

July 2010

All SIMO members and friends

Submission Guidelines to Straddie Vision

The future of North Stradbroke Island is at a critical stage. The Premier announced 80 per cent of the island is to be made national park, and mining is to be phased out by 2027. Another 17 years of mining would see the last big tracts of ancient sand dunes destroyed, country earmarked for national park.

Seems crazy to recognise an area for its national park values but then let the bulldozers in first.

It's important to send a message ASAP to government. Submissions of any length can be sent to straddie.vision@derm.qld.gov.au, cc the Premier, premier@ministerial.qld.gov.au and forward a copy to SIMO if possible – Jackie Cooper ume@umemagazine.com

More information and maps at www.qld.gov and see attachments.

You can send more than one submission, so if there are points you have missed, send them in. **If you are in a rush, just include the first 6 points below in bold.**

If you have more time, have a look at the rest of this email, which gives more suggestions and background. See also the attached letter from Professor Carla Catterall about rehabilitation outcomes and CRL's notice to the ASX regarding halving the workforce. Also add other concerns or ideas you have: it's up to us to help shape our future.

Key points you might like to use in your submission:

Strongly support 80 per cent national park for North Stradbroke Island, and call for much more of the island to be gazetted in this term of government, especially pristine country. 80 per cent is needed because so much of the pristine country is scattered through mined country, and the island is relatively small.

Don't mine our future national park: no more mining in pristine areas. County rehabilitated after mining is a very poor substitute for the original. All remaining old growth forest and original landscape (including areas of limited disturbance) should be protected now. After 60 years of mining, every last scrap of original landscape is precious.

Request the application of **existing legislation**, including provisions of the Mineral Resources Act 1989, to end mining in the shortest possible time. The island needs protection now, not in 17 years time.

- (i) **Do not renew any expired or soon-to-expire mining lease, especially the Enterprise leases (including MLI 117) and two Vance leases (MLI 124, 7064).** The massive pit of Enterprise moving through the landscape is hugely destructive.
- (ii) **Cancel the Vance lease MLI 108** on the basis of serious breaches of law and mining lease conditions. The Supreme Court has found that Unimin has unlawfully taken and sold non-mineral sand from Vance for a decade. This sand should have been used to help reduce the holes left after the legal silica mining.
- (iii) **Ensure rehabilitation obligations are met, not by renewing mining leases but by an alternative tenure arrangement.** If a mining lease is renewed to allow rehabilitation, there is always a risk that a future government could amend legislation to re-enliven mining or quarrying.

4. Support joint management of the national park with the traditional owners.

5. Request that mine workers and their families receive due consideration. Mineral resources have been running out. Yarraman is due to finish in 2013, and CRL announced to the stock exchange in 2009 that the workforce would halve (a loss of about 100 jobs). For the remaining employees there will be many jobs in decommissioning of plant and rehabilitation. Encourage government to facilitate the creation of alternative job opportunities.

6. Call for the national park to be world class, based on ecological principles. The island's sensitive ecosystems, rich diversity of plants and animals, scenic and cultural sites should be front and centre of decision-making right now. This includes the island's koalas. Adequate pristine country is needed for ecosystem health, and is what tourists will want to experience.

7. Request that the pristine country of Blue Lake catchment and Swallow Lagoon be included in national park immediately. Recognise that 'the Pines' area includes an important swamp, native vegetation is recovering well and the area forms part of the catchment of Brown Lake. Therefore this area requires sensitive management.

8. On the government's map, the red nature-based tourism area at Flinders is at odds with the environment: it's koala territory, swampy, home to rare orchids, low-lying and subject to sea level rise.

9. Support genuine 4WD access within the park, but do not support opening up areas of the island for recreational, destructive 4WD activity. Stradbroke's fragile ecosystems quickly erode when churned up by vehicles. The state should not be supporting "just for fun" activities that are ecologically so damaging. Special consideration is needed for beach wildlife, turtle nesting, migratory birds, shorebirds and invertebrate fauna that underpin beach ecology.

Background

On June 20, the Premier announced a new vision for North Stradbroke Island. Additional information has followed: see New Vision for North Stradbroke Island at www.qld.gov.

Key points of the vision are:

80 per cent of NSI to be national park by 2027.

56 per cent to be declared national park within 18 months, the remainder to be successively phased in between 2011-2027.

Sand mining to be phased out by 2027 when the last lease expires.

Expired mining leases are not to be renewed, and no new leases to be granted.

The government will legislate to create certainty for the closure date of all mines and will ensure rehabilitation obligations are met.

Comment on national park

Given that so much of the island has been mined or impacted on by mining, a very large percentage of the island needs to be under national park protection. This is essential for ecosystem health and to ensure the best possible outcomes for the land in recovery from mining. The rehabilitated land is dependent on the surrounding natural bush for "supply" of species and cushioning from stressors such as invasive species. Refer to attached letter by Professor Carla Catterall. The island is relatively small, so maintaining connectivity throughout its length and breadth is crucial. The government was right to set aside 80 per cent national park.

But there are some catches!

The first 56 per cent will consist of 18 Mile Swamp and some lagoons and wetlands in the south of the island (that are protected by Ramsar anyway). Apart from a couple of very small parcels in the north, the rest is primarily land already mined or impacted on by mining (the Gordon, Ibis and Bayside mine areas). See maps at www.qld.gov.

This land is important for national park and includes some very valuable wetlands and koala habitat, but it's hard to understand why so much country in the north of the island – some not even covered by mining

lease – is not being included in national park in this term of government. That's why it's important to encourage the government to gazette as much land as possible now.

Matters of concern relating to mining

On the day of the announcement, everyone got the impression that all the expired leases would not be renewed. But then it emerged that the massive Enterprise mine, the big pit that features in so many press photos, may be renewed. This mine is on a lease that expired in 2007, so mining has already been occurring here on borrowed time. This mine is still clearing old growth forest and digging very deep. It's true that parts of the Enterprise leases were dry mined in the 1960s, but that was shallow mining: nothing like the scale and depth of current operations. Native bush has recolonised the dry-mined areas reasonably well, particularly as it's surrounded by pristine country. But all that landscape would be homogenised if the expired Enterprise leases were to be renewed.

Yarraman mine lease expires in 2027 but the minerals are running out and the mine is due to close in about 2013. CRL announced in 2009 that half the workforce (about 100 jobs) would go when Yarraman closed. Yarraman is still clearing old growth forest and has a big pit, like Enterprise.

At the silica glass mine, two of the leases have expired and the other lease – MLI 108 – runs to 2025. This is ancient dune country, very scenic, home to threatened frogs, endangered heathlands and part of the rooftop of the island. There are masses of pink boronias in spring. It's from this site that Unimin had been unlawfully taking and selling sand to the landscape and building industries. This mine is also clearing pristine old growth vegetation.

So while the announcement of 80 per cent national park is very welcome, the reality is the silica glass mine is set to run another 15 years; and if the government renews Enterprise, then island mining will be allowed to run its course. Effectively the government will not have curtailed mining at all.

So far, ecological principles and the island's biodiversity do not appear to be at the forefront of planning decisions. It's critical this is brought into play ASAP. We should urge the government to commission a rapid assessment ecological report to gather together all the information like koala habitat mapping, sites of rare and endangered species, the most pristine wetlands, vegetation types and so forth. Much of this information exists; it just needs to be pulled together so that planning can make use of it.

Many islanders are naturally concerned about jobs, but mining always was going to end. The heavy minerals are definitely running out. Silica mineral may have lasted longer. But if we recycled glass better, we wouldn't need to keep destroying pristine country on Stradbroke. The thing is, it's cheaper to dig sand out of Stradbroke than it is to use recycled glass. Something is wrong there.

Isn't it better to plan for the future now and save what's left of the last big tracts of pristine country?

SIMO is pushing to obtain true and accurate information about our island economy and how we can best make the transition to a sustainable future.

Thank you for reading this, and thank you for making your submission.

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27 May 2010

Dr Jan Aldenhoven
SIMO, PO Box 255, Point Lookout,
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Re: Ecological success of post-mining rehabilitation, with comment on North Stradbroke Is.

Dear Dr Aldenhoven

Please find below a statement of my professional opinion relating to the above issue. I base this opinion on around 35 years' experience as a university-based ecological scientist, 25 of these spent working in the field of biodiversity and conservation in Queensland, and the past ten years as a leader of commonwealth-funded research programs and projects in ecosystem restoration.

The field of ecosystem restoration is currently in its infancy, something like the state of medical practice in the eighteenth century – attempts are being made which vary in their success but whose outcomes have not been subject to the kind of scientific scrutiny that is needed in order to be even moderately confident of a successful outcome. Furthermore, even in the most promising of situations, there is an extremely high risk that restoration will fail to produce the hoped-for outcomes within the expected time frame (ie, within a decade or two). Over longer periods, we simply don't know as the work has not been done.

For example early revegetation of sand-mined areas in eastern Australia involved the widespread planting of Bitou Bush, which then became a significant weed species invading natural areas along much of the east coast. Thankfully, post-mining practices have improved during the past three decades (for example, they focus on establishing locally-native rather than introduced plant species), but they would still fall a long way short of being able to replace the ecosystems that were present before mining.

Restoring an ecosystem requires the reinstatement of the full complement of pre-impact biodiversity. This encompasses both species diversity (including species of plants, worms, insects, birds, mammals, etc.) and the ecological processes which enable these species to persist in the longer term while maintaining resilience to natural disturbances (such as fire, storms and climate variation). Such processes include dispersal, nutrient cycling, pollination, food-chain maintenance and many others.

A scientific review of past attempts at restoring biodiversity and ecosystems (Hilderbrand *et al.* 2005) concluded that there is a very high risk that restoration projects will fail to achieve their objectives. Common reasons for this include the following.

1. The "field of dreams" fallacy. For example, it is incorrect to assume that initial success in growing a limited number of plant species will eventually result in colonisation of the area by most of the other desired species (the plants, animals and microbes of the original ecosystem). Many species lack the movement and dispersal capabilities to move to these areas in sufficient numbers for restoration of their populations.

2. The "carbon copy" myth. For example, it is not possible to copy an original ecosystem in situations where the physical properties of an area have changed (e.g., where soil nutrients or hydrological processes have been altered, as is the case in sand mining).
3. The "fast forward" myth. For example, natural forest ecosystems take centuries to redevelop after large-scale disturbance, and there is no proof that restoration actions will be able to significantly accelerate this.

My own recent research into the use of replanted rainforest sites by birds, reptiles and insects has shown that, while ecological development looks encouraging in the first decade (with apparently around 50% recovery after 10 years), there is a substantial risk that many sites may never regain the other 50% of biodiversity, and at best it will require many further decades (e.g., see Catterall *et al.* 2008).

In the case of post-mining restoration of natural ecosystems to sand deposits of coastal south-east Queensland, the failure risk is far higher, due to the unusual soil nutrient requirements of many plant species and the relatively poor ecological understanding of the fauna and flora. If the restored ecosystem only partially resembles the original, there is a further risk that it may lack resilience to fire, storms and climate change.

In mainland regions, where large areas of land are currently degraded as a result of previous land uses, there are various useful attempts currently under way at restoration, and these are likely to produce a net ecological benefit in spite of their uncertainty of full success. However in areas which currently support important natural or near-natural vegetation, the most likely outcome from removing the vegetation and soil structure, and then attempting to restore them, is a large net loss of ecological value, because this restoration will fall short of the previous natural community.

With respect to North Stradbroke Island in particular, there is currently a spatial mix of substantial areas of intact native habitat with other areas that were previously sand-mined and partially restored. This mix retains the potential to sustain the island's biodiversity in the longer term: the large intact areas can provide a source of species to progressively recolonise the partly-restored areas. However, if the total area of intact vegetation is reduced, together with further mining of other areas, there is a considerably greater risk that the island's ecological values will be irreversibly degraded over time.

Yours Sincerely



Associate Professor (Ecology),
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current President, Ecological Society of Australia.

References cited

- ¹Hilderbrand, R.H. *et al.* 2003. The myths of restoration ecology. *Ecology and Society* 10: 19. (online at <http://www.ecologyandsociety.org/vol10/iss1/art19/>).
- ²Catterall, C.P., *et al.* 2008. Biodiversity and new forests: interacting processes, prospects and pitfalls of rainforest restoration. Pp 510-525 in: Stork, N. and Turton, S. (eds.) *Living in a Dynamic Tropical Forest Landscape*. Wiley-Blackwell, Oxford.



Consolidated Rutile Limited

13 May 2009

The Manager
Company Announcements
Australian Securities Exchange

Dear Sir/Madam,

CONSOLIDATED RUTILE LIMITED NEW MINE STRATEGY

Following a comprehensive two-year review, the Board of Consolidated Rutile Limited ("CRL") has determined that the company will move from the current two mine operation on North Stradbroke Island to a single mine operation when mining at Yarraman Mine is completed in late 2013.

The single mine strategy enhances business value, with significantly reduced capital expenditure and operating costs offsetting lower annual production post 2013.

The strategy also eliminates risks associated with moving Yarraman Mine dredge and concentrator equipment to the Enterprise North ore body (as Enterprise Mine equipment will instead continue mining into Enterprise North) and is expected to extend the life of CRL's Enterprise Mine on North Stradbroke Island by approximately four years, to 2027.

The strategy may also provide an opportunity to redeploy the Yarraman Mine dredge, concentrator and associated infrastructure to another, as yet unidentified, mine site located off the island.

The decision is the intention of the current CRL Board. Unimin Australia Limited ("Unimin") has offered to purchase all of the shares of CRL and has stated its intention, following the expiry of the offer period, to undertake an extensive review of CRL's operations and review all aspects of CRL's business should the takeover bid be successful. The decision to move to a single mine operation may therefore be subject to further review by Unimin.

No immediate job losses result from the strategy but with only one mine operating on North Stradbroke Island, employee numbers are expected to approximately halve by 2014.

Mr Cobb, CRL Managing Director and CEO said "We have about four years to work with employees and the community to plan for the change. Our employees are integral to our success, and we will work to ensure the best possible outcomes for them."

Padraig O'Donoghue
Company Secretary

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