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Submission to the Inquiry into the North Stradbroke Island Protection and Sustainability and Another Act Amendment Bill 2013

Protect the Bush Alliance is an alliance of Queensland's prominent and well-respected environmental organisations. We are writing this submission because we strongly disapprove of the government's decision to allow mining to continue on North Stradbroke Island (NSI) to at least 2035. Had we had been given sufficient time to submit a complete submission we would have covered a variety of objections including economic – the dubious economic benefit to both the island and the State; social – continued mining will perpetuate the existing ill-feeling between inhabitants; legal – the mining company has already been found guilty of illegal activity both in NSW and Queensland, and ethical – the insulting lack of public consultation and the fact that the government blatantly ignored the IULA and infringed on the rights of the Quandamooka People are disappointing and unacceptable. But because the government has allotted us only a few days to respond, we will address environmental objections only in detail.

RAMSAR-listed Wetlands

The island's RAMSAR-Listed wetlands are of global importance. This is no argument about this. In a recent report commissioned by the Friends of Stradbroke Island, Dr Errol Stock concluded that Sibelco's 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 latest mine path proposed 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. The potential for detrimental impacts on this wetland resulting from the continued dry sand mining is great and not worth the risk.

Blue Lake

Recently Blue Lake has received national and international acclaim as ‘God’s Bathtub’ in an article published in *National Geographic’s* NewsWatch. Recent studies have confirmed that this lake is of enormous scientific significance as it has remained nearly untouched by changes in climate for 7,000 years. It is therefore ranked among the rarest of its kind on the planet. 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, from days to millennia.

One of the scientists involved in the study, John Tibby, said, ‘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’. Lead author of the *Freshwater Biology* article, Cameron Barr added ‘and we would argue that it’s likely to be a freshwater refuge for some time in the future *if managed properly*.’ It is unlikely they would consider mining in close vicinity to the lake ‘proper management’.

The author of the article, Lisa Borre wisely stated, ‘Local authorities possess the information they need to make wise decisions about protecting the lake (and aquifer) for the next several thousand years at the very least’.

Threatened Species

North Stradbroke Island is home to a wide variety of amazing flora and fauna. Being one of the two largest sand islands in the world, it is indeed a rare natural phenomenon worthy of preservation. Unfortunately, quite a few species are already under threat of extinction and further mismanagement of the island’s fragile and precious ecosystems will condemn them to death.

Fish

Blue Lake is home to 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 ‘back on track species prioritization framework’. The Pygmy Perch’s geographic range is undergoing significant contraction and the small remaining populations are extremely vulnerable to habitat disturbance. It is only one of numerous already threatened fauna species that will be put at further risk of extinction should mining be allowed to continue on North Stradbroke Island.

Birds

Another prominent vulnerable species is the Beach Stone-Curlew *Esacus magnirostris*, a species we have been fortunate to spot on North Stradbroke Island. Human disturbance threatens this ground-foraging and ground-nesting bird along with disturbance from foxes, dogs, boats and 4X4 vehicles. Extending the mining lease will only exacerbate its current stressful plight by limiting its access to undisturbed habitat.

The threatened Eastern Curlew *Numenius madagascariensis*, the largest winter migratory shorebird to Australia, is listed as vulnerable in the current IUCN Red List. It migrates from

breeding grounds in, Siberia and Mongolia and forages for crab and molluscs on sand and mudflats, in seagrass beds, mangroves and estuaries of Moreton Bay islands. The species has been declining steadily at a rate of 2.4% annually in Moreton Bay and it is essential that its feeding and roosting sites be protected from further disturbance and pollution. Minimal pollution of its feeding habitat will cause decline of its food supply. Disturbance interrupts its feeding and roosting causing it to take flight using critical energy. Without sufficient energy reserves the birds are unable to return to the northern breeding grounds successfully.

NSI is very fortunate to host the threatened charismatic Glossy Black Cockatoo, which is particularly sensitive to the disturbance of its habitat. It is a SUPER picky eater that feeds almost solely on she-oak cones, especially those of the Black She-oak *Allocasuarina littoralis*, the Forest She-oak *Allocasuarina torulosa* and the Coast She-oak *Casuarina equisetifolia*, and only feeds in a chosen few of these. It continues to return to the same select few trees even if there are others nearby with abundant cones on it, and it will fly up to 10 km to reach its favourite food trees. It only breeds every two years and constructs its nest for its single offspring in eucalypt tree hollows. Continued sand mining on NSI will certainly further destroy this bird's nesting and food trees.

Mammals

Eighty-five percent of our nation's mammals are found nowhere else on the planet. Many of them are icons that are recognised and adored worldwide, all the more reason to protect them fiercely. In the past 200 years, since European settlement, Australia has broken the world record for the most mammal extinctions on the planet, hardly an accomplishment of which we should be proud.

The Koala *Phascolarctos cinereus* on NSI have been shown to be healthier than those on the mainland, which are currently suffering from a variety of potentially fatal stress-related diseases brought on, primarily, by the unrelenting destruction of their habitat. Further mining will increase the likelihood that this national icon will suffer the same fate as its mainland cousin.

As maligned and mistreated as our state's flying-foxes are, the fact remains that the Grey-headed Flying-fox *Pteropus poliocephalus* is an invaluable part of our island ecosystem. Its roost is usually located near water in mangroves, melaleucas and casuarinas. This nomadic fruit bat moves up to 1000 km in response to changing food supply. A few individuals will hang out at one location year around. The Grey-headed Flying-fox spends its nights foraging far and wide, flying at speeds of up to 60 kph. It disperses seeds and spreads pollen from over 200 species of fruiting and flowering trees representing 50 different families (including numerous eucalypt, melaleuca and banksia species). Its diet consists of fruit, flowers, nectar and even leaves (for protein). *Scientists have estimated that if the Grey-headed Flying-fox becomes extinct, we will lose up to 25% of our trees where flying-foxes once occurred.* That includes NSI trees, which are not only necessary for flying-foxes but also to a number of other threatened fauna species including the Koala and the Glossy Black-Cockatoo.

Another little known but intriguing species that inhabits NSI is the Water Mouse *Xeromys myoides*. This little nocturnal rodent lives in coastal habitats – saline grasslands, mangroves, freshwater swamp margins, shrublands and sedgelands. It constructs large mounds out of mud,

peat and plant material either at the foot of live or dead trees, on mangrove and sedgeland 'islands' and in earth banks. Each mound, used year after year by the same family and successive generations, can house up to eight individuals at a time, one of which is the breeding male. Food, consisting of marine and freshwater invertebrates such as crustaceans, molluscs and flatworms, is hunted in tidal areas. The remnants of the crustaceans and molluscs are carefully deposited on the top of their mounds, which feature an opening at the top. Already susceptible to changes in its habitat, this charming mammal is not likely to survive further disruption.

Amphibians

There are also a number of threatened frog species on the island including the Wallum Sedgefrog, the Wallum Froglet and the Cooloola Sedgefrog. Each fills a vital role in the island's varied ecosystems and further sand mining will only further threaten their survival as stated on the Queensland Government's website for threatened species. The further destruction and fragmentation of ecosystems is bound to impact negatively on the already stressed island animals.

Flora

NSI is incredibly fortunate to host several endemic and extremely rare species of orchid, the Swamp Orchid *Phaius australis* and the Yellow Swamp Orchid *Phaius bernaysii*. This first is spectacular hardy herb is the largest ground orchid in Australia and grows to 2 m tall from a 3-7 cm oval-shaped partially buried bulb. When not in flower these orchids are virtually unnoticeable so are susceptible to the consequences of off path bushwalking as well as land clearing, sand mining and illegal harvesting. The endangered *Phaius australis* and *P. Bernaysii* are identical when not in flower.

Also at serious risk of extinction due to continued sand mining and loss of habitat on NSI is the Swamp Daisy *Olearia hygrophila*. This soft-wooded sprawling shrub grows to 2 m high. Leaf is a thin 1.5-7 cm blade bent backwards that has either a smooth or a slightly serrated edge. White daisy flower with a yellow centre grows in large irregular clusters blooms in spring.

National Park

Not even 5% of Queensland is in National Park. The national average is 9%. Considering Queensland has the highest biodiversity of all the states and is one of the six most biodiverse countries in the world, 5% is nowhere near sufficient. Further mining on NSI will reduce the quality of the land slotted to become National Park. Much of the already mined areas have been sitting bare for years awaiting revegetation. And even if and when the mines land is revegetated (because rehabilitation is literally impossible and a term that should not be used) the ecosystems will never be returned to their previous glory.

When faced with the choice between ensuring a healthy future of a spectacular island which offers countless natural (and cultural) assets of invaluable benefit to the physical, emotional, economic, and social wellbeing of this and future generations of Australian and international visitors, or a few million dollars in royalties and an immense amount of irreversible damage to a unique natural environment, the wise and sustainable option is obvious.

You now have the opportunity to safeguard one of the world's unique natural wonders by putting a halt to the destructive mining activities and by recognising that the long-term benefits from doing so greatly outweigh the short-term economic gain of a select few.

Sincerely yours,

A handwritten signature in cursive script that reads "Lee K. Curtis".

Lee K Curtis, Coordinator, Protect the Bush Alliance
on behalf of the Protect the Bush Alliance

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