



Submission to Agriculture, Resources and Environment Committee

National Parks Association of Queensland
28th October 2013

North Stradbroke Island Protection and Sustainability and Another Act Amendment Bill 2013

The National Parks Association of Queensland (NPAQ) promotes the preservation, expansion and wise management of National Parks and the wider protected area estate in Queensland. NPAQ plays a key role in advocating for the preservation of existing National Parks in their natural condition. NPAQ welcomes the opportunity to provide comments on specific environmental issues in regard to this Bill.

NPAQ opposes the amendment on the grounds that continued mining will do long-term damage to the environmental future of the Island.

Environmental Impact

NPAQ is very concerned that mining will be allowed into new areas surrounded by or adjacent to National Park and internationally significant wetlands - such as 18-Mile Swamp and the catchment of Blue Lake - that support endangered species and significant vegetation communities.

In this regard, NPAQ is concerned that mining will:

- Directly affect the hydrological connections between, and aquifers feeding into, internationally listed wetlands found on the Island.
- Destroy Mt Corrie, a particularly scenic high point with 360 degree views across bush to the Pacific on the east and Moreton Bay to the west.
- Fragment future National Park and further delay the hand-back of the land to native titleholders.
- Ensure that the deepening scars from sand extraction will be visible from key scenic lookouts for decades to come.
- Continue to destroy the internal structure of dunes created over millennia (it is the layering and indurations within dunes that guide the hydrology of the Island).

Furthermore any post-mining rehabilitation will be a poor shadow of the biodiverse, species rich dune forests that took hundreds of years to establish on the Island.

RAMSAR-listed Wetlands

The island's RAMSAR-Listed wetlands are recognized as globally important. In a recent report commissioned by the Friends of Stradbroke Island, Dr Errol Stock concluded that the Enterprise mine had a *measurable* impact on the island's 18 Mile Swamp wetlands and had

made a *substantial* change to the hydrological regime of the wetland. The proposed mine path now allows mining on the escarpment above 18-Mile Swamp. The potential risk to the long-term viability of this fragile ecosystem is enormous and puts several threatened flora and fauna species at risk.

In their seminal paper on groundwater connections on the Island, Specht and Walker (2006) note that:

*All of the biota in the groundwater-dependent ecosystems are dependent either directly or indirectly on the present, naturally variable, hydrological regime.....
Indirect dependence includes the dependence by several biota on the plants and habitat that is provided by the hydrological relationship, without which they will not persist.
Highly specific food relationships such as that of the ground parrot, the habitat of the acid-loving frogs (dependent on reeds rather than on shrubs or trees) and the reliance on a boundary between two communities of the swamp orchid are just two examples of the importance of vegetation and hence hydrological regime to individual survival.*

Blue Lake

Recent studies have confirmed that Blue Lake is of enormous scientific significance, remaining untouched by changes in climate for 7,000 years. This body of water, should it be allowed to remain in its current pristine undisturbed state, could provide vital data about how ecosystems react to climate change at different time scales.

Barr et al (2013) state that:

Our study suggests that increased extraction of ground water represents one of the few obvious threats to the stability of Blue Lake. The threat this could pose to the lake's status as a stable freshwater refuge needs serious consideration if the regional aquifer of North Stradbroke Island is to be contemplated.

And in addition:

.....we would argue that it's likely to be a freshwater refuge for some time in the future if managed properly.

It is unlikely that the authors considered mining in close vicinity to Blue Lake as proper management. NPAQ seriously questions whether the danger of destroying this world-renowned natural phenomenon in order to provide short-term gain for a foreign mining is worth the risk.

Threatened Species

North Stradbroke Island is home to a wide variety of amazing flora and fauna. Many species are already under threat of extinction and further mismanagement of the Island's fragile and precious ecosystems will place additional strain on their survival. Of particular interest is the Oxleyan Pygmy Perch *Nannoperca oxleyana*, listed as Endangered nationally and Vulnerable in Queensland and ranked as a critical priority under the Department of Environment and Heritage Protection (DEHP) Back on Track species prioritization framework. One of the Pygmy Perch's primary habitats is Blue Lake. The geographic range of this species is already undergoing significant contraction, and the small remaining populations are extremely vulnerable to habitat disturbance.

In a briefing paper on this species, the NSW Department of Primary Industries (2005) noted that:

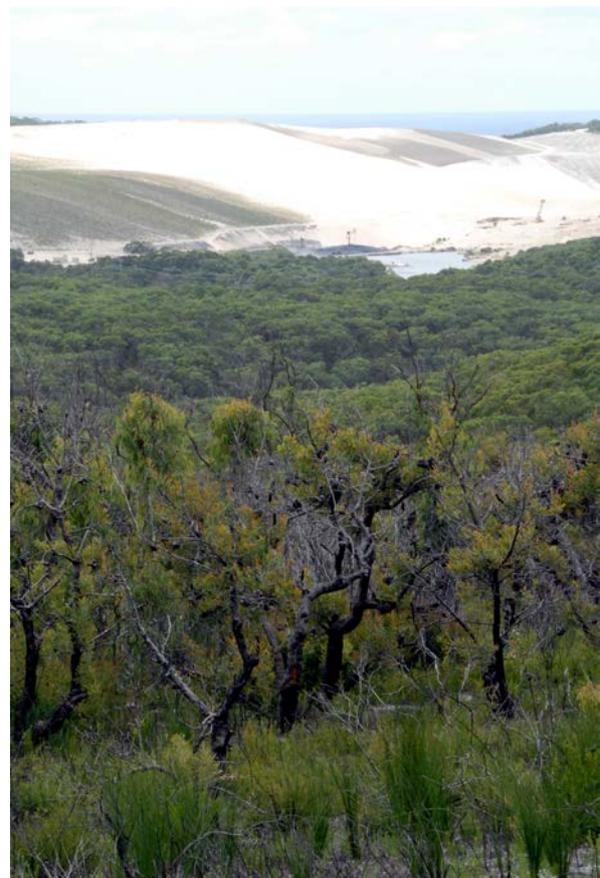
Direct habitat damage or loss can occur through mining, dredging and excavation work, the removal of riparian vegetation or the interruption of natural flow patterns. Habitats can be indirectly damaged when land clearing causes a deterioration in water quality, changes in nutrient levels or siltation.

Sand mining has destroyed some dune lakes in NSW and QLD by rupturing the organic layer underlying the perched aquifer. In each case, this has led to the lake being drained or the intrusion of salt water into freshwater after the dune separating the lake and sea was broken. While sandmining in northern NSW has been phased out, any form of digging activity that alters the aquifer remains a threat to pygmy perch habitats. Sand mining is still carried out within pygmy perch habitat on Stradbroke Island in southern Queensland.

By way of further example, wetlands on North Stradbroke Island provide habitat for two extremely rare species of orchid - the Swamp Orchid *Phaius australis* and the Yellow Swamp Orchid *Phaius bernaysii*. The former is the largest ground orchid in Australia, growing to 2m tall (see image below), and is found in 18-Mile Swamp. Both species are vulnerable to off-trail bushwalking, changes in hydrology, land clearing, sand mining and illegal harvesting for the cut flower trade. The DEHP wetland information web portal clearly identifies threats to the Swamp Orchid as *collecting, draining of habitat for housing, agriculture, sand mining and related infra-structure, peat mining, golf courses, etc.*



Phaius australis in flower (photo: Paul Donatui).



Heath and eucalypt woodland on dunes near the Enterprise Mine. It is simply not possible to fully reinstate the complexity and diversity of vegetation that existed on the Island post-mining (photo: Paul Donatui).

Breach of the Cardinal Principle

The Queensland Government's definition of the cardinal principle for managing National Parks is:

*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.
Natural condition means protection from human interference – allowing natural processes to proceed.*

This principle has been the foundation for the protection, to the greatest possible extent, of the natural and cultural resources on National Parks. It was introduced in 1959, as part of the Forestry Act, during a period of conservative government. NPAQ is very concerned that any mining in close proximity to existing National Park areas, and of future National Park areas constitutes a breach of the Cardinal Principle, and will seriously undermine the integrity, health and condition of an expanded National Park on North Stradbroke Island.

Future Resort-based Development within National Park on North Stradbroke Island

In reference to pages 2-3 of the Explanatory Notes for this Bill, NPAQ reiterates previous public comments it has made in relation to proposed development on any National Park land, specifically:

- That the primary purpose of National Parks is the conservation of nature – note that since the Nature Conservation Act (NCA) was introduced in 1992, *conservation* has been defined to include the *protection and maintenance of nature while allowing for its ecologically sustainable use*. In this regard, the NCA has always provided for the use of nature in some form, but only on an ecologically sustainable basis. Allowing ecotourism facilities on National Park land on the Island will further erode the cardinal principle of National Park management.
- That the public are overwhelmingly opposed to resort development in National Parks - when asked whether Victoria's National Parks should be opened to private tourism development, **81% of respondents said No, never** (*The Age* 24/8/2012; 4,714 participants).
- Currently there is a *complete lack of market demand* for this type of experience, with a significant number of National Park-associated resorts in Queensland going into receivership during the last 24 months.
- *Less than 1% of the 20,000 National Parks worldwide have any significant tourism infrastructure* (*Park Watch* September 2012, produced by Victorian NPA); many of the larger US Parks are removing heavy tourism infrastructure because it directly reduces and detracts from the experience of being in a natural place.
- Commercial ecotourism leases confuse public access to public land with the exclusive use associated with private ecotourism facilities - indeed, this move would appear to directly contradict the State Government's policy of making National Parks more accessible to the public.

Less than 5% of Queensland is National Park, an extremely low statistic considering the progress made in virtually every other State towards expanding protected areas. They are the jewels in our conservation crown, and preserve some of the very best landscapes and natural attractions in Australia. On North Stradbroke Island and throughout the State, the Queensland Government should be taking every opportunity to *expand the National Park estate*, if only to support *appropriate* regional tourism and public recreation.

References

Barr C, Tibby J, Marshall JC, McGregor GB, Moss PT, Halverson GP and Fluin J 2013. Combining monitoring, models and palaeolimnology to assess ecosystem response to environmental change at monthly to millennial timescales: the stability of Blue Lake, North Stradbroke Island, Australia. *Freshwater Biology* 8: 1614-1630.

<http://newswatch.nationalgeographic.com/2013/06/14/australian-lake-untouched-by-climate-change-called-gods-bathtub-and-home-to-tiny-perch/>

<http://wetlandinfo.ehp.qld.gov.au/wetlands/ecology/components/species/?phaius-australis>

<http://www.abc.net.au/news/2013-06-04/adelaide-researchers-find-remarkable-little-changed-lake-in-que/4732122>

<http://www.australiangeographic.com.au/journal/stradbroke-groups-protest-mining-operation.htm>

Knight JT and Arthington A 2008. Distribution and habitat associations of the endangered Oxleyan pygmy perch, *Nannoperca oxleyana* Whitley, in eastern Australia. *Aquatic Conservation: Marine and Freshwater Ecosystems* 18: 1240-1254.

NSW Department of Primary Industries, 2005. Oxleyan Pygmy Perch *Nannoperca oxleyana* Background Paper. NSW DPI, Sydney.

Specht A and Walker L 2006. *Groundwater Dependent Ecosystem Asset Inventory for North Stradbroke Island*. Centre for Coastal Management, Southern Cross University.

Paul Donatiu
NPAQ Executive Coordinator
National Parks Association of Queensland
10/36 Finchley Street, Milton Q 4064
pdonatiu@npaq.org.au
[REDACTED]