



Friends of Stradbroke Island Association Inc.
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NORTH STRADBROKE SAND MINING BILLS –
SUBMISSION TO FINANCE AND ADMINISTRATION COMMITTEE
29 February, 2016

FOSI was founded in 1988 and is comprised of over 150 members most of whom are ratepayers and active members of the community on North Stradbroke Island. We are all keen to protect the special natural environment of this large sand island. Since its inception, FOSI has opposed the existence of such a destructive industry as sand mining on the island, viewing it as the greatest threat to the survival of the island's entire complex sand and water based ecosystem.

FOSI supports the repeal of the 2013 Newman Government amendments and naturally prefers the Government's proposed restricted mine path of 344 hectares, compared to the current situation or the extension proposed by the Katter Australia Party. However, FOSI could never support and does not support four more years of environmental destruction at the Enterprise mine as currently proposed in the Government's Bill.

FOSI strongly opposed the 2011 legislation which legislatively renewed key expired mining leases at the Enterprise mine and by-passed our (and others) objections to renewal and extinguished our legal right to challenge the renewals in the Supreme Court. This submission requests the committee to give consideration to suggesting amendments to the current 31 December, 2019 expiry dates of the Enterprise mine leases listed in Schedule 1 of the Act. FOSI would support ending mining in 2016, particularly because of the strong environmental grounds.

Writing in the online Independent Australia newspaper, Stephen Keim SC succinctly summarised the interference with our legal rights in 2011, aggravated of course by the Newman amendments which followed in 2013:-

“In 2011, the then ALP Government legislated to extend mining on the Island at the Enterprise mine until 2019. This was achieved by legislatively renewing particular expired mining leases, side-stepping the usual application and decision process and extinguishing the judicial review rights of native title claimants, environment groups and others who had objected to renewal (North Stradbroke Island Protection and Sustainability Act 2011 (Act No. 11 of 2011))” -
<https://independentaustralia.net/politics/politics-display/seeney-palmer-and-campbell-newmans-straddie-donation,6564>

Friends of Stradbroke Island is an association whose aims include:-

“To protect and restore the natural environment of North Stradbroke Island and its surrounding marine environment.” And, to:-

“To preserve the full range of the habitats of the Island’s native species including rare and endangered flora and fauna.”

FOSI draws the Committee’s attention to the following points:-

1. The science is clear. The impacts of sand mining were thoroughly investigated by the Fraser Island Inquiry in the 1970s. The Federal Government accepted its findings that sand mining causes “major, permanent and irreversible environmental harm.” It is unlikely that mined land could ever be restored to its natural state, partly because of the destruction of complex ancient sand dunes and the associated water flows or hydrology. This is a quote from the final report of the Fraser Island Inquiry:-

“Continued sandmining, with the exception of sandmining below the mean high-water mark on the beach south of Indian Head (Section 10.4), is inconsistent with the conservation of the Island's natural environment. Sandmining will cause, or be directly associated with major permanent and irreversible environmental harm to the landscape, vegetation and lakes of the Island. This harm will be inevitable even if, - despite overwhelming evidence to the contrary – rehabilitation after mining should be found to be ecologically possible and achieved in practice on all mined sites on the Island. Continued mining will destroy the unifying impression of wilderness that at present is such an important characteristic of the Island, and, will harm, or detract from the value of, many of its striking natural features such as its perched lakes. The successful rehabilitation of the Island's vegetation (which, in any event, is unlikely to occur) on a landscape made flatter and more uniform by mining cannot involve the re-creation of the natural wilderness qualities of mined areas, which will be lost forever by mining”.

2. In “the national interest”, the Federal Government ended sand mining on Fraser in 1976 within two months of receiving the Inquiry's Report, despite similar doom and gloom claims about the economic effects and despite the Bjelke-Petersen Government requesting a two year transition away from mining. Media reports from that time may be read here – <http://savestraddie.com/media-clips/fraser-articles/> The natural features of Fraser provide many more sustainable jobs than the short term jobs provided by destructive sand mining.

As the science is clear and most people agree that the Island's future will be based around nature tourism, it is imperative that the Island is protected as quickly as possible.

4. North Stradbroke Island, one of the chain of unique sand islands lying off South east Queensland, has almost identical environmental values to Fraser Island with an ancient dune system covered in large stands of old growth forest and rare wildflower heath and a complex hydrology of lakes, wetlands and creeks connected to a massive underlying fresh water aquifer. The island has the greatest biodiversity of all Moreton Bay’s islands (Queensland Museum’s ‘Wild Guide to Moreton Bay’ 2011, page 42) and is the home to threatened and rare plants and animals, with new species still being discovered by scientists.

5. Stradbroke’s natural values have various levels of protection and recognition including approximately 50% National Park under Queensland law and, under Federal law, about half of the Island is included in the Moreton Bay Ramsar international wetland site – <http://www.environment.gov.au/cgi-bin/wetlands/ramsardetails.pl?refcode=41>

The **attached** illustration shows the close proximity of the Enterprise mine to the Ramsar protected areas to the east and west of the mine.

6. Recently, scientists with relevant expertise, including Dr Errol Stock and Associate Professor Carla Catterall (article in NPAQ March 2011 newsletter is **attached**) have written about the damage to North Stradbroke Island caused by sand mining. They have warned of the dangers of not ending mining as more mining may prevent recovery of eco-systems already damaged by too much sand mining.

7. Sand mining on Stradbroke has also caused considerable damage outside mining leases. Some of this damage has been admitted by the mining company. For example, the partial draining of Lake Kounpee, an oil spill at Amity, and the inundation of areas in the island's south, adjacent to the Gordon mine. A major land slip into Moreton Bay now called 'Blakesley's Slip', damaged Blakesley Lagoon and Mangrove foreshores of Moreton Bay.

8. Dr Errol Stock has also recorded a much more extensive and recent Enterprise mine water inundation of the off lease Ibis Lagoon system in 2010, resulting in the death of all vegetation in 95 hectares, including 80 hectares of protected Ramsar wetlands. FOSI provided a copy of Dr Stock's detailed report dated 27 February, 2015 to the Committee at our meeting on the Island on 10 February, 2016.

9. Sand mining at Enterprise mine continues to impact upon the Ramsar protected 18 Mile swamp, raising water levels unnaturally for many years with likely changes to the water quality and other consequences. A copy of Dr Stock's report dated 20 September, 2012 dealing with the Enterprise mine's impact on the 18 Mile swamp was also provided to the Committee at our 10 February meeting. Copies of both of Dr Stock's reports have previously also been provided to the Queensland Environment Department. They are also attached to FOSI's supplementary submission (114.1) to Federal Senate Inquiry -

http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Certain_Aspects_of_Queensland_Government_Administration/Certain_Aspects_Qld_Admin/Submissions

10. Astonishingly, there was no referral of the Enterprise mine to the Federal Environment Minister under the EPBC Act before mining commenced in 2004. FOSI made a complaint to the Federal Environment Department in September, 2012. The Federal Department's investigation into whether the Enterprise mine is lawful or unlawful has been ongoing since 2012. This unsatisfactory delay was raised by FOSI in a submission to a Federal Senate Inquiry last year – submission number 34 -

http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/EPBC_Standing_Bill/Submissions

Attached is a letter from the Federal Environment Minister, Mr Hunt, dated 21 August, 2015 in which he states that his department's investigation is "nearing completion".

11. Over 70% of the Enterprise mine path approved by the Newman government is classified by the Queensland Government as "undisturbed vegetation", contrary to claims by Sibelco that it has mostly been mined before – see this answer to a question on notice in the former committee's inquiry in 2013 - <https://www.parliament.qld.gov.au/documents/committees/AREC/2013/16-NorthStradrokeIsland/que-31Oct2013.pdf>

Although just under 30% of Sibelco's desired Enterprise mine path has been mined before, it was surface mined in patches decades ago and so more easily integrated with the surrounding natural vegetation. The variety of vegetation in the Enterprise mine and the pre-mined areas can be seen on a mining company map reproduced on page 5 of this FOSI newsletter - http://savestraddie.com/wp-content/woo_uploads/2011/01/December-2013.pdf

12. To make way for mining large areas of original forests are clear-felled removing old trees which have developed the hollows which are essential nesting and sheltering places for many Australian creatures including the Vulnerable Glossy Black Cockatoos, many other birds, insects and mammals such as the Squirrel Glider. At least 120 years of growth is needed to replicate even the smallest of these hollows.

Many rare and threatened species will be further threatened by any continuation of land clearing for sand mining. Koalas are the most well known. Land clearing has reduced their numbers substantially and they are facing extinction in coastal South East Queensland. Land clearing and sand mining and the associated changes in hydrology in surrounding wetlands are recognised as major threats to other less known species listed as threatened by environmental authorities including Australian and Queensland

Governments. Some examples are, with hyperlinks to listings and threats - the Wallum Sedge frog ([Litoria olongburensis](#)), Freycinet's Frog ([Litoria freycineti](#)), Wallum Froglet ([Crinia tinnula](#)), the Cooloola Sedgefrog ([Litoria cooloolensis](#)) and the Swamp Orchid ([Phaius Australis](#)).

Threatened ecosystems including Littoral Rainforest bordering Eighteen Mile Swamp and Temperate Saltmarsh lie close to the actual mine site and have already experienced pressures.

Also relevant in this context are changes to hydrology in Island wetlands from sand mining – see Dr Stock's reports.

13. Sand mining also creates risks for the island's massive fresh water aquifer. Mining destroys ancient and complex dune structures and associated re-charging systems. Water is extracted on a massive scale, approximately three times that pumped for water supply on the mainland – see the Environment Department's answers to questions on notice in the current committee's inquiry <http://www.parliament.qld.gov.au/documents/committees/FAC/2015/B12-NthStradbrokeIsl/B12-que-24Feb2016.pdf>

After extraction for use in the mining process the water makes its way along new pathways within the sand piles which have replaced the original complex layered dunes. Water flows differently after mining and is not retained in the same way. There is also a risk of saltwater intrusion from the surrounding ocean due to unnatural excessive flows from the aquifer. (See Dr Stock's reports)

14. The Government has a responsibility to protect and preserve Stradbroke's remarkable natural environment before it is too late.

Scientists believe that if further land clearing is carried out on the island, it may tip the balance of the island's ecology with devastating consequences.

There are tremendous challenges with rehabilitating to anywhere like near the original landscape, flora and fauna. Many published research articles – using a whole range of indicators reveal that revegetated areas are a poor substitute for the original diverse natural ecosystems. Research has shown that even when the replacement vegetation first planted grows reasonably that after time weed tree species come to dominate. See Audet, P, Gravina A., Glenn V., McKenna P., Vickers H., Gillespie M. and Mulligan D. (2013) Structural development of vegetation on rehabilitated North Stradbroke Island: Above/belowground feedback may facilitate alternative ecological outcomes *Ecological Processes*, 2:20

The ground covering and mid layers where many insects, reptiles and birds live are very sparse and even the ant species able to live in these new areas are completely changed. Ants are used as biological indicators – this study showed that ant communities had been severely disrupted in the mined areas –

“The ants...of the native vegetation sites were typical forest inhabitants (tree nesting, leaf litter foragers) ...in contrast the ant in the 20 year old rehabilitation were ...generalist species ... that prefer open areas and bare ground”. In a third rehabilitation site that had been badly burnt in a wildfire an exotic pest ant was completely dominant.

Williams et al. Ant community variation with rehabilitation and management history on a sand mine at North Stradbroke Island, South East Qld *Proceedings of the Royal Society of Queensland*, Volume 117 pp437- 453

Revegetated areas have their best chance of recovery if large areas of pristine vegetation are preserved nearby to provide support as treasuries of flora and fauna. Initially, wattle and casuarina dominated the replanting of mined dunes—areas of virtual monoculture, which can still be seen along the east coast. Eventually mining companies were required by government regulation to plant a wider variety of original flora, but while some areas are shown off as exemplary examples of rehabilitated land, no replanted areas have ever regained the complexity of the original plant communities. The shape and

composition of ancient sand layers cannot be restored and nor can man replicate the immense biodiversity of wildflower habitat or the subtle web of biological life evolved over millennia.

A PhD student employed by the mine looked at koalas and gliders in the NSI rehab areas along the island's west coast. She reported:-

"Koalas were detected in all types of rehabilitated areas, while gliders were not. No gliders were found inside either the pre-87 rehabilitated areas without nest boxes (NB: some were found at the edge of undisturbed/rehabilitated areas) or inside the post-98 rehabilitated areas".

The author theorised - "Koalas rely mostly on eucalyptus foliage..., whereas gliders have a more varied diet, including nectar, pollen, sap, gum, honey-dew, as well as insects... Another important difference in habitat requirements is that gliders, unlike koalas, nest in tree hollows ... Trees develop natural hollows in mature forest ... and thus are not yet present in recently rehabilitated areas.

I found that koalas and gliders presented different recolonisation patterns altogether. These results stand as a warning that koalas would not be an appropriate indicator for the other arboreal [tree dwelling] marsupials on the island."

Cristescu, R (2011), '*Fauna re-colonisation of mine rehabilitation through the example of arboreal marsupials, with a particular focus on the koala Phascolarctos cinereus*', PhD thesis, School of Biological, Earth and Environmental Sciences, University of New South Wales. P 145, p 157

15. The existence and extent of air pollution from the sand mines has recently come to the public's attention. It is naturally of great concern to our members and many residents and visitors to the island who were under the impression that the island was a place to enjoy a breath of clean air away from the city. According to the National Pollutant Inventory Enterprise mine is the second highest emitter of both PM 10 and PM 2.5.

Particulate matter, in South East Queensland, in competition with open cut coal mines and oil refineries. Particulate matter emissions, especially the very fine PM 2.5, are required to be recorded and reported by emitters as these emissions present a long term health risk to mine workers and all humans and animals within a wide radius of the source. See these extracts, which also show that there is no government monitoring station on or near North Stradbroke Island – http://savestraddie.com/wp-content/woo_uploads/2009/12/PM-air-pollution-on-NSI-2.pdf

This pollution is of concern to not only people on the island but Bayside residents, some of whom are FOSI members, who are concerned that prevailing South Easterly winds must be bringing the fine particles their way. The Australian Medical Association in a submission to a senate inquiry into air pollution stated:-

'Particulate matter is one of the most important pollutants, as it penetrates into sensitive regions of the respiratory system, contributing to acute and chronic health problems and potentially premature mortality.'

16. A rationale for continuing mining on the island is the need for employment on the island. This view has been promoted by Sibelco in various ways including advertising campaigns but also in 'economic studies'. By using publicly available 2011 census figures The Australia Institute Economic Report, [Sandstorm in a Teacup](#) makes it plain that the island has no real economy and is almost completely integrated with that of the nearby mainland of South East Queensland. The report also points to the very significant contribution holiday house owners (more than half the dwellings are not occupied on a permanent basis) make to business and employment on the island, a fact which is left out of most discussions about the 'economy' of the island.

The claims that mining is the mainstay of the island's 'economy', as conveyed in Sibelco reports, by some politicians and supporters of mining cannot be sustained. The Australia Institute report also states that the mine in fact draws a benefit from the strong ferry usage of holiday makers and associated traffic

in the availability of more frequent trips on the ferry's timetable for mine vehicles. Claims that the property market will collapse when mining ends are also debunked in this report as the predominance of houses are owned for holidays as is clear in the census figures, representing a quite different and very valuable market.

17. Due to the closure of two mines at Yarraman and Vance in recent years, employment figures contained in the 2011 census, and relied upon by most current and government statements on the issue, are clearly no longer applicable to any consideration of how significant mining jobs are in the community. Sibelco has not released current figures on employment recently but obviously their payroll may be a definitive source of the figures.

The most reliable figures on the public record are those contained in the economic analysis by the Department of State Development, Infrastructure and Planning Sibelco provided to the Parliamentary Committee considering the amendments to the 2013 Bill. The economic analysis is attached to this letter to that committee - <https://www.parliament.qld.gov.au/documents/committees/AREC/2013/16-NorthStradrokeIsland/cor-21Oct2013.pdf>

These figures project that only 86 full time equivalent island jobs, direct and indirect, will be connected to sand mining after the closure of Yarraman mine (and the employment reduction has been fully implemented by Sibelco), with another 21 off the island at its Brisbane facilities. When it is considered that possibly the majority of island mine workers commute daily from the mainland using the public water taxis, the island resident job numbers are far less significant than assumptions based on the 2011 Census figures.

18. Exaggerated claims of future gloom and doom by Sibelco and some of its supporters have little basis in fact since it is also clear that the island is an integral part of the greater South East Queensland economy. The Australia Institute points out that Sibelco's commissioned economic assessment stands and falls on an attempt to artificially isolate the island economy. The Synergies report states:-

'There are a number of important reasons as to why (our economic assessment) was constructed for NSI rather than its large economic hinterland. First and foremost is that any attempt to (model anything wider), for example, South East Queensland, would have greatly reduced the relative importance of sand mining within the relevant economy.'

19. Sibelco has done a disservice to the community by promoting a fearful perception of the island's dependence on sand mining. Circulation of distorted figures and analyses has caused unnecessary division in the community. Sibelco's primary interests are obviously the profitability of its operations and the gaining of rights to mine from the State of Queensland.

Sibelco has a history of playing a significant role in Queensland politics with a scare campaign using its employees and supporters on the island as faces in extremely expensive TV and newspaper advertisements leading into the 2012 election. This professional campaign was clearly designed to split the community, which it did. In our view a positive social atmosphere needs to be rebuilt to nurture the success of ecotourism businesses, which realistically, can only happen after mining ends.

20. The government's Economic Transition Plan puts forward many ideas for ecotourism activities to help create future jobs. This document recognises that this will only gain headway when mining ends.

'North Stradbroke Island can offer all this and more once sand mining is phased out by 2019.'

The Explanatory Notes to the 2011 Stradbroke Act also stated at page 2:-

'Creating a mine-free NSI will greatly assist the development and growth of businesses and employment opportunities in ecologically sustainable tourism and other like activities.'

FOSI maintains that continuing sandmining would be inconsistent with the notion of developing 'ecotourism'. The 'assets' of an ecotourism business are obviously the ecosystems. The fact of and the public perception of continuing destruction and damage to these 'assets' and the health risks makes no sense from anyone's business perspective. The government may be wasting taxpayers' money if the assets continue to be destroyed by sand mining.

21. Sibelco's exaggerated claims of its role in supporting the island 'economy' are symptomatic of a deeper problem – a company which lacks good corporate values and responsibility. This point will refer to some aspects.

According to figures released in December 2015 Sibelco, a privately owned multi national corporation with its parent company based in Belgium, paid no income tax in Australia on earnings of \$412 million in the year 2013-14. Sibelco has however allocated monies to a 'community benefit fund' and sponsored various organisations on and off the island, as well as scientific research projects. Information about whether Sibelco has claimed and continues to claim such expenses as tax deductible is not on the public record. The intention of these donations is obviously to win community sympathies for continuing mining and this is made blindingly clear in a document which links future expense for community groups and projects to support for a 2027 end date for mining.

Sibelco has displayed little commitment to controlling feral animals on its mining leases. Island populations of small mammals, endangered sea turtle hatchlings and birds are particularly vulnerable to the impacts of foxes and feral cats. It was estimated in 2013, when Sibelco controlled over 70% of the island under mining leases, that the island's fox population numbered over 1000 foxes. The Redland City Council had been conducting feral animal control and in particular fox eradication activities on its Island land for many years but lack of controls by, Sibelco, the major island landholder, had allowed the problem to seriously escalate. Sibelco has legal obligations under the *Land Protection (Pest and Stock Route Management) Act 2002* and in its mines Plan of Operations to control feral animals on its leases. In its Plan of Operations Sibelco undertakes to eradicate or reduce the numbers of foxes and wild cats and lists detailed strategies- even including 'employing contractors for fumigating, bailing, trapping and shooting foxes' on its mining leases. However it was not until 2014, after years of inaction and a public campaign initiated by FOSI and joined by other groups, that Sibelco undertook any feral animal control measures at all and then only on a small area under mining leases.

Prior to the 2014 bushfire, Sibelco's official Plans of Operations revealed that it did not have a fire management plan as required under its environmental undertakings. The consequence of this deficiency may well have been the ease with which the fire jumped some distance from the east to the western side of the Island and swept out of control through mining leases to threaten Dunwich, Myora and Amity Point.

FOSI also points to the fact that Sibelco has not yet been charged with proper offences concerning the large scale, decade long removal and sale of non-mineral sand in breach of its mining leases. FOSI understands that this issue has been drawn to the attention of the Attorney-General.

Conclusion

On 20 November, 2013 the Deputy Premier read FOSI's open letter to Campbell Newman "Stradbroke Island is Precious" into the Hansard record and tabled it -

<http://www.parliament.qld.gov.au/Documents/TableOffice/TabledPapers/2013/5413T4114.pdf>

Ms Trad stated "This open letter says it all". Many aspects of our letter remain true today, as does Jackie Trad's speech, see page 4077 -

https://www.parliament.qld.gov.au/documents/hansard/2013/2013_11_20_WEEKLY.pdf

In August 2015 the Premier, Anastasia Palaszczuk, who in her personal life has spent many family holidays on Stradbroke, made a number of significant statements about the importance of ending sand mining on the island.

'The decision (to repeal the Newman amendments) is in the best long term interests of the island'
'The Reef and North Straddie are Queensland environmental and tourism icons that must be protected.'
'The longer sand mining continues on North Straddie the more damage it will do to the environment over the long term.'
'We must make the tough decisions now in order to protect the island for generations to come.'

A copy of the article from the August edition of 'The Friendly Bay Islander' is **attached**.

Friends of Stradbroke Island maintains that the Premier in making these statements was echoing the views of most Queenslanders that sand mining should be brought to a quick end on one of their favourite holiday destinations. Social media activity supports this view eg the [Save Straddie Facebook site](#), which has over 5,000 supporters. It is in the best interests of the State of Queensland to end mining in 2016 just as in 1976 the Federal Government ended sand mining in a very short time frame on Fraser Island in the national interest.

We look forward to an opportunity to appear at the Committee's March public hearings.

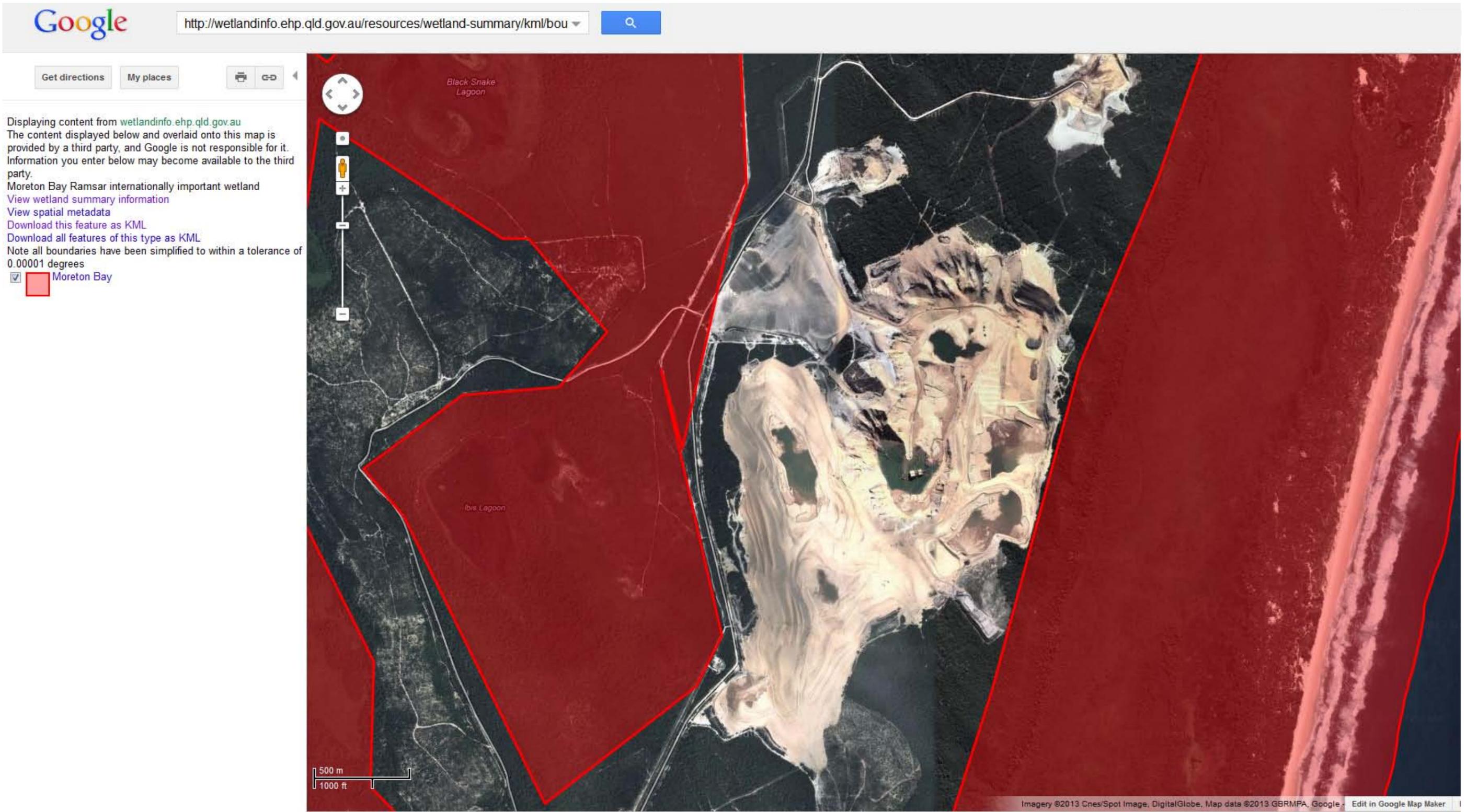
Yours sincerely,
Sue Ellen Carew
President
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Mary Barram
Vice-President

On behalf of the Management Committee of Friends of Stradbroke Island Association Inc.

List of attachments

1. Illustration showing the close proximity of the Enterprise mine to the Ramsar protected areas to the east and west of the mine.
2. Professor Carla Catterall article in the NPAQ March 2011 newsletter
3. Letter from the Federal Environment Minister, Mr Hunt to FOSI, dated 21 August, 2015
4. Article from the August edition of 'The Friendly Bay Islander'



Satellite image of Enterprise Mine on North Stradbroke Island overlaid with Moreton Bay Ramsar Wetland boundaries (in red)

Source: Queensland Government Department of Environment and Heritage Protection website at <http://wetlandinfo.ehp.qld.gov.au/wetlands/facts-maps/ramsar-wetland-moreton-bay/> viewed 27/5/2013

Ecological Success of Post-mining Rehabilitation

Associate Professor Carla Catterall
Griffith University

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 (i.e. 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 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 50% recovery after 10 years), there is substantial risk that many sites may never regain the other 50% of biodiversity, and at best it will require many further decades (see Catterall *et al.* 2008).

In the case of post-mining restoration of natural ecosystems to sand deposits of coastal Southeast 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.



Rehabilitated ecosystems are much less resilient to disturbance events such as fire (PD)

In mainland regions, where large areas of land are currently degraded as a result of previous land uses, there are various useful attempts currently underway 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 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.

Catterall CP *et al.* 2008. Biodiversity and new forests: Interacting processes, prospects and pitfalls of rainforest regeneration. Pp 510-525 in: Stork N and Turton S (eds.) *Living in a Dynamic Tropical Forest landscape*. Wiley-Blackwell, Oxford.

Hilderbrand RH *et al.* 2003. The myths of restoration ecology. *Ecology and Society* 10: 19.



The Hon Greg Hunt MP
Minister for the Environment

MC15-014524

Ms Sue Ellen Carew
President
Friends of Stradbroke Island
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21 AUG 2015

Dear Ms Carew

I refer to your email of 9 April 2015 concerning the operation of the Enterprise Mine on North Stradbroke Island, Queensland. I regret the delay in responding.

I am advised that the Department of the Environment is nearing completion of its complex enquiry into mineral sands extraction undertaken by Sibelco on North Stradbroke Island. These enquiries have focused on whether exemptions available under the *Environment Protection and Biodiversity Conservation Act 1999* (the Act) apply to these mining operations, and if not, whether the works undertaken by Sibelco have either contravened, or require approval under, the Act.

As you would be aware, compliance officers from the Department met with representatives of Friends of Stradbroke Island Association in November 2013 to discuss the operation of the Enterprise Mine. Following that meeting, in March 2015 your legal counsel provided the Department with a report into the impacts of mining operations on the Ibis Lagoon to the west of the current mining operation. The Department notes that whilst the report presents a largely circumstantial case, when considered in the context of other information available to the Department, there is sufficient detail to warrant seeking additional information from Sibelco into certain aspects of their operations. This will be done in advance of making a final decision on the potential for Sibelco's operations to significantly impact on the ecological character of the adjacent Morton Bay Ramsar wetland.

You will be advised of the outcome of the case once a final decision has been made.

Yours sincerely

Greg Hunt

Q and A

Premier Palaszczuk answers Our Questions on Sand Mining

Queensland Premier Anastacia Palaszczuk agreed to be our guest in Q and A to answer questions in relation to the ending of sand mining on North Stradbroke Island in 2019. Legislation will be put to the Queensland Parliament later in the year, and will need the support of the cross benches who include former Labor member Billy Gordon, Katter Party representatives Shane Knuth and Rob Katter, and Speaker Peter Wellington. The Premier's response follows:

Q: Whilst you were overseas, the Queensland State Government announced plans to introduce legislation to end sand mining on North Stradbroke Island by 2019. Do you endorse this proposed legislation?

A: The Labor Party has had a long-standing commitment to transition North Stradbroke Island away from sand mining, with an end to mining operations by 2019. We held this commitment in Government, the commitment never wavered in Opposition, and we will deliver on our commitment now that we are back in Government. In Opposition, shadow ministers visited the island and engaged with stakeholders on numerous occasions. It has been no secret that the Labor Party and the LNP have vastly different visions for North Straddie's future. In our view, North Straddie is not just a workplace, it's an environmental wonder. We must make the tough decisions now in order to protect the island for generations to come. We are willing to make these tough decisions because we need to confront the stark reality that the longer sand mining continues on North Straddie the more damage it will do to the environment over the long term. I know that this decision affects real people and real families. I wouldn't be making it if I didn't feel like there was appropriate transition arrangements in the pipeline, as well as a significant number of other opportunities for employment now and into the future. We have made a \$20 million commitment in this Budget to aid the transition process, we have boosted Tourism Queensland's budget to ensure we can attract more tourists, and we have made a priority of the development of Toondah Harbour, which will be a major jobs generator in the Cleveland and Bay Islands region.

Q: Why has there been no consultation with the 2000 island residents – as confirmed publicly by the Australian Workers Union, Sibelco, the Straddie Chamber of Commerce, small business owners and community groups?

A: The assertions in this question are completely false. As I have said, my shadow ministers visited the island numerous times in Opposition. Minister Miles, as the lead Minister, has been consulting widely with the island community and all relevant parties. He visited the island in May to meet with community

groups, island residents, and indigenous representatives. He has also undertaken consultation with the Australian Workers Union, Sibelco and the Straddie Chamber of Commerce. Minister Miles will continue with this consultation process.

Q: As part of the consultation process, will you Premier personally commit to visiting the island to hold open community meetings to discuss the future prosperity of the island?

A: I'm a regular visitor to North Straddie and I always will be.

Q: Do you support the rather rushed actions of the Deputy Premier and Environment Minister, who appear to be trying to push these changes through?

A: The Deputy Premier and the Environment Minister are acting on behalf of the government to meet our commitments, in the same way they are implementing other election commitments like investment in Great Barrier Reef protection measures. The Deputy Premier has also personally overseen the Toondah Harbour process and will have a significant input into establishing the transition plan.

Q: Premier, can you clarify why Environment Minister Miles is stating that the government made an election promise to shut sand mining down by 2019 as part of the 2015 election. The evidence used is only a letter from a retiring Labor MP, to one stakeholder group (QYAC) without any media event/public announcement within a day or so of the State election.

A: As I have said, Labor's position is longstanding. It was reiterated during the campaign by the then-Deputy Opposition Leader.

Q: It seems rather surprising Premier that you have not been involved in this issue up until this point in time and surely such a statement would only be made by you with a media statement (not letter), at a public event (addressed to the public), after consultation with key stakeholder and community groups, after a decision from the Shadow Cabinet, with media attending.

A: Our position is longstanding and was reaffirmed during the campaign.



Premier Palaszczuk

Q and A

Premier Palaszczuk answers Our Questions on Sand Mining

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Q: If the Government goes ahead and shuts mining down prematurely, how is this compatible with your election promise to protect and create jobs?

A: As I have said previously, I wouldn't be implementing this decision, which is in the best long-term interests of the island as well as all those who enjoy North Straddie and want to take their kids and grandkids to North Straddie, if I didn't feel like there was appropriate transition arrangements in the pipeline, as well as a significant number of other opportunities for employment now and into the future. We have made a \$20 million commitment in this Budget to aid the transition process, we have boosted Tourism Queensland's budget to ensure we can attract more tourists, and we have made a priority of the development of Toondah Harbour, which will be a major jobs generator in the Cleveland and Bay Islands region.

Q: Given the position of Government Debt, would it not be advantageous to postpone the closing of the mine until such time as the State is in a stronger financial position, rather than having to pay a reported \$20 million in transitional funding?

A: That's like saying the Government shouldn't invest \$100 million to protect the Great Barrier Reef. I reject that. The Reef and North Straddie are Queensland environmental and tourism icons that must be protected. Any expenditure we make in that regard should be considered as an investment. But we also recognise that implementing this decision will have an impact on the employees, which is why we will put in place an appropriate transition plan.

Q: What will happen to the Economic Transition Group that includes local community and business representatives?

A: The Government values the role of the Economic Transition Group and the leadership of Mayor Karen Williams. We will continue to consult with all stakeholders represented on the group.