



1 November 2012

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ABN 46 252 861 927

s 22

A/g Director  
South Australia and Permits Section  
Queensland and South Australia Assessment Branch  
Department of Sustainability, Environment, Water, Population and Communities  
GPO Box 787  
CANBERRA ACT 2601

Dear s 22

**RE: EPBC Referral 2012/6590 – Centrex Metals Ltd – Port Spencer Stage 1 and 2,  
Eyre Peninsula, South Australia**

Thank you for the opportunity to comment on *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) referral 2012/6590, regarding the proposal by Centrex Metals Ltd to develop an iron ore and bulk commodities export facility on the east coast of Eyre Peninsula, South Australia.

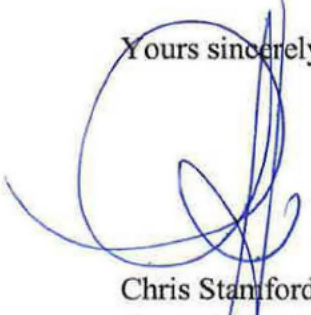
The proposed project involves the development of a deep water multi-user port with a port capacity of 20 million tonnes per annum from a single berth configuration and single ship loader. The project also involves a road transport and infrastructure access corridor along the existing ungazetted Swaffers Road from the Lincoln Highway. Further expansions to the port capacity, if required, will be developed under Stage 3 and 4 and will be subject to separate approval processes. RET understands that Port Spencer will be operated and administered by Port Spencer Pty Ltd, ultimately a 50:50 joint venture between Wuhan Iron & Steel (Group) Corporation (WISCO) and Centrex Metals.

We note that in Australia the quantities of iron ore produced outside Western Australia are, comparably, very small. Nevertheless, in South Australia, they still represent significant mining investment and production opportunities in the form of a number of magnetite resources. These are being developed mostly by junior miners and lack the support of adequate deep water port and energy infrastructure. The Port Spencer development will be critical in enhancing South Australia's mining industry, particularly given the recent decision to open the Woomera Prohibited Area for mining activity.

At this stage of the referral process, the Department has no additional information on whether the proposed action is likely to have a significant impact on matters protected under the EPBC Act beyond that already identified in the referral.

If you have any further questions with this advice, please contact s 22 on 02 6243 s 22 or email s 22 @ret.gov.au.

Yours sincerely

A handwritten signature in blue ink, consisting of several overlapping loops and a vertical stroke, positioned above the printed name.

Chris Stamford  
General Manager – Minerals Productivity Branch  
Resources Division



DEWNR 33/12/0030

30 ~~October~~  
November 2012

**Executive Director  
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s 22

A/g Director  
WA and SA Section  
South Australia and Permits Section  
Queensland and South Australia Assessment Branch  
Department of Sustainability, Environment, Water, Population and Communities  
GPO Box 787  
CANBERRA ACT 2601

Dear s 22

**Re: EPBC Referral 2012/6590: Port Spencer Stage 1 and 2, Eyre Peninsula, SA.**

I write on behalf of the South Australian Government regarding your invitation to comment on the above referral received by the Australian Government Department of Sustainability, Environment, Water, Population and Communities under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The South Australian Government advises the following in the relation to the Port Spencer Stage 1 and 2, Eyre Peninsula, SA.

#### **State Assessments**

##### *Development Act 1993*

This project has been declared a 'Major Development' under the South Australian *Development Act 1993* and as such requires development approval by the Governor and assessment by the Minister for Planning. The assessment will take into consideration government agency and public comment on the Public Environment Report (PER) as part of that process, as well as address any requirements resulting from the EPBC referral process.

Whilst assessment of the PER for Stage 1 has already commenced, Stage 2 will also undergo the same process with the declaration expanded to include the desalination plant, processing plant and worker's village. The potential exists to invoke the Bilateral Agreement if the assessment approach determined by the Commonwealth is deemed to be equivalent to the South Australian PER process.

##### *Native Vegetation Act 1991*

Approval for clearance of native vegetation is required from the South Australian Native Vegetation Council (NVC) in accordance with the *Native Vegetation Act 1991*. This proposal would be assessed against Native Vegetation Regulation 5(1)(c) which requires (amongst other things) that clearance is undertaken in accordance with a management plan that has been approved by the NVC. To date, consultation by Centrex Metals Ltd with the NVC has not taken place. Should the proposal result in offset requirements, it is recommended that SA and the Commonwealth work together to streamline offsets.

**Matters of National Environmental Significance (NES)**

The following issues have been identified as matters for consideration in DSEWPaC making its determination:

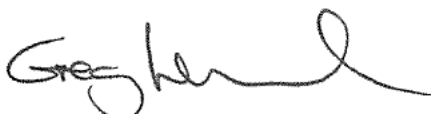
1. The referral identifies Lipson Island as a habitat for local breeding and roosting seabirds such as the EPBC listed marine species Little Penguin (*Eudyptula minor*). Whilst this population occurs in State waters, it was also recognised that birds such as the EPBC listed vulnerable *Sterna nereis* (fairy tern) may also breed on the island. It is recommended that further assessment and future monitoring of indirect and/or cumulative impacts, including that of additional shipping movements in the area be undertaken to ensure it does not contribute to the current decline of the species.

**Environmental Assessment**

Should the proposed bulk commodity export facility be determined to be a controlled action, the SA Government considers that assessment by Preliminary Documentation is appropriate.

For further information please contact the SA EPBC Act Referral Team, in particular S 22 § 22 on (08) 8463 § 22 or § 22 on (08) 8463 § 22 or e-mail: [DLDEWNREPBCReferrals@sa.gov.au](mailto:DLDEWNREPBCReferrals@sa.gov.au).

Yours sincerely,



Greg Leaman  
**EXECUTIVE DIRECTOR**  
**PEOPLE, PARKS AND PLACES**

**From:** S.47F  
**To:** [EPBC Referrals](#)  
**Cc:** S.47F  
**Subject:** response to Centrex proposal 2012/6590  
**Date:** Friday, 26 October 2012 9:25:24 PM

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Personal Details:

S.47F

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About the author:

S.47F

Approval for publication:

Approval is given for the text of this submission to be published, if required.

Approval is NOT given to publish my personal details contained on this page.

Forwarded by email: 26<sup>th</sup> October 2012

**Submission to:**

**Approvals & Wildlife Division**

**Department of the Environment, Water, Heritage and the Arts**

**RE: Centrex Metals Limited/ Transport-water/Within the Spencer Gulf approx 210 north west , Adelaide/SA port Spencer Stage 1 and 2, Eyre Peninsula SA**

**Reference Number 2012/6590**

## **BACKGROUND**

Centrex Metals is seeking approval to construct and operate a port, Port Spencer, approximately 70 kilometres north of Port Lincoln, adjacent to the Lipson Island (Cove) Marine Conservation Park.

Stage 1, the construction of the Port, has been the subject of a State Government PER, the response to which (at the time of writing) has yet to be released. I note a draft response is included in the Company's application.

Stage 2 of the proposed project involves the construction and operation of a 20 gegalitre desalination plant. This proposal has yet to be subjected to an environmental impact assessment.

Centrex has made numerous references to the fact that the Port is to be a multi-user port. Indeed Eyre Grain is an actual partner in the venture. It is interesting to note that NO environmental impact assessment has been undertaken to determine any environmental impacts with respect to this use on the marine and terrestrial environments, yet approval is being sought to proceed , regardless.

It is noted that the Company is proposing an exclusion zone of 1.5 kilometres on either side of the jetty. Whilst this is shown on one of the maps accompanying the submission, what is not shown is the intersection of this exclusion zone and that which surrounds the Lipson Island Conservation Park.

## **DISCUSSION**

As a respondent to the PER, I have itemised a number of issues relating to scientific rigour with which the 'assessments' undertaken by the Company (or it's contractors) were conducted. The details of these are included in the Company's documentation. In addition, attention is drawn to:-

### **The climate study:**

By it's own admission, the Company indicated that a limited meteorological data collection (4 months) was undertaken at the site, with all modelling being supplemented with data from

other source locations (some at least 70 kilometres away). This hardly constitutes a site specific survey, especially when all noise, dust, and pollutant dispersion patterns are based upon this data set.

The actual site is within what could be described as a pseudo amphitheatre, and hence dispersion of noise, dust and pollutants may well be contained within this area, rather than being dispersed.

Of particular concern is haematite dust and diesel fumes arising from the large number of truck movements (apparently one movement every 11 minutes on a 24/7 basis) and the diesel power station. Information pertaining to the link between diesel fume emissions and cancer was provided in my response to the PER. Such emissions could be an issue in the event of temperature inversions at the site.

### **The marine environment:**

Concern has been raised as to the impact of the construction of the jetty, given that the underlying geology is bedrock (granite) overlain by about 1 metre of sand. Information relating to the methodology to be employed in constructing a pile based jetty is sketchy as is the potential impact on the marine environment per se, and Lipson Island, in particular.

As mentioned earlier, approval is being sought for stage 2, the desalination plant, despite the fact that NO environmental impact assessment has been undertaken for this component of the project. The impact on the environment is therefore unknown.

Little attention has apparently been paid to the migratory patterns of marine animals in this vicinity and the potential impact the proposed project may have.

Whales, dolphins, great white sharks, and little fairy penguins frequent the area.

There is a breeding colony of little fairy penguins on Lipson Island. What is the state of this colony? Will the proposed projects have an impact upon the ability of the colony to survive and prosper?

What has not been answered with any degree of detail is the impact on the sea grass beds as a result of cape size vessels entering the port area under their own steam or that of the tugs when they are deployed.

So far as one can determine, the survey of animal and bird life in the area has been limited, although a few days were spent on Lipson Island documenting species. A few 'opportunistic' observations have also been reported. No long term studies have reportedly been undertaken.

Eagles:

Both wedge tailed and white bellied sea eagles have been sighted in this location on more than one occasion. In fact wedge tailed eagles often nest in the trees on the property to the south of the development site and it has been reported that a white bellied sea eagle nests in a location to the north of the project site.

The lack of a detailed base line study is of concern as the public does not have any point of reference on which to judge the performance of the Company in meeting it's environmental obligations.

A large proportion of the Company's submission on the biodiversity of the site appears to consist of the reproduction of information pertaining to protected species etc, rather than actual scientific observation conducted over a period of time in order to determine exactly what is happening within the Lipson Island Conservation Park (refer to attachment 1) and the proposed Port precinct and thence what the impacts may or may not be.

#### **The issue of water:**

The Company has chosen to seek approval for the project via a number of stages, vide the port; the desalination plant; the construction of a village; the approval to mine magnetite; the approval for the magnetite pipeline from Koppio to the Port etc....

However, one theme that is common to most of the approvals is water, or more correctly, the lack of water on Eyre Peninsula.

Eyre Peninsula's water supply is predominantly sourced from underground basins. These basins do not provide an inexhaustible supply and much debate is being undertaken as to the longevity of the current supply given existing and future demands.

Within this debate is the dewatering of the aquifer associated with mining and the significant demand placed on existing supplies as a result of the increased mining industry.

Desalination is seen as a possible answer, and in the case of Centrex, it will, if approved, be the source of water for the transportation of magnetite from the Koppio Mine to the port. However, on the reverse side of the coin, the Koppio Mine has the potential to significantly impact upon the aquifer supplying water to the Peninsula.

Any approval for a desalination plant should be undertaken in the light of an environmental impact assessment of the total project (ie the mine) and not just the impact at the proposed site of the plant.

#### **CONCLUSION**

Given that the Company is seeking approval for stage 1 & 2 of the project without an environmental impact assessment for the desalination plant and many questions still remaining unanswered within the response to the PER for stage 1 together with the significant issue of water supplies (or lack thereof) on Eyre Peninsula, I believe EPCB approval should not be granted for either stage pending a more rigorous environmental impact assessment which is more relevant to the actual site and which addresses those issues alluded to above.

I trust these comments will assist in your deliberations



ATTACHMENT 1 (Information provided by the Lipson Export Port Committee with respect to a management plan for Lipson Island Conservation Park)

## **Lipson Cove Management Plan**

It is becoming very clear that the proposed Port Spencer; desalination plant, shipping lane, mooring zone, potential foreign invasive species, sea-grass degradation, pile driving (blasting), massive industrial infrastructure, storage facilities, diesel generators, dust pollution, noise pollution, constant road trains 24/7 and increased traffic will ultimately ruin the natural features and fragile ecosystems of Lipson Cove.

The Lipson Export Port Committee share the same concerns for the future of Lipson Cove and Lipson Island Conservation Park as the SA Department of Lands 1988 whereby the Lipson Cove Management Plan (SA Department of Lands 1988, Tim Bond) includes the following: (underlining added)

### *Present use*

#### Recreation

Lipson Cove's main attraction is the varied fishing that is available. Most publications on fishing refer to Lipson Cove as the best, easily accessible fishing area in the Tumby Bay district. People visit the area to fish for periods ranging from several hours to several weeks.

Camping areas have developed behind the beach at Lipson Cove. This area presently has about 15 camp sites and is serviced by two pit toilets and rubbish bins.

Other recreation use is sight-seeing, nature study and photography. These are encouraged by the beauty of the area, the accessibility of Lipson Island with its associated breeding sea birds, the historic features and pleasant environment for picnics, barbecues and camping.

A walking track has developed leading south from the 'garden gate'. This provides scenic views and access to fishing sites.

#### Conservation

Lipson Island is a conservation park to protect breeding populations of Black-faced Cormorants, fairy penguins, silver and pacific gulls, sooty oyster-catchers and crested terns. (underling added)

The national parks and wildlife service does not allow fires, wood collection or camping on the island. Visitors to the island should contact the ranger at Port Lincoln before visiting.

#### Issues:

##### The level of development

The present users feel that improved facilities will spoil the character of Lipson Cove by increasing visitor numbers. From a conservation point of view, increased visitation will increase potential for disturbance to breeding sea birds on Lipson Island.

##### Protection of the environment from degradation

Campers and vehicles cause the greatest degradation to the environment. Soil at the camping sites is very compacted from heavy foot and vehicle traffic. Vegetation around camp sites has been damaged both by people using it for fires and by uncontrolled access to the beach and around camp sites.

Soil erosion near the cairn for Wallaby Sam's Cave has nearly closed the cave entrance.

Weeds such as hore hound, onion weed and box thorn occur in the area, all have the potential to increase their population and become major problems if not controlled.

##### Enhancement of the environment

Active management such as interpretive signs, road construction, fencing and revegetation programs will help improve the environment. The objective should be to improve

facilities for environmental protection without increasing the use of the area in peak periods. These measures will help to retain the character of Lipson Cove.

#### FUTURE MANAGEMENT

The long term aim for the future of Lipson Cove is determined by the importance of the various issues associated with the land. **Lipson Cove is seen by the Department of Lands to be an important recreation area with local pressure to retain its relatively undeveloped, low use character. This will help the management of Lipson Island Conservation Park because the breeding sea birds require as little disturbance as possible (underling added)**

Increased use would require more extensive development to protect the environment from damage. The manager would then incur greater management and running costs.

#### Aim

*The aim of management at Lipson Cove is:-*

**To manage Lipson Cove for public recreation while protecting the natural and historic features from further degradation.**

Achieving this aim requires the co-operation of the District Council of Tumby Bay, The Department of Lands, the Department of Environment and Planning through the National Parks and Wildlife Service and the Coastal Management Branch and the Lessees of the War Service Perpetual Lease held over sections 426 and 427. The Department of Lands can act as an intermediary to liaise with the various groups to a stage where the land is allocated to the appropriate manager.

#### Objectives

*The objectives of this study are:-*

1. To place the land regularly used for public recreation in the Crown Estate.
2. To place the land around Lipson Cove under the care, control and management of the appropriate land manager.
3. **To describe management guidelines that achieve protection of the natural and historic features while retaining similar levels of development and use.**

**From:** S.47F  
**To:** [EPBC Referrals](#)  
**Subject:** 2012/6590 Centrex Metals Limited/Transport - water/Within the Spencer Gulf approx 210km north-west Adelaide/SA/Port Spencer Stage 1 and 2, Eyre Peninsula, SA  
**Date:** Monday, 29 October 2012 11:35:03 PM

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Thankyou for the opportunity to comment on this referral. Firstly I should declare my interest as being a very minor shareholder of Centrex Metals Shares (30,000 units). I have bought these because I believe:

- 1) They offer a good chance of return due to the quality of the resource and partnership with China they are developing (in line with current White paper recommendations)
- 2) The company offers a good triple bottom line of social, economic and environmental benefits to the Eyre Peninsular. With a resource located in mostly cleared lands, close to populated areas and existing infrastructure. This is in stark contrast to WA based operations that I am familiar with such as Kimberley, Pilbara and Midwest iron ore mines (actual and proposed) located in wild rangeland habitats of international significance.

I have not provided this comment in the hope that it will progress the matter in a more expedient manner for personal gain, as even if you choose to assess it I suspect the project will still proceed in much the same manner and whatever gain I may receive from its progression is minimal in the overall scheme of things. I do however provide the comment as I have an affinity with some of the species and the area in question, having travelled there a number of times and having a number of friends who live there or have lived there (and probably would still be living there if there was suitable employment).

I read the referral documents with interest and believe they are reflective of the issues as I know them. They have thoroughly listed the matters of national significance and highlighted the limited impact of their proposal on them. The matter of nearest proximity and a highest priority (due to its current decline across a broader area) is that of the small fairy penguin population that utilises Lipson Isl for nesting. I have grave concerns that the broader South Australian populations are declining and that not a lot seems to be done by the SA government or community to monitor the decline, identify causes and mitigate threats. Potential causes are well identified in the referral document such as declining food stocks due to diseases and heavy fishing. Whilst development of heavy industry is not directly beneficial to many species, the opportunity they provide in shifting communities from a landscape scale primary industries base of fishing and farming to another income stream that uses a very minimal footprint can reduce pressures on the broader environment. The money they generate can also help support direct conservation projects such as land rehabilitation, feral predator intervention, resources for ranger programs and wildlife rescue programs. With the SA Government trying to get marine park proposals up and fisheries well managed, opportunities to shift commercial fishers into alternative employment is about the only real way forward for the state and its biological resources.

S.47F [redacted] populations of fairy penguins S.47F [redacted] have left me with an impression of being very resilient to disturbance from humans and our structures that we have built directly on and around their nesting habitat. You just have to look at the populations that nest near towns on inhabited islands to see them nesting happily under

houses and animals moving through ports, boat traffic and well-lit areas. To think that a low visitation port a couple of kms from the island will significantly impact on the population is very tenuous and not supported by observations other breeding locations. It should be of greater concern to conservationists that a largely unmanaged campsite is located directly adjacent to this near shore nesting habit, with impacts from uncontrolled domestic pets being a greater threat to them

I believe the opportunity for companies like Centrex to work with conservationists and SA government in helping provide intervention on a species that is declining across all of its habitats (disturbed and undisturbed) is real and something that should be welcomed by the Australian Government. I also believe that existing SA government assessment processes are more than adequate to manage the real and implied impacts of this project, if there are any impacts they should be able to manage these through regulatory controls, management plans and offset programs.

S.47F ,

**S.47F**

S.47F

Kununurra, WA

6743



## **Tumby Bay Residents and Ratepayers Association Inc.**

*Representing Local Interests And Local Issues*

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### **Referral Business Entry Point, EIA Policy Section (EPBC Act)**

Approvals and Wildlife Division  
Department of Sustainability, Environment, Water, Population and Communities (DSEWPC)  
GPO Box 787  
Canberra ACT 2601

1 November 2012

**RE: Reference Number 2012/6590 - Centrex Metals Limited/ Transport-water/Within the Spencer Gulf approx. 210 north west, Adelaide/SA Port Spencer Stage 1 and 2, Eyre Peninsula SA.**

Dear Chairperson,

As Centrex Metals Limited (Centrex or The Proponent) have indicated on numerous occasions, and as Tumby Bay Residents and Ratepayers Association Inc. (TBRARA) pointed out in our submission to the proponents Public Environment Report (PER), the proposed Port Spencer is not viable without the mines, and the mines are not viable without the port. Therefore the project in its entirety includes the following:

Stage 2;

- Magnetite Mines – project 'Fusion', up to 7 mines proposed in the Tod River Catchment Area and a National Wetland,
- Desalination Plant,
- Transport Corridors,
- Slurry pipeline,
- Mining Village (to accommodate approx. 1000 employees),
- Grain Handling Infrastructure, Storage and Shipping,
- Grain Transport Corridors . . . . and the list goes on.

We note that this referral is for DSEWPC's approval for stage one (1) and stage two (2), noting that the proponent has to date only completed State Government process (PER) and public consultation for Stage 1. The PER for stage 1 does not include a desalination plant, whereby the proponent clearly makes reference to it in their referral for DSEWPC's approval without the appropriate environmental studies for a desalination plant being undertaken.

The documentary team lead by Dan Monceaux, Creative Director Danimations, confirm that the production of the current project (a report on the Centrex Port Spencer nationally significant environmental threats) including interviews with state and commonwealth environmental ministers specifically relating to desalination plants, marine ecological research and consultation with an emphasis on quantitative field studies, highlights the short comings of the current development criteria.

At a public meeting in April 2012 in Tumby Bay, Centrex in conjunction with Eyre Iron Pty Ltd stated that the desalination plant was expected to be 50 GL, the referral now states 5 GL, expandable to 'approximately' 20 GL. Which is it and what is the environmental impact?

The issue of insufficient oceanographic data to suggest that circulation at Lipson Cove is sufficient to safely and reliably mix and dilute the brine waste product from presumably beneath the jetty at a 1.5km distance from Lipson Island Conservation Park is another inconsistency, noting that there is uncertainty over the brine return mechanism and location.

TBRARA are also concerned with the cumulative impact of the proposed desalination plant in conjunction with multiple desalination plants around the Spencer Gulf, including the many other proposed desalination plants such as BHP Billiton desalination plant at Point Lowly, Onesteel (operating since late 2011), proposed Arafura at Whyalla (5 GL) and a potential plant at Port Germein (50 GL).

In regards to this referral 2012/6590, the one aspect of the comments TBRARA made to the proponents PER that remains not to have been commented upon by Centrex (they appear to want to totally ignore it) is that the distance of their proposed industrial zoned land boundary is only 800 metres from Lipson Island Conservation Park (Register of the National Estate and IUCN Category 3) and remains without any buffer zone to the Lipson Cove conservation land (boundary is shared).

The shared boundary (the proposed Port Spencer industrial zone development boundary) is no greater than .08kms (or 800m) from the Lipson Island Conservation Park and is directly abutting the Coastal Reserve as indicated in the Referral document. The intrusion of industrial activity into the Conservation Park is clearly indicated in the Centrex referral document page 133 and the Port Spencer Anchorage and Access Zones (Fig 2-3).



Page 133 of the EPBC Referral Document - intrusion of Shipping Zone (blue) into Lipson Island Conservation Park (purple).

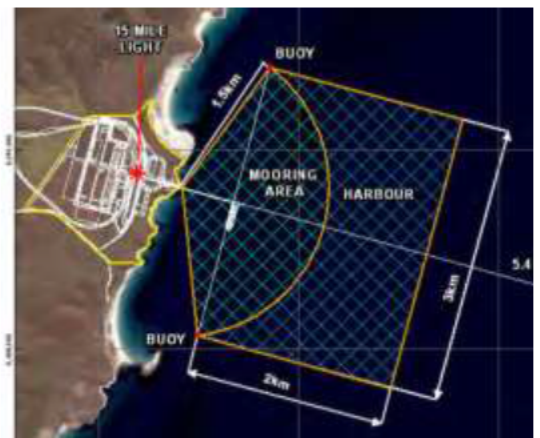
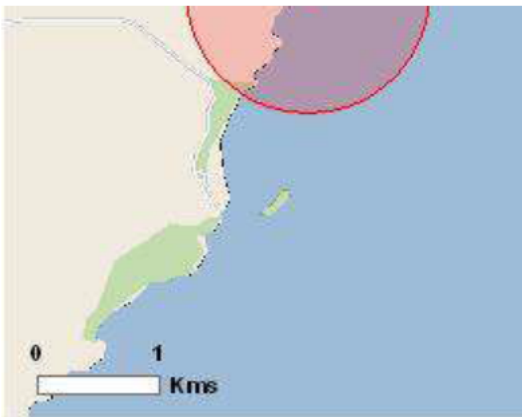


Figure 2-3 Port Spencer Anchorage and Access Zones



(search tool) The directly abutting boundary of the Lipson Island Conservation Park (green). The proposed Port Spencer development boundary has the same boundary as the Lipson Island Conservation Park, a coastal reserve or 'Crown Land'.

The Lipson Cove Management Plan (SA Department of Lands 1988, Tim Bond) identifies that the reserve is placed into 'Crown Estate' as to preserve the natural features within the coastal area, of which the adjacent land; the proposed Port Spencer industrial development will greatly impact upon the objectives of that reserve.

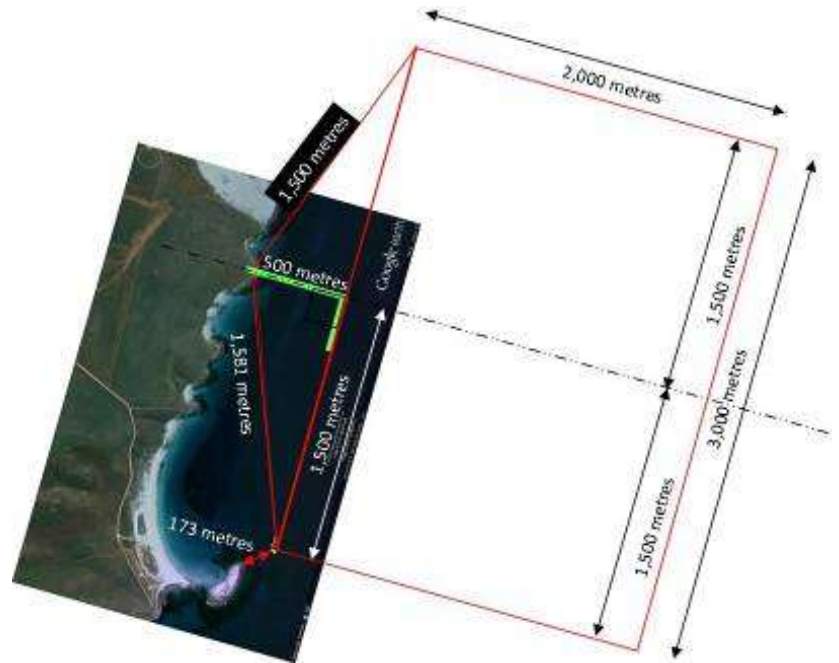
Centrex repeatedly misrepresent the area of impact in relation to the distance and predictable risks to significant conservation matters. The distance of 1.5km only relates to the 500 metre west-east projection of the wharf. Centrex have not clearly represented the 320 metre southern extent of the wharf for its intrusion and impact to the Conservation and Lipson Island areas. There is not adequate representation of environmental impacts for the ship manoeuvring, mooring and berthing area which encroaches to within 173 metres of Lipson Island.

Centrex do not disclose any studies for the known environmental impacts that multiple tug operations and ship manoeuvring propeller wash generate. Pollution generated by those activities can be significant in sensitive coastal conservation areas. The southern western harbour shipping manoeuvre and mooring buoy is indicated to be sited 173 metres from Lipson Island and in the Conservation Area. Centrex do not disclose any studies for the environmental impact that mooring buoy mounted strobe navigational lights generate.



Fig. 2-3 is not distance or dimensionally accurate.

Satellite overlaid image of Lipson Island with location of Buoy in scale for distances and site dimensions.



Centrex's identified 1.5 km development exclusion zone is effectively a 3.0 km Coastal Area which is of great public concern as it directly restricts access and public activities related to tourism, recreation, powerboat water sports and fishing upon the immediate beaches and coastal waters of Lipson Cove and Rogers Beach. We note that the Lipson Cove Management Plan (SA Department of Lands 1988, Tim Bond) states the following:

**Present use**

Recreation

Lipson Cove's main attraction is the varied fishing that is available. Most publications on fishing refer to Lipson Cove as the best, easily accessible fishing area in the Tumby Bay district. People visit the area to fish for periods ranging from several hours to several weeks.

Camping areas have developed behind the beach at Lipson Cove. This area presently has about 15 camp sites and is serviced by two pit toilets and rubbish bins.

Other recreation use is sight-seeing, nature study and photography. These are encouraged by the beauty of the area, the accessibility of Lipson Island with its associated breeding sea birds, the historic features and pleasant environment for picnics, barbecues and camping.

A walking track has developed leading south from the 'garden gate'. This provides scenic views and access to fishing sites."



Jet Ski's & Recreation at Lipson Cove  
22 January 2011

Recreational boating at Lipson Cove



The proposed Harbour and Proposed Mooring Zone, additionally the 1.5 km development exclusion zone identified in the proposal by Centrex (fig. 2-3) will impact upon existing Lipson Cove public use for recreational activities as the legislation for boating activities mandate a **4 knot speed limit**.

That **4 knot speed limit** will impact upon the current public use of Rogers Beach and Lipson Cove. Denying the activities that include Jet Skiing, Water Skiing, Scuba Diving and Free Boarding due to the enclosing of the area by a proposed 3.0 km wide 2.0 km deep 'mooring / harbour site' which would extend along the adjacent shoreline and seaward sections of Rogers Beach, Lipson Cove and Lipson Island.

A loss of access and public amenity for adjacent residents, the local area holidaying community, state and interstate tourists, will occur from the proposed mooring area effectively projecting right across the useable beaches and 3.0 km of offshore waters. The loss of scenic tranquillity, natural solitude and ambiance of nature the beaches currently afford will predictably result in a significant diminishment of tourist attraction and interest for this area.

The social and commercial impacts to recreational, holiday and tourism, which the local economy is significantly dependent upon, have not been reported but denied by Centrex. Therefore there has not been a complete socio-economic study to fully identify the environmental impact of the proposed Port Spencer development.

We consider that Centrex's statements in their Referral that tourism and the current recreational use being unlikely to be impacted upon by the project to be misleading and effectively a false representation of fact. The proposed project will NOT enhance the area, and neither will the security gate and fencing that excludes the public from the iron ore loading wharf realistically attract tourism to the area. The local community view is that the opposite will result due to the negative impacts of a port being built in the current proposed location.

There is no credible data presented by Centrex that might support their assertion that Lipson Cove needs 'industrial' features to draw in more visitors; the natural features, scenic beauty, biodiversity and undeveloped – yet accessible aspects of the area have historically been proven to be a draw card for visitors to this region, hence our mention of the book '101 Australian Best Beaches' on the following pages, also noting that Lipson Cove is never unoccupied. The greater reality being that any 'industrial' features will have a net negative impact.

Page 45 of the Referral document states;

*"The port will not be expected to have a significant impact on the species either through impact on breeding sites, feeding numbers or potential marine mammal collision."*

TBRARA completely disagree with the above statement. We seek to reiterate that numerous marine mammals and sea birds breed and live within and near the vicinity of the proposed port. That abundance of marine life are scientifically reported to be sensitive to noise, light, sediment and turbidity increases, submarine noise pollution, air pollution and introduction of invasive species. This being a particular threat when one considers that the area is scientifically reported and very well documented to be an significant 'breeding area' for birds and marine mammals.

Of specific mention is the relevance to the Approvals & Wildlife Division, DSEWPC, with direct relation to this EPCB Act referral, is the Southern Right Whale, Fairy Tern and the Hooded Plover. They are just three (3) examples among twenty (20) listed endangered bird, marine mammal and plant species.

There must be recognition for the Centrex Port Spencer development to require application of a 'Controlled Action' due to the 'National Environmental Significance' within this immediate area.

*Hooded Plover (Thinornis rubricollis) –  
Status: endangered, resident of Rogers Beach and Lipson Cove*







Marine/migratory listed, and 'endangered' Southern Right Whale (*Eubalaena australis*) calf, Lipson Island Conservation Park. 15 August 2012

Marine/migratory listed 'endangered' Southern Right Whale (*Eubalaena australis*), Lipson Island Conservation Park 10th July 2011



### **Sternula nereis nereis— Fairy Tern (Australian)**

Listed as Vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999*, "Recent studies indicate that the Little (Fairy) Tern may realistically be regarded as endangered within South Australia (Copley 1996). **Breeding populations of Fairy Terns have been recorded at Lipson Cove**" - K S Edyvane May 1999

South Australia: Listed as Endangered under the *National Parks and Wildlife Act 1972*

A representation of the significant public record for Lipson Cove and Lipson Island is the upcoming release of the book titled '*101 Best Australian Beaches*', the first ever authoritative list of Australia's Best Beaches.

The publication is due for launch on 2<sup>nd</sup> November 2012 by New South Publishers, and not surprisingly will feature Lipson Cove as one of the best 101 from a total of 11, 761 mainland beaches in Australia.

We provide to you this link for further reference

<http://101bestbeaches.com/beaches/south-australia/lipson-cove>



TBRARA and Lipson Export Port Committee (a subcommittee of TBRARA) share the same concerns for the future of Lipson Cove and Lipson Island Conservation Park as the SA Department of Lands 1988, whereby the Lipson Cove Management Plan (*SA Department of Lands 1988, Tim Bond*) includes the following:

#### **Conservation**

Lipson Island is a Conservation Park to protect breeding populations of Black-faced Cormorants, Fairy Penguins, Silver and Pacific Gulls, Sooty Oyster-Catchers and Crested Terns. The national parks and wildlife service does not allow fires, wood collection or camping on the island. Visitors to the island should contact the ranger at Port Lincoln before visiting.

#### **Issues:**

##### The level of development

The present users feel that improved facilities will spoil the character of Lipson Cove by increasing visitor numbers. From a conservation point of view, increased visitation will increase potential for disturbance to breeding sea birds on Lipson Island.

### **Protection of the environment from degradation**

Campers and vehicles cause the greatest degradation to the environment. Soil at the camping sites is very compacted from heavy foot and vehicle traffic. Vegetation around camp sites has been damaged both by people using it for fires and by uncontrolled access to the beach and around camp sites.

Soil erosion near the cairn for Wallaby Sam's Cave has nearly closed the cave entrance.

Weeds such as Horehound, Onion Weed and Box Thorn occur in the area, all have the potential to increase their population and become major problems if not controlled.

### **Enhancement of the environment**

Active management such as interpretive signs, road construction, fencing and revegetation programs will help improve the environment. The objective should be to improve facilities for environmental protection without increasing the use of the area in peak periods. These measures will help to retain the character of Lipson Cove.

### **Future Management**

The long term aim for the future of Lipson Cove is determined by the importance of the various issues associated with the land. Lipson Cove is seen by the Department of Lands to be an important recreation area with local pressure to retain its relatively undeveloped, low use character. This will help the management of Lipson Island Conservation Park because the breeding sea birds require as little disturbance as possible. Increased use would require more extensive development to protect the environment from damage. The manager would then incur greater management and running costs.

### **Aim**

The aim of management at Lipson Cove is:-

1. To manage Lipson Cove for public recreation while protecting the natural and historic features from further degradation.
2. Achieving this aim requires the co-operation of the District Council of Tumby Bay, The Department of Lands, the Department of Environment and Planning through the National Parks and Wildlife Service and the Coastal Management Branch and the Lessees of the War Service Perpetual Lease held over sections 426 and 427. The Department of Lands can act as an intermediary to liaise with the various groups to a stage where the land is allocated to the appropriate manager.

### **Objectives**

The objectives of this study are:-

1. To place the land regularly used for public recreation in the Crown Estate.
2. To place the land around Lipson Cove under the care, control and management of the appropriate land manager.
3. To describe management guidelines that achieve protection of the natural and historic features while retaining similar levels of development and use.

### **In Conclusion**

On behalf of the many nationally significant, vulnerable, endangered, threatened, and in decline species, either resident or migratory to Lipson Island Conservation Park and the marine waters of the Port Spencer site, TBRARA, our members and our local communities seek the Approvals and Wildlife division to consider advising the proponent (Centrex) to pursue a more appropriate location.

There have been locations which are less expediently convenient but which do exist (contrary to the proponents elected limited consideration and viability studies for alternative sites), and there are alternate development sites currently under construction of which Centrex may joint partner and/or obtain facility and access contracts at.

We believe the Lipson Island Conservation Park to be a proven significant breeding area for not only marine birds, but also marine mammals as well, particularly the Bottlenose Dolphin (*Tursiops truncatus*), Common Dolphin (*Delphinus delphis*) and the Southern Right Whale (*Eubalaena australis*) of which documentation and local knowledge cannot be ignored.

If Centrex elect to remain in denial of commercial viability for an alternate site then at the least a decision for a 'Controlled Action' to this referral is justifiable. The primary reasoning being Centrex's lack of adequate environmental studies on matters of National Environmental Significance that remain unassessed and threatened by this Port Spencer development proposal.

We also seek that the consideration of a 'Controlled Action' be applied to all aspects of this project, aforementioned in this paper (please see 'Attachment A' - TBRARA comment upon the Eyre Iron Pty Ltd referral – drilling in heritage land for further reference).

Yours sincerely,

A grey rectangular box redacting the signature of Milton Stevens. The text 'S.47F' is visible within the box.

Milton Stevens  
Chairperson TBRARA

## Acknowledgements

<http://www.birdlife.org/datazone/sitefactsheet.php?id=23941>

[http://www.bugbitten.com/blogs/Australia\\_Oceania/gembagemba/For\\_all\\_the\\_Birdy\\_Deviants.html](http://www.bugbitten.com/blogs/Australia_Oceania/gembagemba/For_all_the_Birdy_Deviants.html)

Conserving Marine Biodiversity in South Australia - Part 2 - Identification of areas of high conservation value in South Australia K S Edyvane May 1999

[http://www.ffc.org.au/FFC\\_files/MPA%20refs/SARDI%20reports%20and%20maps/marine\\_biodiversity\\_part2\\_full\\_version.pdf](http://www.ffc.org.au/FFC_files/MPA%20refs/SARDI%20reports%20and%20maps/marine_biodiversity_part2_full_version.pdf)

<http://tothescrubandbeyond.wordpress.com/2011/07/10/can-lipson-cove-be-spared/>

<http://thetravellingnovocastrians.blogspot.com.au/2012/03/arno-bay-and-lipson-cove-on-western.html>

<http://travelgeneration.com/travel-stories/a-day-in-paradise-lipson-cove-south-australia/>

<http://www.getjealous.com/philandmel/journal/2689782/cummins-to-lipson-cove.html>

<http://niknoff.blogspot.com.au/2009/03/on-road-part-8.html>

<http://tumby.com.au/articles/camping-areas-at-tumby-bay>

Danimations website [www.danimations.com.au](http://www.danimations.com.au)

[www.cuttlefishcountry.com.au](http://www.cuttlefishcountry.com.au)

Lipson Cove Management Plan *(SA Department of Lands 1988, Tim Bond)*

Department of the Environment, Water, Heritage and the Arts (Website)

101 Australian Best Beaches Website <http://101bestbeaches.com/beaches/south-australia/lipson-cove>

Centrex Metals Public Environment Report (PER)

Centrex Metals Referral document 2012/6590

TBRARA Submission to Centrex Metals Port 'Major Development' PER

Fusion (Koppio) Heritage Agreement Drilling Program, Eyre Peninsula (EPBC 2012/6399)

# Tumby Bay Residents & Ratepayers Association Inc.

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## Referral Business Entry Point, EIA Policy Section (EPBC Act)

Approvals and Wildlife Division  
Department of the Environment, Water, Heritage and the Arts  
GPO Box 787  
Canberra ACT 2601

11 June 2012

**RE: Submission to Title of Referral: Eyre Iron Pty Ltd/Mining/Eyre Peninsula/SA/Fusion (Koppio) Heritage Agreement  
Drilling Program Date Received: 23 May 2012 Reference Number: 2012/6399**

Dear Chairperson,

The Tumby Bay Residents and Ratepayers Association Inc. (TBRARA) have substantial concerns with the proposed exploration and mining development ventures across the region and wider Eyre Peninsula; this is perhaps alarming considering that we have deteriorating water tables with unresolved issues and many threatened and endemic species which will be either directly or indirectly impacted upon, not to mention our sustainable natural resources and renewable agriculture, fishing and aquaculture industries.

This paper is a submission to Approvals and Wildlife Division, Department of the Environment, Water, Heritage and the Arts in regards to an environmental footprint area for the entire Eyre Peninsula mining venture, as Eyre Iron/Centrex Metals (the company/s) are continually proposing new projects, therefore adding to the footprint area while their application process is focussed upon stages and individually targeted projects, whereby the separation of smaller projects and developments are that which have State Government attention.

Given that one of these projects is not viable without the others i.e. Centrex Metals/Eyre Iron have repeatedly stated that they will not start construction on Port Spencer (Stage 1 application) until the Fusion project, which is now 7 proposed mines in the Koppio Hills (Fusion) has approval (Stage 2 application). The public are very much concerned with the Company/s misrepresenting information to the state and local governments, with the desired outcome of that which is for one project approval then the other approvals will follow.

It is of greater concern that each project application will have its own environmental footprint impact area, which may receive approval from State or Commonwealth Government, however, when one considers the entire footprint area for Stages 1 and 2 (remembering that the Company/s have made it very clear that Stage 1 will not begin until stage 2 is approved) then the entire environmental footprint area should be that of all proposed development stages to be considered in one application.

The development being;

- 7 proposed magnetite mines in the Fusion (Koppio Hills) project,
- 1 hematite mine (Carrow),
- 2 other Magnetite mines (Bungalow & Wilgerup),
- 1 proposed processing plant,
- 1 slurry pipeline,
- Multiple transport corridors,
- Multiple diesel generators,
- 1 power corridor,
- 1 export port site,
- 1 shipping lane,
- 1 ship mooring,
- 1 desalination plant,
- 1 grain handling facility,
- Multiple grain transport corridors.

The entire project quickly becomes a massive proposal by an environmentally damaging industry which clearly will impact upon the regions existing sustainable economy and natural resources.

On behalf of our members and the local communities, TBRARA therefore seek the consideration of the combined environmental footprint area to be considered a “Controlled Action” referral under the Commonwealth Government EPBC Act.

The South Australian Government Department for Manufacturing, Innovation, Trade, Resources and Energy (DMITRE) is hurriedly leading the mining companies as it promotes the state to be attractive for investment with the result being that those exploration and mining companies are then required to plug the ever increasing quantity of holes that are becoming evident in the planning and development process.

We trust that the Approvals and Wildlife division will consider the issues presented on the follow pages for a major review of the threats upon Eyre Peninsula’s natural resources, environment, biodiversity, threatened species, renewable industries and an existing sustainable economy.

We believe that a “Controlled Action” EPBC referral should be applied with the inclusion of all proposed Eyre Iron/Centrex Metals Eyre Peninsula projects for the best possible outcome for the communities of Eyre Peninsula, whereby the most stringent legislative requirements are sort, given the volume of what is being proposed across Eyre Peninsula’s natural resources.

The community recognises that the full Fusion/Port Spencer project, of which referral 2012/6399 is only a section, is truly a development that will have or is likely to have a significant impact on Matters of National Environmental Significance. That significance does include listed threatened species and ecological communities which are readily confirmed through the EPBC Search facility. Therefore, the entirety of the project, not a thin slice of it, needs to be referred and jointly assessed under the EPBC Act.

Given that the proposed Fusion (Koppio) project is located within a Nationally Significant Wetland, that includes Heritage Agreement land, a referral needs to acknowledge the “indirect” effects of the proposed action on other potential Matters of National Environmental Significance.

The key principle to emerge from Minister for the Environment and Heritage v Queensland Conservation Council Inc [2004] FCAFC 190 is that the impacts of an action include both direct and indirect effects. For present purposes, it is clear that the proposed export facility (Port Spencer) and a number of proposed iron ore mines on Eyre Peninsula and surrounding areas are inter-dependent.

If the Port Spencer export facility isn’t built, the mines won’t go ahead. This means that the proponent should be identifying the exploration areas, actual mines or proposed mines and the relevant impacts on Matters of National Environmental Significance that arise in relation to those exploration and mining operations along with the potential impacts on Matters of Environmental Significance for Port Spencer and associated infrastructure i.e. slurry pipeline, processing plant, desalination plant, transport corridors and shipping lane.

The proposed action of mine site development will obligate that any slice of the full project development, which might have previously been referred, to be included for re-referral assessment. Thereby, your department will be re-working the same material over and over for each ‘project sliced’ referral such that what might have previously been able to ‘not be a controlled action’ would therein become ‘a controlled action’ as the relevance to adjoining activity will not be able to be denied. The deception to the community before the full project impacts are assessed cannot be justified.

It is within this framework that TBRARA submit to you the following information, outlined as issues, for your consideration.

Yours sincerely,

**S.47F**

**Milton Stevens**  
Chairperson TBRARA

**Issue 1**

The ‘bigger’ picture of the company/s exploration and mining proposals present a concerning outlook of what is actually being proposed across the region. The environmental footprint area of the Fusion exploration and mining project covers a vast area, including the proposed Heritage Agreement drilling 2012/6399, within the Koppio Hills and the Tod River Wetland System.

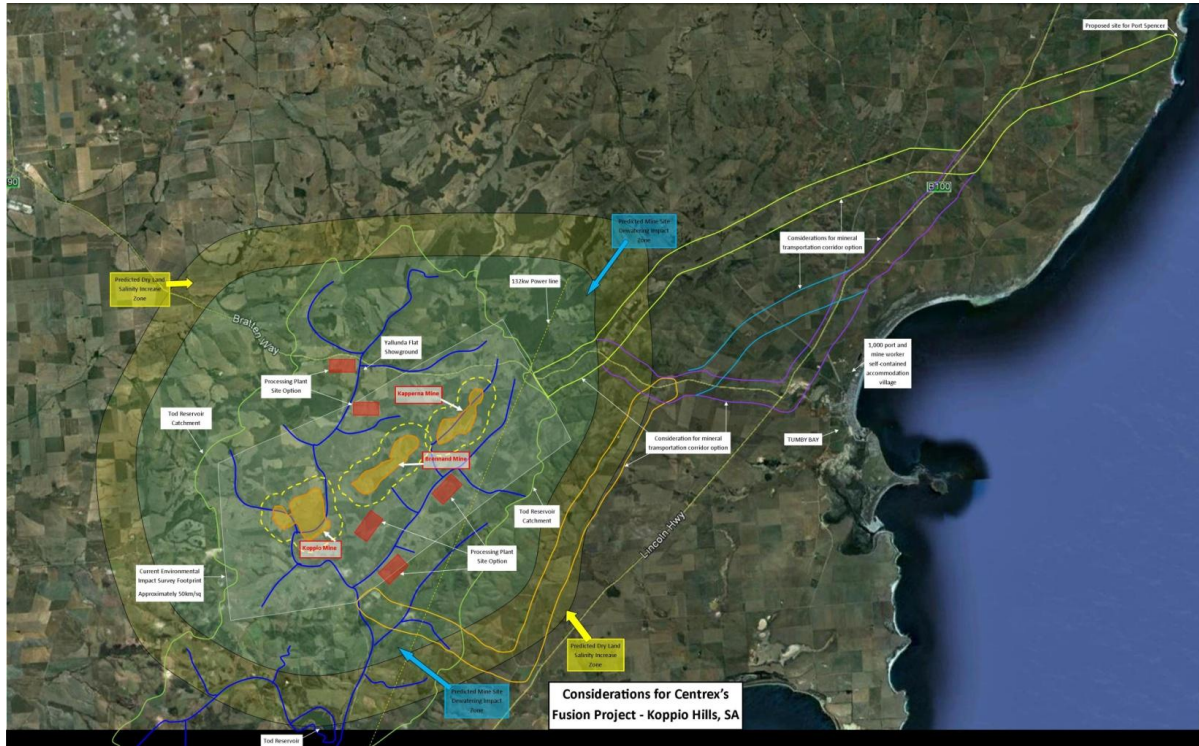


Image showing three (3) of the proposed ‘Fusion’ mine sites, possible locations for processing plants, possible routes for the slurry pipeline (mine to port) and the potential dry land salinity impact (de-watering) upon the Koppio Hills Prime Agricultural Land within a nationally significant wetland.

**Issue 2**

The current drilling projects within the Tod River Catchment System “national wetland” also include the two (2) parcels of land under the Heritage Agreement to Eyre Iron’s referral 2012/6399. It is clear that any proposed drilling within these HA’s and within the Tod Catchment area should be denied or require a “controlled action” and as such the drilling be regulated and the project be of the best practice for drilling through aquifer layers, to obtain the best possible precaution for the risks associated with contamination and as to set a standard for the proposed mines in the area which de-watering will potentially cause significant dry land salinity, noting that the current sustainable agriculture and economy of the region is at risk.

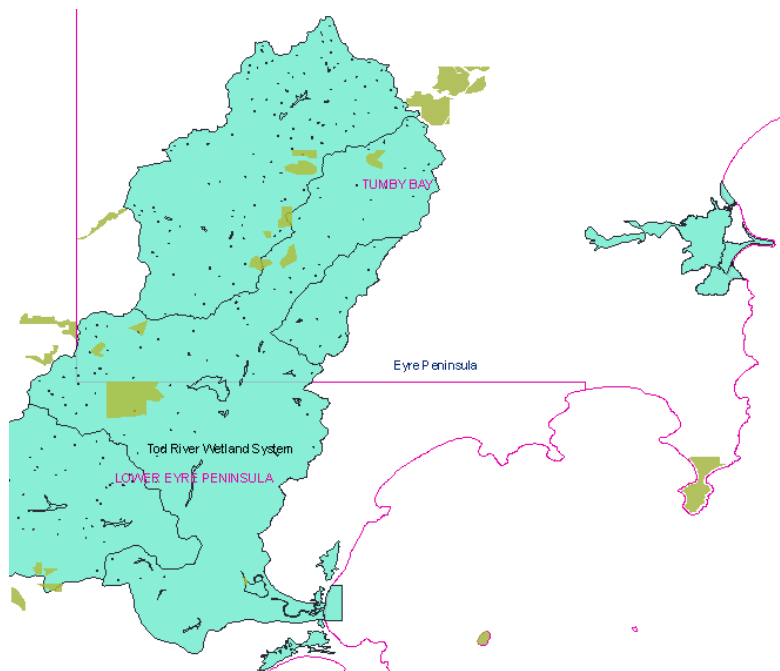


Image from the EPBC tool search for Matters of Environmental Significance. Showing that the proposed drilling program 2012/6399 and the current drilling program, exploration and proposed Fusion mines are within the Tod River Wetland System.

**Issue 3**

Considering that the company/s are currently drilling through water tables, aquifer layers and within the Tod River Wetland System, it should be noted that the risk of the intensive drilling contamination and mine de-watering presents a real threat to the prime agricultural land that the existing sustainable economy is dependent upon. The TBRARA urge the minister to stop the current drilling programs within this area until the appropriate regulations are applied where pressure sealing and grouting is completed within appropriate Department for Water (DFW) regulations.

## Sucking the life out of the Koppio area

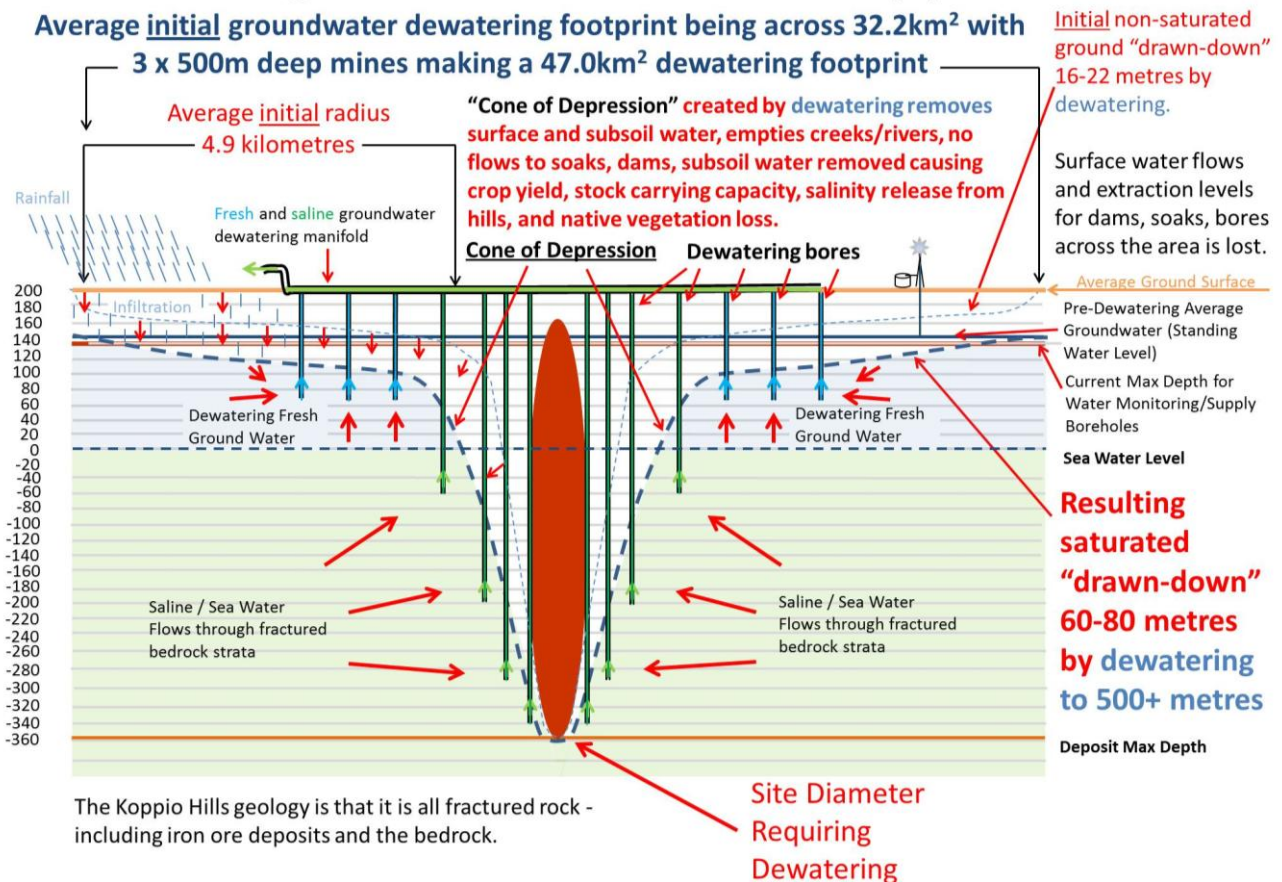


Image showing the potential impact of de-watering upon the Koppio Hills/Tod River Wetland System

**Issue 4**

The Fusion Project is dependent on the proposed port (Port Spencer), associated infrastructure, therefore Port Spencer is dependent upon the Fusion Project and associated infrastructure, and hence the vast impacts from exploration to export should be contained in a single application process. It would seem that these companies (Eyre Iron/Centrex metals) are trying to fast track separate 'slices' of what is actually being proposed.

**Issue 5**

The potential impact upon 'Matters of Environment Significance' should therefore include all aspects of what is being proposed and as to the entirety of the projects environment footprint area be investigated for "Matters of Environmental Significance". These different aspects which make up the total footprint (direct and indirect) include:

- exploration and intensive drilling,
- potential ground water contamination from drilling within the Tod River wetland system and Heritage Agreement land,
- mine site de-watering within a catchment area as to increase dry land salinity,
- processing plant,
- slurry pipeline,
- transport corridors,
- power corridors,
- diesel generator,
- storage facilities,
- jetty,
- desalination plant,
- shipping lane (for Cape Size vessels),
- ship mooring.

(Note: The proposed Port Spencer boundary abuts Lipson Cove whereby "Lipson Island Conservation Park" / Register of the National Estate is only 800m from the proposed port site)



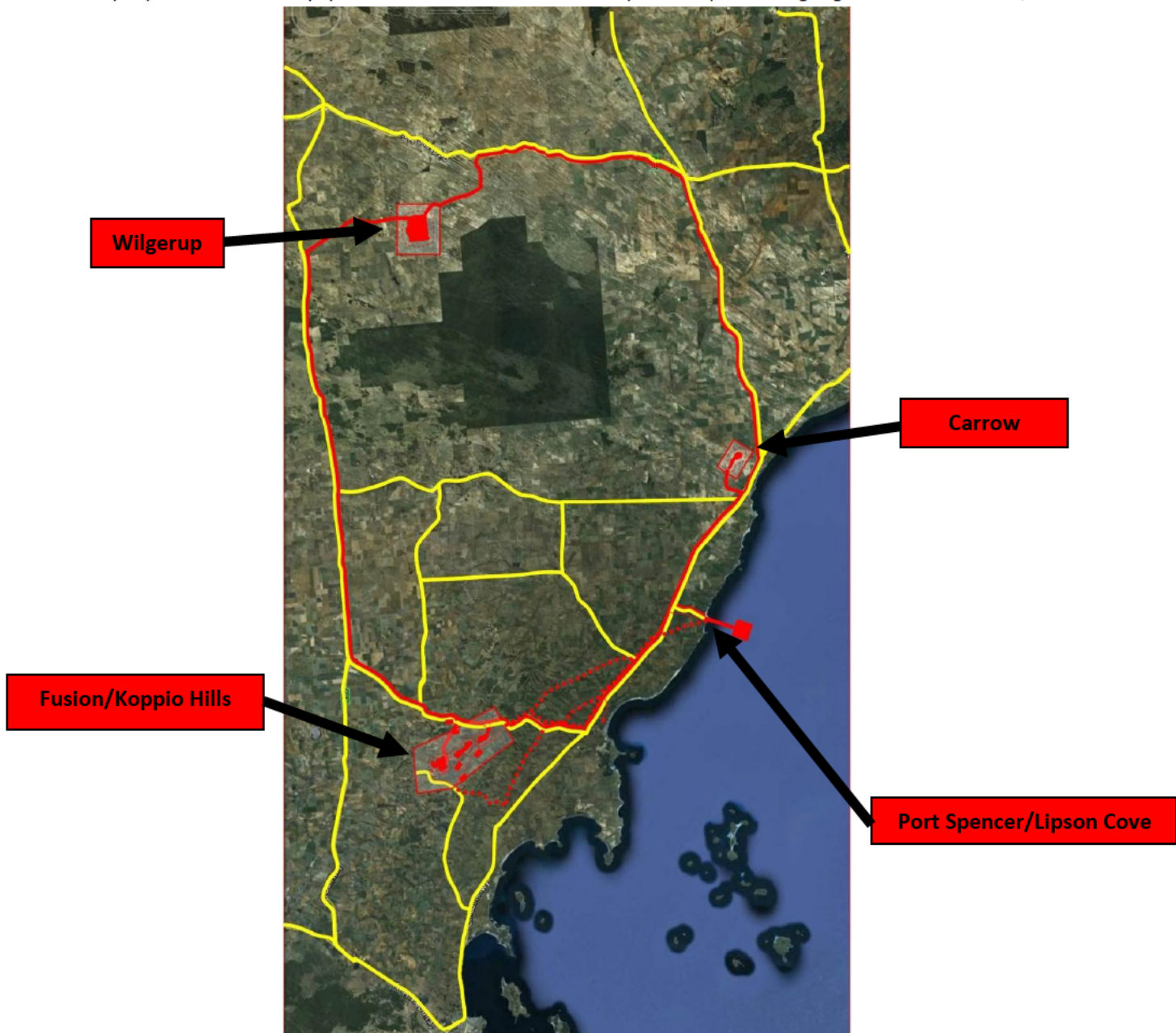


Image showing potential transport corridors for Fusion, Carrow and Wilgerup mines (red), grain transport corridors (yellow) from mines to the proposed port site, jetty and mooring, including potential processing plant, slurry pipeline (red dotted line).

**Issue 6**

TBRARA have calculated an approximate total of the proposed environmental footprint area, we seek your consideration for the referral to this total area as to the potential impact upon “matter of environmental significance”, as it is noted and repeatedly stated by the proponent (Eyre Iron/Centrex Metals) that the approvals for all the aforementioned ‘slices’ of the project in its entirety must be met before any of the ‘stages’ go ahead.

Wilgerup In its final (mined out) profile, the proposed pit will be nine hundred and twenty metres (920 m) long, three hundred and seventy metres (370 m) wide (at its widest point) and one hundred and fifty metres (150 m) deep. The pit wall angles and bench widths used to design the pit aim to ensure that the pit walls are stable over the life of the operation.

Total approx Wilgerup mine footprint area (340,400m<sup>2</sup>) = **34.04 Ha**

Roadway from Wilgerup mine to port - 140Km x 50 approx 700 Ha (140,000m x 50 = 7,000,000m<sup>2</sup>) = **700 Ha**

Carrow prospect is a 4km long, 2km wide, intense northeast trending aeromagnetic anomaly midway between Port Lincoln and Whyalla and 6km north-northwest of Port Neill (8,000,000m<sup>2</sup>) = **800 Ha**

Transport Corridor from Carrow to Port = 26,000m x 50m (1,300,000m<sup>2</sup>) = **130 Ha**

Fusion = 3 mines (Kapperna, Koppio & Brennand)

The environment impact area for the initial mine sites in the Fusion project of 3 mines (Kapperna, Koppio & Brennand) is about (75km<sup>2</sup>) 75,000,000m<sup>2</sup> = **705 Ha**.



*Image showing the seven (7) 'named' mines proposed to be included in the Fusion Project*

Project fusion pipeline 40km x 20 metre easement or 80Ha per pipe (ore and return water)  
 $40,000\text{m} \times 20\text{m} (800,000\text{m}^2) = \mathbf{80 Ha}$

Project Fusion Transport Corridor –  $40,000\text{m} \times 50\text{m} (2,000,000\text{m}^2) = \mathbf{200 Ha}$

Proposed Port Spencer/Lipson Cove Site boundary = approx **120 Ha**

Swaffers Road transport corridor (or Highway to port site)  $5000\text{m} \times 40\text{m} (200,000\text{m}^2) = \mathbf{20 Ha}$

Jetty  $515\text{m} \times 20\text{m} = 10,300\text{m}^2 + 320\text{m} \times 20\text{m} (6,400 \text{m}^2) = \mathbf{1.67 Ha}$

4km Offshore Mooring (Exclusion) zone  $500\text{m} \times 300 \times 2$  (Approx area needed for 2 Cape Class ships  $300,000\text{m}^2$ ) = **30 Ha**

Shipping Lane 4kms offshore  $4000\text{m} \times 300\text{m} (1,200,000\text{m}^2) = \mathbf{120 Ha}$

#### Grain Transport Corridor

- Lincoln – Swaffers Rd  $70,000\text{m} \times 50\text{m} = 3,500,000\text{m}^2$ ,
- Cummins – highway  $37,000\text{m} \times 50\text{m} = 1,850,000\text{m}^2$ ,
- Wanilla – highway  $20,000\text{m} \times 40\text{m} = 800,000\text{m}^2$ ,
- Edillilie – highway  $25,000\text{m} \times 40\text{m} = 1,000,000\text{m}^2$ ,
- Yeelanna – Ungarra – highway  $50,000\text{m} \times 50\text{m} = 2,500,000\text{m}^2$ ,
- Karkoo – highway  $60,000\text{m} \times 40\text{m} = 2,400,000\text{m}^2$ ,
- Kimba – Cowell  $84,000\text{m} \times 50\text{m} = 4,200,000\text{m}^2$ ,
- Cowell – Swaffers Road  $96,000\text{m} \times 50\text{m} = 4,800,000\text{m}^2$ ,
- Lock – Rudall  $52,000\text{m} \times 50\text{m} = 2,600,000\text{m}^2$ ,
- Rudall – highway  $58,000\text{m} \times 50\text{m} = 2,900,000\text{m}^2$ ,
- Warrambo - Lock  $55,000\text{m} \times 50\text{m} = 2,750,000\text{m}^2$ ,
- Cleve – highway  $24,000\text{m} \times 50\text{m} = 1,200,000\text{m}^2$ ,
- Darke Peak – Rudall  $26,000 \times 50\text{m} = 1,300,000\text{m}^2$ ,

Total estimate grain transport corridor environmental footprint area from storage to Port Spencer:  
 $(31,800,000\text{m}^2) = \mathbf{3,180 Ha}$

### Grain Storage footprint area

1 tonne of wheat/grain occupies an area of  $1.6\text{m}^3$ . The volume of a cone is  $\frac{1}{3} \times \pi \times r^2 \times h$ .

The volumetric capacity of a cone with a height of 3 metres and a base radius of 4 metres (thereby having an external surface gradient to the apex of 30 degrees – the free standing fall break-away angle) is  $50.24\text{m}^3$ .

The same cone having a capacity to contain 31.4 tonnes of wheat.

The base radius for a volumetric capacity for 500,000 tonnes (the base radius that a single 499,557 tonne pile of wheat can occupy) is a circle with a radius of 86 metres and with a height of 64.5 metres.

The area of a circle with a radius of 86 metres is  $23,235.2\text{m}^2$

As  $10,000\text{m}^2 = 1$  hectare, then  $23,235\text{m}^2 = 2.32$  hectares

A single 500,000 tonne pile of wheat/grain will have a mound height (apex) of 64.5 metres and will cover a footprint area of ground measuring a Total **2.32 hectares** (minimum)

\*note: Haulage roads, semi trailer = 25tonne into 500,000 Tonne = 20, 000 trucks\*

**Total estimated Environmental Footprint Area for the proposed project / potential direct and indirect impact upon “Matters of Environmental Significance” = 6123.03 Ha**

### **Issue 7**

The following provides a brief summary of the key Port features proposed to be developed in each stage:

Stage 1, Port development

- Jetty
- Hematite and grain storage area
- Ship loading area
- Supporting Port infrastructure, and
- Road access upgrades.

Stage 2, **magnetite development** (2013-2015),

- Magnetite storage area and **dewatering plant**
- Magnetite import from proposed mines via underground **slurry pipelines**, and
- **Desalination plant** for mine operation and Port use.

Stages 3 and 4, Port expansion, (post 2014):

- Expansion of magnetite storage and processing, and
- 1 extra hematite and grain storage shed respectively.

***“The Project is proposed to be developed in four stages with Stage 1 being the subject of this PER. Stage 1 would be constructed to allow the export of hematite and grain.***

***Stages 2 - 4 would allow for export of magnetite and be subject to further development approvals. Stage 2 would include development of a desalination plant for mine operation and Port use, and magnetite storage and processing infrastructure.***

***Stages 3 and 4 of Port expansion (post-2014) would include expansion of magnetite storage and addition of extra hematite and grain storage facilities.”*** - Centrex’s Draft Port Spencer Public Environmental Report, February 2012

***“The decision to proceed with construction [stage 1] will be made along with a decision on the development of a magnetite mine and magnetite concentrate processing plant [stage 2]. These decisions are planned to be made late this year or early next year,” Jim White says.*** – Centrex Metals managing director

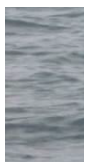
***“The Project’s [proposed Port Spencer] viability directly relates to the feasibility of Centrex’s magnetite mines [Fusion] on the Eyre Peninsula, and would only commence construction upon receipt of development approval from the government for both Stages 1 and 2, and determination of the viability of developing a magnetite mine. Centrex’s current proposed program is for Port Stage 1 construction to start in Q3 2012, with operations commencing in Q4 2014.”***

## Issue 8

Centrex's proposed Port Spencer (stage 1) application process is already underway and may or may not receive approval from the SA State Government. The concern being that the stage 2 has been left behind in the application process, being environmental impacts on matters of environmental significance for the magnetite mine Fusion/Koppio Hills, Tod River Wetland System and Heritage Land Agreement blocks to which the proposed port is entirely dependent upon.

If one also considers the port location into the equation of the total project (which one must) then the following may be of consideration for direct/indirect impact upon matters of environmental significance:

- The "Lipson Island Conservation Park" IUCN Category 3, noting that the primary objective is to "To protect specific outstanding natural features and their associated biodiversity and habitats". The Island and coastal area supports various marine flora and fauna listed under EPBC Act legislation.
- The "Sir Joseph Banks Marine Park"
- 1 Threatened ecological community "Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia"
- 40 Threatened Species
- 34 Migratory Species
- 2 Nationally Important Wetlands
- 65 Listed Marine Species
- 12 Whales and Other Cetaceans
- 3 places on the RNE
- 9 State Reserves



*Image of a Southern Right Whale (listed as endangered under the EPBC Act) within the proposed port development site 9.07.2011, taken by Golder & Associates when conducting their marine study for the proposed Port Spencer.*

### **Issue 9**

Eyre Iron referral 2012/6399 – DES Koppio Baseline Flora Assessment of Heritage Agreements 1206001 and 1206002  
*Flora: “Two conservation-significant flora species were positively recorded in the heritage areas. One orchid species recorded may also be of an endangered species but this could not be confirmed due to its vegetative state. Presence and locations of conservation significant species are summarized in Table 9.”*

TBRARA view the Eyre Iron referral to be lacking sufficient data of birds, reptiles, butterflies, fungi, insects and flora whereby there are some inconsistencies within the document, particularly with a possible endangered orchid species which could not be identified.

### **Issue 10**

TBRARA consider that the Eyre Iron referral 2012/6399 drilling program must include the implications of water aquifer contamination with saline water, especially when drilling through freshwater aquifers, as is currently occurring with no regulations to pressure seal and protect from contaminating many other aquifers, which sustain and support Eyre Peninsula’s bio-diversity and unique and complex fractured rock hydrology.

### **Issue 11**

As research and scientific evidence would suggest (V & C Semeniuk Research Group 2007 - A Baseline Survey of the Wetlands of Eyre Peninsula 2005-2007) drilling and/or mine de-watering within the Tod River Wetland System could also adversely have impact upon the Big Swamp wetland, which is directly downstream of the Tod River Catchment. Big Swamp is the largest freshwater wetland in the southern Eyre Peninsula.

### **Issue 12**

According to DENR’s Eyre Peninsula Biodiversity Plan (Matthews et al, 2001) Isolation and fragmentation, Change of land use and Salinity increase within the Koppio Hills would thereby affect plant communities, and the Koppio Hills have been identified as a threatened habitat area. If this occurs, and the appropriate ‘controls’ for exploration and mining are not in place then the impact of this could be huge, threatening the entire habitat areas which supports the diverse fauna species directly and indirectly.

### **Conclusion**

The proposed exploration and mining covers a greater area which does include matters that warrant an EPBC referral inclusive of that greater area at this earlier stage of the entire project footprint. The sectioning and isolation of impact areas for environmental threats of significance must not be promoted.

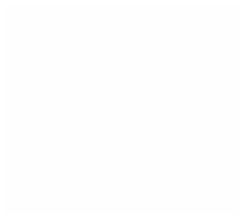
The sectioning and micro sampling of flora and fauna, as has been provide to date, does not provide adequate accuracy of assessment whereby the interrelationship of the biodiversity demand for sustainability is both identified and presented.

The extent of ground water impact, in itself a direct threat to flora and fauna sustainability, by the proposed development activity is both without study and thereby the scientific data to enable credible consideration for detrimental impacts is not able to support pure theory and speculation.

The flora and fauna studies for the Eyre Iron referral 2012/6399 were not conducted with appropriate micro-migratory and breeding seasonal considerations. The extreme limit in duration of study denies capacity for credible identification. There is no credible reason why the referral, Heritage Agreement drilling 2012/6399 that is within the Koppio Hills/Tod River Wetland System can be justified to support such a restriction upon assessment where the detriment of important, threatened, endangered, significant species is known to likely be affected.

It is for each and all of these reasons that the legislative oversight and protection considerations afforded by the EPBC Act may be applied upon the proposed Heritage Agreement drilling 2012/6399 as ‘a controlled action’.

Commonwealth Mi  
Threatened Ecolog  
Threatened Specie  
Migratory Species:



[Thalassarche meli](#)  
Campbell Albatross

MAMMALS



[Tectonoma fabelli](#)  
Bead Glasswort [8]

[Thalassarche.caul](http://Thalassarche.caul)  
Shy Albatross, Tas

[Meros ornatus](#)  
Rainbow Bee-eater

Migratory Wetland

Wandering Albatrc

[Thalassarche caud](#)  
Shy Albatross, Tas

www.maroubra.org.au

[Maroubra perserra](#)  
Sawtooth Pipefish

[Chelonia mydas](#)  
Loggerhead Turtle

[Chelonia mydas](#)  
Green Turtle [176]

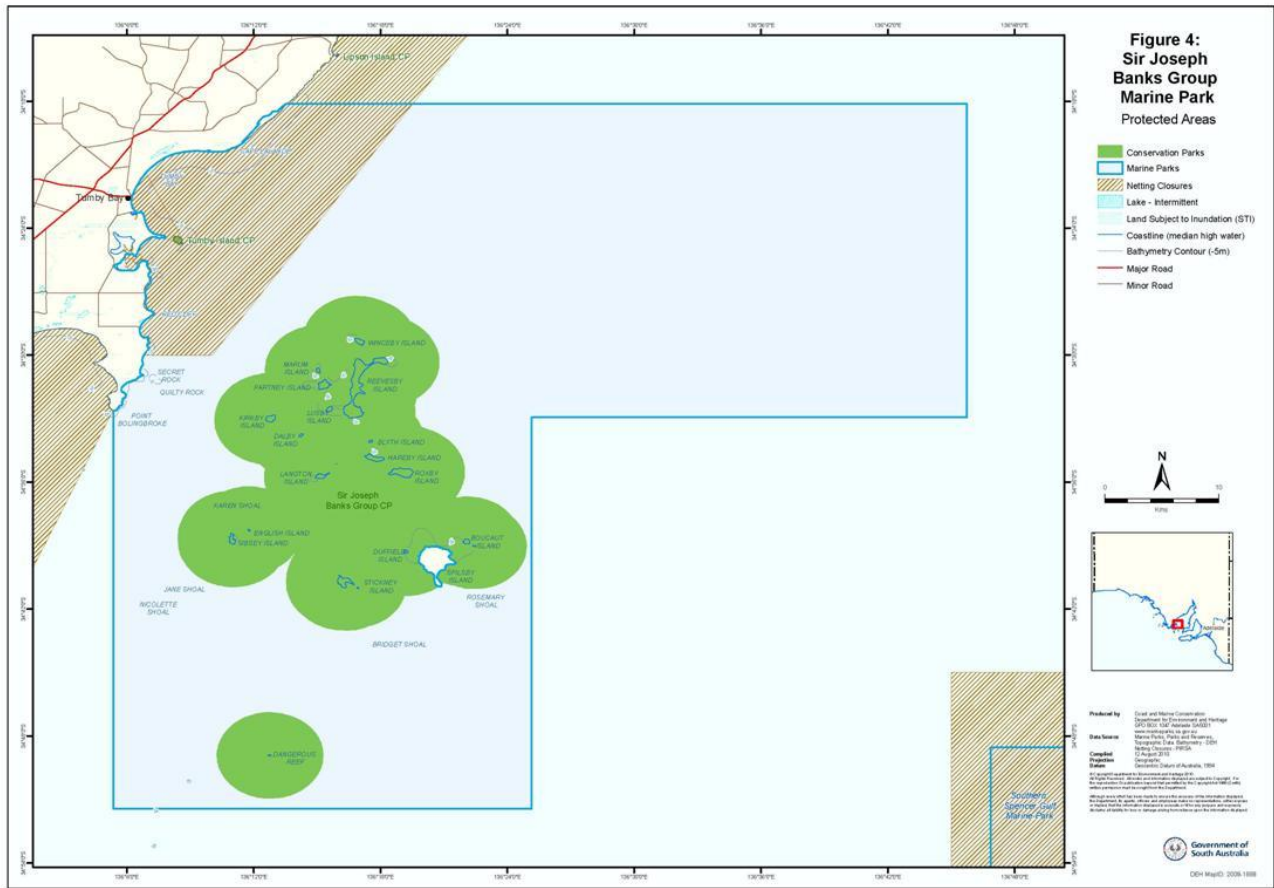
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- [-Tasmanian H](#)
- [-State Herbari](#)
- [-Northern Terr](#)
- [-Western Aust](#)





# Biodiversity

Species Profile and Threats Database

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## Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia

[Glossary](#)

[SPRAT Profile](#)

[EPBC Act Status and Documents](#)

[Distribution Map](#)

[Newsletters](#)

[Caveat](#)

For information to assist proponents in referral, environmental assessment and compliance issues, refer to the [Listing Advice](#), [Conservation Advice](#) and [Recovery Plan](#). Note: the Listing Advice defines the national ecological community and includes *Key Diagnostic Characteristics*, *Condition Thresholds* and aspects for additional consideration.

In addition, proponents and land managers should refer to the [Recovery Plan](#) (where available) or the [Conservation Advice](#) for recovery, mitigation and conservation information. For further information, refer to the [Policy Statement](#), [SPRAT Profile](#) or [Information Sheets](#).

Legal Status and Documents

[Top](#)

EPBC Act Listing Status

Date Effective

[Listed as Critically Endangered](#)

21 Jun 2007

Listing and Conservation Advices

[Commonwealth Listing Advice on Peppermint Box \(\*Eucalyptus odorata\*\) Grassy Woodland of South Australia](#) (Threatened Species Scientific Committee (TSSC), 2007i) [Listing Advice].

[Commonwealth Conservation Advice on Peppermint Box \(\*Eucalyptus odorata\*\) Grassy Woodland of South Australia](#) (Threatened Species Scientific Committee (TSSC), 2008ado) [Conservation Advice].

Policy Statements and other Information Sheets

[EPBC Act policy statement 3.7 - Peppermint Box \(\*Eucalyptus odorata\*\) Grassy Woodland of South Australia and Iron-grass Natural Temperate Grassland of South Australia](#) (Department of the Environment and Water Resources, 2007ba) [Admin Guideline]. [Farming and nationally protected Peppermint Box Grassy Woodland](#) (Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC), 2011x) [Information Sheet].

[Advice on the presence of hybrids in listed ecological communities](#) (Threatened Species Scientific Committee (TSSC), 2011an) [Information Sheet].

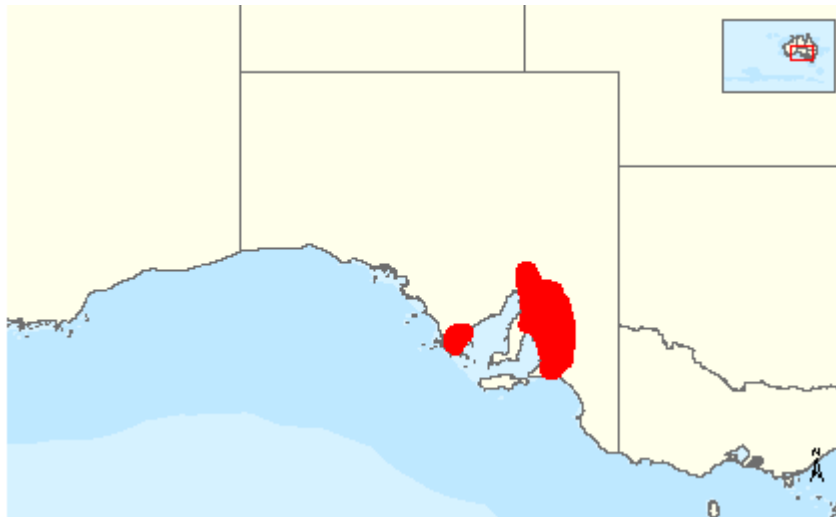
[Map of Peppermint Box Grassy Woodland and Iron-grass Natural Temperate Grassland of South Australia](#) (Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC), 2011p) [Indicative Map].

Indicative Distribution Map(s)

Distribution Map

[Top](#)

Distribution Map



This map has been compiled from datasets with a range of scales and quality. Species or ecological community distributions included in this map are only indicative and not meant for local assessment. Planning or investment decisions at a local scale should seek some form of ground-truthing to confirm the existence of the species or ecological community at locations of interest. Such assessments should refer to the text of the [Listing Advice](#), which is the legal entity protected under the EPBC Act.

## Newsletters

### [Top](#)

EPBC Act email updates can be received via the [Communities for Communities newsletter](#) and the [EPBC Act newsletter](#).

### Caveat

### [Top](#)

This database is designed to provide statutory, biological and ecological information on species and ecological communities, migratory species, marine species, and species and species products subject to international trade and commercial use protected under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). It has been compiled from a range of sources including listing advice, recovery plans, published literature and individual experts. While reasonable efforts have been made to ensure the accuracy of the information, no guarantee is given, nor responsibility taken, by the Commonwealth for its accuracy, currency or completeness. The Commonwealth does not accept any responsibility for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the information contained in this database. The information contained in this database does not necessarily represent the views of the Commonwealth. This database is not intended to be a complete source of information on the matters it deals with. Individuals and organisations should consider all the available information, including that available from other sources, in deciding whether there is a need to make a referral or apply for a permit or exemption under the EPBC Act. Citation: Department of Sustainability, Environment, Water, Population and Communities (2012). Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia in Community and Species Profile and Threats Database, Department of Sustainability, Environment, Water, Population and Communities, Canberra. Available from: <http://www.environment.gov.au/sprat>. Accessed 2012-05-10T21:28:55EST.

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Last updated: Tuesday, 31-Jan-2012 16:11:29 EST

[Department of Sustainability, Environment, Water, Population and Communities](#)

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Canberra ACT 2601 Australia

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| [Australian Government](#) | [Caring for our Country](#) |

## References

1. Eyre Iron website [www.eyreiron.com.au](http://www.eyreiron.com.au)
2. Centrex Metals website [www.centrexmetals.com.au](http://www.centrexmetals.com.au)
3. Australian Securities Exchange (ASX) website [www.asx.com.au](http://www.asx.com.au)
4. EPBC Act Matters of Environmental Significance Tool Search website [www.environment.gov.au](http://www.environment.gov.au)
5. Centrex's Port Spencer Draft Public Environmental Report, February 2012
6. <http://www.asiaminer.com/magazine/current-news/4155-iron-ore-new-jv-for-sa-deepwater-export-port.html> IRON ORE - New JV for SA deepwater export port
7. IUCN website [www.iucn.org](http://www.iucn.org)
8. Department of Sustainability, Environment, Water, Population and Communities
9. Department of Environment and Natural Resources, Conservation, Marine Parks  
[www.environment.sa.gov.au/Conservation/Coastal\\_marine/Marine\\_parks/Park\\_locations\\_maps/Sir\\_Joseph\\_Banks\\_Group](http://www.environment.sa.gov.au/Conservation/Coastal_marine/Marine_parks/Park_locations_maps/Sir_Joseph_Banks_Group)
10. V & C Semeniuk Research Group 2007 - A Baseline Survey of the Wetlands of Eyre Peninsula 2005-2007

**From:** S.47F  
**To:** [EPBC Referrals](#)  
**Cc:** S.47F@esc.net.au  
**Subject:** Public comment to EPBC referral 2012/6590  
**Date:** Thursday, 1 November 2012 10:02:37 AM

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Dear sir,

I would like to submit my comments on the following proposal:

Centrex Metals Limited/Transport – water/ Within the Spencer Gulf approx. 210 km north-west Adelaide/ SA/ Port Spencer stage 1 and 2, Eyre Peninsula, SA.

Referral number: 2012/ 6590

As a resident of South Australia, I have grave concerns on the impact on the Little Blue Penguin colony, an EPBC Act protected species, from Centrex Metals proposal to build a bulk commodities export port at Lipson Cove . In particular, Lipson Island, home to the Little Blue Penguin colony, lies only 1 km south of the project site. Here in South Australia, many residents across the state are concerned about the declining population numbers of our Little Blue Penguin colonies. There has been much publicity in the media since the beginning of the year calling on the SA government to cull New Zealand Fur Seals because fishermen blame them for the population decline of the Little Blue Penguins at Granite Island, and Kangaroo Island. Thank goodness Minister Paul Caica rejected the call for a cull, stating there was no evidence to support the claim the decline was due to the seals. (We could look to those fishermen taking too much from the ocean, leaving less food for both seals and penguins). And so, with the general public fully aware of the problems of our penguin numbers, I would urge the government not to risk any new problems by granting this major development so close to the Lipson Island penguin colony.

A development such as this would have devastating effects on the feeding, breeding and resting behaviours of these birds during port construction and operations. We could also expect invasive species entering our pest-free waters on or in ballast water from Chinese vessels. Furthermore, the jetty to be used in the area is short, and may cause accidental oil spills.

As stated above, I have concerns of the impact on the Little Blue Penguins. But also in this area we have dolphins, Australian Sea Lions, Great White Sharks, the Southern Right Whales visit this area, and there is a wide range of sea birds. It's also a favourite spot for campers and swimmers. This area is too valuable as a conservation park to risk to development on this scale.

I would recommend the port be built at Cape Hardy/ Port Neill to the north, or Point Drummond on the west coast of the Eyre Peninsula.



Here in South Australia we value our marine life uniqueness and richness, and want to protect and conserve it. Please do not allow Centrex Metals to build the port at Lipson Cove, where the effects may cause irreversible damage to our marine life, but instead, build the port at the suggested locations mentioned above.

Yours truly,

**S.47F**

Lobethal, SA. 5241

**S.47F**

**S.47F**@esc.net.au

**From:** S.47F  
**To:** [EPBC Referrals](#)  
**Subject:** Public comment to EPBC referral 2012/6590 [SEC=UNCLASSIFIED]  
**Date:** Thursday, 1 November 2012 2:16:54 PM

---

Submission on above-named referral.

I would like to submit my comments on the following proposal:

Centrex Metals Limited/Transport – water/ Within the Spencer Gulf approx. 210 km north-west Adelaide/ SA/ Port Spencer stage 1 and 2, Eyre Peninsula, SA.

Referral number: 2012/ 6590

As a resident of South Australia, I have grave concerns on the impact on the Little Blue Penguin colony, an EPBC Act protected species, from Centrex Metals proposal to build a bulk commodities export port at Lipson Cove. In particular, Lipson Island, home to the Little Blue Penguin colony, lies only 1 km south of the project site. Here in South Australia, many residents across the state are concerned about the declining population numbers of our Little Blue Penguin colonies. There has been much publicity in the media since the beginning of the year calling on the SA government to cull New Zealand Fur Seals because fishermen blame them for the population decline of the Little Blue Penguins at Granite Island, and Kangaroo Island. Fortunately Minister Paul Caica rejected the call for a cull, stating there was no evidence to support the claim the decline was due to the seals. (We could look to those fishermen taking too much from the ocean, leaving less food for both seals and penguins). And so, with the general public fully aware of the problems of our penguin numbers, I would urge the government not to risk any new problems by granting this major development so close to the Lipson Island penguin colony.

A development such as this would have devastating effects on the feeding, breeding and resting behaviours of these birds during port construction and operations. We could also expect invasive species entering our pest-free waters on or in ballast water from Chinese vessels. Furthermore, the jetty to be used in the area is short, and may cause accidental oil spills.

As stated above, I have concerns for the impact on the Little Blue Penguins. But also in this area we have dolphins, Australian Sea Lions, Great White Sharks, the Southern Right Whales visit this area, and there is a wide range of sea birds. It's also a favourite spot for campers and swimmers. This area is too valuable as a conservation park to risk to development on this scale.

**I would recommend the port be built at Cape Hardy/ Port Neill to the north, or Point**

**Drummond on the west coast of the Eyre Peninsula.**

Here in South Australia we value our marine life uniqueness and richness, and want to protect and conserve it. Please do not allow Centrex Metals to build the port at Lipson Cove, where the effects may cause irreversible damage to our marine life, but instead, build the port at the suggested locations mentioned above.

Thank you

**S.47F**

South Australia 5109

Ph. **S.47F**

31 October 2012

**Referral Business Entry Point, EIA Policy  
Section (EPBC Act)**

Approvals and Wildlife Division  
Department of the Environment, Water,  
Heritage and the Arts  
GPO Box 787  
Canberra ACT 2601

**Email:**

epbc.referrals@environment.gov.au

**Fax:** 02 6274 1789

Email

Web

ABN

**RE: Port Spencer Stage 1 and 2 Eyre Peninsula (formerly referred to as Sheep Hill)**

Reference Number: 2012/6590

Proponent: Centrex Metals Limited/Transport - water/Within the  
Spencer Gulf approx 210km north-west Adelaide/SA/Port  
Spencer Stage 1 and 2, Eyre Peninsula, SA

To whom it may concern

Thank you for the opportunity to provide comment on referral 2012/6590.

The Conservation Council of South Australia (Conservation Council SA) is the Peak conservation body for South Australia representing over 50 of the State's environment and conservation organisations.

The Conservation Council of South Australia believes that the proposal for Port Spencer Stages 1 and 2 will have a significant impact on matters protected by the EPBC Act. Furthermore, we believe that this proposal is just one on many development projects in this region to the potential scale of tens of billions of dollars (See RESIC<sup>1</sup> draft recommendations (2012) and media release SC172/2012<sup>2</sup> from the Hon Simon Crean).

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<sup>1</sup> Consultation paper: RESIC recommendations following the Infrastructure Demand Study  
[http://www.pir.sa.gov.au/minerals/home/resic/resic\\_initiatives/infrastructure\\_demand\\_study](http://www.pir.sa.gov.au/minerals/home/resic/resic_initiatives/infrastructure_demand_study)

<sup>2</sup> Landmark regional development agreement signed in Whyalla 25 September 2012 SC172/2012  
[http://www.minister.regional.gov.au/sc/releases/2012/september/sc172\\_2012.aspx](http://www.minister.regional.gov.au/sc/releases/2012/september/sc172_2012.aspx)

We are increasingly disappointed that current and future development proposals continue to be undertaken in an ad hoc manner without due regard or assessment of the cumulative impacts on the biodiversity values of national significance in the region.

In the immediate vicinity, the scale of this port at stages one and two (with further mention of stages 3 and 4) is significant and will bring considerable disturbance to the site that is just 1.5 km from the jetty spur, and 1 km from the project site to Lipson Island. Lipson Island is a one hectare conservation park for the protection of marine birds and is an acknowledged biodiversity hotspot by DEWNR. It is also an IUCN Category three natural monument. Lipson Island contains one of the very few stable colonies of *Eudyptua minor* (Little Penguin) when many colonies around the state are in steep decline.<sup>3</sup> In light of the alarming decline of many South Australian Little Penguin colonies, in our view, **the responsible move would be to determine whether the Lipson Island colony is indeed resilient to the impacts that will be caused by the construction and operation of this port.**

### **Staged Development**

It is our position that stages one and two be assessed in this referral as a minimum.

### **Cumulative impacts and suggestion for a strategic assessment of Spencer Gulf under the EPBC Act**

It is recognised by the proponent that there are a number of listed and threatened fauna species within 10 km of the site and other species regarded as likely to occur at the site. In this regard, the development should be considered in the broader context of the cumulative impacts from current and proposed developments in Spencer Gulf. Cumulative impacts are taking place on land, and in the coastal and marine environments creating a variety of disturbances, pollution risks and biodiversity impacts. Increased shipping also brings the risk of marine pests and spills. To properly assess the cumulative impacts of current and proposed developments, a strategic assessment of the Spencer Gulf region should be carried out in line with the provisions of the EPBC Act. This would require collaboration between the federal and state government as well as other potential partners such as Centrex.

There must be greater recognition of the environmental values of Spencer Gulf, being a reverse estuary of changing salinity, unique habitats and unique ecosystems.

---

<sup>3</sup> Wiebkin, A. S. (2011) Conservation management priorities for little penguin populations in Gulf St Vincent. Report to Adelaide and Mount Lofty Ranges Natural Resources Management Board. South Australian Research and Development Institute (Aquatic Sciences), Adelaide. SARDI Publication No. F2011/000188-1. SARDI Research Report Series No.588. 97pp.

Considering that a bulk export facility is proposed further north for Port Bonython through the middle of the breeding aggregation area of the Upper Spencer Gulf giant Australian cuttlefish, and further proposed projects including to expand to Lucky Bay Harbor and multiple desalination plants, it would make sense to consider all such developments strategically. A strategic assessment would determine where these could be best placed and consolidated.

To date, we do not believe that project alternatives have been considered in a strategic manner. We note that there is no uniting, single vision for the future development of the region to guide planning and best protect the environment. We are seeing multiple port proposals, landing facilities and desalination plants proposed across the Spencer Gulf region with inadequate consideration on how these projects could be integrated for efficient infrastructure and infrastructure corridors.

### **Desalination**

The impacts of the proposed desalination plant from 5GL/year to 20 GL/year and its outfall discharge have not properly been described. The concentrated brine stream that will also contain a variety of desalination chemicals, should be described with impacts modelled. Impacts on prey species that may be an important food source for EPBC listed species known to reside in the area, including those on Lipson Island, should be assessed. No such description of modelling or the impacts has been provided.

The Conservation Council of South Australia has a long standing view that a state-wide desalination policy is required to prevent excessive multiple small, medium and large desalination plants being built across coastal regions in an ad hoc manner. To date there has been poor planning, with little integration or consideration of the cumulative impacts of building desalination facilities across South Australia.

The scale of the desalination plant in this proposal is unclear. A 20 GL/year desalination plant is relatively large and the brine outfall may have an impact on the local marine environment. At a public meeting in Tumby Bay in April 2012, I understand that a 50 GL/year plant was mentioned. This matter must be clarified so that an assessment can be made on the ultimate size of the desalination plant proposed.

### **Wastewater**

Management of the wastewater from washing and dewatering the haematite is also a significant potential impact. It is not clear how this will be managed to prevent pollution.

## Power Supply

It is our view that comments relating to the Power Supply in this referral borderline on green washing and should not be accepted in their current form.

From the information provided Centrex propose to purchase electricity from the grid in a standard (black) electricity contract. The fact that Eyre Peninsula is one of the most suitable locations in Australia for wind, and the development or otherwise of transmission upgrades for the "Green Grid" concept, **does not** create any entitlement for Centrex to infer that their project is greener in using electricity. Particularly when there is no current commitment for Centrex to commit to accredited GreenPower in this referral.

The basic power requirement of 5MW during construction and 12 MW during operation are not disputed. The Centrex contribution to a spur line to the grid is not disputed, however the percentage of this contribution should also be stated by the proponent.

Whilst electricity and greenhouse gas emissions are not triggers for EPBC assessment or controls the commitments relating to energy and greenhouse commitments by Centrex should be open, transparent and very clear. This would require Centrex to properly describe commitments of the project for 1) reducing energy use; 2) commitments to contributing to accredited GreenPower; 3) commitments to purchasing accredited offsets; and 4) how these efforts may reduce greenhouse gas emissions.

Given that the South Australian Government has a commitment for accredited GreenPower covering 50% of its own electricity consumption by 2014, it would be appropriate for Centrex to describe its commitment for accredited GreenPower associated with its 12MW Port Spencer requirement and its projected 80MW to 100 MW power consumption for its mining and port activities in the future. This commitment should be expressed as both a percentage of total electricity consumption and in terms of MWh/year.

I would be happy to discuss these aspects and provide further detail if required.

Tim Kelly

**S.47F**

Chief Executive

Dan Monceaux  
Director, Danimations Pty Ltd  
157 Franklin St, Adelaide  
SA 5000  
[dan@danimations.com.au](mailto:dan@danimations.com.au)

To whom it may concern,

Please accept this as my formal submission to EPBC Act referral, **Ref# 2012/6590**

**Centrex Metals Limited/Transport - water/Within the Spencer Gulf approx 210km north-west Adelaide/SA/Port Spencer Stage 1 and 2, Eyre Peninsula, SA**

*FROM SHEEP HILL TO PORT SPENCER*

When Port Spencer was first brokored to the public, it took the name of Sheep Hill- and for years, media releases and interviews carefully avoided mentioning the true location of the proposed facility- adjacent to Lipson Cove. Since then, apparent efforts by the company to keep costs down, confuse EP locals and minimise opposition to the chosen location have abounded. Prior to this, Centrex upset already locals in Port Lincoln by launching plans to export from their waterfront, resulting in significant public protests and outcry.

In various news articles in the Eyre Tribune and Port Lincoln Times, dating from 2008 and 2009 the future Port Spencer location was referred to a variety of ambiguous ways, including near Port Neill, north of Tumby Bay, south of Cowley's Beach and near Cape Hardy- the company being careful not to mention the project site's 1km proximity to Lipson Island Conservation Park, or its position between the public beaches of Lipson Cove and Rogers Beach. The proposed jetty spur is 1.4 kilometres from the island, which was established as a conservation park in 1967, and is an IUCN Category III 'natural monument'. Lipson Cove will also feature in a new book 'Australia's 101 Best Beaches' due for release in November. It is referred to in 'Conserving Marine Biodiversity in South Australia – Part 2 – Identification of areas of high conservation value in South Australia' as a biodiversity hotspot (Dyane, 1999). Excerpt below:

**AREAS OF HIGH CONSERVATION VALUE IN THE DUTTON BIUNIT**

Lipson Cove-Lipson Island

Prime IUCN Conservation Values: rare and endangered species/habitats, biodiversity (IUCN Category IA).

IUCN categorization criteria:

- naturalness (not subjected to human-induced change)
- biogeography (representative marine habitats),
- ecological (diversity of marine habitats, breeding sites for seabirds- Little Penguins, Black-faced Cormorants, Silver Gulls, Crested Terns and the 'vulnerable' Fairy Tern),
- economic (marine scale fish fisheries, tourism),
- social (recreation),
- national (Register of the National Estate- Lipson Island Conservation Park),
- practicality (insulation, compatibility- adjacent to Lipson Island Conservation Park).

It is apparent that a provisional marine park boundary (Brian Marsh, submissions to Port Spencer PER) was likely to include Lipson Island within the Sir Joseph Banks Group park, which had this boundary been committed to, would have honoured the above listed and long established values. Instead, the boundary was shifted southward, and Centrex's port plan accomodated to such an extent as this referral to the EPBC Act was only made *after* I identified the unreasonable degree of risk presented to EPBC Act listed species recorded by Centrex in their commissioned biological surveys. Despite recommendations from DPTI and DEWNR, the Company elected not to refer the project at the appropriate time- before the State determined the appropriate level of assessment. I maintain that had this occurred prior to March, the project would have been directed to an EIS, requiring appropriate rigor and depth of study prior to receiving approval.

*SURVEYS ARE SEASONALLY BIASED & DATA DEFICIENT*

To date they have shown themselves to be at best indifferent to the conservation value of this area, producing seasonally biases and inadequate survey data, particularly of Lipson Island and surrounding waters. Surveys of Lipson Island were conducted over two consecutive days in late May 2011 (PER Appendix J), despite contractor Golder Associates being engaged by the company at least as early as at least 2010. It is therefore unreasonable that no Summer biological surveys have been conducted, and similarly, no intertidal or subtidal surveys at the Lipson Island biodiversity hotspot.



Summer surveys would capture a much clearer picture of the area's value, as it is utilised by a range of migratory bird species. It would also reveal any potential populations of reptiles and bats on Lipson Island which were previously speculated upon but not observed (Appendix J, Port Spencer PER).

#### *LITTLE PENGUIN POPULATION MISREPRESENTED!*

The most alarming aspect to Centrex's biological survey was in their decision to initially not count the penguins, and yet to falsely assume that the population was in decline (based on the State's overall trend). This is not believed to be the case, and the colony was known to be stable in 2006 (Wiebken, 2011). Nevertheless, 87 active burrows were counted, in which 26 penguins and four eggs were found. 8 other burrows contained Silver Gulls or Rock Doves. Centrex and Golder Associates' contractor DES states of the remaining 53 burrows that 'observations of scats and tracks around burrow entrances suggest that the Little Penguin would be the most likely occupants.' If this judgement is accepted, using standard practice estimation technique (confirmed by John Ayliffe of Kingscote Aquarium, Kangaroo Island) 2 birds per burrow are assumed. This presents a potential total population of approximately 152 birds, 52% greater than the 1991 and 2006 estimates (Wiebken, 2011). I was shocked to read that in this referral document, Centrex state the observed number of penguins on the island to have been 31... a number which bears no obvious correlation to their previous (and only) penguin survey work from May of 2011. This is extremely misleading considering active burrow counts are not mentioned. Weather conditions can greatly affect the number of penguins to be found in burrows at any given time (Ayliffe, 2012) and DEWNR has been previously critical of Centrex's knack for 'downplaying' the area's conservation values (Correspondence obtained by FoI). I believe this to be a deliberate misrepresentation of the truth, designed to diminish the perceived conservation value of Lipson Island to breeding sea birds. I reach this conclusion after also being flatly lied to in person by a representative of Centrex Metals at a public information stand at Cleve Field Days (where I was told there were 23 penguins in total). I was also denied permission to record a public meeting in Tumbly Bay in April by a Centrex representative who told me that there were no sensitive 'environmental issues' related to Port Spencer.

Lies aside, this colony is the northernmost in Spencer Gulf, and therefore at the limits of the animal's range. If this colony is *actually counted* and shown to be stable or even growing, its conservation value only stands to increase, and with it the justification for relocating this project. It is important to note that the Little Penguin was recently recommended for reclassification as Vulnerable in South Australia (Wiebken, 2011).

#### *SEAGRASS HABITAT LOSS & IMPACT ON PREY SPECIES*

I'm concerned about the potential impact of seagrass loss on the availability of food for EPBC listed species. Causes for this potential future loss include sedimentation and turbidity increases during construction, and shading from the wharf and moored vessels once operational. It is important to note that whilst it is not an EPBC listed species, the seagrass *Posidonia sinuosa* (shown to occur at the port site) is IUCN listed as 'Vulnerable' and should perhaps be considered for future EPBC nomination.

#### *DESALINATION UNCERTAINTY & IMPACTS ON MARINE BIOTA*

At a public meeting in Tumbly Bay in April I recall asking a representative of Centrex about the size of the future desalination plant proposed for Port Spencer. I was told 50 Gigalitres per annum, but I now read that a 5 GL plant is proposed, expandable to approximately 20 GL. I am concerned about the possibility of 'approximately' to allow Centrex to scale up their proposed plant at a later date, and believe Centrex should specify a maximum output capacity for the plant. I would also like to see oceanographic studies produced by Golder in 2008 (and referenced here in this referral) which can substantiate a case for having the brine outflow located just 515 metres out from shore. Desalination plants have the potential to create brine plumes if the return stream is not adequately mixed. This can also result in the creation of deoxygenated zones, which could have heavy localised impacts on sessile and benthic organisms, particularly during low tide (period of little tidal flow) (Kaempfer 2009, 2011). This uncertainty is linked to the uncertainty of not knowing explicitly which species exist around Lipson Island. I am also concerned about the potential for fish larvae to be killed or harmed by low levels of available oxygen, or plumes of elevated salinity, or entrapment or entrainment in the desalination plant's intake mechanism (yet to be specified). I am particularly concerned about the weak swimming EPBC listed Syngnathids (seadragons) may be susceptible to this. Another species of conservation concern (though not EPBC listed) known to the area is the Crested Threefin, which is endemic to SA waters, only found here, and known to reside at the port site. I am also concerned that prey species for EPBC listed Little Penguin and Fairy Tern may be harmed or killed in any of these ways, reducing the amount of available food for them in close proximity to their breeding site at Lipson Island.

#### *LIGHT, SOUND AND DISTURBANCE TO BREEDING BIRDS*

I have ongoing concerns about the introduction of a '15 mile light' into an environment which currently features no permanent light pollution in the vicinity. I am also concerned about noise generated at the site (potentially 24 hours),

and the increase in human activity in the area accompanying the port's operation. If evaporating ponds and human waste are managed poorly on site (ie. not contained) this will lead to an increase in scavenger species, who will in turn compete for breeding sites on Lipson Island (where a small number of rock pigeons and silver gulls currently reside). I am also concerned about the introduction of grain spillage from cartage to the area, which presumably will arrive by road. This has the potential to dramatically increase populations of species who thrive on grain (pigeons, doves etc) etc) which represents a major new destabilising force on the present ecology. Increases in pigeon and dove populations may compete with Little Penguins for burrows on Lipson Island, threatening their future breeding success. Grain spill must be kept to a minimum to mitigate this risk.

As for the Hooded Plovers and migratory birds who favour the mainland beaches, they are likely to have to contend with increased visitation by humans and dogs as construction and port workers spend increasing amounts of time in the vicinity. This may in turn lead to increased volumes of human garbage and fishing debris entering the water and proving an entanglement or ingestion hazard for marine mammals (dolphins and sealions) and feeding seabirds like the Fairy Tern and Little Penguin.

#### *THERE ARE ALTERNATIVE LOCATIONS!*

In choosing the location at Lipson Cove, Centrex Metals states in this referral that bathymetry between the chosen Lipson Cove site and Cape Hardy was comprehensively surveyed. This begs the question as to *why* Port Gibbon (which lies outside this surveyed area) is the only potential port development site listed by Centrex as a valid project alternative. I believe Cape Hardy has been *consciously omitted* for fear of a genuine and reasonable recommendation being made from a Federal level to relocate the project. It is my belief that the project should indeed be relocated, either further to the north (Cape Hardy) to alleviate unnecessary pressure on the breeding success of birds roosting and residing on Lipson Island, or due west to Point Drummond, for the same effect. Relocating to Point Drummond could also provide Centrex with access to 40m deep water, a shorter path to market, and remove the unnecessary shipping risks associated with passage by sea through Spencer Gulf and around the Southern tip of Eyre Peninsula.

#### *PER, EPBC... NEXT STOP, EIS?*

Since the Port Spencer project (then called Sheep Hill) received major project status in January of 2011, its scope has fluctuated in size. At the drafting of 'Guidelines for a PER' the port proposal featured a desalination plant and slurry pipeline for the transport of ore. When the PER was released, these elements were conspicuously absent. At the same time, the company admitted that no construction would occur until stages 1 and 2 were approved. Why not then treat the project as a whole, and see that an EIS is prepared? It would appear by the structure of this EPBC referral that Centrex are now effectively seeking approval for all development (stages 1-4) at the Lipson Cove site.

I was pleased to see that this EPBC referral was made, after the company's admission of numerous EPBC Act listed species being present in the area. I was disappointed to learn that despite DENR and DPTI recommending the project be referred to the EPBC, the State was unwilling to make the referral on behalf of the Company. It is my concern that the State has a pronounced conflict of interest in this project as a future beneficiary of its royalties and taxes, and that unreasonable environmental sacrifices stand to be made for the sake of fast-tracked revenue. I see this as an increasing problem in light of the Federal push to shift EPBC Act obligations and responsibilities back into the hands of the State Governments of Australia... but that's a story for another submission.

#### *MORE RARE AND NEAR THREATENED SPECIES*

Looking beyond currently listed species known to occur within 5km of the project site, it is important to consider the following records of rare and near-threatened species (SA), listed on the Atlas of Living Australia. Some of these may appear as EPBC listed species in the future. Unfortunately, the Atlas of Living Australia is also data deficient on the marine environment at Lipson Cove. These species will also face issues of displacement, disturbance and increased competition if the proposed port development is approved.

- Common Sandpiper
- Australasian Shoveler
- Musk Duck
- Sooty Oystercatcher
- Pied Oystercatcher
- Blue billed duck
- Glossy Ibis
- Pacific Golden Plover
- Rock Parrot

### *IMPACTS TO COMMONWEALTH WATERS*

Transit of vessels through the Great Australian Bight Marine Park whilst enroute to China presents risks to the conservation values of this park, particularly to cetaceans via potential boat strike incidents, or accidents resulting in oil spill. Such a spill would impact a wide variety of species exposed to floating slicks, as well as the ingestion of toxins present in dispersant chemicals used during an ensuing clean-up.

### *IMPACTS TO EPBC ACT LISTED SPECIES*

Impact pile-driving and pile driving for jetty construction will have an impact on marine biota, but to an unknown extent. There is potential for injury or death of fish, cephalopods and marine mammals within 500m range, and realistically, only marine mammals are likely to be observed by the construction team, while impacts to subtidal organisms will be much harder to control. Animals which could be affected include EPBC protected syngnathids (thought to possibly occur in the area, PER Appendix J), Indian Ocean Bottlenose Dolphins, Southern Right Whales and Australian Sealions. Cuttlefish, octopus and squid are also highly sensitive to submarine noise pollution, though none are listed under the EPBC Act at this time.

### *INTRODUCTION OF INVASIVE SPECIES*

I'm also concerned about invasive species entering what are presently pest-free waters on the hulls of or in ballast water from inbound Chinese vessels. Like the bird above the water, marine organisms compete for food and habitat, and once established are extremely difficult to completely remove. This lends weight to the argument for establishing a shipping terminus somewhere like Point Drummond, where multiple spurs could be developed, and shipping concentrated. Centrex admit that there is no evidence of any subtidal or intertidal pest species at this time at Lipson Cove, and I'd like it to stay that way. Foreign vessels will inevitably impact the integrity of this environment to the detriment of native species.

### *UNREASONABLE OIL SPILL RISK*

The proposed jetty is also very short (515m) so an accident resulting in an oil spill could be devastating for the adjacent beaches and island. A precedent for this was set back in 1992 in Northern Spencer Gulf at Port Bonython, when a ship's hull was pierced by a tug boat. This resulted in 300 tonnes of bunker fuel oil spilling into the gulf, ultimately killing birds and other organisms as the oil travelled south into the mangroves south of Pirie. No recovery attempt was made to clean up the landed oil on that occasion, other than bombarding the slick initially with dispersants- even in shallow water. This of course merely sinks the oil, introducing new toxic contaminants to the area which persist in 'capsules' beneath the waves. I was haunted by images of oiled birds after last year's Bay of Plenty spill, where the Rena ran aground in New Zealand. To place such a risk right next door to this important colony is so obviously irresponsible. Relocation away from this site is the only way to limit the potential for unnecessary harm to the adjoining Rogers and Lipson Cove Beaches and to Lipson Island's breeding EPBC listed marine birds, including the Fairy Tern, Hooded Plover, Little Penguin, Black-faced cormorants, Sooty Terns, Sooty Oystercatchers, Pied Oystercatchers and visiting migratory species.

In closing, it is my sincere opinion that Centrex have done little to earn the community's trust by withholding (the port's initial location) and manipulating (penguin count) information. They have conducted inadequate biological surveys and beligerently pushed ahead with their preferred location, scrubbing out evidence of potentially viable alternatives. I am confident that this development can find a better home for itself elsewhere in South Australian waters, however, there's only one Lipson Island and this 'biodiversity hotspot' can't be moved. Lipson Island Conservation Park and its wildlife deserves better.

Yours sincerely,

**Dan Monceaux**  
Director, Cuttlefish Country  
<http://cuttlefishcountry.com>

**From:** S.47F  
**To:** [EPBC Referrals](#)  
**Cc:** S.47F  
**Subject:** Centrex Metals Ltd Port Spencer Stage 1 and 2  
**Date:** Friday, 2 November 2012 3:18:11 PM

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2012/6590

[Centrex Metals Limited/Transport - water/Within the Spencer Gulf approx 210km north-west Adelaide/SA/Port Spencer Stage 1 and 2, Eyre Peninsula, SA](#)

Submission from S.47F

Committee member Save Our Gulfs Coalition

S.47F

S.47F

S.47F

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Submission

I do not support any future plans for major ports along any of the Spencer Gulf coastline.

I am fully aware of the fragile nature of the whole coastline along the Gulf. I am also aware of the status of the unique marine biodiversity of Spencer Gulf and Gulf St Vincent. The value and worth of this is of far greater ecological and economic significance than the temporary 'capital' gained from exporting metals mined on Eyre Peninsula.

I write also of the danger to the great Australian Bight - both coastline and marine life - if ports are 'relocated' at the planning stage from Spencer Gulf to the western side of Eyre Peninsula.

I grew up at Cummins and went to school in Port Lincoln. I know both Peninsulas, and their coastlines, extremely well.

I am now working in China. I am faced daily with the enormous expansion of buildings - for what purpose? The 360 degree horizon from where I live is infested with cranes and new buildings - all buildings predicted to have a life of 20 years. When will this present impulse to expand and build stop, given that the planet is already groaning with depleted natural resources. Why destroy the pristine, ancient land and sea forms in South Australia all for cheap, unnecessary expansion in China?

The short-term economic gain is not enough to justify the long-term irreplaceable loss to the land and marine biodiversity in Spencer Gulf and the Great Australian Bight. This is a planet with finite resources. Future life and promises for increased material lifestyle cannot be built on the reality of destroying the living ecosystems that sustain life.

I am a scholar of cultural change and the current passion in industrialised and semi-industrialised countries for economies based on more 'development', which in a few years will be redescribed as 'destruction'. Now is the time to stop.

I add the following statement.

## **S.47F** Facing the future: rethinking 'progress'

We are faced with a situation in relation to the health of the planet which has not been faced before. We do not have guidelines to follow. New practices have to be developed, in particular, new ways of describing the challenges that have to be faced.

The view of 'progress' which has served us well so far needs scrutiny. In the past western culture has moved through agricultural revolutions, industrial revolutions, technological revolutions, and we are in the middle of a social revolution which we are still coming to terms with. The challenges that we face now, in being custodians of the planet, require us to move quickly into another revolution, and that is a revolution of the mind. This requires us to think and act differently. To move into this zone we need to draw on all the systems of knowledge which have been developed so far, and then apply informed imagination to develop permanent, sustainable, practices for the future.

So far, our freedoms have allowed us to choose what we want to do, for ourselves, our families, our companies and workplaces, our state, our country. Now we need to make decisions from different bases. This requires vision, imagination and knowledge. I believe most people understand that new pathways about every aspect of our lives and our culture need to be put forward so that there is a shared community response to global issues.

I believe that this is an historical time when we need to pause from the work that we have done well in the past and know how to keep doing, and ask whether we are taking enough notice of the new issues that confront us. This is what I mean about 'the revolution of the mind'. In this community we are in an ideal situation to act responsibly so that world class practice can occur. In itself, this could provide economic benefit to the community as knowledge capital. A similar example from the past is the way China had developed the one child policy in response to severe population pressure, and the ways South Australia has exported knowledge about dry land farming to many other regions in the world.

This project facing us is on another scale again. The core of this new work is knowledge, education and community understanding and support. This re