiences will be monitored through the implementation of the Monitoring and Research Strategy.

Desired level of service and strategic management direction

Desired level of service	
	Visitors will be managed to a <i>high</i> LoS through enhanced opportunities and strategic management.
Strategic management direction	Priority
Level of service:	
Improve current knowledge of key visitor opportunities, expectations and potential impacts on key values.	1
Improve engagement with local community and commercial tour operators.	1
Improve management capacity to provide a high level of visitor asset maintenance, servicing, compliance, public contact services and enhanced visitor safety.	2
Health check monitoring:	
Monitor the condition of visitor 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).

4.7 Community, partnerships and other interests

Management direction statement

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

Queensland’s parks and forests provide sustainable environmental, economic and social benefits. The agency is committed to working with the community and its partners to ensure activities and infrastructure are ecologically sustainable and continue to benefit Queensland’s economic and social wellbeing as outlined in Queensland Parks and Wildlife Service’s Master Plan (QPWS, 2014). Permitted activities are administered in accordance with the requirements of the NCA and other relevant legislation.

Desired level of service and strategic management direction

Desired level of service	
	Community, partnerships and other interests will be managed to a <i>medium</i> LoS through maintained partnerships to enhance park management.
Strategic management direction	Priority

Level of service:

Maintain current meets LoS standard.	M
Improve engagement with city and Port of Gladstone regarding light impact on turtle nesting.	1
Improve current knowledge of key visitor opportunities, expectations and potential impacts on key values.	1
Improve engagement with local community and commercial tour operators.	1

*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 Curtis Island 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 and community expectations. It considers the required proximity, frequency and intensity of on-ground management that is needed to manage key values and meet custodial obligations. The rating provides QPWS with a means for gauging resource requirements and staff training needs.

Desired level of service and strategic management direction

Desired level of service	
	Field management capability will be managed at a <i>high</i> LoS through a maintained strategic approach to managing resources.
Strategic management direction	Priority
Level of service:	
Maintain current LoS standard.	M

*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 Curtis Island National Park	

Operational planning and management support covers all aspects of management direction including information, assessments, systems, tools 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 direction

Desired level of service	
	Operational planning and management support will be managed to a <i>high</i> LoS through a maintained strategic approach to resources, to enhance park management.
Strategic management direction	Priority
Level of service:	
Maintain current LoS standard.	M

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

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) *
Parabolic and foredune: Communities	Northern 		Pest animals	Reduce impacts of feral cattle and feral horses in parabolic and foredune communities.	1
	Southern 		Visitor impacts	Reduce vehicle impacts on dune communities.	2
			Fire	Exclude fire from parabolic and foredune communities.	3
Parabolic and foredune: Flatback turtle			Pest animals	Reduce impacts of foxes, wild dogs, feral pigs, feral cattle and feral horses on flatback turtles, nests and nesting habitat.	1
			Visitor impacts	Reduce noise and light pollution from visitors in turtle nesting areas.	1
				Reduce vehicle impacts on nests and turtle hatchlings.	1
Marine plain: Marine plain			Pest plants	Reduce the impacts of olive hymenachne and rubber vine on marine plain including upstream hymenachne infestations.	1
			Fire	Protect marine plain from wildfire and peat fires by undertaking planned burns under appropriate conditions.	2
Marine plain: Capricorn yellow chat <i>Epthianura crocea</i> subsp. <i>macgregori</i>			Pest animals	Reduce the impacts of feral cattle, feral horses and feral pigs on marine plain and Capricorn yellow chat habitat.	1
Rainforest			Pest plants	Reduce the impacts of lantana and rubber vine in rainforests in parabolic dunes.	2
			Fire	Exclude fire from rainforests and protect from scorch damage along edges.	2
Coastal headland and beach ridge communities: Headland communities			Pest animals	Reduce the impacts of feral cattle and feral horses in headland communities.	2
			Fire	Implement planned burns to conserve species diversity and vegetation structure in <i>Melaleuca nervosa</i> shrublands.	2
				Exclude fire from <i>Themeda triandra</i> grasslands and wind sheared vegetation.	2
			Visitor impacts	Reduce impacts of vehicles on headland communities with road upgrade.	2

Key value	Current	Desired	Threatening processes	Strategic management directions	Priority (1-5) *
Coastal headland and beach ridge communities: Beach ridge communities			Fire	Implement planned burns to conserve species diversity and vegetation structure.	2
			Pest plants	Reduce the impacts of groundsel and Guinea grass in beach ridge communities.	3
Alluvial eucalypt forest and woodland communities			Pest animals	Reduce the impacts of feral cattle and feral horses in alluvial eucalypt forest and woodland communities.	1
			Fire	Implement planned burns to maintain ecosystem function and health of fire adapted communities.	2

See Appendix 2. Glossary for key value priority rating definitions.

Table 2. Summary of strategic management direction for management direction

Management element	Current	Desired	Strategic management directions	Priority (1-5) *
Traditional Owner engagement and cultural heritage			Increase the level of Traditional Owner cultural resource information to a high level with input from Bailai People, Tarebilang Bunda People, Gooreng Gooreng People and the Gurang People.	1
			Develop a Traditional Owner cultural thematic strategy and identify desired outcomes and management requirements for key and cultural values with regional support and input of Bailai People, Tarebilang Bunda People, Gooreng Gooreng People and the Gurang People.	2
Fire			Improve the current knowledge and understanding of fire requirements of headland and alluvial eucalypt forest and woodland communities.	3
			Improve the current level of stakeholder engagement with South End community, Qld Rural Fire Service and LNG proponents.	1
			Maintain the level of priority of fire management by protecting life and property and key values.	M
Pests			Improve the level of knowledge of pests and their impacts on key values and record emerging threats.	2
			Develop joint initiative to manage pest threats with key stakeholders and neighbours.	3
			Key values are protected from pest threatening process as a priority.	1
Natural values			Prioritise resourcing toward programs which proactively manage key values.	1
			Evaluate effectiveness of management of key values and rehabilitation of identified sites with regional support.	2
Historic cultural heritage			Increase the level of knowledge of significant cultural heritage values and threats.	3
			Develop a simple cultural heritage thematic strategy and identify the desired outcomes and management requirements of key values with regional support.	5
Visitor			Improve current knowledge of key visitor opportunities, expectations and potential impacts on key values.	1
			Improve engagement with local community and commercial tour operators.	1
			Improve management capacity to provide a high level of visitor asset maintenance, servicing, compliance, public contact services and enhanced visitor safety.	2
Community, partnerships and other interests			Maintain current meets LoS standard.	M
			Improve engagement with city and Port of Gladstone regarding light impact on turtle nesting.	1
			Improve current knowledge of key visitor opportunities, expectations and potential impacts on key values.	1

Management element	Current	Desired	Strategic management directions	Priority (1-5) *
Field management capability			Improve engagement with local community and commercial tour operators.	1
			Improve management capacity to provide a high level of visitor asset maintenance, servicing, compliance, public contact services and enhanced visitor safety.	2
			Maintain current LoS standard.	M
Operational planning and management support			Maintain current LoS standard.	M

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

Appendix 2. Glossary

Interpreting key values-based management framework concepts

Adaptive management	The process of adjusting and improving how we manage parks, forests and reserves after assessing the outcomes of previous strategies and on-ground actions.															
Condition and trend	The condition of a key value is assessed as either good, good with some concern, significant concern or critical. Trend describes what is happening to the condition: is it improving, stable, or deteriorating. A key value's current condition is determined during the planning process. A desired condition is a realistic goal for the future condition of the key value. The ongoing condition of key values is assessed with regular health checks, monitoring and scientific assessment.															
Custodial obligations	The requirements under law as a land manager to ensure that QPWS's parks, forests and reserves are lawfully managed and good neighbours. Management provides for the protection of life and property and positive relationships with adjacent communities and landholders, as well as enhancing and protecting our values.															
Desired outcome	A statement in the key value and management direction statements about moving from the current status (condition or LoS) to a desired status. The goal for management.															
Health check	An annual or regular qualitative assessment of the condition of key values. Regular health checks ensure QPWS can respond quickly to adverse change and redirect management priorities.															
Key value	A natural, cultural and/or social value that is of most significance to that area. It is what makes the area special and if lost, would diminish what makes the area distinct from others.															
Key value statement	A statement in the management plan/statement that is developed for each key value. It describes the key value, current condition, desired condition, current threats and threat ratings, strategic management direction and priorities for further thematic strategy planning and on-ground management action.															
Level of service (LoS)	A 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 our custodial obligations under law as a land manager. A 'current' LoS rating is the level at the time of planning, the 'desired' LoS is where we want to be.															
Priority rating (key value)	<p>A rating given to a strategic management direction according to the need for action to prevent further decline, stabilise current condition, or restore and enhance values, with consideration given to legislative obligations, cost, social, economic and political factors.</p> <table border="1"> <tr> <td>Critical</td> <td>1</td> <td>Loss or very significant decline in the condition of key value/s is highly likely if action not taken OR significant improvement in the condition of key value/s is highly likely if action is taken.</td> </tr> <tr> <td>Very high</td> <td>2</td> <td>Significant decline in the condition of key value/s is likely if action is not taken OR significant improvement in the condition of key value/s is likely if action is taken.</td> </tr> <tr> <td>High</td> <td>3</td> <td>Decline in the condition of key value/s is likely if action is not taken OR improvement in the condition of key value/s is likely if action is taken.</td> </tr> <tr> <td>Moderate</td> <td>4</td> <td>Some decline in the condition of key value/s is possible if action is not taken OR some improvement in the condition of key value/s is possible if action is taken.</td> </tr> <tr> <td>Desirable</td> <td>5</td> <td>While decline in the condition of key value/s is not likely in the short term, the action, if taken would help build long-term resilience of key value/s.</td> </tr> </table>	Critical	1	Loss or very significant decline in the condition of key value/s is highly likely if action not taken OR significant improvement in the condition of key value/s is highly likely if action is taken.	Very high	2	Significant decline in the condition of key value/s is likely if action is not taken OR significant improvement in the condition of key value/s is likely if action is taken.	High	3	Decline in the condition of key value/s is likely if action is not taken OR improvement in the condition of key value/s is likely if action is taken.	Moderate	4	Some decline in the condition of key value/s is possible if action is not taken OR some improvement in the condition of key value/s is possible if action is taken.	Desirable	5	While decline in the condition of key value/s is not likely in the short term, the action, if taken would help build long-term resilience of key value/s.
Critical	1	Loss or very significant decline in the condition of key value/s is highly likely if action not taken OR significant improvement in the condition of key value/s is highly likely if action is taken.														
Very high	2	Significant decline in the condition of key value/s is likely if action is not taken OR significant improvement in the condition of key value/s is likely if action is taken.														
High	3	Decline in the condition of key value/s is likely if action is not taken OR improvement in the condition of key value/s is likely if action is taken.														
Moderate	4	Some decline in the condition of key value/s is possible if action is not taken OR some improvement in the condition of key value/s is possible if action is taken.														
Desirable	5	While decline in the condition of key value/s is not likely in the short term, the action, if taken would help build long-term resilience of key value/s.														
Priority rating (management direction)	A rating given to a strategic management direction according to the need or urgency for action. A scale from 1 (extremely urgent) – 5 (not urgent or optional) is assigned. M indicates current Level of service management priority is to be maintained.															
Management direction	How we manage the nine management elements to protect and enhance our key values and meet our custodial management obligations.															
Management direction statement	A statement in the management plan/statement, developed for each management element that describes the current LoS, desired LoS, custodial obligations, strategic management direction and priorities for further thematic strategy planning and on-ground management action.															

Management element	QPWS has identified nine management elements that are common to most of the parks, forests and reserves in our estate: Aboriginal and Torres Strait Islander peoples; fire management; pest management; natural values management; historic cultural heritage management; visitor management; community, partnerships and other interest; field management capability; operational planning and management support.
Strategic management direction	A broad strategy aimed at mitigating or removing a threat to a key value or addressing the gap between the current LoS and desired LoS for a management element.
Threat or threatening process and threat rating	Based on IUCN's classifications, QPWS has identified threatening processes that have the potential to affect Queensland's values (e.g. natural systems modifications, invasive species etc.). Current threats to key values are identified and given a threat rating based on a combination of the extent of the impact, the severity of the impact, and the urgency of action .
Values-based management framework	An adaptive management and planning cycle incorporating planning, prioritising, doing, monitoring, evaluating and reporting.