

From: [Meg Sobey](#)
To: [EPBC Referrals](#)
Cc: [xxxxxxxx@xx.xxx.xx](#)
Subject: Conservation Council SA comment on Eyre Iron Project Referral
Date: Friday, 19 July 2013 6:00:15 PM
Attachments: [CCSA submission on Referral of Eyre Iron project.pdf](#)

To whom it may concern,

Please find attached a submission from Conservation Council of South Australia on the Eyre Iron Project Referral.

Best Regards,

Meg Sobey
Policy and Communications Officer

[Conservation Council of South Australia](#)
Connecting Community Conservation

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18 July 2013

FOI 170104
Document 1a

s22

Referral Business Entry Point, EIA Policy Section (EPBC Act)
Approvals and Wildlife Division
Department of Sustainability, Environment, Water, Population
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GPO Box 787
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Cc. SA Development Assessment Commission
dacadmin@sa.gov.au

Response to EPBC Referral 2013/6919

Project Fusion, Eyre Peninsula, South Australia.

Multiple open cut iron ore mines in the Tod River Catchment, Koppio Hills.

Dear Sir/Madam,

The Conservation Council SA regrets that it may be late in providing comment on the Eyre Iron Project Referral. This is due to competing demands and limited resources available to respond to a significant number of planning activities at present. We do however believe that it is extremely important for this proposal to be assessed thoroughly for its impacts on matters of national environmental significance, water quality and hydrology, heritage-listed native vegetation, and on the Tod River Catchment and related ecosystems. It must be noted that this location has some of the little remaining native vegetation in this part of Eyre Peninsula, serving as a meaningful nature corridor which can be further restored.

This project involves massive open cut mines in the Tod river catchment area, which is the most significant river system on Eyre Peninsula. The Tod River has been described as the only permanent source of surface water on Eyre Peninsula. The proposal would surely remove the potential to restore the Tod River Catchment, undermining significant intent and efforts by the local community.

I refer to the additional information and concerns raised by the Tumby Bay Residents & Ratepayers Association Incorporated, and endorse their sentiment and recommendations for significant additional information and disclosure. This is necessary in order for informed decisions to be made as to whether it is wise or responsible to approve such a project that may destroy the ecology of a catchment and its riparian biodiversity, significantly harm remnant but important native vegetation and fauna, and spoil the values of this region.

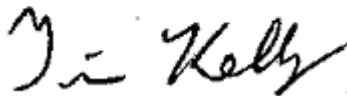
The Koppio Hills, undulating land characterised by rocky outcrops often associated with remnant native vegetation, are very important for Eyre Peninsula and should not be subject to multiple open cut mines when there are better options in other locations to access iron ore.

Large mines in catchments and upon river systems such as this are prone to causing much higher impacts than, for example, the iron ore mine at Iron Knob. The documentation that we have seen to date offers little in the way of understanding of neither the big-picture environmental issues on Eyre Peninsula, nor the specific potential impacts on terrestrial and riparian flora, fauna and ecosystems of the Tod River system.

We would not support the clearing of heritage listed native vegetation, and require a much more detailed explanation on tailings management, waste management, hydrology, ground water levels and how they compare with the pit depth, contaminated water pumping and disposal.

To date, the Conservation Council SA has not been in direct discussions with Eyre Iron, and we will seek to meet with company representatives in the near future.

Kind regards,

A handwritten signature in black ink that reads "Tim Kelly". The signature is written in a cursive, flowing style.

Tim Kelly
Chief Executive

Conservation Council of South Australia

From: s47F [bigpond.com](mailto:s47F@bigpond.com)
To: [EPBC Referrals](#)
Subject: public comment on Fusion Project
Date: Friday, 12 July 2013 5:20:11 PM
Attachments: [EPBC Number.docx](#)

from s47F

EPBC Number: 2013/6919

PROPOSAL TITLE: Eyre Iron Pty. Ltd/ Mining/ Koppio Hills South Eastern Eyre Peninsula/ SA/ Develop an Open Pit Magnetite Mine

Specific Matters Protected under the Act:

Listed in the Australian Heritage Database is a *Acacia Pinguifolia* Site.

Under 'Ungarra', SA, Australia – classified "Registered" in the Register of the National Estate (non-statutory archive)

Class: Natural, Date Registered: 27/10.1998 Place ID: 19314, File No: 3/05/195/0004.

Statement of Significance

Remnant native vegetation of fat-leaved wattle.

Significant as the largest known population of the species occurring outside road and railway terraces.

In addition to the endangered *Acacia Pinguifolia*, another eleven plant species with conservation significance have been identified for the place. Four are rated as uncommon, rare or vulnerable at a national level. Eight species are either rare, vulnerable or above at state level and all eleven species have regional (Eyre Peninsula) conservation significance in the range rare to vulnerable or above.

The place is significant for providing habitat for forty-six indigenous bird species, including button-quail (*turnix varia*) and blue-breasted fairy wren (*malurus pulcherrimus*) which are vulnerable at both state and regional (Eyre Peninsula) levels and musk lorikeet (*glossopsitta porphyrocephala*) which is rare on Eyre Peninsula.

Seventy one species of vascular plants was been recorded for the place including the overstorey species square-fruited mallee (*eucalyptus calycogona*) white mallee (*E. Dumosa*) *E. flocktoniae*, narrow leafed mallee (*E. Foecunda*), South Australian blue gum (*E. Levcoxylon ssp Petiolaris*), peppermint box (*E. Odorata*), red mallee (*I. Oleosa*) and ridge fruited mallee (*E. Incrassata*) and with mallee broombush (*malaeuca uncinata*) in areas of open heath. The vegetation also includes a diverse understorey.

In addition to the endangered *ACACIA PINGUGOLIA*, species of national conservation significance found at the place include the vulnerable imbricate wattle (*ACACIA IMBRICATA*) the uncommon fan pomaderris (*POMADERRIS FLABELLARIIS*) and Port Lincoln scent-myrtle (*DARWINIA HOMORANTHOIDES*) and the rare barbed wire bush (*DAVIESIA PECTINATA*). These species are rated either vulnerable or uncommon at state and regional levels. Other species with conservation significance at state and regional levels include the rare needle wattle (*ACACIA HAVILANDII*) and the uncommon gills wattle (*ACACIA GILLII*), *DAVEISIA ASPERULLA ssp. OBLIQUA*, *EUCALYPTUS FLOCKTONIAE*, South Australian Blue Gum (*e. LEVCOXYLON ssp PETIOLARIS*) – and the regionally uncommon rough grevillea (*GREVILLEA ASPERA*) and brush heath (*BRACHYLOMA ERICOIDES*)

These threatened species are protected under the act – and proliferate the area defined for the proposed 'Fusion' Iron Ore open cut pits and associated infrastructure, waste and tailings sites.

The remnant native vegetation in this area is diverse and generally in good condition.

A previous application (in 1991) to clear native vegetation of these species in this area was refused by the Native Vegetation Authority.

Also in the Australian Heritage Database it is written:

“It is possible that cultural values, both indigenous and non-indigenous of national estate significance may exist in this place.”

There is Battara Barngala heritage in the Koppio Hills area. The Battara were the Barngala Hills people. A thorough archeological survey of this area will reveal evidence of their habitation – certainly in the Tod catchment waterways and creeks there is evidence of current and ancient freshwater fish traps and closer to the coast there are old middens and cultural sites of significance to the Battara descendants including burial sites.

From:  on behalf of xxxxxxxx@xxxxxx.xxx.xx
To: [EPBC Referrals](#)
Subject: 2013/6919 Eyre Iron Pty Ltd/Mining/Koppio Hills South Eastern Eyre Peninsula/SA/Develop an Open Pit Magnetite Mine
Date: Friday, 12 July 2013 2:44:16 PM
Attachments: [PLRARA EPBC response 2013-6919 Eyre Iron - Centrex Metals.pdf](#)

Dear Sir/Madam,

Re: 2013/6919 [Eyre Iron Pty Ltd/Mining/Koppio Hills South Eastern Eyre Peninsula/SA/Develop an Open Pit Magnetite Mine](#)

Please find attached our comment submission on this EPBC referral.

Please confirm receipt by return e-mail. Thank you.

Yours sincerely,

Glenn Fowler



Port Lincoln Residents & Ratepayers Association Inc.

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Port Lincoln, SA 5606

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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
GPO Box 787
Canberra 2601

FOI 170104
Document 3a

12th July 2013

Response to EPBC Referral 2013/6919 Project Fusion, Eyre Peninsula, South Australia.

Dear Sir/Madam,

In response to the afore-mentioned EPBC Referral, we submit the following for your consideration.

Scope of the Project.

In articles to the Australian Stock Exchange (Centrex Quarterly Activity Report 30 April 2012; Centrex Metals ASX Fusion Nov 2012; Centrex ASX Fusion Feb 2013 and Eyre Iron Pty Ltd Summer 2012/13 newsletter (www.eyreiron.com.au) the scope of the Project Fusion was clearly outlined detailing at least 8 potential mine targets within the single Project Fusion boundary.

The referral is, in fact, part of a 4 times larger project and not as declared to your department as only related to the three named mine sites. As such the referral should contain data relevant to the whole of the area 50 km long designated Project Fusion as declared to the Australian Securities Exchange. Failure to do so could be a breach of ASX rules.

This calls into question the company's response to section 1.12: Component of a larger action (no).

Date of Preparation of the Report.

Your attention is drawn to the notation.

1. *"referral of proposed action v August 12"* at the foot of the page.

Given the current date, one can only assume the report was prepared in August 2012, which, if correct, would bring into question the Company's tardiness in carrying out the research alluded to in the body of the referral, and, in particular, any consultation with land owners so affected as a consequence of the proposed action.

1.3 Locality and Property Description.

1. *"These steep and outcropping areas are unsuitable for agricultural use and often associated with remnant native vegetation."* (p 3/122)

The inference behind this statement is that the country in question is useless for agriculture, but very suitable for mining. Clearly, the company has overlooked the substantial amount of grazing activity that is undertaken in the area thus supplementing the cropping programs undertaken on lesser undulating land. Agricultural activities does include the sowing of pastures for livestock production and cereal crop after seed harvest has remaining material (stubble) that is tendered specifically as feed for livestock. The agricultural land viability is inclusive of steep and outcropping

areas as they are within the boundaries of many agricultural business properties. It is common and credible agricultural land use practice for the fencing off and promotion of native vegetation re-growth areas to be utilised as shelter and grazing areas for livestock during seasonal cereal crop production within an agricultural business plan.

2. *"Possible tailings storage options"*

This is the first reference to the possibility of tailings storage options as a part of Project Fusion.

This immediately brings the following questions requiring answers:

- a) The location of the tailings storage facility (ies)?
- b) The estimated size (area) of the facility (ies)?
- c) A risk assessment pertaining to the facility (ies)?
- d) Mitigation or risk avoidance measures/plan?

Given that the locations of the mines (those named and probably the remainder of the others) are within a designated Water Protection Zone (Tod Reservoir Water Catchment Management Area) as described in detail in the District Council of Tumby Bay Development Plan 2013 as amended.

It is described further in the report (section 2.2.2, p 8/122).

2. *"that ongoing studies will consider not only the quantity and quality of tailings to be placed, but both operational and environmental constraints."*

Which brings to the debate the chemistry involved, given that leaching into the aquifer, transmissivity flows of leachate within the aquifer and the potential contamination of the Southern Basin Prescribed Wells Area to the south of the mine sites, in addition to potential contamination of the habitat of listed species in the immediate area, are questions requiring scientific answers (including independent peer review).

3. *"It would be the intent to build the slurry and water pipelines within private land boundaries and avoiding road corridors."*

At this stage, no known contact with the land owners affected by this project has been made by the Company.

The presumption of the Company is that all will agree!

The legal implications of this statement is not declared, particular with respect to the impact on EPBC listed items on private property, e.g. the potential destruction of a EPBC listed flora and fauna dependent habitat on private property, who is legally responsible?

This will be discussed in more detail further in the response.

1.4 Size of the Development Footprint or Work Area.

1. *"The extent of the potential project study area is 17,467 ha." (p 4/122)*

The point of contention is that Project Fusion, as described to the ASX is in fact a greater area than that identified by the afore-mentioned statement. Therefore the Company's submission is limited to a portion of the total Project Fusion which is different to the declaration made in 1.12 of the referral.

2. *"The mine site study area boundary included in this referral is based upon preliminary mine planning."*

3. *"The entire study area...for the project is referred to throughout this referral because actual final footprints for the project infrastructure are unknown at this time."*

Clearly by its own admission, the Company is providing a 'part' application, lacking in detail; at odds with the ASX declarations relevant to the whole Project Fusion; lack of appropriate environmental data, and yet expecting the public to provide comment in support of some 'assumed' final footprint and environmental impacts.

1.8 Time Frame (p 5/122).

Why is the Company lodging an application of referral seeking EPBC approval based upon 'preliminary planning' and not the actual reality?

2 Detailed Description of Proposed Action.

2.2.1 Resource and Mine Life (p 7/122).

1. *"Project Fusion is a project comprising three deposits, Koppio, Brennand and Kapperna"*

This statement is at odds with the declaration of the Company to the Australian Securities Exchange as described above, which includes Carrow, Bald Hill, White Flat, Charleton Gully, Toms, Greenpatch, Iron Mount, Oolanta and Warrunda.

Rock Storage Facility (RSF) (p 8/122).

1. *"Geochemical characterization of the waste rock and ore is currently being completed; however, initial results indicate some potentially acid forming material is present in waste rock and ore body..."*

What is of major concern, and has not been declared, in this referral is the potential impact upon groundwater. As indicated earlier, the area is a Water Protection Zone associated with the Tod Reservoir. In addition the area abounds with underground water reserves that are the single supply source that landholders (residential and livestock) across the 50km long Project Fusion area are able to access.

What needs to be disclosed is the true hydrological profile of the area designated as Project Fusion, as declared to the ASX, as discovered by the Company as a consequence of its drilling programme.

Information to be disclosed should include (but not excluding additional information) the following:

- a) A bore by bore identification in which water was discovered (hence an intersect with an aquifer or Unconfined and Confined aquifers given the knowledge of Quaternary and Tertiary aquifers occurring in the region).
- b) The Standing Water Level (SWL) and flow rates associated with each bore so identified.
- c) The Total Dissolved Solids (TDS) of the water so discovered.
- d) The direction of flow (water tracing and interconnectivity) of water within the aquifer(s).
- e) Identification of all bores in which an artesian flow was discovered as it has been verbally reported that at least one bore exhibited these characteristics (and was sealed with a 'considerable' quantity of cement) and SA Government records indicate full artesian wells in the area.
- f) Hydrological data and modelling identifying; the full area that will be impacted through the cone of depression that needs to be generated when the required dewatering of the open cut mine site pits is applied; the resulting groundwater hydrological state upon cessation of dewatering when the mine sites are abandoned; the predicted heavy metal contamination caused by Precambrian bedrock being deposited upon the surface; the heavy metal pollution risk during mining and at cessation when fugitive dust is blown by the seasonal prevailing winds (Annexure 'A'). Fugitive dust risk is maximised after bushfires.

In light of this body of information a true risk assessment could be undertaken to determine the extent or otherwise of the aquifer(s) in the region and any potential loss and/or contamination of the associated environment in which listed flora and fauna have been identified.

An analogy can be drawn to issues relating to ground water contamination which has been detected in the Adelaide metropolitan area in recent years (details of which are available from the Environmental Protection Authority in SA). There is also the recent and ongoing \$20million fugitive heavy metal dust contamination clean-up occurring in Esperance WA (Annexure 'B').

2. *"The use of explosives would be required during the mining process."*

What is not declared is a risk assessment of the potential impact of explosives on listed fauna in the Project Fusion zone.

3. *"Eyre Iron is currently discussing the potential for the project to connect to the existing Electranet power supply. This would require a power supply corridor to be established to the site."*

What are the environmental impacts pertaining to the establishment of a new section of power corridor, and in particular, what are the environmental risks/impacts to listed fauna and flora within this hitherto unknown corridor?

This again points to an incomplete application for referral.

2.2.5 Site Water Management and Use (p 9/122).

As raised in the previous section of this response, contamination due to leaching is a major concern, not only to the underground water reserves, but also surface water runoff, especially in light of the following:

1. *".....through sediment control structures **prior to discharge to the downstream environment**". (bolding added)*
2. *"Potable water may be trucked in to the site from a local supplier or **provided by a dedicated pipeline from the desalination plant**". (bolding added)*

We are now being presented with the prospect of a third pipeline from the Port site, being that for potable water. No details of route and/or the environmental impact especially that affecting listed species has been provided.

Again, the referral is devoid of information upon which an opinion can be offered.

The company has now linked the construction of the desalination plant at the proposed Port Spencer directly to Project Fusion. The implications of this will be taken up further in this response.

2.3.1 Process Overview (p 9/122).

The Company lists the principle reagents to be used in the processing of the ore namely:

1. *"flocculent, sodium bisulphite for oxygen scavenging and lime."*

What is missing is the environmental implications for accidental discharge of these components. Of particular concern is the environmental impact of an accidental discharge of sodium bisulphite into surface or groundwater in the area.

No reference to this risk occurs in the documentation and hence its potential impact upon listed flora and fauna, in particular, let alone the water cycle.

What is not discussed in detail is the issue of fugitive dust as a consequence of mining activities (extraction or processing) on listed flora and fauna in particular.

Given the fact that the mine will bring material from the Precambrian and geologically younger formed bedrock and deposit, as waste material (waste rock dump) across the surface environment, the question remains unanswered in respect to the concentration of heavy metals (including cadmium and chromium compounds) in such spoil and the potential of these to leach into the surrounding environs, particularly surface water and the underground basins.

The waste rock dump being placed about the mine sites within the Koppio Hills/Lincoln Upland gullies and valleys. That material significantly altering the groundwater runoff directions and volumes as creek beds and river courses are filled in.

It being reasonable to consider that not only the groundwater extracted during dewatering but also the seasonal rainfall flushing heavy metal laden waste rock dump, flocculent, sodium bisulphite and lime will generate large volumes of contaminated water which will need to be removed, contained and held from the environmental flows of the Tod River before its potential re-use during mining activity.

The Tod Reservoir, south of Koppio adjacent to White Flat, may be the single capacity to become a stormwater storage/tailings dam for Project Fusion. The Tod Reservoir predictably requiring an increase in capacity for this application. There is a commercial interest registered for a \$14.4million South Australian Government total project cost (\$11.6 million of which will be spent over the next four years) for the Tod River Dam Safety initiative as modifications to increase flood capacity. (Annexure 'C')

Knowledge of the Tod Reservoir identifies that it is currently approximately 20 metres above any natural stormwater surge threat.

The environmental risks to EPBC listed species across the 50km long Fusion Project, and not just an 11km long area for the mine sites of Koppio, Brennand and Kapperna, is therein intrinsic to any EPBC listed species dependent upon the ecological sustainability that the Tod Reservoir currently provides.

The footprint of the waste rock dump predictably will be much larger and therefore present a much greater environmental risk than the footprint of the open cut mine itself. These environmental risks to EPBC listed flora and fauna within 5km of the Tod Wetland, a Nationally Important Wetland, have not been included in considerations within the referral (Annexure 'D').

- 1 Listed Threatened Ecological Community,
- 41 Listed Threatened Species,
- 31 Listed Migratory Species,
- 56 Listed Marine Species,
- 12 Whales and Other Cetaceans.

2.3.2 Water Supply (p 10/122).

Whilst it is acknowledged that a desalination plant has been proposed in Port Spencer Stage 2 Development Assessment under the Development Act and recently declared a Major Project (SA Government Gazette May 2013), no formal assessment process has been announced or undertaken.

The Company has, in the format of this submission, described Project Fusion as a project from mine to port, therefore it is a reasonable necessity for this referral to contain details of the desalination plant and its potential impact on the waters surrounding the proposed Port as it is an integral part of Project Fusion (without it there would be no pipeline for water or slurry).

2.4 Slurry and Return Water Pipeline (p 10/122).

The referral is lacking in its environmental impact assessment of the impact of the desalination plant on the Spencer Gulf marine environment.

This is of particular importance as the environment in which the desalination plant is proposed to be located is in near proximity to the Lipson Cove Marine Conservation Park; a known migratory habitat for Southern Right Whales and migratory habitat of fairy terns, both of which have EPBC listing.

Details of the impact of the desalination plant are unknown apart from a statement contained in the company's referral 2012/6590 "having limited impact".

The following questions require answers:

- a) What is the size of the desalination plant, 5 Gigalitres or 20 Gigalitres capacity?
- b) What is the size of the discharge plume for the 5 and 20 Gigalitres facilities?
- c) What is the dispersion rate for each plume on a seasonal basis having regard to the wind, wave pattern and current in and around the outflow area AND Lipson Island Marine Conservation Park?
- d) What are the saline outflow engineering criteria required to mitigate environmental damage to the marine ecology?
- e) In the event of mitigating natural circumstances causing the outflow to pool, what would be the anticipated environmental impact and what steps will be taken to mitigate such occurrences?

The Company claims:

1. *"SA Government has granted approval for Stage 1 of Port Spencer in December 2012".*

The text of the 'provisional development authority' may be found in the South Australian Government Gazette, 20 December 2012. It is not an approval as conveyed by the company, rather it is an 'approval' to continue the process towards 'final approval' subject to the resolution of the reserved matters and a significant list of conditions to the satisfaction of the Minister of Planning who has been granted Executive Authority to sign off on the project on behalf of Government.

The statement claiming 'approval' is misleading.

2. *"Detailed environmental studies will be conducted along the pipeline corridors prior to a decision on the final pipeline route. During the route selection process, targeted stakeholder consultation will be undertaken with landowners within the proposed pipeline routes."*

No consultation has been initiated to date.

2.2 Alternatives to Taking The Proposed Action (p 11/122).

1. *"Project development projects are restricted.....
 - Environmentally, by environmental sensitivities of project setting
 - Socially, by the expectations and concerns of affected communities."*
2. *"An assessment of a number of potential sites identified this as the preferred site."*

No evidence tendered to support this assertion.

3. *"Investigation of the environmental constraints within a 1 km corridor will assist with flexibility in final pipeline route that reduces potential impacts associated with the development."*

No evidence is tendered to support this assertion. Clearly the results of these investigations should form the basis of the referral, not a statement that it might occur sometime in the future.

4. *"Detailed mine planning will be carried out during 2013 and will further consider potential alternatives
....socio-economic benefits and reducing any potential environmental impacts."*

Clearly an application seeking EPBC approval should contain the results of such investigation, as any such approval needs to be assessed in the fullness of data available, not a partial submission with considerable questions unanswered.

5. *"The do nothing option."*

Raises the following:

- a) *"potential social and economic benefits for the project....would not be realized."* But NO evidence has been tendered to support the level of social and economic benefit.
- b) Job creation at the local level has not been established, and, given the proposal for the accommodation village at Tumby Bay for 1200+ employees indicates that the majority of employees will be fly- in, fly-out, questions must be asked about the projects benefit to the local community in these circumstances. What is the social impact of such a rapid doubling of the population of Tumby Bay?
- c) Questions relating to the economic benefit on the global market. The Governor of the RBA has recently made comment to the effect the mining boom is over; the Chinese economy is cooling and world demand as reflected in commodity prices is falling. The undeclared economic viability of this proposal may not be creditable.

2.3.1 Locations.

1. *"A tailings options and scoping study is currently being undertaken...."*

This section raises the proximity of the tailings to the Tod Wetland system (considered in 3.3(b)).

Again a respondent is being asked to comment on data which the project proponent knows, or should know, but is not available with this referral.

2. *"Areas of native remnant vegetation."*

Where are these located, particularly those sections which have Heritage Agreement in existence?

What is the fate of native remnant vegetation covered by Heritage Agreements? Not discussed.

3. *"Potential Areas of Cultural Heritage."*

Not listed, therefore no comment can be made.

4. *"A 1km wide corridor will be assessed....."*

No assessment data available, therefore risks and or impact not able to be determined.

2.4 Context, Planning Framework and State/Local Government Requirements (p 13/122).

Stage 2 of the Port Spencer project has been granted Major Development status (SA Government Gazette May 2013), therefore the advice provided in this section (*re; v August 2012*) requires revision.

The project will be subjected to a formal assessment process yet to be determined.

The Major Development declaration places all development decisions with the Minister and NOT Local Government, therefore the assertion that the project would be subjected to Local Government development controls is incorrect.

Development Act (p 14/122).

Is it the intention of the company that this referral pre-empts or replaces any assessment process undertaken by the State? That being the case, then the level of detail is manifestly underwhelming and provides little by way of confidence that the economic and social impacts are identified and documented, let alone the rigor required to present a competent and complete environmental assessment.

This document clearly would not satisfy the rigors required of an EIS or PER.

2.5.2 State Legislation.

Mining Act (p 14/122).

The Company has yet (in the absence of data to the contrary) to apply for and be granted a mining lease.

The conditions required for such a lease may involve EPBC referral, and clearly this document should NOT be used for that purpose.

2.7 A Staged Development or Component Of A Larger Project (p 16/122).

1. *"This action is not part of a staged development or a component of a larger project....."*

Clearly this is a misleading statement when the declared intent for Project Fusion as evidenced by the reports to the Australian Securities Exchange is that Project Fusion encompasses a number of targets within the larger exploration area.

In addition, Port Spencer is a key component of a larger project involving ore from the Wilgerup Mine (already approved) and further development at the Bungalow Mine to provide two examples of the overall extent of the Centrex development.

Further, the desalination plant proposed for Port Spencer is an integral part of the ore transport mechanism from the Bungalow Mine, being a slurry pipeline, hence the range of capacities cited for the plants size. This intent has been registered with the Australian Securities Exchange.

Any rebuttal from the Company would be in direct contravention of the rules of the ASX.

It is for this reason, the request that the Desalination infrastructure form an integral part of the EPBC assessment with the larger plant being the one that is examined in detail from a marine environment impact consideration.

Centrex has as described in its reporting to the ASX numerous interests on Eyre Peninsula and to suggest that this Project Fusion is not part of 'a larger' Project Fusion project is not sustainable.

3.1 (d) Listed Threatened Species and Ecological Communities (p 17/122).

1. *"Given the location of the pipelines inland from the coast, the 5km buffer included part of Spencer Gulf. No part of the pipeline would include disturbance within the Spencer Gulf, therefore marine species would not be impacted by the pipeline's development."*

What the Company appears to overlook is that the pipeline is connected to the desalination plant and thus forms an integral part of the mine to port project. No desalination plant; no water; no slurry or pipeline.

Project Fusion depends upon the desalination plant and the pipeline for its existence as described in the referral document.

Whilst it may be a matter of convenience for the Company to suggest that it was considered under Stage 1, Port Spencer, no assessment was undertaken of the impact of the desalination plant within the PER process. The assessment of the desalination plant has been included in Stage 2 development.

The Company's response to the EPBC enquiry just completed, with respect to the desalination plant, was that it would have 'limited impact' on the marine environment, a position which was not supported by any evidence.

The two EPBC listed species at risk are the Southern Right Whale and the Fairy Tern.

A year-long study of the migratory habits of both of these listed species has NOT been completed by the Company, rather a two day assessment accompanied the original PER, in which it was claimed the presence of the Fairy Tern to be non-existent. The consultants employed described in detail the limitations of the baseline study they undertook in the area and recommended additional studies to be undertaken. These studies have not been conducted.

The environmental position with respect to the impact upon the marine environment stands on the basis of a two day baseline study and no evidence to support or otherwise the impact of the desalination plant on the marine environment.

Clearly there is a fundamental flaw in the environmental credentials exhibited by the company in this regard.

Evidence exists (Annexure 'E') supporting our contention that this area is a migratory path for the Southern Right Whale (*Eubalaena australis*) and that in seasonal adverse weather conditions during migration Lipson Cove is a shelter site and haven for cows with calves.

Photographic records of sightings include the preceding 6 days (5th to 11th July 2013) being two pair of cow and calf (4 individual mammals identified by their Callosities) in the shelter of Lipson Island, Lipson Cove, Rogers Beach. This being the immediate site of the jetty proposed by Centrex Metals for loading of Capesize ships. (Annexure 'F')

The cows and calves have inhabited the aforementioned area for a total period of 6 days.

"The fact the animals have been there for more than a day is great and indicates they are comfortable and want somewhere to rest. This is important news as anywhere these endangered animals can rest and look after their offspring is valuable real estate."

Libby Eyre, Whale Researcher, Biological Sciences Scientific Officer, Macquarie University NSW.

It is noteworthy that Centrex Metals Limited lodged the preliminary response document to the EPBC for Port Spencer where public comment closed on the 7th June 2013. That date being prior to the known commencement period for Southern Right Whale visitation at this site. The Centrex Port Spencer EPBC referral assessed as 'a controlled action' remains without the relevant assessment studies by the company for Southern Right Whales.

It is therefore recommended that the Company be subjected to the requirement for a full twelve month marine environment impact assessment to accurately assess the impacts of the port and the desalination plant on the highly sensitive marine environment.

It is further recommended that the report so generated is subjected to third party peer review, prior to being submitted to EPBC for assessment.

3.3 Other Important Features of the Environment.

Aquatic Flora and Fauna (p 75/122).

The environmental credential of the Company must be further challenged with respect to the terrestrial aquatic studies undertaken in the region. The Company has undertaken studies during spring. It reports:

1. *"the ultimate extent of surface water through summer and autumn (winter?) and hence the location of key refuges, remains to be documented."*

Again, partial representation is provided and the audience is expected to comment upon incomplete data.

The report continues with statements highlighting the discrepancy between the desktop analyses undertaken and that which was found during the limited surveys that were conducted. Here again, the reader is left with the question, what was the extent of the scientific examination of the project area in this respect and what were the outcomes over a twelve month period?

2. *"The Tod Reservoir is considered an important wetland area...."* (p 76/122)

What therefore is the impact on this 'important wetland' as a consequence of the destruction of the head waters of the Tod River and its tributaries as a consequence of Project Fusion? More-over, what impact will the destruction of the aquifer(s) as a consequence of dewatering have on the ecology of the region, given the very high probability that the soaks, springs, etc., which support the current ecology, will also be destroyed?

The impact is not restricted to fauna, but what will the impact be on the eucalypts (including River Red Gum and especially Eyre Peninsula Blue Gum) if the water table is lowered (or removed) by the dewatering process? The report does not address these environmental impacts.

Processing Plant Study Area (p 77/122).

Vegetation Communities.

1. *"The creek line adjacent to (east of) processing plant survey site contains a section of Eyre Peninsula Blue Gum Woodland (endangered in South Australia), which is approximately 500 metres in length."*

What the report fails to draw attention to is the recent study (concluded 30 June 2013) to determine whether Blue Gum should be EBPC listed. Such an omission and the probable consequences thereof, point to deficiencies in the Company's environmental credentials.

What therefore is the fate of this identified forest, given its location to the processing plant?

What will the impact on the forest be from dust, chemical leachate from the tailings/dewatering of ore?

These issues have not been addressed in the text of the report.

Terrestrial Flora.

Three conservation listed flora species were recorded in the processing plant survey area.

The questions posed above concerning the fate of the Blue Gum are the same questions requiring answers for these listed species.

Again, no answers were forth coming in the report.

Terrestrial Fauna.

Two conservation species were identified, but again no commentary was offered with respect to the management (or fate) of these species as a consequence of the planned activities.

Pipeline Route Study Area (p 77-79/122).

Vegetation Communities.

Two listed species (Blue Gum and Peppermint Box) were identified within the pipeline options study area, the locations of which were described in broad terms, as opposed to the documentation of specific locations with GPS co-ordinates, the actual dimensions (length and breadth) of the occurrence and the actual numbers of plants present. The condition of one stand of Blue Gum was described as degraded, and the rest were not assigned any condition status.

The plotting of the location of these listed species on the proposed pipeline corridors has not been undertaken and hence the location and extent and the potential impact of the pipeline is difficult to assess and comment on.

Terrestrial Flora.

A number of listed species has been identified in the pipeline corridor. Your attention is drawn to the comments above as they apply equally to this aspect of the report.

Terrestrial Fauna.

Two species were identified. Your attention is drawn to the comments above as they apply equally to this section of the report.

The issue of impact on the species identified in this section of the report as a consequence of the planned activity is left to the reader to surmise. Impact statements and mitigation activity are simply missing.

3.3 (b) Hydrology, Including Water Flows (p 79/122).

Mine Site and Processing Plant Study Areas.

1. *"The nationally important Tod River Wetland system also covers most of the mine site study area."*

What the report fails to recognise is that Project Fusion (as reported to the ASX) is not just the three mines described in this referral, but all of those listed in the ASX documentation. The hydrology is not confined to the three mine area.

The report fails to recognise that the Project Fusion covers most of the Tod Reservoir Water Protection Zone (District Council Development Plan) and development control of this area is currently under the auspices of the District Council and its development policy. This will be over taken as a consequence of the recent declaration of the Major Development status by the State Government.

Not-with-standing, Project Fusion will have a substantial impact upon the surface water catchment area of the Tod Reservoir, a position that is not described in the context of this report.

Potential contamination of the surface water is a high probability, a concern already raised in this response. Even more-so with the revelation that the company intends to allow stormwater to enter this catchment, whilst being sediment free, there is no guarantee with respect to chemical contamination as a consequence of the processes employed on the site.

Of equal concern is contamination of the aquifer(s) as has been discussed previously in this report. Sub-surface water abounds in this area (i.e. the Lincoln Upland/Koppio Hills).

What is not being declared by the Company is the extent to which it discovered sub surface water in its drilling programme and the consequence on the sub-surface water arising from potential dewatering of the aquifers.

In addition, what is not being recognised is the high probability that the aquifers in the area covered by Project Fusion (as per ASX disclosure) indeed feed into the aquifers in the prescribed wells area (incorporating the Uley - Vanilla Basins et al), and the consequential loss of water therein resulting from dewatering at the various mine sites.

There is insufficient evidence to support the argument either way, and this leads to the recommendation that a two year, independently conducted scientific assessment of the complete hydrological picture for the Project Fusion site and its impact or otherwise on the groundwater outside the 50km long Project Fusion boundary.

It should also be noted that Lincoln Minerals Limited, a member of the Eyre Peninsula Mining Alliance, is also planning to mine graphite in the locale. It too potentially could have an impact upon the groundwater.

The reason for this level of concern is that this region of Eyre Peninsula is totally reliant upon the groundwater reserves identified in the afore-mentioned basins. The area is NOT served by the River Murray pipeline nor water from surface storage facilities (such as the Tod Reservoir).

3.3 (c) Soil and Vegetation Characteristics (p 80-81/122).

Whilst:

1. *“processing plant and pipeline route options study areas are mostly cleared, agricultural use land.”*

What is overlooked is the impact of the actual mines on the vegetation per se.

Clearly the referral avoids any discussion of the destructive impacts the actual mines and waste rock dumps will have on the soil and vegetation profile of the Project Fusion environs.

3.3 (d) Outstanding Natural Features (p 81/122).

1. *“The proposed mine site study area is located roughly in the middle of the Koppio Hills. It contains ten large blocks of native vegetation, including seven that are partly, or wholly, covered by Heritage Agreement areas.”*

It has previously been stated that these areas are precluded from the South Australian Mining Act 1971 and Mining Regulations 2011.

What is not stated is the fate of these stands.

However, the Project Fusion site is in fact significantly bigger than that defined within the referral, and the ‘outstanding features’ for the remainder of the Project Fusion area are not detailed.

Again the reader is expected to comment on an incomplete data set.

The Tod Reservoir Wetland is defined as a feature of national significance. What is missing from the referral document is any discussion of the destruction of the environment by the three designated mines and spoils and those also listed as components of Project Fusion as a whole, as it relates to the wetland. The story is but half told.

3.3 (e) Remnant Native Vegetation.

This section of the referral deals with the general status of the native vegetation stands and the potential impact there-on by the processing plant and the pipelines.

What is missing is a clear identification/location of the native vegetation stands in relation to the processing plant and the pipeline routes.

No discussion is tendered with respect to the potential destruction of these stands by the act of mining and spoil dumps of three nominated mines, let alone the remainder of mines identified as forming Project Fusion.

The lack of information regarding this impact leaves the reader guessing as to the total impact of Project Fusion.

1. *“Overall the habitats surveyed along the pipeline routes are of a low value from a conservation perspective; however, Peppermint Box Open Woodland, which is a conservation significant vegetation conservation community, was recorded along the road sides.”*

What the Company has failed to grasp is that the replanted vegetation programme undertaken by concerned citizens of the District was undertaken in an attempt to undo the complete void of native trees in the region. The total area of the lower Eyre Peninsula under vegetation is less than 10% and any activity to redress this is a move in the right direction, albeit not necessarily to the liking of some pure conservationists or consultants. The history of road side revegetation needs to be recognised as an attempt towards environmental sustainability at the local level.

These stands are not there for the benefit of the mining company, but of the community who undertook the work to create them, not to see them marked for destruction for the sake of a pipeline.

3.3 (g) Current State of The Environment (p 83/122).

Whilst paddocks and grazing land hold little diversity of flora and fauna and likely to contain no species of EPBC conservation significance, such cannot be assumed for the stands of vegetation surrounding paddocks and/or the banks of the water system in the area defined by Project Fusion.

All such areas should be mapped and full environmental assessments undertaken over the complete Project Fusion site.

Only then can the impact of the actual mines, the spoil heaps, the processing plant and its tailing areas, be assessed.

3.3 (h) Commonwealth Heritage Places or Other Places Recognised As Having Heritage Value.

1. *"A cultural heritage assessment which covers the entire proposed development area (presumably the total Project Fusion area as declared to ASX) has not been completed at this time, but is scheduled to be undertaken in 2013."*

Given the aboriginal heritage associated with this region it is incomprehensible that the cultural heritage study has not been undertaken.

Again this is indicative of the Company's incomplete documentation for the referral and seeking approval based on incomplete analysis of the situation at hand.

Pipeline Options Study Area (p 86/122).

The intent of this section of the referral is unclear, if not completely confusing.

3.3 (i) Indigenous Heritage Values (p 87-88/122).

1. *"A desktop heritage assessment has been completed for a portion of the development area. ...A cultural assessment incorporating indigenous monitoring which covers the entire proposed development area (as per ASX declaration?) has not been completed at this time, but is scheduled to be undertaken in 2013."*

A desktop study is a reasonable starting point, but the declared limitations of this study are cause for concern. Given the current dateline, what progress, if any, has been made towards the completion of the assessment as indicated over the whole of the Project Fusion site as declared to ASX?

What are the results of the continued assessment? What level of consultation has been undertaken with the appropriate indigenous leaders for the area?

Mine Site Study Area, Processing Plant Site Study Area, Pipelines Options Study Area.

The referral identifies a significant number of indigenous sites in these designated study areas, most of which are not listed in the various Registers.

What is not included in the referral is the mapping of the sites discovered and the process by which these will be authenticated and recorded on the appropriate Registers.

What will become of these sites should they be with the proposed development areas, i.e. in the mine; on the platform for the processing plant or within the route for the pipeline?

Again the referral lacks the substance upon which an informed opinion can be made.

3.3 (j) Other Important or Unique Values Of The Environment (p 88/122).

The referral discusses the requirements of the Heritage Agreements and points to the limitations the Heritage Agreement places on mining.

This discussion also includes a mention of offsets that would be required, clearly indicating the possibility of destruction of the vegetation contained in the Heritage Agreements.

The end point of this discussion is clearly that Heritage Agreements are not worth the paper they are written on, if they can be reviewed in favour of a mining interest. Conservation loses yet again.

4 Measures To Avoid or Reduce Impacts (p 90/122).

1. *"The project is in the early stages of planning....."*
2. *"The detailed plans for offsets and impact mitigation measures would be developed once the project footprint is established and through the impact assessment process."*

Clearly, the implication of these two statements is that Project Fusion has not progressed to a sufficient stage of detail to warrant the assessment consideration of an EPBC referral.

Seeking a public comment on something that does not exist appears to be an underlining theme in this referral. This does not impart any degree of confidence that the Company is delivering on its environmental responsibilities.

Environmental Credentials of The Company.

One of the key expectations the community has with respect to mining exploration activities in sensitive areas such as those in the Project Fusion lease is that these activities will be conducted in an environmentally responsible manner.

Unfortunately in this instance, such is not the case.

The Company has been subjected to a 'Compliance Audit of Exploration Drilling' in June and August 2012, as documented in a letter to the Company from the Deputy Executive Director, Mineral Resources (ref MER F2008/000273), which contains, amongst other things:-

- a) "The report findings include significant issues related to topsoil management, excessive excavation, **native vegetation clearance** and inadequate management systems arising from Eyre Iron's Eyre Peninsula exploration activities", (bolding added)
- b) "As a result of these issues, Eyre Iron was **instructed to cease drilling in any location characterized by undulating or vegetated terrain**", (bolding added) and
- c) "Consistent with the findings of the audit and pursuant to Regulation 89 under the Mining Regulation 2001, DMITRE advises that Eyre Iron is required to evidence, to the satisfaction of the Director of Mines, that appropriate **measures to prevent recurrence** of these issues are in place **prior to the resumption of drilling**". (bolding added)

The audit has yet to be completed as only 55 per cent of the drilling sites have currently been inspected.

Summary and Recommendations.

Attention has already been drawn to the actual scope of Project Fusion as presented within this referral compared to that which has been advised to the Australian Securities Exchange.

1. It is therefore **recommended** that the referral be withdrawn and the actual scope of Project Fusion be defined and subjected to assessment incorporating the issues outlined in this submission.

Attention has been drawn to the incomplete, numerous and substantial omissions of data being provided in many sections of this referral.

2. It is therefore **recommended** that the referral be withdrawn pending the completion of all outstanding studies and re-submitted when all issues are actually resolved, thus giving the reader an accurate view of what is being proposed.

Attention has been drawn to the timing of the referral in the context of the Government of South Australia issuing its declaration of Major Project status for the Port Spencer Stage 2 project and the subsequent assessment there to.

3. It is **recommended** that the referral be withdrawn pending the actual assessment process to be undertaken through an EIS or PER that has yet to be determined.
4. It is **recommended** that the referral be withdrawn on the basis that the incomplete application can be seen as an attempt by the company to avoid any responsibilities required under the EPBC Act as amended.
5. It is **recommended** that as the Company has submitted a document describing a project to be assessed inclusive for the mine to the port, that the desalination plant be included in the assessment, given that it is an integral part of the process (no desalination plant, no pipelines), and that the desalination be assessed in relation to the listed marine fauna (Southern Right Whale and the Fairy Tern) as well as any other marine environment impact (plume, dispersion, etc.).
6. It is **recommended** that for the claim that this is not a component of a larger action be investigated in light of declarations Eyre Iron/Centrex have made to the Australian Securities Exchange and resubmitted accordingly.
7. It is **recommended** that the environmental impact on listed fauna and flora be documented as suggested above, with attention being paid to the impact on the Blue Gum forest and its under-croft given the recent investigation to list the species.
8. It is **recommended** an extended assessment of the impact on the region's hydrology be undertaken to quantify the impact in the region of the Project Fusion and on neighbouring aquifers.
9. It is **recommended** a complete indigenous heritage assessment be undertaken and reported upon in a resubmitted application.
10. It is **recommended** that the consultation process oft alluded to in the referral be actually carried out and the result incorporated into a new referral. The presumption that landowner will agree to the proposed pipelines through their properties needs to be tested.

11. It is **recommended** that satellite imagery over which the boundaries of the Project Fusion and the mines identified therein are overlaid.
12. It is **recommended** that satellite imagery is provided to identify the location of the listed species identified within the boundary of Project Fusion.
13. It is **recommended** that a topographic map of the area under consideration be provided overlaid with the location of the Project Fusion boundary; location of mines, processing plant, pipeline routes, Tod Reservoir wetland, Tod Reservoir head waters, location of Heritage Agreement vegetation and listed species forests (or individual occurrences); location of indigenous heritage features (listed and identified through discovery as a result of surveys undertaken).
14. It is **recommended** that a map of the District Council of Tumby Bay showing all section numbers of properties in the District be provided that is overlaid with the location of the Project Fusion boundary; the location of the mines (all sites); the pipeline routes and the location of all Heritage Agreements and listed flora.

We trust the information contained in this submission will support our contention that the referral application 2013/6919 Project Fusion, Eyre Peninsula, South Australia should be withdrawn and re-submitted when the issues of contention have been addressed.

s47F

Chairperson

Multiple Mine Site (Fusion Project) Predictive Fugitive Dust Model

Prevailing Wind Data Source: Bureau of Meteorology

Predictive Fugitive Dust Model

Depositing - particles 50µm (0.05mm) or less.

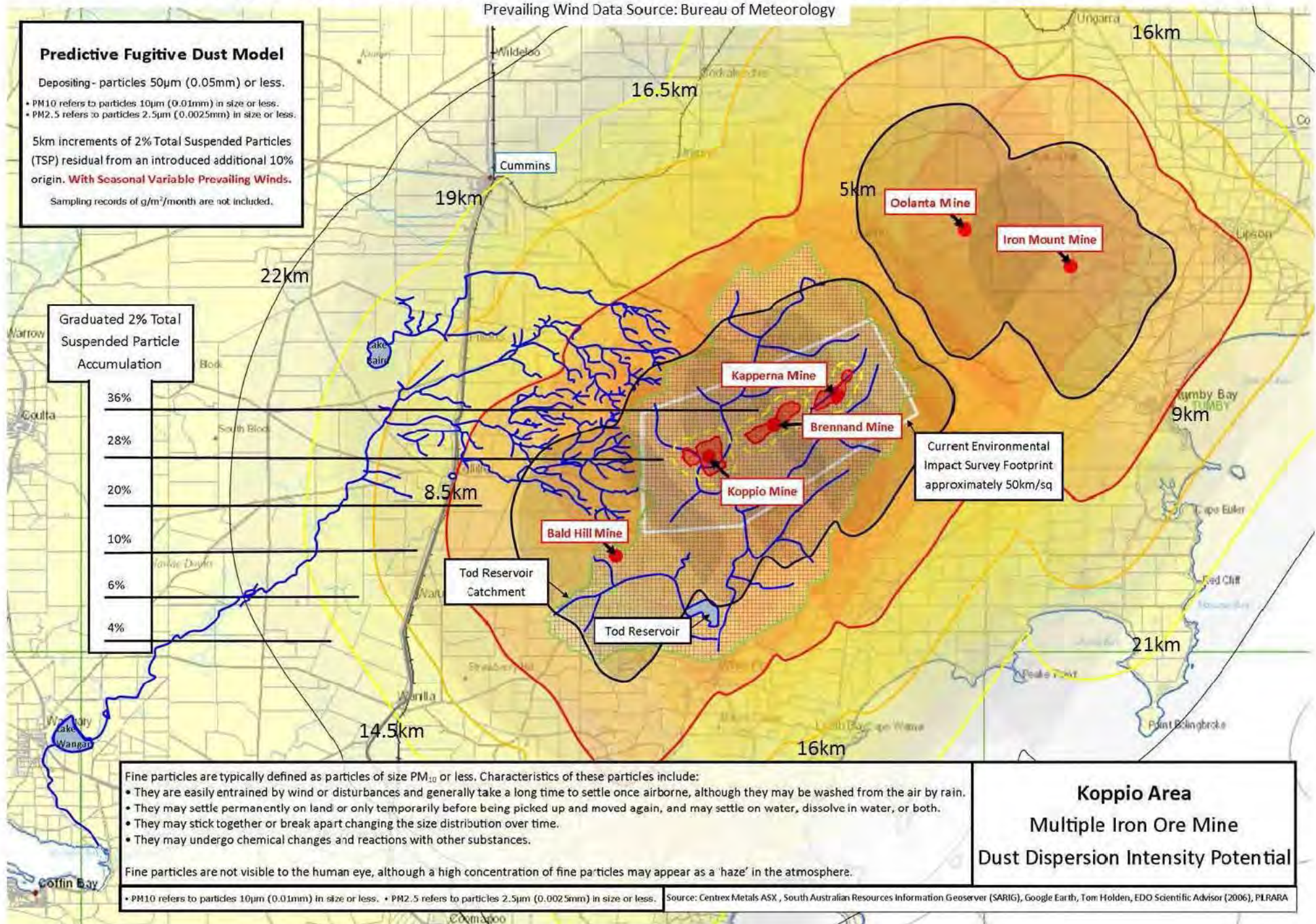
- PM10 refers to particles 10µm (0.01mm) in size or less.
- PM2.5 refers to particles 2.5µm (0.0025mm) in size or less.

5km increments of 2% Total Suspended Particles (TSP) residual from an introduced additional 10% origin. **With Seasonal Variable Prevailing Winds.**

Sampling records of g/m²/month are not included.

Graduated 2% Total Suspended Particle Accumulation

36%
28%
20%
10%
6%
4%





Esperance Cleanup and Recovery Project



Have we sampled your home or business?

The Esperance Cleanup and Recovery Project is undertaking a systematic and thorough cleanup of the Esperance town site to remove lead and nickel contamination, where it is found to be above accepted guidelines.

Using results from plume modelling and detailed testing we have identified an area of interest, as shown on the map in blue, where we have been conducting detailed sampling and cleaning on residential and commercial premises. The sampling has been used to identify the premises that require cleaning and the specific areas to be cleaned within each property. To date over 650 premises have been cleaned although sampling has indicated that not all premises require cleaning.

The sampling phase of the project is due to be completed by the end of May, 2011.

If you are the owner of a home or commercial property within any of the blue areas shown on the map, and have not yet had sampling conducted, then please contact us and we'll provide you with a consent form. If you already have a consent form, then please return it to us (even if you do not want your property sampled).

If you are a tenant in a home or commercial property within any of the blue areas shown on the map, and have not yet had sampling conducted, then please contact your managing agent or owner. A sampling consent form must be signed by the property owner to ensure your involvement in the project.

To have a consent form sent to you, please call

Kandi Robb on 9072 3911

or call into our office at Unit 2B, 113 Dempster Street, Esperance.

For project information and updates, visit oncue.org.au

Annexure 'C'

2 JULY 2013

DEPARTMENT OF ENVIRONMENT, WATER AND NATURAL RESOURCES, \$184,701,000

ADMINISTERED ITEMS FOR THE DEPARTMENT OF ENVIRONMENT, WATER AND NATURAL RESOURCES, \$19,361,000

Witness:

Hon. I.K. Hunter, Minister for Sustainability, Environment and Conservation, Minister for Water and the River Murray, Minister for Aboriginal Affairs and Reconciliation.

Departmental Advisers:

Mr J. Ringham, Chief Executive, SA Water.

Mr G. Henstock, Corporation Secretary, SA Water.

Mr B. Naylor, Manager, Treasury, SA Water.

Mr R. Faunt, Technical Regulator and Director of Energy Regulation, Office of the Technical Regulator.

Ms R. McClelland, Ministerial Adviser.

Mr T. Mooney, Chief of Staff.

The CHAIR: We will move on now to SA Water.

Ms CHAPMAN: The list of capital projects in Budget Paper 5 is a list which identifies some of the new projects proposed to at least commence planning in the forthcoming financial year. One of them, at the end of the section under New Projects, is the Tod River Dam Safety program, which is a \$14.4 million program to be completed in June 2018. My first question is, is this the same Tod River that is on the West Coast?

The Hon. I.K. HUNTER: The answer, I am advised, is yes.

Ms CHAPMAN: And, minister, you would know that it is not spelt T-o-d-d.

The Hon. I.K. HUNTER: In fact I would not know, but I will take that advice.

Ms CHAPMAN: You would not know? Goodness me, you are the Minister for Water! Well, the Tod (T-o-d) River Dam, can you just explain what this \$14.5 million is going to be spent on, given that I understand this water is not being used because it is too salty? We are going to make it safe but we cannot drink it, is that the sort of situation that we are at?

The Hon. I.K. HUNTER: The answer is in two parts. Part of the construction is for an increase in flood capacity, but I am also advised that we need to bring the dam up to Australian national standards. I am further advised that SA Water is in negotiations with an entity to use non-drinking water for a commercial operation.

Ms CHAPMAN: When you say national standards, that is for the level of salinity or safety standards or both?

The Hon. I.K. HUNTER: I am advised that is national safety standards for large dams.

Ms CHAPMAN: That is so that if there is an excessive amount of water there is sufficient infrastructure there to ensure that it does not break and flood all of the salty water down the river and cause environmental and potential human damage? Is that the sort of situation we are at?

The Hon. I.K. HUNTER: My advice is yes, that is, in general terms, the answer. The improvements are to prevent overtopping of the dam in flood conditions or failure of the dam.

Ms CHAPMAN: So, we are going to spend \$14.5 million on making it safe, and this is for, potentially, use to support a mine, is it?

The Hon. I.K. HUNTER: I am not aware of the commercial activity that we are discussing and it is probably not appropriate to mention at this stage who or what that might be.

Ms CHAPMAN: The only proposed mines around there, of course, are iron ore mines, and the person who is doing the negotiation is sitting next to you. I am assuming it is Centrex or some other company that is putting forward proposals which are all in the public domain, so I do not know what the secret is.

The Hon. I.K. HUNTER: There is no secret. I am just advising you that I am not aware—

Ms CHAPMAN: Well, do you want to ask the person sitting next to you?

The Hon. I.K. HUNTER: —and at this early stage, I do not think it is appropriate.

Ms CHAPMAN: But in any event your understanding is that it will be used for a purpose in respect of some industrial use?

The Hon. I.K. HUNTER: My understanding is that we are in negotiation with a commercial entity for a future potential use of that water.

Ms CHAPMAN: Is it proposed that either humans or stock will drink it?

The Hon. I.K. HUNTER: Not to my knowledge.

Ms CHAPMAN: So you know enough to know that it is not for pastoral or human consumption, but you do not know what it is. I am not sure what else would use water, apart from mining projects.

The Hon. I.K. HUNTER: I know enough to say that it is not to be considered for potable purposes.

Ms CHAPMAN: For potable purposes? Do you know of any other purposes proposed on the West Coast, other than mining?

The Hon. I.K. HUNTER: I think I will just refer you to my previous answer.

Ms CHAPMAN: In any event we are going to spend this money. Will there be any recouping of these funds from the prospective purchaser of this water, the nearly \$15 million you will spend to upgrade this facility so that it can be for a commercial purpose?

The Hon. I.K. HUNTER: One can expect there will be a commercial arrangement in place which will allow us to recoup some money.

Ms CHAPMAN: Your government has approved a \$14.5 million exercise: are you telling me that you have not secured some arrangement so that, if it is built and if there is a contingency of progress, it will be recovered —

The Hon. I.K. HUNTER: Madam Chair—

Ms CHAPMAN: —or will this person get all the benefit of this and no-one else?

The Hon. I.K. HUNTER: Madam Chair—

The CHAIR: Order! The member for Bragg, order!

The Hon. I.K. HUNTER: The honourable member is trying to put words into my mouth. Having had her detailed explanation, she is trying to say that the only purpose for this construction is a commercial one, and that is very clearly, from a rereading of my answer, which she will be able to do tomorrow, not the only purpose.

Ms CHAPMAN: Have you then secured any revenue stream that will result from the use of this water by whomever to recoup the cost of the \$14.5 million?

The Hon. I.K. HUNTER: My advice, as indicated earlier, is that we are in negotiations with a commercial entity.

Ms CHAPMAN: Anyway, you have signed off on it and agreed to get it started, which is to occur while people are paying huge water bills here in Adelaide?

The Hon. I.K. HUNTER: Again, I refer the honourable member to my earlier detailed answer. We need to bring construction of the dam up to national standards, and I invite her to read her Hansard tomorrow and refresh her memory.

Ms CHAPMAN: I do not need to—I have a pretty clear idea.

SA Water

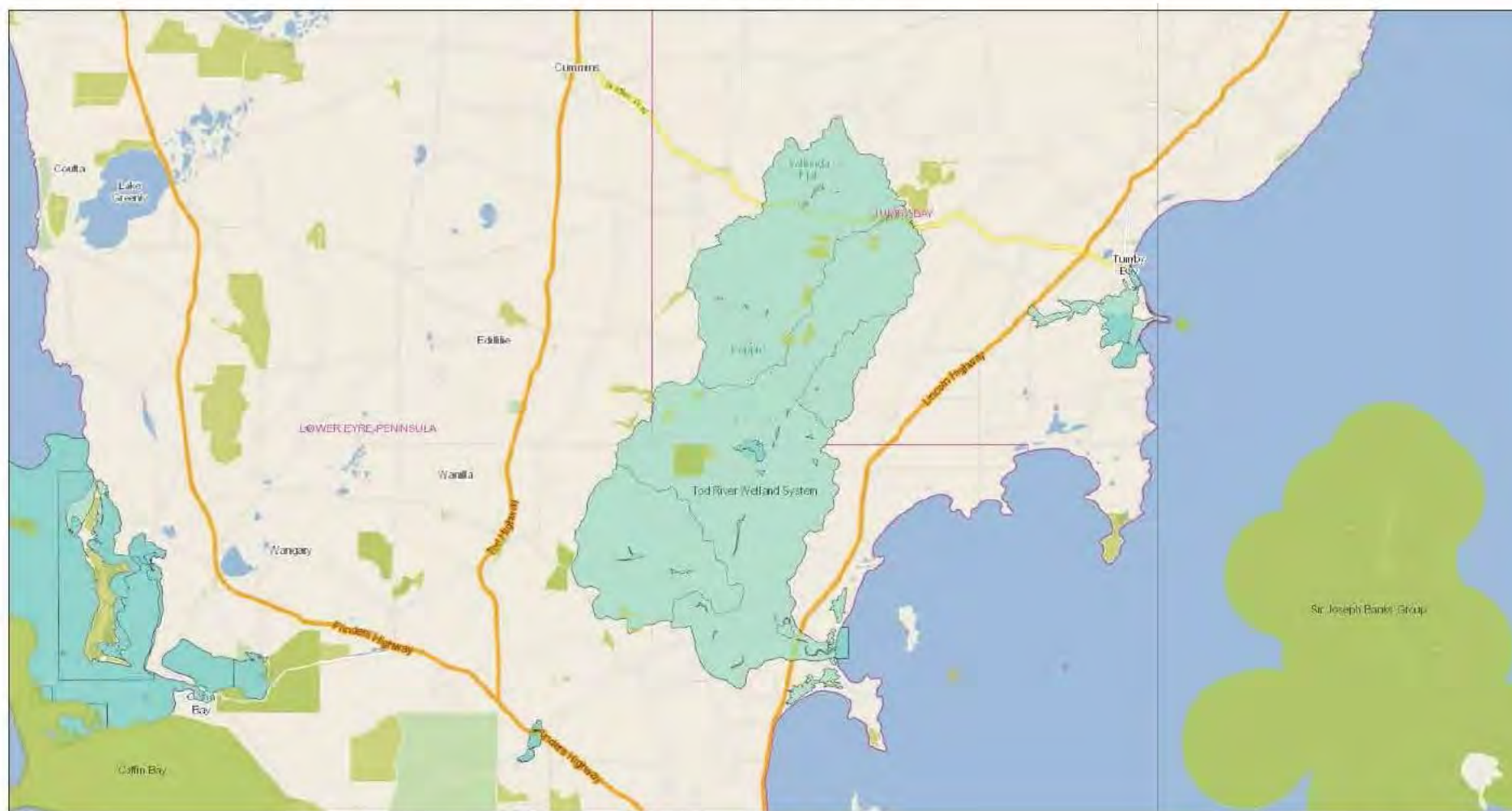
The 2013–14 investment program for SA Water is \$407.2 million.

The program provides for a number of wastewater treatment plant projects to improve reliability and accommodate growth, country water projects to accommodate growth and network projects to improve reliability. The program also provides for progressive release of approved retention payments for the Adelaide Desalination Plant during the operational warranty period.

The estimated total costs for a number of projects in the early stages of development are based on concept or pre-concept designs.

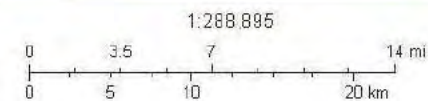
	Expected completion	Proposed expenditure 2013–14 \$000	Estimated total cost \$000
SA Water			
New Projects			
Bolivar Wastewater Treatment Plant Clarifier Upgrade — Stage 3 Replace clarifiers and increase capacity to meet increasing demand and ensure reliability.	Jun Qtr 2018	523	18 854
Glenelg Wastewater Treatment Plant Upgrade of Inlet Screens Replace concrete screen structure and building to ensure reliability.	Jun Qtr 2016	1 569	19 557
Kangaroo Creek Dam Safety Increase flood capacity and flood management of Kangaroo Creek Dam in line with ANCOLD Guidelines.	Jun Qtr 2017	4 183	86 258
Mt Barker Water Supply Investigation — Stage 1 Provision of potable water supply to the expanded residential development at Mount Barker.	Jun Qtr 2015	16 228	24 505
North Lefevre Peninsula Wastewater Diversion Upgrade the trunk main capacity on Lefevre Peninsula to cater for growth and recycling.	Jun Qtr 2017	1 568	29 748
Port Wakefield Water Supply Upgrade Provide the Port Wakefield Township with increased water supply via construction of a 43 kilometre long potable water pipeline.	Jun Qtr 2014	12 926	17 089
Swan Reach Paskerville Pipeline High Voltage Switchboard Replacement Replacement of high voltage switchboards and upgrade of control systems on the Swan Reach Paskerville Pipeline.	Dec Qtr 2013	2 647	7 826
Todd River Dam Safety Increase flood capacity and upgrade of Todd River Dam in line with ANCOLD guidelines.	Jun Qtr 2018	366	14 425
Existing Projects			
Adelaide Desalination Plant^(a) Construction of a 100 gegalitre desalination plant at Port Stanvac and a transfer pipeline to the Happy Valley Water Treatment Plant.	Dec Qtr 2014	32 374	1 824 000
Bolivar Pre-aeration Concrete Rehabilitation Upgrade of the concrete grit removal tanks and primary sedimentation tanks.	Jun Qtr 2017	1 420	49 264

Tod Wetland



July 12, 2013

- Protected Areas
- Nationally Important Wetlands
- National Heritage Places
- Local Government Areas



Map produced using the Environmental Reporting Tool of the Department of Sustainability, Environment, Water, Population and Communities.
 © Commonwealth Government of Australia (Geoscience Australia)
 © PSMA 2010

Annexure 'D'



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 12/07/13 00:43:27

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

No Image
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This map may contain data which are
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(Geoscience Australia), ©PSMA 2010

[Coordinates](#)

Buffer: 5.0Km

No Image
Available

Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Areas:	None
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	41
Listed Migratory Species:	31

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As [heritage values](#) of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place and the heritage values of a place on the Register of the National Estate.

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	3
Commonwealth Heritage Places:	None
Listed Marine Species:	56
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

Place on the RNE:	7
State and Territory Reserves:	22
Regional Forest Agreements:	None
Invasive Species:	22
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [\[Resource Information \]](#)

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Peppermint Box (<i>Eucalyptus odorata</i>) Grassy Woodland of South Australia	Critically Endangered	Community likely to occur within area

Listed Threatened Species [\[Resource Information \]](#)

Name	Status	Type of Presence
Birds		
Acanthiza iredalei iredalei Slender-billed Thornbill (western) [25967]	Vulnerable	Species or species habitat likely to occur within area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans exulans Tristan Albatross [82337]	Endangered	Species or species habitat may occur within area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
Macronectes giganteus Southern Giant-Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant-Petrel [1061]	Vulnerable	Species or species

Name	Status	Type of Presence
<u>Psophodes nigrogularis leucogaster</u> Western Whipbird (eastern) [64448]	Vulnerable	habitat may occur within area Species or species habitat likely to occur within area
<u>Pterodroma mollis</u> Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
<u>Rostratula australis</u> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
<u>Sternula nereis nereis</u> Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area
<u>Stipiturus malachurus parimeda</u> Southern Emu-wren (Eyre Peninsula) [26006]	Vulnerable	Species or species habitat known to occur within area
<u>Thalassarche bulleri</u> Buller's Albatross [64460]	Vulnerable	Species or species habitat may occur within area
<u>Thalassarche cauta cauta</u> Shy Albatross, Tasmanian Shy Albatross [82345]	Vulnerable	Species or species habitat may occur within area
<u>Thalassarche melanophris</u> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<u>Thalassarche melanophris impavida</u> Campbell Albatross [82449]	Vulnerable	Species or species habitat may occur within area
Mammals		
<u>Balaenoptera musculus</u> Blue Whale [36]	Endangered	Species or species habitat may occur within area
<u>Eubalaena australis</u> Southern Right Whale [40]	Endangered	Breeding known to occur within area
<u>Megaptera novaeangliae</u> Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
<u>Neophoca cinerea</u> Australian Sea-lion [22]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Plants		
<u>Acacia enterocarpa</u> Jumping-jack Wattle [17615]	Endangered	Species or species habitat likely to occur within area
<u>Acacia pinguifolia</u> Fat-leaved Wattle [5319]	Endangered	Species or species habitat known to occur within area
<u>Acacia whibleyana</u> Whibley Wattle [64497]	Endangered	Species or species habitat likely to occur within area
<u>Caladenia brumalis</u> Winter Spider-orchid [54993]	Vulnerable	Species or species habitat likely to occur within area
<u>Caladenia conferta</u> Coast Spider-orchid [55000]	Endangered	Species or species

Name	Status	Type of Presence
		habitat may occur within area
Caladenia macroclavia Large-club Spider-orchid [55012]	Endangered	Species or species habitat may occur within area
Caladenia tensa Greencomb Spider-orchid, Rigid Spider-orchid [24390]	Endangered	Species or species habitat likely to occur within area
Frankenia plicata [4225]	Endangered	Species or species habitat likely to occur within area
Haloragis eyreana Prickly Raspswort [8737]	Endangered	Species or species habitat likely to occur within area
Olearia pannosa subsp. pannosa Silver Daisy-bush [12348]	Vulnerable	Species or species habitat likely to occur within area
Prasophyllum goldsackii Goldsack's Leek-orchid [2380]	Endangered	Species or species habitat likely to occur within area
Prostanthera calycina West Coast Mintbush, Limestone Mintbush, Red Mintbush [9470]	Vulnerable	Species or species habitat likely to occur within area
Ptilotus beckerianus Ironstone Mulla Mulla [3787]	Vulnerable	Species or species habitat known to occur within area
Pultenaea trichophylla Tufted Bush-pea [12715]	Endangered	Species or species habitat known to occur within area
Tecticornia flabelliformis Bead Glasswort [82664]	Vulnerable	Species or species habitat known to occur within area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat likely to occur within area
Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Sharks		
Carcharodon carcharias Great White Shark [64470]	Vulnerable	Species or species habitat likely to occur within area
Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Diomedea dabbenena Tristan Albatross [66471]	Endangered*	Species or species habitat may occur within area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Macronectes giganteus Southern Giant-Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant-Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Puffinus carneipes Flesh-footed Shearwater, Fleishy-footed Shearwater [1043]		Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri Buller's Albatross [64460]	Vulnerable	Species or species habitat may occur within area
Thalassarche cauta (sensu stricto) Shy Albatross, Tasmanian Shy Albatross [64697]	Vulnerable*	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross [64459]	Vulnerable*	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Migratory Marine Species		
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area
Carcharodon carcharias Great White Shark [64470]	Vulnerable	Species or species habitat likely to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area

Name	Threatened	Type of Presence
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Migratory Terrestrial Species		
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Migratory Wetlands Species		
Ardea alba Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat likely to occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land [\[Resource Information \]](#)

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Name
Commonwealth Land - Commonwealth Land - Minister of Transport Commonwealth Land - Telstra Corporation Limited

Listed Marine Species [\[Resource Information \]](#)

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species

Name	Threatened	Type of Presence
Ardea alba Great Egret, White Egret [59541]		habitat likely to occur within area Species or species habitat likely to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat likely to occur within area
Catharacta skua Great Skua [59472]		Species or species habitat may occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Diomedea dabbenena Tristan Albatross [66471]	Endangered*	Species or species habitat may occur within area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant-Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Foraging, feeding or related behaviour likely to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Puffinus carneipes Flesh-footed Shearwater, Fleishy-footed Shearwater [1043]		Foraging, feeding or related behaviour likely to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat likely to occur

Name	Threatened	Type of Presence within area
Thalassarche bulleri Buller's Albatross [64460]	Vulnerable	Species or species habitat may occur within area
Thalassarche cauta (sensu stricto) Shy Albatross, Tasmanian Shy Albatross [64697]	Vulnerable*	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross [64459]	Vulnerable*	Species or species habitat may occur within area
Thalassarche melanophrys Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thinornis rubricollis rubricollis Hooded Plover (eastern) [66726]		Species or species habitat known to occur within area
Fish		
Acentronura australe Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area
Campichthys galei Gale's Pipefish [66191]		Species or species habitat may occur within area
Filicampus tigris Tiger Pipefish [66217]		Species or species habitat may occur within area
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Hypselognathus horridus Shaggy Pipefish, Prickly Pipefish [66244]		Species or species habitat may occur within area
Hypselognathus rostratus Knifesnout Pipefish, Knife-snouted Pipefish [66245]		Species or species habitat may occur within area
Kaupus costatus Deepbody Pipefish, Deep-bodied Pipefish [66246]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area

Name	Threatened	Type of Presence area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus robustus Robust Pipehorse, Robust Spiny Pipehorse [66274]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stipecampus cristatus Ringback Pipefish, Ring-backed Pipefish [66278]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Vanacampus vercoi Verco's Pipefish [66286]		Species or species habitat may occur within area
Mammals		
Arctocephalus forsteri New Zealand Fur-seal [20]		Species or species habitat may occur within area
Neophoca cinerea Australian Sea-lion [22]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or

Name	Threatened	Type of Presence
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	related behaviour known to occur within area Foraging, feeding or related behaviour known to occur within area
Whales and other Cetaceans		[Resource Information]
Name	Status	Type of Presence
Mammals		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area

Extra Information

Places on the RNE

[[Resource Information](#)]

Note that not all Indigenous sites may be listed.

Name	State	Status
Natural		
Ptilotus beckerianus Site	SA	Registered
Pultenaea Trichophylla site	SA	Registered
Vanilla Conservation Park	SA	Registered
Indigenous		
Poonindie Mission	SA	Registered
Historic		
Schuermann Mission Site	SA	Indicative Place
Tod River Road Bridge (disused)	SA	Indicative Place
St Matthews Anglican Mission Church	SA	Registered

State and Territory Reserves

[[Resource Information](#)]

Name	State
Port Lincoln	SA
Tucknott Scrub	SA
Unnamed (No.HA1117)	SA
Unnamed (No.HA1161)	SA
Unnamed (No.HA1206)	SA
Unnamed (No.HA1263)	SA
Unnamed (No.HA1388)	SA
Unnamed (No.HA1409)	SA
Unnamed (No.HA224)	SA
Unnamed (No.HA318)	SA
Unnamed (No.HA456)	SA
Unnamed (No.HA478)	SA
Unnamed (No.HA516)	SA
Unnamed (No.HA528)	SA
Unnamed (No.HA598)	SA
Unnamed (No.HA726)	SA
Unnamed (No.HA729)	SA
Unnamed (No.HA739)	SA
Unnamed (No.HA776)	SA
Unnamed (No.HA787)	SA
Vanilla	SA
Vanilla Land Settlement	SA

Invasive Species

[[Resource Information](#)]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resources Audit, 2001.

Name	Status	Type of Presence
Birds		
Alauda arvensis		
Skylark [656]		Species or species habitat likely to occur within area
Carduelis carduelis		
European Goldfinch [403]		Species or species habitat likely to occur within area
Columba livia		
Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer domesticus		
House Sparrow [405]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Turdus merula Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
Mammals		
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Asparagus declinatus Bridal Veil, Bridal Veil Creeper, Pale Berry Asparagus Fern, Asparagus Fern, South African Creeper [66908]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Chrysanthemoides monilifera subsp. monilifera Boneseed [16905]		Species or species habitat likely to occur within area
Genista linifolia Flax-leaved Broom, Mediterranean Broom, Flax Broom [2800]		Species or species habitat likely to occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Olea europaea Olive, Common Olive [9160]		Species or species habitat may occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Solanum elaeagnifolium Silver Nightshade, Silver-leaved Nightshade, White Horse Nettle, Silver-leaf Nightshade, Tomato Weed, White Nightshade, Bull-nettle, Prairie-berry, Satansbos, Silver-leaf Bitter-apple, Silverleaf-nettle, Trompillo [12323]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Ulex europaeus		
Gorse, Furze [7693]		Species or species habitat likely to occur within area
Nationally Important Wetlands		[Resource Information]
Name		State
Tod River Wetland System		SA

-34.315103 135.920616,-34.294116 135.906884,-34.294116 135.89933,-34.312267
135.880791,-34.304326 135.870491,-34.31964 135.858818,-34.339486 135.854698,
-34.348557 135.848519,-34.354793 135.827233,-34.363862 135.821739,-34.370663
135.808693,-34.386531 135.80114,-34.395597 135.80732,-34.410327 135.808693,-34.419957
135.812215,-34.431851 135.810067,-34.442611 135.801827,-34.443177 135.786034,
-34.449081 135.787704,-34.456901 135.771084,-34.468229 135.754395,-34.475009 135.750328,
-34.486653 135.756508,-34.484504 135.752388,-34.494692 135.750328,
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- migratory and
- marine

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Acknowledgements

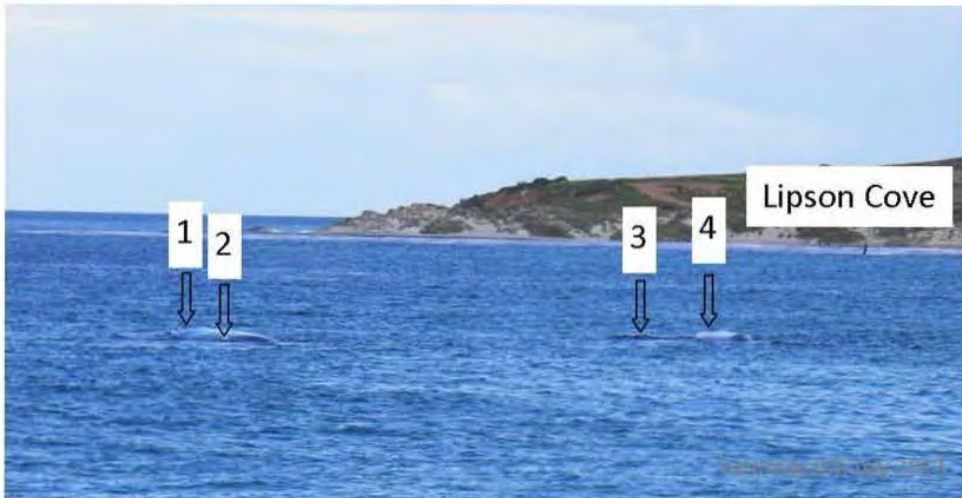
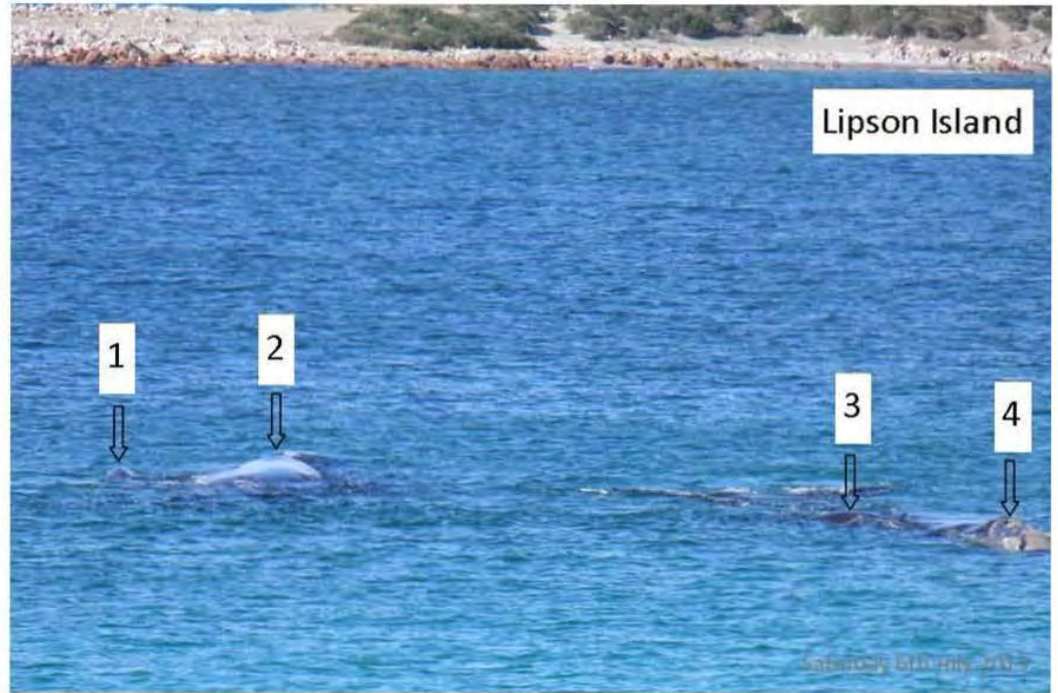
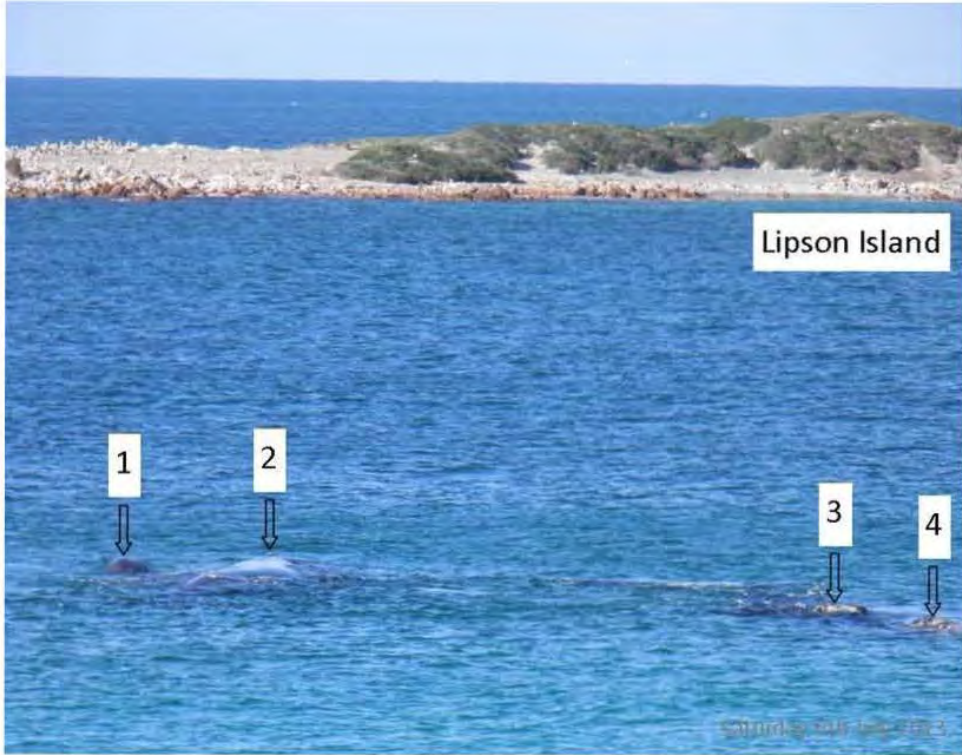
This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

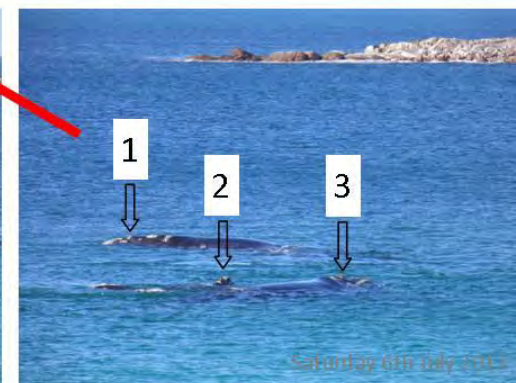
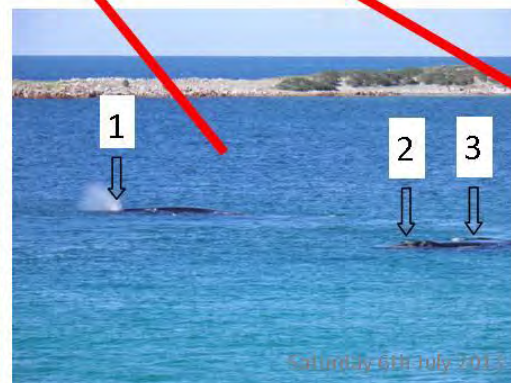
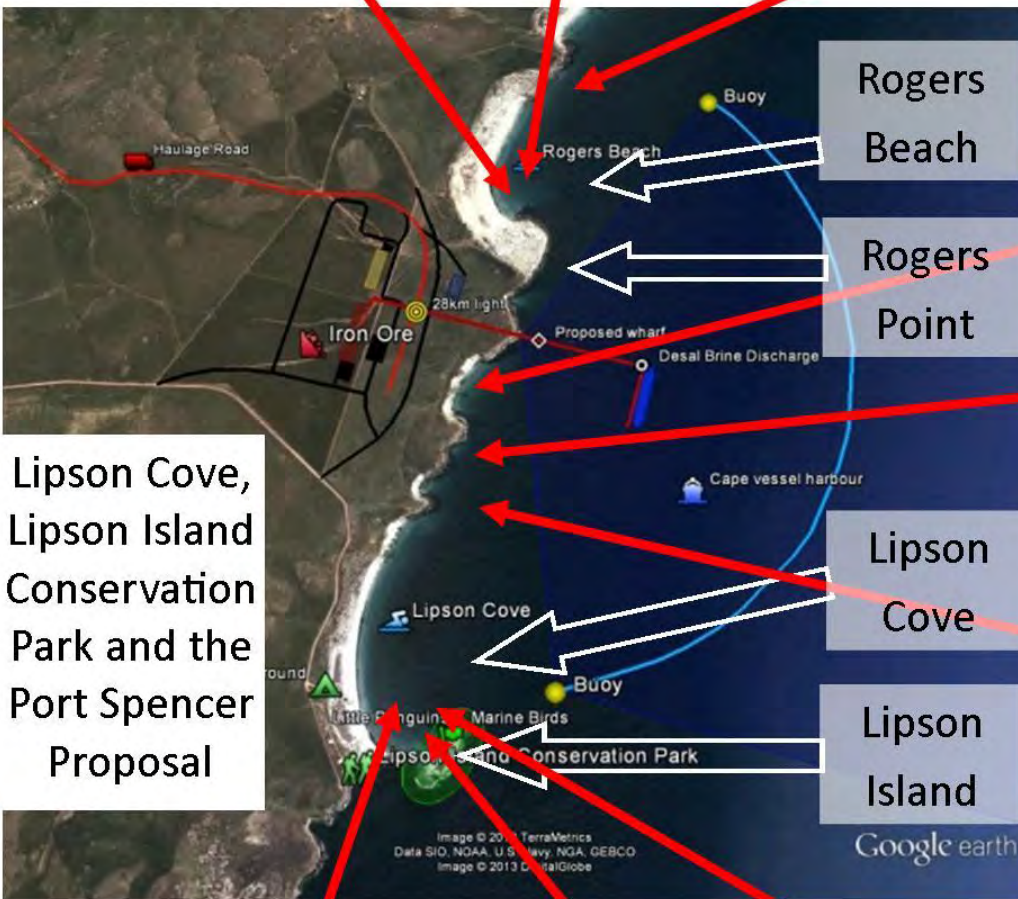
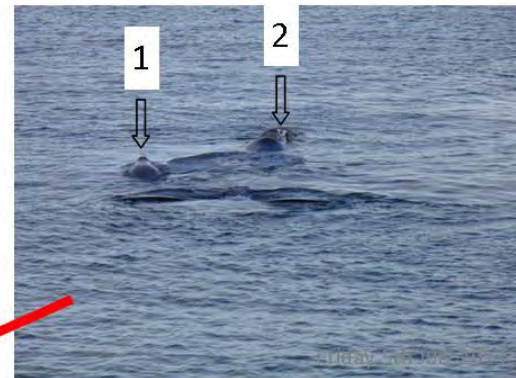
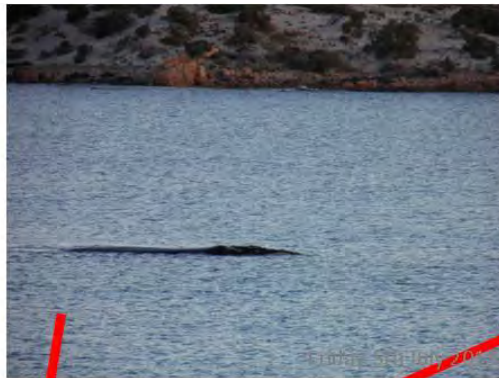
- [Department of Environment, Climate Change and Water, New South Wales](#)
- [Department of Sustainability and Environment, Victoria](#)
- [Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [Department of Environment and Natural Resources, South Australia](#)
- [Parks and Wildlife Service NT, NT Dept of Natural Resources, Environment and the Arts](#)
- [Environmental and Resource Management, Queensland](#)
- [Department of Environment and Conservation, Western Australia](#)
- [Department of the Environment, Climate Change, Energy and Water](#)
- [Birds Australia](#)
- [Australian Bird and Bat Banding Scheme](#)
- [Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [Museum Victoria](#)
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- [Queensland Museum](#)
- [Online Zoological Collections of Australian Museums](#)
- [Queensland Herbarium](#)
- [National Herbarium of NSW](#)
- [Royal Botanic Gardens and National Herbarium of Victoria](#)
- [Tasmanian Herbarium](#)
- [State Herbarium of South Australia](#)
- [Northern Territory Herbarium](#)
- [Western Australian Herbarium](#)
- [Australian National Herbarium, Atherton and Canberra](#)
- [University of New England](#)
- [Ocean Biogeographic Information System](#)
- [Australian Government, Department of Defence](#)
- [State Forests of NSW](#)
- [Geoscience Australia](#)
- [CSIRO](#)
- Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact Us](#) page.

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Department of Sustainability, Environment, Water, Population and Communities
GPO Box 787
Canberra ACT 2601 Australia
+61 2 6274 1111





From: s47F
To: [EPBC Referrals](#)
Subject: Emailing: Project Fusion Referral 11-07-2013
Date: Friday, 12 July 2013 2:33:05 PM
Attachments: [Project Fusion Referral 11-07-2013.docx](#)

Dear Sir/Madam,
Our comments about the EPBC Referral 2013/6919
Project Fusion, Eyre Peninsula, South Australia.

Yours Faithfully,

s47F

S47F

Referral Business Entry Point, EIA Policy Section (EPBC Act)
Approvals and Wildlife Division
Department of Sustainability, Environment, Water, Population and
Communities
GPO Box 787
Canberra 2601

12-07-2013

Response to EPBC Referral 2013/6919, (28-06-2013)
Project Fusion, Eyre Peninsula, South Australia

Dear Sir/Madam,

We draw your attention to the Eyre Iron Pty Ltd, Fusion Magnetite Project, summary of August 2012 Drill Site Audit & Outcomes, released April 2013. This Audit was undertaken by DMITRE and it must be stated that it is not a complete audit as only 136 drill holes were inspected out of the 406 holes drilled at time of audit. 109 sites of the 136 (80%) were found to have some form of issue (ranging from minor to major issues).

Only 5 of the active 9 Eyre Iron prospects were visited. (reference on page 6 of audit).

Please request a copy of the Audit. (if you don't already have one).

The EPBC Referral, Project Fusion is a project comprising three deposits, Koppio, Brennand and Kapperna. The audit states, five of the

active Eyre Iron prospects were visited (in order of inspection): Greenpatch, Charlton Gully/White Flat, Koppio, Brennand and Iron Mount. Kapperna, Mount Hill, Oolanta and Carrow areas were not visited during this trip due to time constraints. (page 6)

The footprint of Eyre Iron indicates a far bigger footprint/area than just the Project Fusion stated in the EPBC referral. (12 proposed mines).

Total area is exposing far more potential for environmental damage and loss of area for flora and fauna than indicated.

The EPBC referral: 6 Environmental Record of the responsible party.

6.1 Does the party taking the action have a satisfactory record of responsible environmental management? The box is ticked, Yes. Please refer to pages 3, 4, 5 of the audit, by DMITRE, and the photos.

Clearly this shows the environmental damage that has already occurred with exploration drilling for Eyre Iron. Their record for environmental care has failed! Photos 123 and 126 show: clearance of vegetation at two sites adjacent to VHAA310 was not approved in any PEPR submitted to DMITRE (BRDDO- photo 123 & BRGT009 – photo 126). If local landowners cleared land like this we would be in court and very heavily fined or perhaps jailed.

We own a farm that has been identified in the EPBC referral, Land Title Details – Mine Site.

At NO stage has Eyre Iron consulted with us, so I am questioning the legalities of making public details of our Title Reference, Plan Details, Tenure, Current Owner, Plan Area of Site and Disturbance Area?

There must be a Privacy Act to protect our details being published by a third party, who has no permission to do so.

The consequence of these details being released to the public means our future on this property is in confusion. Land values will decrease.

The farm has been identified in the mine area so even if the mine does not proceed the area is known for potential mining forever.

In the EPBC referral they state 37 hectares of 194.3 hectares is disturbance area, (of our property). How can they draw a line through and state disturbance one side and not on the other? Convenient how they put our house in the non-disturbance area even though it is approximately only 1.5 kms from the proposed Kapperna Mine Site Pit.

The Environment, Flora, Fauna and Water (as in creeks, dams and aquifers) do not recognise a line drawn on a map stating disturbance areas are only inside a given line.

De-watering of the Project Fusion area, for mining, which is in the recognised, Water Protection Zone associated with the Tod River, has the potential to ruin our underground/aquifer water supply. This will affect all our Flora and Fauna habitat as well as agriculture and livestock.

Project Fusion refers to only three open cut mines pits,

Koppio: length 1700m: width 900m: depth 300m.

Brennand: length 3000m: width 750m: depth 360m.

Kapperna: length 3000m: width 485m: depth 265m.

The size of these pits are huge holes in the ground so must affect the aquifers/underground water. It has been overheard that artesian water was drilled during exploration.

Heavy metals as in all iron ore mining will be exposed and contaminate water and air. Contaminated water from processing plant, tailings and other associated activities will seep back into the area and water runoff down the hills and into the creeks and the Tod River. Holding dams/ponds seem to have a history of leaking. We believe the sensitive environment and Tod River Catchment Areas are at great risk to potential mining.

The Tod River flows into the sea at Poonindee, just north of Port Lincoln, so if contaminated water escapes from the mine area the fishing industry of Port Lincoln is under threat. Tuna cages are not far from the mouth of the Tod River and just around the corner to the south is Boston Bay, Port Lincoln.

We believe there is connection to the aquifers of the Tod Catchment Areas and to the Southern Basins Prescribed Wells Area where SA Water extract underground water to pipe to nearly all Eyre Peninsula. If mining ruin the underground and runoff water in the Project Fusion area then the water supply is at risk for all Eyre Peninsula residents, towns, livestock, agriculture, aquaculture and the environment.

All chemicals that have been used already and will be used in mining and processing should be declared so we know the chemical threat to the environment, especially our water.

Six potential TSF locations are being assessed but the topography and rainfall of the area we think are underestimated. Tailings are going to have a huge impact on the environment. Eyre Iron have stated, at a District Council Tumby Bay presentation, that the tailings will not be put back in pit as Government require pit to be left open for other mining companies in the future after Eyre Iron has left. (if approval is granted).

Slurry pipelines have been nominated to pipe the ore to Port Spencer. Once the ground is dug up for the laying of slurry pipes the soil will never be of previous composition/layers and will never produce the same pasture/crops again. We doubt if any property owners in the proposed slurry pipe line routes have been approached by Project Fusion, Eyre Iron. Their privacy has been breached in our opinion. These pipelines should be removed after mining (if it gets approval) to prevent

damage to the environment as they could corrode and the ground subside. In the hills it could cause huge water washout gutters.

Desalination plant at Port Spencer: a 5GL to 20 GL , reverse osmosis desalination plant. How can Eyre Iron expect free seawater and who gives them the permission to just take the seawater?

We think the need for the 20GL is to also supply water for Centrex Metals proposed Bungalow mine site near Cowell. THIS EPBC is only for the Project Fusion. There is not enough study/detail about the effects from the desalination plant on the Port Spencer environment, seagrasses and sea-life/fish/whales/and birds. Two whales with their two calves have been in the waters of Port Spencer,(Rogers Beach and Lipson Cove).The whales were seen 5,6,7,8,10 of July 2013.

We believe the present EPBC referral for Project Fusion, (Eyre Iron Pty Ltd), Eyre Peninsula should be withdrawn / refused. The present one does not have enough detail in it and certainly does not cover the whole footprint of mine to port.

Eyre Iron should have to submit a new EPBC for Project Fusion.

Yours Faithfully,

S47F

From: s47F
To: [EPBC Referrals](#)
Subject: comment on Final referral Project Fusion.
Date: Friday, 12 July 2013 11:59:47 AM
Attachments: [July 2013 submission Final referral Fusion Project..pdf](#)

Referral Business Entry Point, EIA Policy Section (EPBC Act)
Approvals and Wildlife Division
Department of Sustainability, Environment, Water, Population and Communities
(reference number 2013/6919, 28/06/2013)
GPO Box 787
Canberra ACT 2601
Attached comment of proposed action Fusion Project.
thankyou

s47F

Referral Business Entry Point, EIA Policy Section (EPBC Act)
Approvals and Wildlife Division
Department of Sustainability, Environment, Water, Population and Communities
(reference number 2013/6919, 28/06/2013)
GPO Box 787
Canberra ACT 2601

Referral of proposed action Fusion project July 2013

12.7.13

It is only when reading the “referral of proposed action Fusion Project” we were aware that Land owned by us was within the Eyre Iron Fusion Project. We have had no formal consultation with Eyre Iron concerning our land.

If a company was to do their community consultation correctly, it would be assumed all land holders would be notified prior to proposed action referrals. How many other land holders are not aware of this action?

Page 15 2.6 states Stakeholder consultation undertaken to date has included government agencies at the local, State and Commonwealth level, as well as local community representatives, landholders and indigenous groups. Stakeholder consultation will continue throughout the project planning and development phase. Eyre Iron commenced publication of a periodic public project newsletter in January 2013.

I would suggest to Eyre Iron to consult with those that are going to be affected by this proposed action first.

Our property has been in this family for s47F

and we rely on various water resources.

The various water resources available, surface water, ground water, reticulated Uley South aquifer water, storm water, rain water.etc

These water sources are all paramount to the operations of our enterprise and the community of Lower Eyre Peninsula. What will happen to our ground and surface water when mining commences?

Historically, the Tod catchment was developed to supply water for all of Eyre Peninsula. This system has worked well until management of the water failed. Is mining going to remove any chance of rectifying this ability for catchment of water.? Can you guarantee the Uley South Aquifer will continue to recharge if mining on Lower Eyre Peninsula takes place?

Significant reserves of good quality water occur naturally below the ground in parts of the south and west coast regions of Eyre Peninsula. These groundwater resources are important for the entire region. Approximately 85% of all mains water for Eyre Peninsula is supplied from groundwater, with the majority of this being sourced from a single aquifer, Uley South.

The inter-connected deeper confined aquifers are recognised by DEWNR as likely to have inter-connections to the shallower unconfined aquifers through areas of Tertiary Sand Aquifers and groundwater upwelling from Precambrian rocks flowing through the complex fractured-rock aquifer to the unconfined aquifer currently utilised for drinking water extraction.

This water resource and its aquifers are complex, difficult to assess and manage, and at risk of degradation due to large gaps in scientific knowledge.

Please consider the future of Eyre Peninsula’s Water supply.

The proposed action presents a threat to the sustainability of the aquifer system which supplies Lower Eyre Peninsula's water.

Do you have evidence to support these lenses are not connected and if one aquifer is diminished, that there is no flow on effect? Many landowners also depend on groundwater for stock watering and domestic purposes.

Eyre Peninsula's groundwater systems are unique in comparison to other semi-arid regions in the State. Fresh groundwater lenses occur across the region due to the ability of the host rock to receive rapid recharge via sinkholes and dissolution features. This has resulted in higher recharge rates and significantly lower salinity groundwater than would normally be associated with similar semi-arid environments.

This recharge is my greatest concern. If the catchment area of Yallunda Flat, Pillawater, Charlton Gully, Koppio, Coomunga and Whites Flat are removed with mining, where do these lenses recharge?

In South Australia all persons have a general statutory duty under the NRM Act to act reasonably and responsibly in relation to the management of natural resources. This includes an obligation to maintain and not damage, a watercourse, floodplain or lake. How then is it possible for mining companies to get authority to change, drill, dig and damage our catchment area and watercourses and underground lenses? Do the mining companies have to notify NRM during drill exploration if they hit a water aquifers? This information could unlock hydrology about Lower Eyre Peninsula. All of this information is paramount but, is it being collected and passed on to NRM and DMITRE?

Hydrology is an expensive investigation and the data that Eyre Iron hold so far from extensive drilling should be made available to the relevant departments for a better understanding.

The extent of the potential project study area is 17,467 ha, including all three pipeline proposals, mine site study area and processing plant study area. (page 4/100)

Land use within the project area is largely agricultural with grazing and cropping. Other land uses within the project area include rural residential, industrial, commercial and several South Australian heritage vegetation reserves. (page 3)

Sustainable farming is occurring on the approx. 17,000 Ha of Grazing and cropping land with the ability to generate sustainable income for 100 years in a good rainfall area with global warming. Wouldn't it make sense to protect our ability to feed the people.

Income generated from this cropping and grazing land.

Income from grazing land per Ha \$50 generated from wool, prime lamb and beef production.

Income from cropping land per Ha \$150 generated from an overall average from Canola, Wheat, Barley, Lupins, Peas, Lentils. Also the production of oaten and wheaten Hay for stock feed.

Has the government ever done a comparison of income generated from this cropping and grazing land and the Fusion Project which has a limited life span of 40 years.?

*"Water is fundamental to our health, our way of life and our environment. It underpins growth in population and our economy—and these are critical to South Australia's future prosperity." - Alan Holmes,
Chief Executive, Department of Environment, Water and Natural Resources (DEWNR) - June 2012.*

Unless you can guarantee the "expert opinion" from organisations, isn't their opinion just another best guess based on theories generated by hydrologists in the past – we as local people with local knowledge

should question this advice and of course we ask the question how much Professional Liability insurance they carry when their advice impacts on people's livelihood. - if the EPNRM and DMITRE follows the advice and vague theories on the catchment , there should be accountability going full circle to the author.

What guarantee have we that water contamination from runoff and dewatering from the mines will not contaminate ground water aquifers?

What happens to mine dewatering of water, especially saline water that has been accessed with mining? Are all aquifers good water?

How are the mining companies going to redirect the water in Pillaworta Creek, Milindie Creek, Carrara Creek, Kappema Creek, Pillaworta River, Rock Valley Creek, Yallunda Creek, Pemalla Creek and the Tod River?

In the lifetime of the mine, 40 years, what will be the effect of the ecology downstream if the water is redirected in all these creeks? What will be the effect on vegetation when the water is redirected?

What happens to the ecology of downstream and shouldn't this also be in the environmental impact statement from Eyre Iron Fusion Project.? The mine site, slurry lines and port site are not the only areas impacted by the project.

Eyre Peninsula has just come out of water restrictions. It is stated "Mining ventures to provide their own water supplies within the sustainable framework of natural resources management planning, and regional water demand and supply plans. " Proposed action for the Fusion Project also involves a Desal plant at Port Spencer site. The District Council of Lower Eyre Peninsula are investigating a Desal Plant proposed site on the Southern coast of Lower Eyre Peninsula from the open ocean. Far more communication, investigation and consultation is required before any decision is made.

Water is a renewable, affordable source through natural catchment areas. With these sources of water we have sustainable farms, producing a renewable food supply and believe these water sources and the farming land need to be protected from mining so we as a nation have the ability to feed our world.

The Fusion Project presents many unique issues:

- Water aquifers
- prime agricultural cropping and grazing land
- rural residential dwellings
- Australian heritage vegetation reserves

It is the responsibility of the powers to be to get this right..... once the decisions are made we all have to live with it.

A concerned community member of Lower Eyre Peninsula

S47F



Table 2 :

Figures given for average annual rainfall in the surveyed area

FOI 170104
Document 5c

FIGURE GIVEN FOR AVERAGE ANNUAL RAINFALL		NUMBER OF LANDHOLDERS GIVING THE SPECIFIED FIGURE
mm	(inches)	
450 - 475	(18 - 19)	4
475 - 500	(19 - 20)	3
500 - 525	(20 - 21)	13
525 - 550	(21 - 22)	5
550 - 575	(22 - 23)	5
575 - 600	(23 - 24)	3
AVERAGE OF ALL FIGURES :		512 mm (20.1 inches)
MEDIAN VALUE :		500 mm (20 inches)
RANGE :		450 mm (18 inches) to 600 mm (24 inches)

From: s47F
To: [EPBC Referrals](#)
Subject: Fusion Project Eyre Iron Pty Ltd/Mining/Koppio Hills South Eastern Eyre Peninsula/SA/Develop an Open Pit Magnetite Mine Reference No. 2013/6919
Date: Monday, 8 July 2013 11:57:45 PM
Attachments: [Response to the EPBC Referral for Project Fusion. July 2013.docx](#)

Dear Sir/ Madam,
Please see the attached comments for your information.

Yours sincerely,

s47F

Response to the EPBC Referral for Project Fusion, Eyre Peninsula, SA

s47F

landowner in the prospect area (of state heritage listed bushland s47F

Essentially this project is flawed, as it is the right mine in the wrong place. The proposal, to remove 680 Mt of magnetite from the beautiful Koppio Hills area is environmental vandalism at its worst, with potentially significant impacts on underground and surface waters, surrounding flora and fauna and the local community.

Due to a shortage of time to make this response, some of the issues are provided below:

- On page 8 it is noted the need for rock and tailings storage facilities is noted, but the footprint is unknown. Why is it unknown? They know the approximate percentage of magnetite, and how many tonnes they intend to extract – the rest is rock or tailings, which cannot go in the operating pit so it has to go on the surface. Please take the time to Google Earth the Singleton to Muswellbrook area of the Hunter Valley to see the scars that can be left from mining, and they are only very shallow pits comparatively – not 300m deep as proposed. That is a lot of spoil which will look and be revolting, especially in the face of strong westerly or northerly winds causing the fine material to create a significant dust hazard.
- Page 9 – the diversion of surface water will require major earthworks, will upset the riparian zone, its associated aquatic organisms and the regions vegetation as water tables are altered.
- Processing plant – what chemicals would be needed and what is their environmental fate?
- Page 11 - Potential environmental (land, water, air and amenity) impacts associated with the development of an open pit mine will not occur – Eyre Iron recognizes the potential impacts but thinks the possible economic benefits outweigh them. Its only company profits and the requirement of the Chinese steel mills to have an independent source of ore that is core to this activity – there's nothing benevolent in this companies bones!
- Page 21 – it appears the company has engaged flora and fauna surveys to be undertaken in Spring 2012. We were not told of this, and have not seen any results of those surveys – so much for community consultation.
- The Greencomb Spider Orchid's, Metallic Sun-orchid, Silver Daisy Bush, Tufted Bush Pea and Ironstone Mulla Mulla (as found in the proposed mine site area) habitat should not be destroyed despite there being other populations of them on the peninsula. Habitat suitable for these species is in short supply on southern EP.
- Please take careful note of section 3.3.(c, d & e) This area is too precious to turn into a huge pit with its associated waste dumps etc.
- Item 6.1: Following an audit conducted by DMETR of Eyre Irons exploration activities in 2012, they were stopped from any future exploration activities on sloping or vegetated areas due to their very poor environmental management of drilling activities. Their intention to drill 15 holes on our property has to date been halted but not stopped. Their plans to clear a 40*40 metre pad at each site was unacceptable to us, and given the evidence of the latest surveys that are reported here, I am very pleased we were able to stop them. In addition, their intended rehabilitation of each site was to consist of only replacing the topsoil and any bulldozed vegetation back over the site, then letting nature take its course. This would have resulted in a huge explosion of African Daisy (a weed of disturbed areas) and wattles – not exactly rehabilitation to its previous status.

I apologise for the brevity of this response, but believe that it is critical for the EPBC to recognize the fragile nature of this areas flora and fauna, in particular the minesite and processing area, and its water supplies. In doing so I ask you to refuse permission for the mine to proceed.

Yours sincerely,

s47F

From: [Tumby Bay Residents and Ratepayers Association Inc](#)
To: [EPBC Referrals](#)
Cc: ["TBRARA"](#)
Subject: 2013/6919 Eyre Iron Pty Ltd/Mining/Koppio Hills South Eastern Eyre Peninsula/SA/Develop an Open Pit Magnetite Mine
Date: Friday, 12 July 2013 3:22:20 PM
Attachments: [TBRARA EPBC response 2013-6919 Eyre Iron - Centrex Metals.pdf](#)

Dear Sir/Madam,

Re: 2013/6919 [Eyre Iron Pty Ltd/Mining/Koppio Hills South Eastern Eyre Peninsula/SA/Develop an Open Pit Magnetite Mine](#)

Please find attached our comment submission on this EPBC referral.

Please confirm receipt by return e-mail. Thank you.

Yours sincerely,

Milton Stevens



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FOI 170104
Document 7a

12th July 2013

Response to EPBC Referral 2013/6919 Project Fusion, Eyre Peninsula, South Australia.

Dear Sir/Madam,

In response to the afore-mentioned EPBC Referral, we submit the following for your consideration.

Scope of the Project.

In articles to the Australian Stock Exchange (Centrex Quarterly Activity Report 30 April 2012; Centrex Metals ASX Fusion Nov 2012; Centrex ASX Fusion Feb 2013 and Eyre Iron Pty Ltd Summer 2012/13 newsletter (www.eyreiron.com.au) the scope of the Project Fusion was clearly outlined detailing at least 8 potential mine targets within the single Project Fusion boundary.

The referral is, in fact, part of a 4 times larger project and not as declared to your department as only related to the three named mine sites. As such the referral should contain data relevant to the whole of the area 50 km long designated Project Fusion as declared to the Australian Securities Exchange. Failure to do so could be a breach of ASX rules.

This calls into question the company's response to section 1.12: Component of a larger action (no).

Date of Preparation of the Report.

Your attention is drawn to the notation.

1. *"referral of proposed action v August 12"* at the foot of the page.

Given the current date, one can only assume the report was prepared in August 2012, which, if correct, would bring into question the Company's tardiness in carrying out the research alluded to in the body of the referral, and, in particular, any consultation with land owners so affected as a consequence of the proposed action.

1.3 Locality and Property Description.

1. *"These steep and outcropping areas are unsuitable for agricultural use and often associated with remnant native vegetation."* (p 3/122)

The inference behind this statement is that the country in question is useless for agriculture, but very suitable for mining. Clearly, the company has overlooked the substantial amount of grazing activity that is undertaken in the area thus supplementing the cropping programs undertaken on lesser undulating land. Agricultural activities does include the sowing of pastures for livestock production and cereal crop after seed harvest has remaining material

(stubble) that is tendered specifically as feed for livestock. The agricultural land viability is inclusive of steep and outcropping areas as they are within the boundaries of many agricultural business properties. It is common and credible agricultural land use practice for the fencing off and promotion of native vegetation re-growth areas to be utilised as shelter and grazing areas for livestock during seasonal cereal crop production within an agricultural business plan.

2. *“Possible tailings storage options”*

This is the first reference to the possibility of tailings storage options as a part of Project Fusion.

This immediately brings the following questions requiring answers:

- a) The location of the tailings storage facility (ies)?
- b) The estimated size (area) of the facility (ies)?
- c) A risk assessment pertaining to the facility (ies)?
- d) Mitigation or risk avoidance measures/plan?

Given that the locations of the mines (those named and probably the remainder of the others) are within a designated Water Protection Zone (Tod Reservoir Water Catchment Management Area) as described in detail in the District Council of Tumby Bay Development Plan 2013 as amended.

It is described further in the report (section 2.2.2, p 8/122).

2. *“that ongoing studies will consider not only the quantity and quality of tailings to be placed, but both operational and environmental constraints.”*

Which brings to the debate the chemistry involved, given that leaching into the aquifer, transmissivity flows of leachate within the aquifer and the potential contamination of the Southern Basin Prescribed Wells Area to the south of the mine sites, in addition to potential contamination of the habitat of listed species in the immediate area, are questions requiring scientific answers (including independent peer review).

3. *“It would be the intent to build the slurry and water pipelines within private land boundaries and avoiding road corridors.”*

At this stage, no known contact with the land owners affected by this project has been made by the Company.

The presumption of the Company is that all will agree!

The legal implications of this statement is not declared, particular with respect to the impact on EPBC listed items on private property, e.g. the potential destruction of a EPBC listed flora and fauna dependent habitat on private property, who is legally responsible?

This will be discussed in more detail further in the response.

1.4 Size of the Development Footprint or Work Area.

1. *“The extent of the potential project study are is 17,467 ha.” (p 4/122)*

The point of contention is that Project Fusion, as described to the ASX is in fact a greater area than that identified by the afore-mentioned statement. Therefore the Company’s submission is limited to a portion of the total Project Fusion which is different to the declaration made in 1.12 of the referral.

2. *“The mine site study area boundary included in this referral is based upon preliminary mine planning.”*

3. *"The entire study area...for the project is referred to throughout this referral because actual final footprints for the project infrastructure are unknown at this time."*

Clearly by its own admission, the Company is providing a 'part' application, lacking in detail; at odds with the ASX declarations relevant to the whole Project Fusion; lack of appropriate environmental data, and yet expecting the public to provide comment in support of some 'assumed' final footprint and environmental impacts.

1.8 Time Frame (p 5/122).

Why is the Company lodging an application of referral seeking EPBC approval based upon 'preliminary planning' and not the actual reality?

2 Detailed Description of Proposed Action.

2.2.1 Resource and Mine Life (p 7/122).

1. *"Project Fusion is a project comprising three deposits, Koppio, Brennand and Kapperna"*

This statement is at odds with the declaration of the Company to the Australian Securities Exchange as described above, which includes Carrow, Bald Hill, White Flat, Charleton Gully, Toms, Greenpatch, Iron Mount, Oolanta and Warrunda.

Rock Storage Facility (RSF) (p 8/122).

1. *"Geochemical characterization of the waste rock and ore is currently being completed; however, initial results indicate some potentially acid forming material is present in waste rock and ore body..."*

What is of major concern, and has not been declared, in this referral is the potential impact upon groundwater. As indicated earlier, the area is a Water Protection Zone associated with the Tod Reservoir. In addition the area abounds with underground water reserves that are the single supply source that landholders (residential and livestock) across the 50km long Project Fusion area are able to access.

What needs to be disclosed is the true hydrological profile of the area designated as Project Fusion, as declared to the ASX, as discovered by the Company as a consequence of its drilling programme.

Information to be disclosed should include (but not excluding additional information) the following:

- a) A bore by bore identification in which water was discovered (hence an intersect with an aquifer or Unconfined and Confined aquifers given the knowledge of Quaternary and Tertiary aquifers occurring in the region).
- b) The Standing Water Level (SWL) and flow rates associated with each bore so identified.
- c) The Total Dissolved Solids (TDS) of the water so discovered.
- d) The direction of flow (water tracing and interconnectivity) of water within the aquifer(s).
- e) Identification of all bores in which an artesian flow was discovered as it has been verbally reported that at least one bore exhibited these characteristics (and was sealed with a 'considerable' quantity of cement) and SA Government records indicate full artesian wells in the area.
- f) Hydrological data and modelling identifying; the full area that will be impacted through the cone of depression that needs to be generated when the required dewatering of the open cut mine site pits is applied; the resulting groundwater hydrological state upon cessation of dewatering when the mine sites are abandoned; the predicted heavy metal contamination caused by Precambrian bedrock being deposited upon the surface; the heavy metal pollution risk during mining and at cessation when fugitive dust is blown by the seasonal prevailing winds (Annexure 'A'). Fugitive dust risk is maximised after bushfires.

In light of this body of information a true risk assessment could be undertaken to determine the extent or otherwise of the aquifer(s) in the region and any potential loss and/or contamination of the associated environment in which listed flora and fauna have been identified.

An analogy can be drawn to issues relating to ground water contamination which has been detected in the Adelaide metropolitan area in recent years (details of which are available from the Environmental Protection Authority in SA). There is also the recent and ongoing \$20million fugitive heavy metal dust contamination clean-up occurring in Esperance WA (Annexure 'B').

2. *"The use of explosives would be required during the mining process."*

What is not declared is a risk assessment of the potential impact of explosives on listed fauna in the Project Fusion zone.

3. *"Eyre Iron is currently discussing the potential for the project to connect to the existing Electranet power supply. This would require a power supply corridor to be established to the site."*

What are the environmental impacts pertaining to the establishment of a new section of power corridor, and in particular, what are the environmental risks/impacts to listed fauna and flora within this hitherto unknown corridor?

This again points to an incomplete application for referral.

2.2.5 Site Water Management and Use (p 9/122).

As raised in the previous section of this response, contamination due to leaching is a major concern, not only to the underground water reserves, but also surface water runoff, especially in light of the following:

1. *".....through sediment control structures **prior to discharge to the downstream environment**". (bolding added)*
2. *"Potable water may be trucked in to the site from a local supplier or **provided by a dedicated pipeline from the desalination plant**". (bolding added)*

We are now being presented with the prospect of a third pipeline from the Port site, being that for potable water. No details of route and/or the environmental impact especially that affecting listed species has been provided.

Again, the referral is devoid of information upon which an opinion can be offered.

The company has now linked the construction of the desalination plant at the proposed Port Spencer directly to Project Fusion. The implications of this will be taken up further in this response.

2.3.1 Process Overview (p 9/122).

The Company lists the principle reagents to be used in the processing of the ore namely:

1. *"flocculent, sodium bisulphite for oxygen scavenging and lime."*

What is missing is the environmental implications for accidental discharge of these components. Of particular concern is the environmental impact of an accidental discharge of sodium bisulphite into surface or groundwater in the area.

No reference to this risk occurs in the documentation and hence its potential impact upon listed flora and fauna, in particular, let alone the water cycle.

What is not discussed in detail is the issue of fugitive dust as a consequence of mining activities (extraction or processing) on listed flora and fauna in particular.

Given the fact that the mine will bring material from the Precambrian and geologically younger formed bedrock and deposit, as waste material (waste rock dump) across the surface environment, the question remains unanswered in respect to the concentration of heavy metals (including cadmium and chromium compounds) in such spoil and the potential of these to leach into the surrounding environs, particularly surface water and the underground basins.

The waste rock dump being placed about the mine sites within the Koppio Hills/Lincoln Upland gullies and valleys. That material significantly altering the groundwater runoff directions and volumes as creek beds and river courses are filled in.

It being reasonable to consider that not only the groundwater extracted during dewatering but also the seasonal rainfall flushing heavy metal laden waste rock dump, flocculent, sodium bisulphite and lime will generate large volumes of contaminated water which will need to be removed, contained and held from the environmental flows of the Tod River before its potential re-use during mining activity.

The Tod Reservoir, south of Koppio adjacent to White Flat, may be the single capacity to become a stormwater storage/tailings dam for Project Fusion. The Tod Reservoir predictably requiring an increase in capacity for this application. There is a commercial interest registered for a \$14.4million South Australian Government total project cost (\$11.6 million of which will be spent over the next four years) for the Tod River Dam Safety initiative as modifications to increase flood capacity. (Annexure 'C')

Knowledge of the Tod Reservoir identifies that it is currently approximately 20 metres above any natural stormwater surge threat.

The environmental risks to EPBC listed species across the 50km long Fusion Project, and not just an 11km long area for the mine sites of Koppio, Brennand and Kapperna, is therein intrinsic to any EPBC listed species dependent upon the ecological sustainability that the Tod Reservoir currently provides.

The footprint of the waste rock dump predictably will be much larger and therefore present a much greater environmental risk than the footprint of the open cut mine itself. These environmental risks to EPBC listed flora and fauna within 5km of the Tod Wetland, a Nationally Important Wetland, have not been included in considerations within the referral (Annexure 'D').

- 1 Listed Threatened Ecological Community,
- 41 Listed Threatened Species,
- 31 Listed Migratory Species,
- 56 Listed Marine Species,
- 12 Whales and Other Cetaceans.

2.3.2 Water Supply (p 10/122).

Whilst it is acknowledged that a desalination plant has been proposed in Port Spencer Stage 2 Development Assessment under the Development Act and recently declared a Major Project (SA Government Gazette May 2013), no formal assessment process has been announced or undertaken.

The Company has, in the format of this submission, described Project Fusion as a project from mine to port, therefore it is a reasonable necessity for this referral to contain details of the desalination plant and its potential impact on the waters surrounding the proposed Port as it is an integral part of Project Fusion (without it there would be no pipeline for water or slurry).

2.4 Slurry and Return Water Pipeline (p 10/122).

The referral is lacking in its environmental impact assessment of the impact of the desalination plant on the Spencer Gulf marine environment.

This is of particular importance as the environment in which the desalination plant is proposed to be located is in near proximity to the Lipson Cove Marine Conservation Park; a known migratory habitat for Southern Right Whales and migratory habitat of fairy terns, both of which have EPBC listing.

Details of the impact of the desalination plant are unknown apart from a statement contained in the company's referral 2012/6590 "having limited impact".

The following questions require answers:

- a) What is the size of the desalination plant, 5 Gigalitres or 20 Gigalitres capacity?
- b) What is the size of the discharge plume for the 5 and 20 Gigalitres facilities?
- c) What is the dispersion rate for each plume on a seasonal basis having regard to the wind, wave pattern and current in and around the outflow area AND Lipson Island Marine Conservation Park?
- d) What are the saline outflow engineering criteria required to mitigate environmental damage to the marine ecology?
- e) In the event of mitigating natural circumstances causing the outflow to pool, what would be the anticipated environmental impact and what steps will be taken to mitigate such occurrences?

The Company claims:

1. *"SA Government has granted approval for Stage 1 of Port Spencer in December 2012".*

The text of the 'provisional development authority' may be found in the South Australian Government Gazette, 20 December 2012. It is not an approval as conveyed by the company, rather it is an 'approval' to continue the process towards 'final approval' subject to the resolution of the reserved matters and a significant list of conditions to the satisfaction of the Minister of Planning who has been granted Executive Authority to sign off on the project on behalf of Government.

The statement claiming 'approval' is misleading.

2. *"Detailed environmental studies will be conducted along the pipeline corridors prior to a decision on the final pipeline route. During the route selection process, targeted stakeholder consultation will be undertaken with landowners within the proposed pipeline routes."*

No consultation has been initiated to date.

2.2 Alternatives to Taking The Proposed Action (p 11/122).

1. *"Project development projects are restricted.....
 - Environmentally, by environmental sensitivities of project setting
 - Socially, by the expectations and concerns of affected communities."*
2. *"An assessment of a number of potential sites identified this as the preferred site."*

No evidence tendered to support this assertion.

3. *"Investigation of the environmental constraints within a 1 km corridor will assist with flexibility in final pipeline route that reduces potential impacts associated with the development."*

No evidence is tendered to support this assertion. Clearly the results of these investigations should form the basis of the referral, not a statement that it might occur sometime in the future.

4. *"Detailed mine planning will be carried out during 2013 and will further consider potential alternativessocio-economic benefits and reducing any potential environmental impacts."*

Clearly an application seeking EPBC approval should contain the results of such investigation, as any such approval needs to be assessed in the fullness of data available, not a partial submission with considerable questions unanswered.

5. *"The do nothing option."*

Raises the following:

- a) *"potential social and economic benefits for the project....would not be realized."* But NO evidence has been tendered to support the level of social and economic benefit.
- b) Job creation at the local level has not been established, and, given the proposal for the accommodation village at Tumby Bay for 1200+ employees indicates that the majority of employees will be fly- in, fly-out, questions must be asked about the projects benefit to the local community in these circumstances. What is the social impact of such a rapid doubling of the population of Tumby Bay?
- c) Questions relating to the economic benefit on the global market. The Governor of the RBA has recently made comment to the effect the mining boom is over; the Chinese economy is cooling and world demand as reflected in commodity prices is falling. The undeclared economic viability of this proposal may not be creditable.

2.3.1 Locations.

1. *"A tailings options and scoping study is currently being undertaken...."*

This section raises the proximity of the tailings to the Tod Wetland system (considered in 3.3(b)).

Again a respondent is being asked to comment on data which the project proponent knows, or should know, but is not available with this referral.

2. *"Areas of native remnant vegetation."*

Where are these located, particularly those sections which have Heritage Agreement in existence?

What is the fate of native remnant vegetation covered by Heritage Agreements? Not discussed.

3. *"Potential Areas of Cultural Heritage."*

Not listed, therefore no comment can be made.

4. *"A 1km wide corridor will be assessed....."*

No assessment data available, therefore risks and or impact not able to be determined.

2.4 Context, Planning Framework and State/Local Government Requirements (p 13/122).

Stage 2 of the Port Spencer project has been granted Major Development status (SA Government Gazette May 2013), therefore the advice provided in this section (*re; v August 2012*) requires revision.

The project will be subjected to a formal assessment process yet to be determined.

The Major Development declaration places all development decisions with the Minister and NOT Local Government, therefore the assertion that the project would be subjected to Local Government development controls is incorrect.

Development Act (p 14/122).

Is it the intention of the company that this referral pre-empts or replaces any assessment process undertaken by the State? That being the case, then the level of detail is manifestly underwhelming and provides little by way of

confidence that the economic and social impacts are identified and documented, let alone the rigor required to present a competent and complete environmental assessment.

This document clearly would not satisfy the rigors required of an EIS or PER.

2.5.2 State Legislation.

Mining Act (p 14/122).

The Company has yet (in the absence of data to the contrary) to apply for and be granted a mining lease.

The conditions required for such a lease may involve EPBC referral, and clearly this document should NOT be used for that purpose.

2.7 A Staged Development or Component Of A Larger Project (p 16/122).

1. *"This action is not part of a staged development or a component of a larger project...."*

Clearly this is a misleading statement when the declared intent for Project Fusion as evidenced by the reports to the Australian Securities Exchange is that Project Fusion encompasses a number of targets within the larger exploration area.

In addition, Port Spencer is a key component of a larger project involving ore from the Wilgerup Mine (already approved) and further development at the Bungalow Mine to provide two examples of the overall extent of the Centrex development.

Further, the desalination plant proposed for Port Spencer is an integral part of the ore transport mechanism from the Bungalow Mine, being a slurry pipeline, hence the range of capacities cited for the plants size. This intent has been registered with the Australian Securities Exchange.

Any rebuttal from the Company would be in direct contravention of the rules of the ASX.

It is for this reason, the request that the Desalination infrastructure form an integral part of the EPBC assessment with the larger plant being the one that is examined in detail from a marine environment impact consideration.

Centrex has as described in its reporting to the ASX numerous interests on Eyre Peninsula and to suggest that this Project Fusion is not part of 'a larger' Project Fusion project is not sustainable.

3.1 (d) Listed Threatened Species and Ecological Communities (p 17/122).

1. *"Given the location of the pipelines inland from the coast, the 5km buffer included part of Spencer Gulf. No part of the pipeline would include disturbance within the Spencer Gulf, therefore marine species would not be impacted by the pipeline's development."*

What the Company appears to overlook is that the pipeline is connected to the desalination plant and thus forms an integral part of the mine to port project. No desalination plant; no water; no slurry or pipeline.

Project Fusion depends upon the desalination plant and the pipeline for its existence as described in the referral document.

Whilst it may be a matter of convenience for the Company to suggest that it was considered under Stage 1, Port Spencer, no assessment was undertaken of the impact of the desalination plant within the PER process. The assessment of the desalination plant has been included in Stage 2 development.

The Company's response to the EPBC enquiry just completed, with respect to the desalination plant, was that it would have 'limited impact' on the marine environment, a position which was not supported by any evidence.

The two EPBC listed species at risk are the Southern Right Whale and the Fairy Tern.

A year-long study of the migratory habits of both of these listed species has NOT been completed by the Company, rather a two day assessment accompanied the original PER, in which it was claimed the presence of the Fairy Tern to be non-existent. The consultants employed described in detail the limitations of the baseline study they undertook in the area and recommended additional studies to be undertaken. These studies have not been conducted.

The environmental position with respect to the impact upon the marine environment stands on the basis of a two day baseline study and no evidence to support or other-wise the impact of the desalination plant on the marine environment.

Clearly there is a fundamental flaw in the environmental credentials exhibited by the company in this regard.

Evidence exists (Annexure 'E') supporting our contention that this area is a migratory path for the Southern Right Whale (*Eubalaena australis*) and that in seasonal adverse weather conditions during migration Lipson Cove is a shelter site and haven for cows with calves.

Photographic records of sightings include the preceding 6 days (5th to 11th July 2013) being two pair of cow and calf (4 individual mammals identified by their Callosities) in the shelter of Lipson Island, Lipson Cove, Rogers Beach. This being the immediate site of the jetty proposed by Centrex Metals for loading of Capesize ships. (Annexure 'F')

The cows and calves have inhabited the aforementioned area for a total period of 6 days.

"The fact the animals have been there for more than a day is great and indicates they are comfortable and want somewhere to rest. This is important news as anywhere these endangered animals can rest and look after their offspring is valuable real estate."

Libby Eyre, Whale Researcher, Biological Sciences Scientific Officer, Macquarie University NSW.

It is noteworthy that Centrex Metals Limited lodged the preliminary response document to the EBPC for Port Spencer where public comment closed on the 7th June 2013. That date being prior to the known commencement period for Southern Right Whale visitation at this site. The Centrex Port Spencer EPBC referral assessed as 'a controlled action' remains without the relevant assessment studies by the company for Southern Right Whales.

It is therefore recommended that the Company be subjected to the requirement for a full twelve month marine environment impact assessment to accurately assess the impacts of the port and the desalination plant on the highly sensitive marine environment.

It is further recommended that the report so generated is subjected to third party peer review, prior to being submitted to EPBC for assessment.

3.3 Other Important Features of the Environment.

Aquatic Flora and Fauna (p 75/122).

The environmental credential of the Company must be further challenged with respect to the terrestrial aquatic studies undertaken in the region. The Company has undertaken studies during spring. It reports:

1. *"the ultimate extent of surface water through summer and autumn (winter?) and hence the location of key refuges, remains to be documented."*

Again, partial representation is provided and the audience is expected to comment upon incomplete data.

The report continues with statements highlighting the discrepancy between the desktop analyses undertaken and that which was found during the limited surveys that were conducted. Here again, the reader is left with the question, what was the extent of the scientific examination of the project area in this respect and what were the outcomes over a twelve month period?

2. *"The Tod Reservoir is considered an important wetland area...."* (p 76/122)

What therefore is the impact on this 'important wetland' as a consequence of the destruction of the head waters of the Tod River and its tributaries as a consequence of Project Fusion? More-over, what impact will the destruction of the aquifer(s) as a consequence of dewatering have on the ecology of the region, given the very high probability that the soaks, springs, etc., which support the current ecology, will also be destroyed?

The impact is not restricted to fauna, but what will the impact be on the eucalypts (including River Red Gum and especially Eyre Peninsula Blue Gum) if the water table is lowered (or removed) by the dewatering process? The report does not address these environmental impacts.

Processing Plant Study Area (p 77/122).

Vegetation Communities.

1. *"The creek line adjacent to (east of) processing plant survey site contains a section of Eyre Peninsula Blue Gum Woodland (endangered in South Australia), which is approximately 500 metres in length."*

What the report fails to draw attention to is the recent study (concluded 30 June 2013) to determine whether Blue Gum should be EBPC listed. Such an omission and the probable consequences thereof, point to deficiencies in the Company's environmental credentials.

What therefore is the fate of this identified forest, given its location to the processing plant?

What will the impact on the forest be from dust, chemical leachate from the tailings/dewatering of ore?

These issues have not been addressed in the text of the report.

Terrestrial Flora.

Three conservation listed flora species were recorded in the processing plant survey area.

The questions posed above concerning the fate of the Blue Gum are the same questions requiring answers for these listed species.

Again, no answers were forth coming in the report.

Terrestrial Fauna.

Two conservation species were identified, but again no commentary was offered with respect to the management (or fate) of these species as a consequence of the planned activities.

Pipeline Route Study Area (p 77-79/122).

Vegetation Communities.

Two listed species (Blue Gum and Peppermint Box) were identified within the pipeline options study area, the locations of which were described in broad terms, as opposed to the documentation of specific locations with GPS co-ordinates, the actual dimensions (length and breadth) of the occurrence and the actual numbers of plants present. The condition of one stand of Blue Gum was described as degraded, and the rest were not assigned any condition status.

The plotting of the location of these listed species on the proposed pipeline corridors has not been undertaken and hence the location and extent and the potential impact of the pipeline is difficult to assess and comment on.

Terrestrial Flora.

A number of listed species has been identified in the pipeline corridor. Your attention is drawn to the comments above as they apply equally to this aspect of the report.

Terrestrial Fauna.

Two species were identified. Your attention is drawn to the comments above as they apply equally to this section of the report.

The issue of impact on the species identified in this section of the report as a consequence of the planned activity is left to the reader to surmise. Impact statements and mitigation activity are simply missing.

3.3 (b) Hydrology, Including Water Flows (p 79/122).

Mine Site and Processing Plant Study Areas.

1. *"The nationally important Tod River Wetland system also covers most of the mine site study area."*

What the report fails to recognise is that Project Fusion (as reported to the ASX) is not just the three mines described in this referral, but all of those listed in the ASX documentation. The hydrology is not confined to the three mine area.

The report fails to recognise that the Project Fusion covers most of the Tod Reservoir Water Protection Zone (District Council Development Plan) and development control of this area is currently under the auspices of the District Council and its development policy. This will be over taken as a consequence of the recent declaration of the Major Development status by the State Government.

Not-with-standing, Project Fusion will have a substantial impact upon the surface water catchment area of the Tod Reservoir, a position that is not described in the context of this report.

Potential contamination of the surface water is a high probability, a concern already raised in this response. Even more-so with the revelation that the company intends to allow stormwater to enter this catchment, whilst being sediment free, there is no guarantee with respect to chemical contamination as a consequence of the processes employed on the site.

Of equal concern is contamination of the aquifer(s) as has been discussed previously in this report. Sub-surface water abounds in this area (i.e. the Lincoln Upland/Koppio Hills).

What is not being declared by the Company is the extent to which it discovered sub surface water in its drilling programme and the consequence on the sub-surface water arising from potential dewatering of the aquifers.

In addition, what is not being recognised is the high probability that the aquifers in the area covered by Project Fusion (as per ASX disclosure) indeed feed into the aquifers in the prescribed wells area (incorporating the Uley - Wanilla Basins et al), and the consequential loss of water therein resulting from dewatering at the various mine sites.

There is insufficient evidence to support the argument either way, and this leads to the recommendation that a two year, independently conducted scientific assessment of the complete hydrological picture for the Project Fusion site and its impact or otherwise on the groundwater outside the 50km long Project Fusion boundary.

It should also be noted that Lincoln Minerals Limited, a member of the Eyre Peninsula Mining Alliance, is also planning to mine graphite in the locale. It too potentially could have an impact upon the groundwater.

The reason for this level of concern is that this region of Eyre Peninsula is totally reliant upon the groundwater reserves identified in the afore-mentioned basins. The area is NOT served by the River Murray pipeline nor water from surface storage facilities (such as the Tod Reservoir).

3.3 (c) Soil and Vegetation Characteristics (p 80-81/122).

Whilst:

1. *“processing plant and pipeline route options study areas are mostly cleared, agricultural use land.”*

What is overlooked is the impact of the actual mines on the vegetation per se.

Clearly the referral avoids any discussion of the destructive impact the actual mines and waste rock dumps will have on the soil and vegetation profile of the Project Fusion environs.

3.3 (d) Outstanding Natural Features (p 81/122).

1. *“The proposed mine site study area is located roughly in the middle of the Koppio Hills. It contains ten large blocks of native vegetation, including seven that are partly, or wholly, covered by Heritage Agreement areas.”*

It has previously been stated that these areas are precluded from the South Australian Mining Act 1971 and Mining Regulations 2011.

What is not stated is the fate of these stands.

However, the Project Fusion site is in fact significantly bigger than that defined within the referral, and the ‘outstanding features’ for the remainder of the Project Fusion area are not detailed.

Again the reader is expected to comment on an incomplete data set.

The Tod Reservoir Wetland is defined as a feature of national significance. What is missing from the referral document is any discussion of the destruction of the environment by the three designated mines and spoils and those also listed as components of Project Fusion as a whole, as it relates to the wetland. The story is but half told.

3.3 (e) Remnant Native Vegetation.

This section of the referral deals with the general status of the native vegetation stands and the potential impact there-on by the processing plant and the pipelines.

What is missing is a clear identification/location of the native vegetation stands in relation to the processing plant and the pipeline routes.

No discussion is tendered with respect to the potential destruction of these stands by the act of mining and spoil dumps of three nominated mines, let alone the remainder of mines identified as forming Project Fusion.

The lack of information regarding this impact leaves the reader guessing as to the total impact of Project Fusion.

1. *“Overall the habitats surveyed along the pipeline routes are of a low value from a conservation perspective; however, Peppermint Box Open Woodland, which is a conservation significant vegetation conservation community, was recorded along the road sides.”*

What the Company has failed to grasp is that the replanted vegetation programme undertaken by concerned citizens of the District was undertaken in an attempt to undo the complete void of native trees in the region. The total area of the lower Eyre Peninsula under vegetation is less than 10% and any activity to redress this is a move in the right direction, albeit not necessarily to the liking of some pure conservationists or consultants. The history of road side revegetation needs to be recognised as an attempt towards environmental sustainability at the local level.

These stands are not there for the benefit of the mining company, but of the community who undertook the work to create them, not to see them marked for destruction for the sake of a pipeline.

3.3 (g) Current State of The Environment (p 83/122).

Whilst paddocks and grazing land hold little diversity of flora and fauna and likely to contain no species of EPBC conservation significance, such cannot be assumed for the stands of vegetation surrounding paddocks and/or the banks of the water system in the area defined by Project Fusion.

All such areas should be mapped and full environmental assessments undertaken over the complete Project Fusion site.

Only then can the impact of the actual mines, the spoil heaps, the processing plant and its tailing areas, be assessed.

3.3 (h) Commonwealth Heritage Places or Other Places Recognised As Having Heritage Value.

1. *"A cultural heritage assessment which covers the entire proposed development area (presumably the total Project Fusion area as declared to ASX) has not been completed at this time, but is scheduled to be undertaken in 2013."*

Given the aboriginal heritage associated with this region it is incomprehensible that the cultural heritage study has not been undertaken.

Again this is indicative of the Company's incomplete documentation for the referral and seeking approval based on incomplete analysis of the situation at hand.

Pipeline Options Study Area (p 86/122).

The intent of this section of the referral is unclear, if not completely confusing.

3.3 (i) Indigenous Heritage Values (p 87-88/122).

1. *"A desktop heritage assessment has been completed for a portion of the development area. ...A cultural assessment incorporating indigenous monitoring which covers the entire proposed development area (as per ASX declaration?) has not been completed at this time, but is scheduled to be undertaken in 2013."*

A desktop study is a reasonable starting point, but the declared limitations of this study are cause for concern. Given the current dateline, what progress, if any, has been made towards the completion of the assessment as indicated over the whole of the Project Fusion site as declared to ASX?

What are the results of the continued assessment? What level of consultation has been undertaken with the appropriate indigenous leaders for the area?

Mine Site Study Area, Processing Plant Site Study Area, Pipelines Options Study Area.

The referral identifies a significant number of indigenous sites in these designated study areas, most of which are not listed in the various Registers.

What is not included in the referral is the mapping of the sites discovered and the process by which these will be authenticated and recorded on the appropriate Registers.

What will become of these sites should they be with the proposed development areas, i.e. in the mine; on the platform for the processing plant or within the route for the pipeline?

Again the referral lacks the substance upon which an informed opinion can be made.

3.3 (j) Other Important or Unique Values Of The Environment (p 88/122).

The referral discusses the requirements of the Heritage Agreements and points to the limitations the Heritage Agreement places on mining.

This discussion also includes a mention of offsets that would be required, clearly indicating the possibility of destruction of the vegetation contained in the Heritage Agreements.

The end point of this discussion is clearly that Heritage Agreements are not worth the paper they are written on, if they can be reviewed in favour of a mining interest. Conservation loses yet again.

4 Measures To Avoid or Reduce Impacts (p 90/122).

1. *"The project is in the early stages of planning...."*
2. *"The detailed plans for offsets and impact mitigation measures would be developed once the project footprint is established and through the impact assessment process."*

Clearly, the implication of these two statements is that Project Fusion has not progressed to a sufficient stage of detail to warrant the assessment consideration of an EPBC referral.

Seeking a public comment on something that does not exist appears to be an underlining theme in this referral. This does not impart any degree of confidence that the Company is delivering on its environmental responsibilities.

Environmental Credentials of The Company.

One of the key expectations the community has with respect to mining exploration activities in sensitive areas such as those in the Project Fusion lease is that these activities will be conducted in an environmentally responsible manner.

Unfortunately in this instance, such is not the case.

The Company has been subjected to a 'Compliance Audit of Exploration Drilling' in June and August 2012, as documented in a letter to the Company from the Deputy Executive Director, Mineral Resources (ref MER F2008/000273), which contains, amongst other things:-

- a) "The report findings include significant issues related to topsoil management, excessive excavation, **native vegetation clearance** and inadequate management systems arising from Eyre Iron's Eyre Peninsula exploration activities", (bolding added)
- b) "As a result of these issues, Eyre Iron was **instructed to cease drilling in any location characterized by undulating or vegetated terrain**", (bolding added) and
- c) "Consistent with the findings of the audit and pursuant to Regulation 89 under the Mining Regulation 2001, DMITRE advises that Eyre Iron is required to evidence, to the satisfaction of the Director of Mines, that appropriate **measures to prevent recurrence** of these issues are in place **prior to the resumption of drilling**". (bolding added)

The audit has yet to be completed as only 55 per cent of the drilling sites have currently been inspected.

Summary and Recommendations.

Attention has already been drawn to the actual scope of Project Fusion as presented within this referral compared to that which has been advised to the Australian Securities Exchange.

1. It is therefore **recommended** that the referral be withdrawn and the actual scope of Project Fusion be defined and subjected to assessment incorporating the issues outlined in this submission.

Attention has been drawn to the incomplete, numerous and substantial omissions of data being provided in many sections of this referral.

2. It is therefore **recommended** that the referral be withdrawn pending the completion of all outstanding studies and re-submitted when all issues are actually resolved, thus giving the reader an accurate view of what is being proposed.

Attention has been drawn to the timing of the referral in the context of the Government of South Australia issuing its declaration of Major Project status for the Port Spencer Stage 2 project and the subsequent assessment there to.

3. It is **recommended** that the referral be withdrawn pending the actual assessment process to be undertaken through an EIS or PER that has yet to be determined.
4. It is **recommended** that the referral be withdrawn on the basis that the incomplete application can be seen as an attempt by the company to avoid any responsibilities required under the EPBC Act as amended.
5. It is **recommended** that as the Company has submitted a document describing a project to be assessed inclusive for the mine to the port, that the desalination plant be included in the assessment, given that it is an integral part of the process (no desalination plant, no pipelines), and that the desalination be assessed in relation to the listed marine fauna (Southern Right Whale and the Fairy Tern) as well as any other marine environment impact (plume, dispersion, etc.).
6. It is **recommended** that for the claim that this is not a component of a larger action be investigated in light of declarations Eyre Iron/Centrex have made to the Australian Securities Exchange and resubmitted accordingly.
7. It is **recommended** that the environmental impact on listed fauna and flora be documented as suggested above, with attention being paid to the impact on the Blue Gum forest and its under-croft given the recent investigation to list the species.
8. It is **recommended** an extended assessment of the impact on the region's hydrology be undertaken to quantify the impact in the region of the Project Fusion and on neighbouring aquifers.
9. It is **recommended** a complete indigenous heritage assessment be undertaken and reported upon in a resubmitted application.
10. It is **recommended** that the consultation process oft alluded to in the referral be actually carried out and the result incorporated into a new referral. The presumption that landowner will agree to the proposed pipelines through their properties needs to be tested.

11. It is **recommended** that satellite imagery over which the boundaries of the Project Fusion and the mines identified therein are overlayed.
12. It is **recommended** that satellite imagery is provided to identify the location of the listed species identified within the boundary of Project Fusion.
13. It is **recommended** that a topographic map of the area under consideration be provided overlayed with the location of the Project Fusion boundary; location of mines, processing plant, pipeline routes, Tod Reservoir wetland, Tod Reservoir head waters, location of Heritage Agreement vegetation and listed species forests (or individual occurrences); location of indigenous heritage features (listed and identified through discovery as a result of surveys undertaken).
14. It is **recommended** that a map of the District Council of Tumby Bay showing all section numbers of properties in the District be provided that is overlayed with the location of the Project Fusion boundary; the location of the mines (all sites); the pipeline routes and the location of all Heritage Agreements and listed flora.

We trust the information contained in this submission will support our contention that the referral application 2013/6919 Project Fusion, Eyre Peninsula, South Australia should be withdrawn and re-submitted when the issues of contention have been addressed.

Yours faithfully,

s47F

Chairperson

Multiple Mine Site (Fusion Project) Predictive Fugitive Dust Model

Prevailing Wind Data Source: Bureau of Meteorology

Predictive Fugitive Dust Model

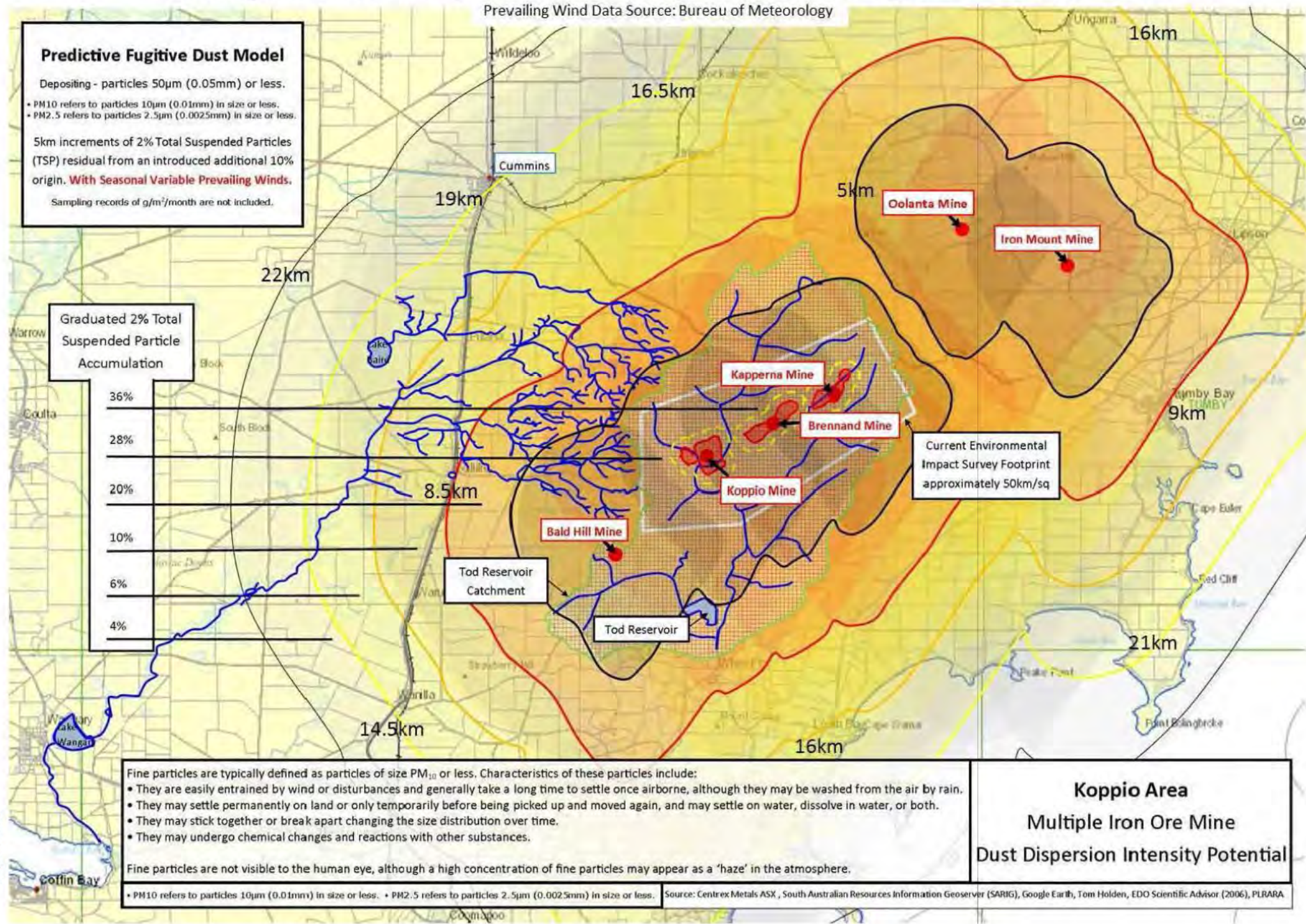
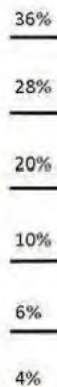
Depositing - particles 50µm (0.05mm) or less.

- PM10 refers to particles 10µm (0.01mm) in size or less.
- PM2.5 refers to particles 2.5µm (0.0025mm) in size or less.

5km increments of 2% Total Suspended Particles (TSP) residual from an introduced additional 10% origin. **With Seasonal Variable Prevailing Winds.**

Sampling records of $g/m^2/month$ are not included.

Graduated 2% Total
Suspended Particle
Accumulation



Fine particles are typically defined as particles of size PM_{10} or less. Characteristics of these particles include:

- They are easily entrained by wind or disturbances and generally take a long time to settle once airborne, although they may be washed from the air by rain.
- They may settle permanently on land or only temporarily before being picked up and moved again, and may settle on water, dissolve in water, or both.
- They may stick together or break apart changing the size distribution over time.
- They may undergo chemical changes and reactions with other substances.

Fine particles are not visible to the human eye, although a high concentration of fine particles may appear as a 'haze' in the atmosphere.

* PM10 refers to particles 10µm (0.01mm) in size or less. + PM2.5 refers to particles 2.5µm (0.0025mm) in size or less.

Source: Centrex Metals ASX, South Australian Resources Information Geoserver (SARIG), Google Earth, Tom Holden, EDO Scientific Advisor (2006), PLRARA

Koppio Area

Multiple Iron Ore Mine

Dust Dispersion Intensity Potential



Esperance Cleanup and Recovery Project



Have we sampled your home or business?

The Esperance Cleanup and Recovery Project is undertaking a systematic and thorough cleanup of the Esperance town site to remove lead and nickel contamination, where it is found to be above accepted guidelines.

Using results from plume modelling and detailed testing we have identified an area of interest, as shown on the map in blue, where we have been conducting detailed sampling and cleaning on residential and commercial premises. The sampling has been used to identify the premises that require cleaning and the specific areas to be cleaned within each property. To date over 650 premises have been cleaned although sampling has indicated that not all premises require cleaning.

The sampling phase of the project is due to be completed by the end of May, 2011.

If you are the owner of a home or commercial property within any of the blue areas shown on the map, and have not yet had sampling conducted, then please contact us and we'll provide you with a consent form. If you already have a consent form, then please return it to us (even if you do not want your property sampled).

If you are a tenant in a home or commercial property within any of the blue areas shown on the map, and have not yet had sampling conducted, then please contact your managing agent or owner. A sampling consent form must be signed by the property owner to ensure your involvement in the project.

To have a consent form sent to you, please call

Kandi Robb on 9072 3911

or call into our office at Unit 2B, 113 Dempster Street, Esperance.

For project information and updates, visit oncue.org.au

Annexure 'C'

2 JULY 2013

DEPARTMENT OF ENVIRONMENT, WATER AND NATURAL RESOURCES, \$184,701,000

ADMINISTERED ITEMS FOR THE DEPARTMENT OF ENVIRONMENT, WATER AND NATURAL RESOURCES, \$19,361,000

Witness:

Hon. I.K. Hunter, Minister for Sustainability, Environment and Conservation, Minister for Water and the River Murray, Minister for Aboriginal Affairs and Reconciliation.

Departmental Advisers:

Mr J. Ringham, Chief Executive, SA Water.

Mr G. Henstock, Corporation Secretary, SA Water.

Mr B. Naylor, Manager, Treasury, SA Water.

Mr R. Faunt, Technical Regulator and Director of Energy Regulation, Office of the Technical Regulator.

Ms R. McClelland, Ministerial Adviser.

Mr T. Mooney, Chief of Staff.

The CHAIR: We will move on now to SA Water.

Ms CHAPMAN: The list of capital projects in Budget Paper 5 is a list which identifies some of the new projects proposed to at least commence planning in the forthcoming financial year. One of them, at the end of the section under New Projects, is the Tod River Dam Safety program, which is a \$14.4 million program to be completed in June 2018. My first question is, is this the same Tod River that is on the West Coast?

The Hon. I.K. HUNTER: The answer, I am advised, is yes.

Ms CHAPMAN: And, minister, you would know that it is not spelt T-o-d-d.

The Hon. I.K. HUNTER: In fact I would not know, but I will take that advice.

Ms CHAPMAN: You would not know? Goodness me, you are the Minister for Water! Well, the Tod (T-o-d) River Dam, can you just explain what this \$14.5 million is going to be spent on, given that I understand this water is not being used because it is too salty? We are going to make it safe but we cannot drink it, is that the sort of situation that we are at?

The Hon. I.K. HUNTER: The answer is in two parts. Part of the construction is for an increase in flood capacity, but I am also advised that we need to bring the dam up to Australian national standards. I am further advised that SA Water is in negotiations with an entity to use non-drinking water for a commercial operation.

Ms CHAPMAN: When you say national standards, that is for the level of salinity or safety standards or both?

The Hon. I.K. HUNTER: I am advised that is national safety standards for large dams.

Ms CHAPMAN: That is so that if there is an excessive amount of water there is sufficient infrastructure there to ensure that it does not break and flood all of the salty water down the river and cause environmental and potential human damage? Is that the sort of situation we are at?

The Hon. I.K. HUNTER: My advice is yes, that is, in general terms, the answer. The improvements are to prevent overtopping of the dam in flood conditions or failure of the dam.

Ms CHAPMAN: So, we are going to spend \$14.5 million on making it safe, and this is for, potentially, use to support a mine, is it?

The Hon. I.K. HUNTER: I am not aware of the commercial activity that we are discussing and it is probably not appropriate to mention at this stage who or what that might be.

Ms CHAPMAN: The only proposed mines around there, of course, are iron ore mines, and the person who is doing the negotiation is sitting next to you. I am assuming it is Centrex or some other company that is putting forward proposals which are all in the public domain, so I do not know what the secret is.

The Hon. I.K. HUNTER: There is no secret. I am just advising you that I am not aware —

Ms CHAPMAN: Well, do you want to ask the person sitting next to you?

The Hon. I.K. HUNTER: —and at this early stage, I do not think it is appropriate.

Ms CHAPMAN: But in any event your understanding is that it will be used for a purpose in respect of some industrial use?

The Hon. I.K. HUNTER: My understanding is that we are in negotiation with a commercial entity for a future potential use of that water.

Ms CHAPMAN: Is it proposed that either humans or stock will drink it?

The Hon. I.K. HUNTER: Not to my knowledge.

Ms CHAPMAN: So you know enough to know that it is not for pastoral or human consumption, but you do not know what it is. I am not sure what else would use water, apart from mining projects.

The Hon. I.K. HUNTER: I know enough to say that it is not to be considered for potable purposes.

Ms CHAPMAN: For potable purposes? Do you know of any other purposes proposed on the West Coast, other than mining?

The Hon. I.K. HUNTER: I think I will just refer you to my previous answer.

Ms CHAPMAN: In any event we are going to spend this money. Will there be any recouping of these funds from the prospective purchaser of this water, the nearly \$15 million you will spend to upgrade this facility so that it can be for a commercial purpose?

The Hon. I.K. HUNTER: One can expect there will be a commercial arrangement in place which will allow us to recoup some money.

Ms CHAPMAN: Your government has approved a \$14.5 million exercise: are you telling me that you have not secured some arrangement so that, if it is built and if there is a contingency of progress, it will be recovered —

The Hon. I.K. HUNTER: Madam Chair —

Ms CHAPMAN: —or will this person get all the benefit of this and no-one else?

The Hon. I.K. HUNTER: Madam Chair —

The CHAIR: Order! The member for Bragg, order!

The Hon. I.K. HUNTER: The honourable member is trying to put words into my mouth. Having had her detailed explanation, she is trying to say that the only purpose for this construction is a commercial one, and that is very clearly, from a rereading of my answer, which she will be able to do tomorrow, not the only purpose.

Ms CHAPMAN: Have you then secured any revenue stream that will result from the use of this water by whomever to recoup the cost of the \$14.5 million?

The Hon. I.K. HUNTER: My advice, as indicated earlier, is that we are in negotiations with a commercial entity.

Ms CHAPMAN: Anyway, you have signed off on it and agreed to get it started, which is to occur while people are paying huge water bills here in Adelaide?

The Hon. I.K. HUNTER: Again, I refer the honourable member to my earlier detailed answer. We need to bring construction of the dam up to national standards, and I invite her to read her Hansard tomorrow and refresh her memory.

Ms CHAPMAN: I do not need to—I have a pretty clear idea.

SA Water

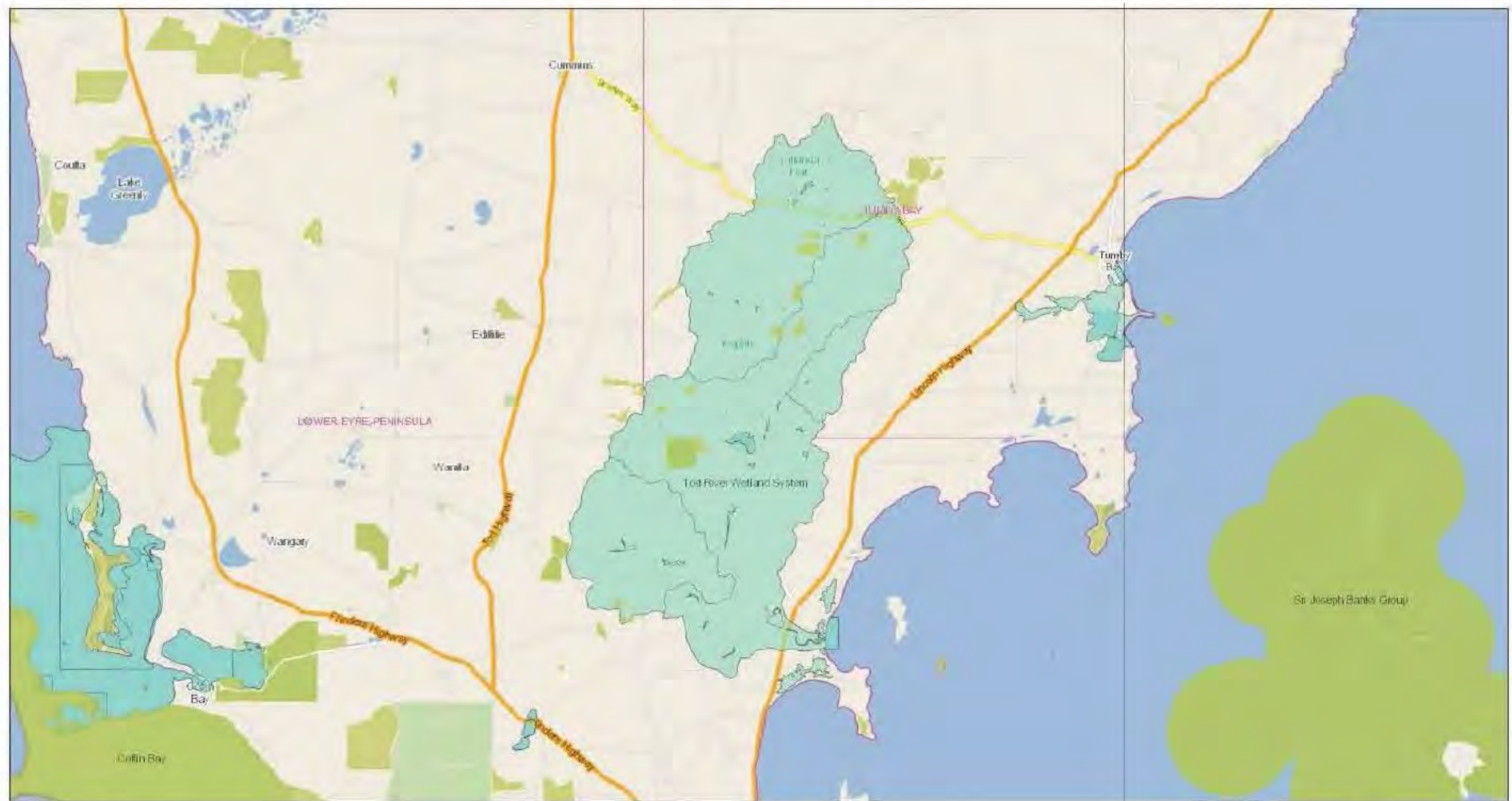
The 2013–14 investment program for SA Water is \$407.2 million.

The program provides for a number of wastewater treatment plant projects to improve reliability and accommodate growth, country water projects to accommodate growth and network projects to improve reliability. The program also provides for progressive release of approved retention payments for the Adelaide Desalination Plant during the operational warranty period.

The estimated total costs for a number of projects in the early stages of development are based on concept or pre-concept designs.

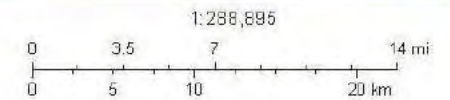
	Expected completion	Proposed expenditure 2013–14 \$000	Estimated total cost \$000
SA Water			
New Projects			
Bolivar Wastewater Treatment Plant Clarifier Upgrade — Stage 3 Replace clarifiers and increase capacity to meet increasing demand and ensure reliability.	Jun Qtr 2018	523	18 854
Glenelg Wastewater Treatment Plant Upgrade of Inlet Screens Replace concrete screen structure and building to ensure reliability.	Jun Qtr 2016	1 569	19 557
Kangaroo Creek Dam Safety Increase flood capacity and flood management of Kangaroo Creek Dam in line with ANCOLD Guidelines.	Jun Qtr 2017	4 183	86 258
Mt Barker Water Supply Investigation — Stage 1 Provision of potable water supply to the expanded residential development at Mount Barker.	Jun Qtr 2015	16 228	24 505
North Lefevre Peninsula Wastewater Diversion Upgrade the trunk main capacity on Lefevre Peninsula to cater for growth and recycling.	Jun Qtr 2017	1 568	29 748
Port Wakefield Water Supply Upgrade Provide the Port Wakefield Township with increased water supply via construction of a 43 kilometre long potable water pipeline.	Jun Qtr 2014	12 926	17 089
Swan Reach Paskerville Pipeline High Voltage Switchboard Replacement Replacement of high voltage switchboards and upgrade of control systems on the Swan Reach Paskerville Pipeline.	Dec Qtr 2013	2 647	7 826
Todd River Dam Safety Increase flood capacity and upgrade of Todd River Dam in line with ANCOLD guidelines.	Jun Qtr 2018	366	14 425
Existing Projects			
Adelaide Desalination Plant^(a) Construction of a 100 gegalitre desalination plant at Port Stanvac and a transfer pipeline to the Happy Valley Water Treatment Plant.	Dec Qtr 2014	32 374	1 824 000
Bolivar Pre-aeration Concrete Rehabilitation Upgrade of the concrete grit removal tanks and primary sedimentation tanks.	Jun Qtr 2017	1 420	49 264

Tod Wetland



July 12, 2013

- Protected Areas
- Nationally Important Wetlands
- National Heritage Places
- Local Government Areas



Map produced using the Environmental Reporting Tool of the Department of Sustainability, Environment, Water, Population and Communities.
 © Commonwealth Government of Australia (Geoscience Australia)
 © PSMA 2010



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 12/07/13 00:43:27

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

No Image
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This map may contain data which are
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(Geoscience Australia), ©PSMA 2010

[Coordinates](#)

[Buffer: 5.0Km](#)

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Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Areas:	None
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	41
Listed Migratory Species:	31

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As [heritage values](#) of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place and the heritage values of a place on the Register of the National Estate.

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	3
Commonwealth Heritage Places:	None
Listed Marine Species:	56
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

Place on the RNE:	7
State and Territory Reserves:	22
Regional Forest Agreements:	None
Invasive Species:	22
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities

[\[Resource Information \]](#)

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Peppermint Box (<i>Eucalyptus odorata</i>) Grassy Woodland of South Australia	Critically Endangered	Community likely to occur within area

Listed Threatened Species

[\[Resource Information \]](#)

Name	Status	Type of Presence
Birds		
Acanthiza iredalei iredalei Slender-billed Thornbill (western) [25967]	Vulnerable	Species or species habitat likely to occur within area
Diomedea exulans antipodensis Antipodean Albatross [82269]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans exulans Tristan Albatross [82337]	Endangered	Species or species habitat may occur within area
Diomedea exulans (sensu lato) Wandering Albatross [1073]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
Macronectes giganteus Southern Giant-Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant-Petrel [1061]	Vulnerable	Species or species

Name	Status	Type of Presence
<u>Psophodes nigrogularis leucogaster</u> Western Whipbird (eastern) [64448]	Vulnerable	habitat may occur within area Species or species habitat likely to occur within area
<u>Pterodroma mollis</u> Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
<u>Rostratula australis</u> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
<u>Sternula nereis nereis</u> Australian Fairy Tern [82950]	Vulnerable	Species or species habitat known to occur within area
<u>Stipiturus malachurus parimeda</u> Southern Emu-wren (Eyre Peninsula) [26006]	Vulnerable	Species or species habitat known to occur within area
<u>Thalassarche bulleri</u> Buller's Albatross [64460]	Vulnerable	Species or species habitat may occur within area
<u>Thalassarche cauta cauta</u> Shy Albatross, Tasmanian Shy Albatross [82345]	Vulnerable	Species or species habitat may occur within area
<u>Thalassarche melanophris</u> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<u>Thalassarche melanophris impavida</u> Campbell Albatross [82449]	Vulnerable	Species or species habitat may occur within area
Mammals		
<u>Balaenoptera musculus</u> Blue Whale [36]	Endangered	Species or species habitat may occur within area
<u>Eubalaena australis</u> Southern Right Whale [40]	Endangered	Breeding known to occur within area
<u>Megaptera novaeangliae</u> Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
<u>Neophoca cinerea</u> Australian Sea-lion [22]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Plants		
<u>Acacia enterocarpa</u> Jumping-jack Wattle [17615]	Endangered	Species or species habitat likely to occur within area
<u>Acacia pinguifolia</u> Fat-leaved Wattle [5319]	Endangered	Species or species habitat known to occur within area
<u>Acacia whibleyana</u> Whibley Wattle [64497]	Endangered	Species or species habitat likely to occur within area
<u>Caladenia brumalis</u> Winter Spider-orchid [54993]	Vulnerable	Species or species habitat likely to occur within area
<u>Caladenia conferta</u> Coast Spider-orchid [55000]	Endangered	Species or species

Name	Status	Type of Presence
Caladenia macroclavia Large-club Spider-orchid [55012]	Endangered	habitat may occur within area Species or species habitat may occur within area
Caladenia tensa Greencomb Spider-orchid, Rigid Spider-orchid [24390]	Endangered	Species or species habitat likely to occur within area
Frankenia plicata [4225]	Endangered	Species or species habitat likely to occur within area
Haloragis eyreana Prickly Raspwort [8737]	Endangered	Species or species habitat likely to occur within area
Olearia pannosa subsp. pannosa Silver Daisy-bush [12348]	Vulnerable	Species or species habitat likely to occur within area
Prasophyllum goldsackii Goldsack's Leek-orchid [2380]	Endangered	Species or species habitat likely to occur within area
Prostanthera calycina West Coast Mintbush, Limestone Mintbush, Red Mintbush [9470]	Vulnerable	Species or species habitat likely to occur within area
Ptilotus beckerianus Ironstone Mulla Mulla [3787]	Vulnerable	Species or species habitat known to occur within area
Pultenaea trichophylla Tufted Bush-pea [12715]	Endangered	Species or species habitat known to occur within area
Tecticornia flabelliformis Bead Glasswort [82664]	Vulnerable	Species or species habitat known to occur within area
Thelymitra epipactoides Metallic Sun-orchid [11896]	Endangered	Species or species habitat likely to occur within area
Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
Sharks		
Carcharodon carcharias Great White Shark [64470]	Vulnerable	Species or species habitat likely to occur within area
Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area