

Staaten River National Park Management Statement 2013

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| Park size: | 470,000ha |
| Bioregion: | Gulf Plains Bioregion |
| QPWS region: | Northern |
| Local government estate/area: | Carpentaria Shire Council Tablelands Regional Council |
| State electorate: | Mount Isa Cook |



Golden-shouldered parrot Photo: NPRSR

Legislative framework

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| ✓ | <i>Aboriginal Cultural Heritage Act 2003</i> |
| ✓ | <i>Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)</i> |
| ✓ | <i>Nature Conservation Act 1992</i> |

Plans and agreements

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| ✓ | Action Plan for Australian Birds 2010 |
| ✓ | China–Australia Migratory Bird Agreement |
| ✓ | Japan–Australia Migratory Bird Agreement |

Thematic strategies

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| ✓ | Staaten River National Park Level 2 Fire Strategy 2003 |
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Vision

Staaten River National Park conserves diverse and healthy landscapes associated with the floodplains and tributaries of the Staaten River. The park continues to be managed to provide habitat for the southern population of golden-shouldered parrot *Psephotus chrysopterygius*.

Threats to the long-term viability of the habitat of the golden-shouldered parrot, such as termite mounds which provide essential nesting habitat, are actively managed.

The park is promoted as a remote destination for experienced and self-sufficient bushwalkers.

Conservation purpose

In 1977, 467,000ha of pastoral lease on the floodplains of the Staaten River and its tributaries was gazetted as Staaten River National Park. Since gazettal the park has been expanded by 3,000ha to 470,000ha. The purpose of gazettal was to provide a large area of monsoon tropical savanna grasslands and melaleuca woodlands. Subsequent research and monitoring discovered that the park provides essential habitat for the endangered golden-shouldered parrot.

The remote and extensive nature of the park provides unique wetland habitats for a variety of fauna and flora species free from the hydrological disturbances and influences of pest species often associated with wetland systems near urban development.

Protecting and presenting the park's values

Landscape

Staaten River National Park is situated on the Quaternary drainage channels of Staaten River and its main tributaries Back, Cockburn, Pandanus and Emu creeks. The landscape is generally flat, sloping from the south-east at around 150m above sea level (ASL) to the north-west at around 50m ASL. The Staaten River originates in eroded sandstone hills, of Cainozoic age, around 200m ASL on neighbouring pastoral lands. Monsoonal wet season flows along the river and its tributaries provides support for permanent and semi-permanent wetlands, waterholes and swamps.

The surrounding land use is pastoral leases for cattle grazing. The remoteness of the park, minimal development of the surrounding area and very little internal formalised access only 8.5km of unformed track on the western end of the park, has resulted in relatively pristine environment with low levels of pest plants and pest animals. Current park infrastructure extends to very low levels fencing on the western, eastern and northern boundaries. Approximately one-quarter of the total perimeter of the park is fenced.

Regional ecosystems

Thirty-six regional ecosystems have been mapped within Staaten River National Park. Thirteen are classed as of concern regional ecosystems under their biodiversity status (Table 1). The remainder are listed as not of concern at present.

The park provides for a large reservation of melaleuca woodlands. These woodlands occur primarily in the tropical savannas of monsoonal northern Australia. The largest representations are found on Cape York and the Gulf of Carpentaria. These woodlands are characterised by their grassy understorey which provides an important seed resource for granivorous birds such as the golden-shouldered parrot (Myers et. al, 2004). Current fire regimes across the broad distribution of melaleuca woodlands and fuel reduction through grazing have had a negative impact on conservation values through woody thickening and subsequent reduction in grassy understorey. The optimal fire regime for increasing or maintaining conservation values is one that controls woody thickening through implementation of hot storm burns and retains a fine-grained mosaic of areas burnt at different times of the year to provide year-round food availability. Staaten River National Park provides a prime opportunity to implement optimal fire regimes free from grazing pressures.

Native plants and animals

Staaten River National Park is currently known to provide habitat for two animal species and two plant species of state or national significance (Table 2). Four birds recorded from the park are listed in international agreements (Table 3). Currently there are 200 plant species and 140 animals recorded from the park.

The golden-shouldered parrot, which is limited to two small populations on southern Cape York Peninsula, is found only in the south-east corner of Staaten River National Park. This area is characterised by a high ratio of eucalypt woodland to melaleuca flats and its close proximity to sandstone outcrops on Bulimba Station. The waterholes along Cockburn Creek may be particularly important refuge during dry years.

The southern population of the golden-shouldered parrot has seen significant contraction in its range since the 1960s. However, it is now considered to be stable and estimated to consist of approximately 1,000 birds (Crowley *et. al*, 2004). The current fire regime of frequent hot fires is maintaining an open structure to the woodland which is important to reduce predation of adults as they leave nesting mounds. Frequent and extensive hot fires limit food resources during the wet season and reduce the sorghum seed during the early breeding season (Freeman and Garnett 2004). A mosaic of early burns that protect some parts of the park from late dry season fires is important to reduce impacts of these hot and extensive fires.

Aboriginal culture

Staaten River National Park is within the homelands for the Kokoberrin people. The Kokoberrin are a number of small closely affiliated language groups (Natural Resources and Mines, 2005). Most Kokoberrin people today live in Kowanyama, Normanton and other north Queensland communities (Edwards, 2004). No sites of material culture are known by QPWS to exist within the park, nor are any Native Title claims known to be currently lodged over the park.

Shared-history culture

No known relics of European pastoral heritage are present on the park.

Tourism and visitor opportunities

Currently no formalised gazetted access to the park exists and, due to the nature of the alluvial floodplain, there are no formal access roads or tracks within the park. There is an old, unformed track that extends 8.5km into the park from the western boundary. Due to the remote nature of the park and its access limitations, there are no current plans to further formalise any visitor facilities.

Education and science

Monitoring of population levels and the distribution of the golden-shouldered parrot occurred in 1990, 2004 and 2010 to assess the response to management activities, particularly fire. Departmental technical guidelines for the management of the rare and threatened animal and ecosystems of Staaten River and Mitchell–Alice national parks recommended that monitoring golden-shouldered parrot populations and termite mounds containing nesting burrows should be scheduled for every five years (Freeman and Garnett, 2004).

Opportunity exists to use information on the management of the golden-shouldered parrot in departmental educational materials focussed on threatened species management.

Partnerships

Partnerships are important to effectively manage Staaten River National Park, particularly for managing fire for the maintenance of golden-shouldered parrot habitat. Good working relationships have been developed with neighbouring pastoralists with a strong focus on fire management. Future partnerships between neighbouring pastoralists and the department need to include cooperation in boundary fencing to ensure that stock numbers on the park and uncontrolled access are minimised.

Other key issues and responses

Pest management

Staaten River National Park is relatively pest free with departmental records showing only four species recorded, namely the cane toad *Rhinella marina*, hyptis *Hyptis suaveolens*, spiny sida *Sida spinosa* and awnless barnyard grass *Echinochloa colona*. Feral pigs *Sus scrofa*, feral horses *Equus ferus*, cattle *Bos* sp. and cats *Felis catus* have the potential to impact on the population of golden-shouldered parrots. These species have been observed on the park, but not officially recorded.

The numbers of feral pigs have risen to a point where population levels are impacting termite nesting mounds through disturbance causing them to collapse. Aerial shooting commenced in 2011. Control programs should be implemented and maintained for all pest species that are known to either directly threaten the golden-shouldered parrots through predation or the conservation values of their habitat.

Fire management

The management of fire is significant to the conservation of golden-shouldered parrot habitat on Staaten River National Park. Departmental technical guidelines have identified desirable fire regimes, as follows:

'The current fire regime of frequent hot fires is maintaining a fine open structure to the woodland but in some years may lead to limitations of food during the wet season and of perennial sorghum (Sorghum plumosum) seed during the early breeding season, since sorghum seeds sparsely in the year after burning. When possible create a mosaic of early burns that protect some parts of the park from late dry season fires. If fuel remains at the end of the dry season burn up to 10 per cent with storm burns immediately after the first rains in November or December. If possible coordinate burning with Bulimba and Strathmore years.' (Freeman and Garnett, 2004).

References

Crowley G M Garnett S T and Shephard S 2004, *Management guidelines for golden-shouldered parrot conservation*, Queensland Parks and Wildlife Service, Brisbane

Edwards S 2004, Kokoberrin Language. <http://www.fatsilc.org.au/languages/language-of-the-month/lotm-2001-to-2008/2004-may-shaun-edwards>

Freeman A and Garnett S T 2004, *Management of the rare and threatened animal and ecosystems of Staaten River and Mitchell-Alice national parks*, Internal report, Environmental Protection Agency, Queensland.

Myers B Allan G Bradstock R Dias L Duff G Jacklyn P Landsberg J Morrison J Russell-Smith J and Williams R 2004, *Fire Management in the Rangelands*, Tropical Savannas CRC, Darwin.

Natural Resources and Mines 2005, *Staaten wild river declaration proposal*, Natural Resources and Mines, Queensland.

Management directions

| Desired outcomes | Actions and guidelines |
|---|---|
| <p>Landscape</p> <p>Landscape and regional ecosystem values are protected</p> <p>The health and integrity of watercourses, perennial springs are maintained.</p> | <p>A1. Implement fire regimes that maintain and improve the current health of regional ecosystems that contribute to the diversity of the Staaten River National Park landscape.</p> <p>A2. Implement pest management programs that target species impacting riparian, spring and wetland communities.</p> <p>A3. Exclude stock from the park by maintaining effective boundary fences and implementing stock management agreements with neighbours where possible.</p> |
| <p>Native plants and animals</p> <p>The range of species and their habitat requirements are protected.</p> | <p>A4. Facilitate regular surveys aimed at monitoring the population of golden-shouldered parrot.</p> <p>A5. Maintain an active fire management program designed to maximise conservation outcomes for threatened species management.</p> |
| <p>Aboriginal culture</p> <p>Indigenous people with traditional affiliations are involved with managing cultural heritage issues on the park.</p> | <p>A6. Liaise with the Kokoberrin people about identifying, managing and interpreting the park's Indigenous cultural heritage.</p> |
| <p>Education and science</p> <p>Research and monitoring programs increase the understanding of values and provide information to improve management decisions.</p> | <p>A7. Actively support research activities where there are demonstrated benefits to management.</p> <p>A8. Provide information on threatened species management to develop educational material.</p> |
| <p>Pest management</p> <p>The integrity of native plant and animal communities is maintained through strategic, sustained pest management.</p> | <p>A9. Develop and implement a Level 2 Pest Management Strategy that considers the most effective methods for control and involves cooperative management of species where appropriate.</p> |

| Desired outcomes | Actions and guidelines |
|---|---|
| <p>Fire management</p> <p>The integrity of native plant and animal communities is maintained through strategic, sustained fire management.</p> | <p>A10. Ensure a diversity of mosaic fire ages is maintained and management guidelines for threatened species management are implemented</p> |
| <p>Partnerships</p> <p>Relationships with neighbours are maintained and collaborative management occurs.</p> | <p>A11. Develop cooperative pest management programs to ensure that management within the park does not occur in isolation.</p> <p>A12. Develop cooperative fencing agreement where required.</p> |

Conservation values management

Table 1: Endangered and of concern regional ecosystems

| Regional ecosystem number | Description | Biodiversity status |
|---------------------------|--|---------------------|
| 2.3.9b | Floodplain (other than floodplain wetlands). <i>Lysiphyllum cunninghamii</i> , <i>Corymbia confertiflora</i> low open-woodland or tussock grassland of <i>Chloris spp.</i> , <i>Iseilema spp.</i> , <i>Aristida spp.</i> , <i>Eriachne spp.</i> and <i>Themeda arguens</i> +/- low trees. Occurs on alluvial plains. | Of concern |
| 2.3.16 | Deepwater lagoons with waterlilies and sedges. | Of concern |
| 2.3.21a | Floodplain (other than floodplain wetlands). <i>Eucalyptus leptophleba</i> , <i>Corymbia spp.</i> +/- <i>Lysiphyllum cunninghamii</i> +/- <i>Erythrophleum chlorostachys</i> woodland. Occurs on alluvial terraces, levees, ridges frontages. | Of concern |
| 2.3.21b | Floodplain (other than floodplain wetlands). <i>Eucalyptus tetradonta</i> , <i>Corymbia polycarpa</i> , <i>Eucalyptus melanophloia</i> , <i>Corymbia dallachiana</i> and <i>Erythrophleum chlorostachys</i> woodland to open-woodland. Occurs on sandy levees and ridges. | Of concern |
| 2.3.21x2 | <i>Corymbia polycarpa</i> , <i>Melaleuca viridiflora</i> and/or <i>Eucalyptus tetradonta</i> , <i>Erythrophleum chlorostachys</i> +/- <i>Syzygium eucalyptoides</i> , <i>Parinari nonda</i> , <i>Thryptomene oligandra</i> , <i>C. dallachiana</i> , <i>C. confertiflora</i> , <i>C. setosa</i> woodland. On abandoned levees and Quaternary sandsheets. | Of concern |
| 2.3.21x12 | Floodplain (other than floodplain wetlands). <i>Terminalia platyphylla</i> , <i>Thryptomene oligandra</i> , <i>Parinari nonda</i> and <i>Margaritaria dubium-traceyi</i> mixed species open forest. Occurs on elevated alluvial terraces in river channels. | Of concern |
| 2.3.24 | Weeping paperbark (<i>Melaleuca spp.</i>) woodland-open forest on sands in channels and on levees. | Of concern |
| 2.3.24x11 | Riverine wetland or fringing riverine wetland. Bare sand with scattered low shrubs and patches of grasses, forbs and sedges. Occurs in larger river channels. | Of concern |
| 2.3.29x40 | <i>Melaleuca acacioides</i> +/- <i>Excoecaria parvifolia</i> tall shrubland to open-shrubland. Very sparse grassy ground layer. Occurs on Cainozoic clay plains, often with massive gilgai. | Of concern |
| 2.5.5x14a | <i>Corymbia polycarpa</i> , <i>Eucalyptus chlorophylla</i> woodland with <i>Melaleuca viridiflora</i> understorey. Occurs on plains, older alluvial fans and overbank deposits. | Of concern |
| 2.5.16 | <i>Melaleuca foliolosa</i> shrubland on dissected plains on alkaline earths and texture contrast soils. | Of concern |
| 2.5.16x40 | <i>Melaleuca foliolosa</i> open scrub. Occurs on plains on older Quaternary alluvial fan and overbank deposits. | Of concern |
| 2.7.1x3a | <i>Melaleuca citrolens</i> low open-woodland and/or patches of shrubs on low breakaways. Frequently bare with patches of forbs and grasses in micro depressions. Occurs on low breakaways on exposed edges of alluvial terraces and mudstones. | Of concern |

Table 2: Species of conservation significance

| Scientific name | Common name | Nature Conservation Act 1992 status | Environment Protection and Biodiversity Conservation Act 1999 status | Back on Track status |
|-----------------------------------|--------------------------|-------------------------------------|--|----------------------|
| Plants | | | | |
| <i>Arthragrostis clarksoniana</i> | - | Near threatened | - | Low |
| <i>Fimbristylis dontocarpa</i> | - | Near threatened | - | Low |
| Animals | | | | |
| <i>Psephotus chrysopterygius</i> | golden-shouldered parrot | Endangered | Endangered | Critical |
| <i>Ephippiorhynchus asiaticus</i> | black-necked stork | Near threatened | - | Low |

Table 3: Species listed in international agreements

| Scientific name | Common name | Bonn | CAMBA | JAMBA | ROKAMBA |
|-------------------------------|-------------------------|------|-------|-------|---------|
| <i>Ardea modesta</i> | eastern great egret | - | ✓ | ✓ | - |
| <i>Haliaeetus leucogaster</i> | white-bellied sea-eagle | - | ✓ | - | - |
| <i>Coracina tenuirostris</i> | cicadabird | - | - | ✓ | - |
| <i>Merops ornatus</i> | rainbow bee-eater | - | - | ✓ | - |

Bonn – Bonn Convention

CAMBA – China–Australia Migratory Bird Agreement

JAMBA – Japan–Australia Migratory Bird Agreement

ROKAMBA – Republic of Korea–Australia Migratory Bird Agreement