

# Guidelines

for the preparation of a  
Public Environmental Report

**Sheep Hill Deep Water Port Facility (Stage 1)  
on Eyre Peninsula**

Proposal by Centrex Metals Ltd

April 2011



*Development  
Assessment  
Commission*



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**on Eyre Peninsula**

Proposal by Centrex Metals Ltd

April 2011

## **Department of Planning and Local Government**

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## **Development Assessment Commission South Australia**

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ISBN 978-0-7590-0133-6  
FIS 23267



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**Appendix A - SA Development Act 1993, Section 46C, PER Process**

**Appendix B – Relevant Plans of the Proposal**



# 1 INTRODUCTION

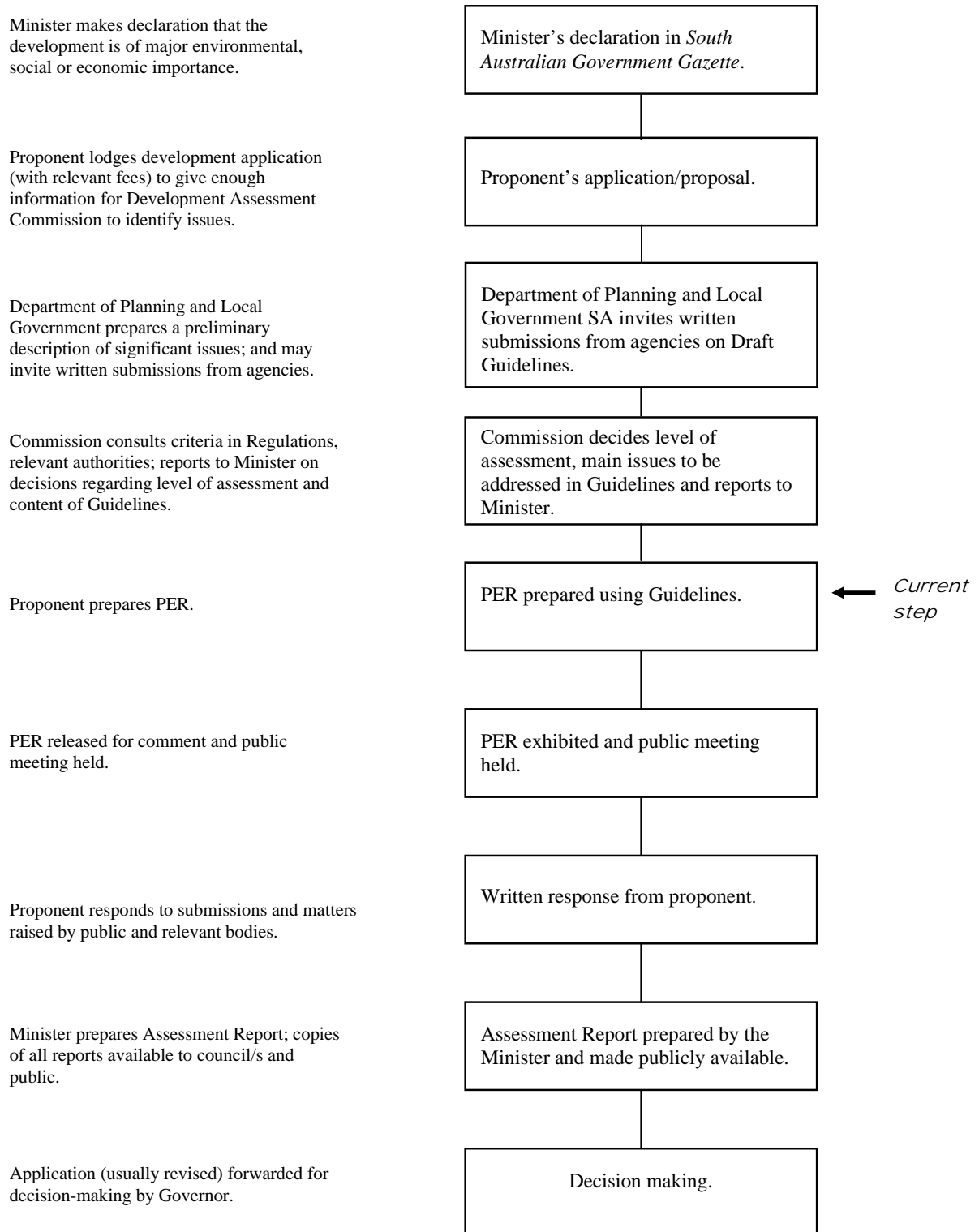
- 1.1 On 6 January 2011, the then Minister for Urban Development & Planning ('the Minister') made a declaration in the Government Gazette for the 'Sheep Hill' Deep Water Port Facility proposal to be assessed as a Major Development under the provisions of Section 46 of the *Development Act 1993*.
- 1.2 The proposed development is for a location named by the proponent as 'Sheep Hill', 70 kilometres north-east of Port Lincoln on Eyre Peninsula (ie. on the coast between Port Neil and Tumby Bay). Stage 1 of the proposal comprises:
  - Wharf/jetty structures and ship loading systems.
  - Storage buildings and facilities (for ore and grain).
  - Road transport access corridor (along Swaffers Road).
- 1.3 The Development Assessment Commission (DAC) is an independent statutory authority that has the task of determining the appropriate form of assessment for a Major Development, namely an Environmental Impact Statement (EIS); a Public Environmental Report (PER) or a Development Report (DR); and setting Guidelines.
- 1.4 Following consideration of the potential implications of the proposal, the DAC has determined the proposal will be subject to the processes and procedures of a Public Environmental Report (PER), as set out in Section 46C of the *Development Act 1993*. A PER was considered appropriate due to a number of issues to be investigated, including:
  - The level of unconformity with existing zone policies within the Development Plan.
  - The establishment of a large shipping terminal in a rural coastal location.
  - Traffic generation and implications for the local road network.
  - Potential economic benefits to the region.
  - Potential impacts on the surrounding coastal and marine environment (including from shipping activities in the Spencer Gulf).
  - Visual and community impacts (especially recreational and tourism use of Lipson Cove).
  - Climate change and greenhouse gas emissions.
  - Construction impacts (including noise, dust, odour and vibration).
  - Infrastructure requirements.

- 1.5 It should be noted the *Development Act 1993* requires a PER to be publicly exhibited for a period of at least 30 business days, and for a public meeting to be held during this period.
- 1.6 The DAC has now prepared Guidelines for the proposed 'Sheep Hill' Deep Water Port Facility, based on the significant issues relating to the proposed development. The PER should be prepared in accordance with these Guidelines and should describe what the proponent wants to do, what the environmental effects will be and how the proponent plans to manage the project.
- 1.7 The PER should be prepared to cover both the construction and ongoing operation of the development and where possible should outline opportunities to incorporate best practice design and management.
- 1.8 For the purposes of environmental impact assessment under the *Development Act 1993*, the meaning of 'environment' is taken to include an assessment of environmental (biological and physical), social and economic effects associated with the development and the means by which those effects can be managed.
- 1.9 An opportunity for public comment will occur when the completed PER is released for public exhibition. At that time, an advertisement will be placed in *The Advertiser* and local newspapers to indicate where the PER is available and the length of the public exhibition period. During the exhibition period, written submissions on the proposal can be made to the Minister for Urban Development, Planning and the City of Adelaide.
- 1.10 The DAC's role in the assessment process is now fulfilled. The Minister will continue with the assessment process under Section 46 of the *Development Act 1993* from this point. The object of Section 46 is to ensure that matters affecting the environment, the community or the economy to a significant extent are fully examined and taken into account in the assessment of this proposal.
- 1.11 The documentation and the analyses from the assessment process will then be used by the Governor in the decision-making process, under Section 48 of the *Development Act 1993*, to decide whether the proposal can be approved, and the conditions that would apply.
- 1.12 The key stages in the assessment process under the Major Developments or Projects provisions of the *Development Act 1993* are shown in Figure 1.



**FIGURE 1**

**MAJOR DEVELOPMENTS - ASSESSMENT PROCESSES AND DECISION-MAKING**





## 2 BACKGROUND

- 2.1 The proponent of the proposed 'Sheep Hill' Deep Water Port Facility is Centrex Metals Ltd (Centrex). Centrex is a publicly listed South Australian iron exploration and mining company. The company has extensive mining tenement holdings over iron deposits and exploration targets on Eyre Peninsula, including hematite and magnetite resources. It is expected that the proposal would be developed in joint partnership with the Chinese company Wuhan Iron & Steel (Group) Corporation although no formal documentation has been entered into at this stage. The proponent intends to appoint a suitably experienced and qualified port management and operating company to run the facility (if approved).
- 2.2 Centrex proposes to establish a multi-user, deep water export port on ~105 hectares of land at 'Sheep Hill', between the coastal townships of Port Neil and Tumbly Bay. Stage 1 (comprising 48 hectares of the site) is primarily for the direct shipment of hematite from the company's mines on Eyre Peninsula. The facility would accommodate Cape class vessels and be suitable for the export of 2 million tonnes of iron ore and 1 million tonnes of grain per annum. A future Stage 2 is proposed for the processing of magnetite and would require a slurry pipeline to the site (from various mines), a processing plant, storage areas and a small desalination plant. Sites could also be established for the export of minerals by other companies or for the export of rural products, such as grain (possibly including rail access). Stage 2 would have capability to export up to 20 million tonnes of iron ore per annum. If approved, Stage 1 of the proposal could be operational by late 2014. Refer to Appendix B for a copy of the relevant plans of the proposal.
- 2.3 The proponent has been advised by the Minister for Urban Development, Planning & the City of Adelaide that a Public Environmental Report (PER) is required to assist the Government in assessing the environmental, social and economic impacts of the proposal.
- 2.4 The DAC has prepared these Guidelines for the proponent based on the significant issues relating to the proposed development. These Guidelines identify the issues associated with the proposal that must be addressed in the PER.



### **3 THE PUBLIC ENVIRONMENTAL REPORT PROCESS**

- 3.1 A PER, as defined in Section 46C of the *Development Act 1993*, includes a description and analysis of issues relevant to the development and the means by which those issues can be addressed.
- 3.2 The PER should detail the expected environmental, social and economic effects of the development. The PER must consider the extent to which the expected effects of the development are consistent with the provisions of any Development Plan, the Planning Strategy and any matter prescribed by the Regulations under the Act. The PER should also state the proponent's commitments to meet conditions (if any) placed on any approval that may be given to avoid, mitigate or satisfactorily control and manage any potential adverse impacts of the development on the environment. Further to this, any other information required by the Minister must be considered.
- 3.3 In preparing the PER, the proponent should bear in mind the following aims of the PER and public review process:
  - 3.3.1 To provide a source of information from which interested individuals and groups may gain an understanding of the proposal, the need for the proposal, the alternatives, the environment that would be affected, the impacts that may occur and the measures to be taken to minimise these impacts.
  - 3.3.2 To provide a forum for public consultation and informed comment on the proposal.
  - 3.3.3 To provide a framework in which decision-makers may consider the environmental aspects of the proposal in parallel with social, economic, technical and other factors.
- 3.4 Following the release of the Guidelines adopted by the DAC:
  - 3.4.1 The PER must be prepared by the proponent in accordance with these Guidelines.
  - 3.4.2 The PER is referred to the District Council of Tumby Bay and to any prescribed authority or body, and to other relevant authorities or bodies for comment.
  - 3.4.3 Public exhibition of the PER document by advertisement is undertaken for a least 30 business days. Written submissions are invited.
  - 3.4.4 A public meeting is held in the locality by the Department of Planning and Local Government during the period for making submissions, in order to provide information on the development or project, to explain the PER document and processes, and to assist interested persons to make submissions under the Act.

- 3.4.5 Copies of the submissions from the public, Council and other relevant agencies will be given to the proponent (Centrex) soon after closing of the public comment period.
- 3.4.6 The proponent must then prepare a written response in a 'Response Document' to the matters raised by a Minister, Council, any prescribed or specified authority or body and the public. The proponent is nominally given two months to provide this to the Minister.
- 3.4.7 The Minister then prepares an Assessment Report, taking into account any submissions and the proponent's response to them. Comments from any other authority or body may be considered as the Minister thinks fit.
- 3.4.8 The Assessment Report and the Response Document are to be kept available for inspection and purchase at a place and period determined by the Minister. Availability of each of these documents will be notified by advertisements in the *Advertiser* newspaper and local press.
- 3.4.9 Copies of the PER, the Response Document and the Assessment Report will be given to the District Council of Tumby Bay for distribution purposes.
- 3.4.10 The Governor is the relevant decision maker under Section 48 of the Act, when a development application is subject to the PER process.
- 3.4.11 In arriving at a decision, the Governor must have regard to:
- The provisions of the appropriate Development Plan and Regulations.
  - If relevant, the Building Rules.
  - The Planning Strategy.
  - The PER, Response document and Assessment Report.
  - If relevant, the *Environment Protection Act 1993*.
  - If relevant, the objects of the *River Murray Act 2003* and any obligations under the Murray-Darling Basin Agreement.
  - If relevant, the objects of the *Adelaide Dolphin Sanctuary Act 2005*.
  - If relevant, the objects of the *Marine Parks Act 2007*.
- 3.5 The Governor can at any time, and prior to completion of the assessment process, determine that the development will not be granted authorisation. This may occur if it is clear that the development is inappropriate or can not be managed properly. This is commonly referred to as an "early no".

## 4 THE PUBLIC ENVIRONMENTAL REPORT DOCUMENT

- 4.1 The Guidelines set out the major issues associated with the proposal and their degree of significance, as determined by the Development Assessment Commission. It describes each issue and then outlines the way that these issues should be dealt with in the Public Environmental Report.
- 4.2 In these Guidelines the terms “description” and other similar terminology should be taken to include both quantitative and qualitative materials as practicable and meaningful. Similarly, adverse and beneficial effects should be presented in quantitative and/or qualitative terms as appropriate.
- 4.3 The main text of the PER should be clear and precise and presented in terms that are readily understood by the general reader. Technical details should be included in the appendices so that the PER forms a self-contained entity.
- 4.4 The document should give priority to the major issues associated with the proposal. Matters of lesser concern should be dealt with only to the extent required to demonstrate that they have been considered to assist in focussing on the major issues.
- 4.5 The following should be included in the PER:

### 4.5.1 SUMMARY

The PER should include a concise summary of the matters set out in section 46C of the *Development Act 1993* and include all aspects covered under the headings set out in the Guidelines below, in order for the reader to obtain a quick but thorough understanding of the proposal and the resulting environmental impacts.

### 4.5.2 INTRODUCTION

The introduction to the PER should briefly cover the following:

- Background to, and objectives of, the proposed development.
- Details of the proponent.
- Staging and timing of the proposal, including expected dates for construction and operation.
- Relevant legislative requirements and approval processes.
- Purpose and description of the PER process.

### 4.5.3 NEED FOR THE PROPOSAL

- The specific objectives that the proposal is intended to meet, including market requirements.
- Arrangements for other users to gain access to port facilities and/or to establish additional facilities on site (including port management).
- Expected local, regional and state benefits and costs, including

those that cannot be adequately described in monetary or physical terms (eg. effects on aesthetic amenity).

- A summary of environmental, economic and social arguments to support the proposal, including the consequences of not proceeding with the proposal.

#### 4.5.4 DESCRIPTION OF THE PROPOSAL

The description of the proposal should include the following information:

- The nature of the proposal and location.
- A project plan to outline objectives, constraints, key activity schedule and quality assurance.
- Site layout plans (including an indicative land division plan if relevant).
- The construction and commissioning timeframes (including staging).
- A description of the existing environment (including the immediate and broader location).
- Details on all buildings and structures associated with the proposed development.
- Any other infrastructure requirements and availability.
- Details on the operation of the proposed development.
- The relevant Development Plan zones.
- Management arrangements for the construction and operational phases (including Environmental Management and Monitoring Plans).

4.6 The PER must include the following:

##### 4.6.1 ASSESSMENT OF EXPECTED ENVIRONMENTAL, SOCIAL AND ECONOMIC EFFECTS

The assessment of effects should include all issues identified in Section 5 of these Guidelines and cross referenced to supporting technical references.

##### 4.6.2 CONSISTENCY WITH GOVERNMENT POLICY

The *Development Act 1993* requires the PER to state the consistency of the expected effects of the proposed development with the relevant Development Plan and Planning Strategy.

##### 4.6.3 AVOIDANCE, MITIGATION, MANAGEMENT AND CONTROL OF ADVERSE EFFECTS

The proponent's commitment to meet conditions proposed to avoid, mitigate, satisfactorily manage and/or control any potentially adverse impacts of the development on the physical,



social or economic environment, must be clearly stated as part of the PER.

The design of the proposal should be flexible enough to incorporate changes to minimise any impacts highlighted by this evaluation or by post-operation monitoring programs.

4.7 The PER should also provide the following additional information:

4.7.1 SOURCES OF INFORMATION

The sources of information (e.g. reference documents, literature services, research projects, authorities consulted) should be fully referenced, and reference should be made to any uncertainties in knowledge. Where judgments are made, or opinions given, these will need to be clearly identified as such, and the basis on which these judgments or opinions are made will need to be justified. The expertise of those making the judgments including the qualifications of consultants and authorities should also be provided.

4.7.2 APPENDICES

Technical and additional information relevant to the PER that is not included in the text should be included in the appendices (maps, graphs, tables, photographs, reports etc). A glossary may also be appropriate.

4.7.3 OTHER

Appropriate plans, drawings and elevations are needed for a decision to be made. As much information as possible is required of the design and layout of the proposal.



## **5 THE MAIN ISSUES**

### **5.1 PLANNING AND ENVIRONMENTAL LEGISLATION AND POLICIES**

- 5.1.1 Describe the proposal's consistency with and/or variance from the relevant Development Plan and Planning Strategy.
- 5.1.2 Describe the required changes that would need to be made to the zoning of the site.
- 5.1.3 Describe the relevant requirements of the *Environment Protection Act 1993* and associated policies and guidelines, and how these will be complied with.
- 5.1.4 Consider relevant protocols, agreements and strategies including: 'Tackling Climate Change, SA's Greenhouse Strategy 2007 – 2020, the *Climate Change and Greenhouse Emissions Reduction Act 2007* and the *National Greenhouse and Energy Reporting Act 2007*.
- 5.1.5 Describe the proposal's consistency with State and Commonwealth legislation and initiatives relating to conservation or protection of the biological environment and heritage items, including the *Marine Parks Act 2007*.
- 5.1.6 Detail any other relevant plans or studies that relate to the area.
- 5.1.7 Identify legislative requirements and the range of approvals needed to complete the proposed development.

### **5.2 NEED FOR THE PROPOSAL**

- 5.2.1 Justify the rationale for the proposal from an environmental, economic, social and sustainability perspective, including the reasons for its proposed location, scale and staging.
- 5.2.2 Justify the selection of the proposed location from an environmental and economic perspective in comparison with alternative sites on Eyre Peninsula.
- 5.2.3 Outline current and predicted demand for the facility.
- 5.2.4 Assess the "do nothing" option.

### **5.3 ENVIRONMENTAL ISSUES**

#### ***Coastal and Marine***

- 5.3.1 Investigate the potential effect of the development on the terrestrial, coastal and marine environment, both on and around the

- site (including the Lipson Island Conservation Park).
- 5.3.2 Describe the impact of jetty construction on the foreshore, seabed and benthic communities.
  - 5.3.3 Describe the coastal engineering requirements for the location, orientation and type of jetty structure.
  - 5.3.4 Describe the impact of blasting and pile driving activities on marine communities, especially turbidity and disturbance.
  - 5.3.5 Describe the design and operational measures to prevent stormwater and other run-off from the site from affecting the coastal and marine environment during both construction and operation.
  - 5.3.6 Describe how ship loading operations would minimise incidental ore or grain spillage.
  - 5.3.7 Describe the impact of incidental ore or grain spillage during ship loading operations on the marine environment, especially water quality.
  - 5.3.8 Detail measures for managing solid waste, black water and grey water from ships.
  - 5.3.9 Describe the impact of increased shipping traffic and activities in the lower Spencer Gulf.
  - 5.3.10 Outline measures to protect water quality and the marine environment from shipping activities, especially turbulence during docking and manoeuvring.
  - 5.3.11 Detail measures to ensure that shipping activities would be conducted in an environmentally sustainable manner, particularly the control of pollution sources and the establishment of buffer distances (especially from populations of threatened species and the Lipson Island Conservation Park).
  - 5.3.12 Detail the measures to protect nearby sand dune, beach and rocky foreshore areas during and after construction, including buffers.
  - 5.3.13 Describe and illustrate the impact of the proposal on the landscape quality of the coastal environment.
  - 5.3.14 Describe sand movement and water flow characteristics through and around the jetty structure to identify any changes to beach profiles or sedimentation on reef habitats. Modelling should be undertaken, especially to determine whether sand deposits would obstruct ship manoeuvring when entering or exiting the proposed facility.

- 5.3.15 Describe how the proposal will minimise impacts (including from ship movements) on aquaculture zones and activities.

### ***Climate Change and Sustainability***

- 5.3.16 Outline the potential effects of climate change from a risk management perspective, including adaptive management strategies.
- 5.3.17 Identify all sources and levels of greenhouse gas emissions that would be generated and climate change implications, including those from transport and the operation of infrastructure.
- 5.3.18 Describe measures to minimise, reduce and ameliorate greenhouse gas emissions, particularly the use of alternative or renewable energy sources and off-sets, and identify barriers to implementation.
- 5.3.19 Outline measures to minimise or reduce materials and construction resources used during the construction and operational phases.
- 5.3.20 Describe the provision of an adequate power supply for the proposed development and include information on the amount of power required.
- 5.3.21 Identify ways in which power use can be minimised or supplemented, especially using alternative energy sources, energy efficiency measures and energy conservation.
- 5.3.22 Describe the measures proposed for the disposal of excavated material and construction waste.
- 5.3.23 Describe how the State Waste Strategy will be implemented and the ability of existing infrastructure to deal with waste and recycling streams.
- 5.3.24 Describe the ecologically sustainable objectives of the proposal and the approach and methodology used to achieve these objectives.
- 5.3.25 Describe design guidelines that would be adopted to ensure sustainability.
- 5.3.26 Detail the arrangements to be implemented to control and manage activities, particularly to ensure that the proposed development is environmentally sustainable during construction and in the long-term.
- 5.3.27 Describe the means by which the sustainability of the proposal will be audited.

### ***Native Vegetation (Terrestrial and Marine)***

- 5.3.28 Quantify and detail the extent, condition and significance of native vegetation (individual species and communities) that currently exist on site.
- 5.3.29 Quantify and detail the extent, condition and significance of native vegetation (individual species and communities) that may need to be cleared or disturbed during construction and the ability of communities or individual species to recover, regenerate or be rehabilitated.
- 5.3.30 Calculate the level of clearance for individual community types that would be required for the whole site (including ancillary clearance for infrastructure).
- 5.3.31 Identify measures to minimise and mitigate vegetation clearance, including incorporating remnant stands in the layout design, and to compensate for any loss of native vegetation and habitat.
- 5.3.32 Describe measures to deliver any significant environmental benefit that is required by the *Native Vegetation Act 1991*.
- 5.3.33 Identify impact avoidance, minimisation and mitigation measures and their effectiveness.

***Native Fauna (Terrestrial and Marine)***

- 5.3.34 Quantify and detail the abundance, condition and significance of native fauna populations that currently exist on site.
- 5.3.35 Describe the extent of fauna and/or habitat loss or disturbance during the construction and operation phases (both on and around site) and the ability of communities and individual species to recover, especially for resident or migratory shore birds and threatened or significant species (including those listed under the Commonwealth *Environment Protection & Biodiversity Conservation Act 1999* and *National Parks & Wildlife Act 1972*).
- 5.3.36 Describe the impacts of introduced species, especially vermin and nuisance species that can be attracted to port facilities.
- 5.3.37 Detail appropriate buffer distances that would be required between the proposed development and threatened species, including feeding areas, nesting sites and roosting sites.
- 5.3.38 Outline the effect of noise emissions, vibration and light pollution on fauna, especially nocturnal species.
- 5.3.39 Identify impact avoidance, minimisation and mitigation measures and their effectiveness.

***Geology and Soils***

- 5.3.40 Describe the underlying geology and the nature of the soils with special reference to coastal landforms.
- 5.3.41 Outline the interaction between surface erosional processes and the proposed development.

***Groundwater and Surface Water***

- 5.3.42 Describe the known existing groundwater and surface water related environmental conditions, including consideration of any existing site contamination.
- 5.3.43 Describe any potential changes to hydrology (with reference to drainage patterns and groundwater characteristics).
- 5.3.44 Detail the measures to be taken to manage and monitor any groundwater or surface water resources.
- 5.3.45 Identify impact avoidance, minimisation and mitigation measures and their effectiveness.

***Water***

- 5.3.46 Describe the provision of an adequate water supply for the proposed development and include information on the quantity of potable and other water required.
- 5.3.47 Describe the approach to water sustainability, including ways in which water use can be minimised or supplemented (including the use of rainwater) and opportunities for reducing water use and for recycling water, particularly stormwater.
- 5.3.48 Describe Water Sensitive Urban Design (WSUD) measures and uses of wastewater that would be adopted.
- 5.3.49 Outline the measures proposed to manage stormwater runoff from hard surfaces which are not being used for harvesting water supply, especially access roads. Include measures to treat stormwater and ensure that pre-development volumes would be maintained.

***Urban Design and Built Form***

- 5.3.50 Provide details of construction materials, colours and landscaping for all buildings and structures.
- 5.3.51 Describe how the design and construction of all buildings and structures will be controlled to ensure environmental sustainability and cohesive visual amenity.
- 5.3.52 Provide details of the shelter, shading and screening treatments for

car parking areas.

### ***General***

- 5.3.53 Describe the impacts on the tourism and conservation values of the area due to increased human activity and disturbance.
- 5.3.54 Describe any net benefits or opportunities provided by the proposal to the regional and local environment.
- 5.3.55 Detail the expected levels of environmental noise associated with the operation of the development, identifying all potential noise sources, and describe the impact upon the wider locality, including native fauna.
- 5.3.56 Detail the extent to which noise emissions can be reduced and contained (such as via building design/materials, noise barriers and buffers) to minimise impacts upon the wider locality, including the effects from increased transport.
- 5.3.57 Describe how all potential sources of air pollution (especially dust and particulates from transport, unloading, storage and ship loading) would be controlled and monitored, including measures for their reduction or elimination.
- 5.3.58 Describe the use of amenity/landscape plantings and potential broad scale revegetation, including the opportunities for the use of locally endemic species.

### ***Management and Monitoring***

- 5.3.59 Outline measures to minimise, manage, monitor and rehabilitate impacts on the terrestrial, coastal and marine environment.
- 5.3.60 Describe how the spread of pest plants and animals within and around the development would be avoided, minimised and managed.
- 5.3.61 Describe the risk of causing or exacerbating any environmental problems in the locality, and describe mitigation measures and their expected effectiveness during all stages of construction and post construction.
- 5.3.62 Describe all the monitoring measures, reporting regimes and audits for flora, fauna (especially threatened or significant species), water (surface water and groundwater), energy, waste, soil erosion and introduced species which will be included in a Management Plan.
- 5.3.63 Undertake baseline data collection (for a minimum of 12 months) for identifying impacts from incidental spillage, such as using Diffusive Gradients in Thin-films (DGT) to detect background



levels of iron ore and a monitoring program for in-situ chlorophyll-a.

#### **5.4 TRAFFIC AND TRANSPORT**

- 5.4.1 Identify the traffic impacts on the surrounding arterial road network, such as the Lincoln Highway, Lincoln Highway/Swaffers Road intersection and Lincoln Highway/Lipson Cove Road intersection, during both construction and operation. A Traffic Impact Assessment should be undertaken, taking into consideration existing traffic data, accident statistics and predicted traffic volumes (including vehicle types, numbers/frequencies and traffic peaks)
- 5.4.2 Detail any infrastructure improvements that would be required to provide safe and efficient access (including potential passing lanes along the Lincoln Highway).
- 5.4.3 Describe access and parking arrangements for commercial and over-dimensional vehicles
- 5.4.4 Detail approvals required for over-dimensional vehicles and design standards for Swaffers Road to be suitable for over-dimensional vehicles.
- 5.4.5 Describe the location of any construction camp and associated traffic impacts.
- 5.4.6 Describe car parking provisions for staff and visitors.
- 5.4.7 Describe the requirements for the potential future rail operations and the impacts on existing and proposed level crossings (including safety implications).

#### **5.5 ECONOMIC ISSUES**

- 5.5.1 Provide a full economic analysis of the proposal including the long term economic viability of the development.
- 5.5.2 Outline the financial strategies to be employed to ensure the relevant infrastructure is in place for each stage of the development.
- 5.5.3 Identify employment and investment opportunities, including the “multiplier effect”.
- 5.5.4 Outline the opportunity for further investment in the area arising from the proposal.
- 5.5.5 Identify the economic effect the construction and on-going

workforce would have locally and regionally, including preparing a South Australian Industry Participation Plan.

- 5.5.6 Describe any potential costs and/or savings to State and Local Government of infrastructure expansion with regard to transport networks, electricity supply, water supply, sewerage, coastal management and community services (especially emergency services).
- 5.5.7 Describe the land tenure arrangements during and after construction of each stage.

## 5.6 RISK/HAZARD MANAGEMENT

- 5.6.1 Detail procedures to be adopted to confirm whether site contamination exists (such as site history, site audit and site contamination reporting), including potential acid sulphate soils.
- 5.6.2 Detail management measures that would be required during construction and operation to prevent site contamination.
- 5.6.3 Describe how the introduction of pest or nuisance marine organisms would be managed, including from ballast water.
- 5.6.4 Describe procedures and strategies to prevent, manage and mitigate ship oil spills, pollution spills or sewage leaks (both at the port and in the Spencer Gulf).
- 5.6.5 Detail measures and strategies for the management of hazardous, flammable or explosive materials, including risk contours
- 5.6.6 Outline the proposal for bunding of hazardous materials storage areas.
- 5.6.7 Identify the flooding risk to the site from coastal inundation and extreme rainfall events.
- 5.6.8 Describe strategies for controlling wind and water erosion.
- 5.6.9 Describe procedures and strategies to manage and monitor invasive weed species to protect coastal vegetation.
- 5.6.10 Describe how introduced species and pathogens will be managed.
- 5.6.11 Detail fire management processes and measures to reduce bushfire risk.
- 5.6.12 Describe strategies for ensuring public safety during construction.

## 5.7 EFFECTS ON COMMUNITIES

- 5.7.1 Outline the likely size and composition of the construction

workforce and other employees, how accommodation requirements would be met and employment opportunities for the local community.

- 5.7.2 Detail opportunities for local Aboriginal vocational training and employment.
- 5.7.3 Describe the impact on the amenity and lifestyle of existing residents, including those in close proximity to the access corridor.
- 5.7.4 Describe the impact on local and regional land uses, including traffic impacts at peak periods (particularly on primary producers).
- 5.7.5 Describe the impact on local and regional land uses, such as primary production, commercial fishing and aquaculture, including the need for adequate separation distances from adjoining land uses.
- 5.7.6 Describe the impact of lighting on the amenity of the local environment, especially light spill and 'glow haze'.
- 5.7.7 Describe and illustrate the visual effect of the proposed development on the locality when viewed from important viewing points, including from the land and sea.
- 5.7.8 Describe the effect on visual amenity, especially the effects of the built form of structures (including earthworks and infrastructure), particularly as viewed from Lipson Cove.
- 5.7.9 Outline the impact on existing tourism and recreation activities and facilities.
- 5.7.10 Describe the rationale for the major design elements of the proposed development and measures to mitigate their visual impact.

## 5.8 NATIVE TITLE AND CULTURAL HERITAGE

- 5.8.1 Identify the effect on any Indigenous sites of archaeological, anthropological or other significance under the *Aboriginal Heritage Act 1988*, including any sites listed in the Register of the National Estate and the SA Register of Aboriginal Sites and Objects, or identified after consultation with Aboriginal councils or groups.
- 5.8.2 Detail measures to ensure compliance with the *Aboriginal Heritage Act 1988*.
- 5.8.3 Outline any known cultural significance of the site to Indigenous people, including any stories or myths.

- 5.8.4 Detail consultation undertaken with the local Indigenous people during the development of the PER.
- 5.8.5 Identify any Native Title issues in respect of the requirements of the *Native Title Act 1993* (Commonwealth) and the *Native Title Act 1994* (South Australia).
- 5.8.6 Describe the impact on Native Title Claimants (as determined by the Minister for Aboriginal Affairs and Reconciliation) and the consequent impact on the potential ongoing enjoyment of native title rights, if any, by native title holders.
- 5.8.7 Identify the impact on the heritage significance of any known non-indigenous heritage places on or adjacent the site, including State or local heritage places entered on the South Australian Heritage Register, or identified after consultation with the Department of Environment and Natural Resources, the District Council of Tumby Bay or community groups.
- 5.8.8 Identify measures to protect any historic shipwrecks within the area during construction, in accordance with the *Historic Shipwrecks Act 1981*.

## 5.9 EFFECTS ON INFRASTRUCTURE REQUIREMENTS

- 5.9.1 Outline the requirements for an adequate supply and the location of distribution networks for gas, electricity, water, sewerage, stormwater management, communications systems and local roads.
- 5.9.2 Detail the extent to which the facility will generate the need for upgraded infrastructure beyond the site boundaries.
- 5.9.3 Outline opportunities to incorporate best practice infrastructure design.
- 5.9.4 Detail emergency services arrangements.

## 5.10 CONSTRUCTION AND OPERATIONAL EFFECTS

- 5.10.1 For each component, provide a site construction plan and outline strategies to minimise effects on the local environment.
- 5.10.2 Outline the timing of construction and the time of year it is likely to occur.
- 5.10.3 Describe the level of cut and fill required and the effect on the natural topography of the site, including the access corridor.
- 5.10.4 Where possible, identify the source and origin of construction

materials for buildings and infrastructure (such as road making) and the opportunity for the use of recycled materials.

- 5.10.5 Provide information about the transport and storage of construction materials to minimise effects on the local environment.
- 5.10.6 Outline proposed traffic mitigation and management measures for the construction and operational phases, particularly the impact on local and arterial roads in terms of road safety, traffic routes and hours of activity.
- 5.10.7 Identify measures to stabilise disturbed areas and areas susceptible to soil erosion.
- 5.10.8 Identify the measures for the control of dust, vibration, noise, stormwater and other emissions during construction and operation.
- 5.10.9 Describe the implementation of environmentally acceptable work practices and monitoring programs.
- 5.10.10 Detail the proposed monitoring of impacts during and after construction, including reporting and auditing measures.
- 5.10.11 Detail what will be included in an environmental management plan, for both construction and operational activities for all components of the development.
- 5.10.12 Describe the management agreements between the District Council of Tumby Bay and the proponent during and after construction.
- 5.10.13 Detail long-term management agreements for operation of the development, including the ownership of land and infrastructure.



## **6 AVAILABILITY OF GUIDELINES**

Copies of the Guidelines will be made available at the following locations:

Department of Planning and Local Government  
5th Floor Public Counter  
136 North Terrace  
Adelaide SA 5000

District Council of Tumby Bay  
Corner of Mortlock Street & West Terrace  
PO Box 61  
Tumby Bay SA 5605

Electronic copies can also be downloaded from the following web sites:

[www.dac.sa.gov.au](http://www.dac.sa.gov.au)

[www.planning.sa.gov.au/go/major-developments](http://www.planning.sa.gov.au/go/major-developments)





## APPENDIX A

### *Development Act 1993, Section 46C—PER process—Specific provisions*

- (1) This section applies if a PER must be prepared for a proposed development or project.
- (2) The Minister will, after consultation with the proponent—
  - (a) require the proponent to prepare the PER; or
  - (b) determine that the Minister will arrange for the preparation of the PER.
- (3) The PER must be prepared in accordance with guidelines determined by the Major Developments Panel under this subdivision.
- (4) The PER must include a statement of—
  - (a) the expected environmental, social and economic effects of the development or project;
  - (b) the extent to which the expected effects of the development or project are consistent with the provisions of—
    - (i) any relevant Development Plan; and
    - (ii) the Planning Strategy; and
    - (iii) any matters prescribed by the regulations;
  - (c) if the development or project involves, or is for the purposes of, a prescribed activity of environmental significance as defined by the *Environment Protection Act 1993*, the extent to which the expected effects of the development or project are consistent with—
    - (i) the objects of the *Environment Protection Act 1993*; and
    - (ii) the general environmental duty under that Act; and
    - (iii) relevant environment protection policies under that Act;
  - (ca) if the development or project is to be undertaken within the Murray-Darling Basin, the extent to which the expected effects of the development or project are consistent with—
    - (i) the objects of the *River Murray Act 2003*; and
    - (ii) the *Objectives for a Healthy River Murray* under that Act; and
    - (iii) the general duty of care under that Act;
  - (cb) if the development or project is to be undertaken within, or is likely to have a direct impact on, the Adelaide Dolphin Sanctuary, the extent to which the expected effects of the development or project are consistent with—
    - (i) the objects and objectives of the *Adelaide Dolphin Sanctuary Act 2005*; and
    - (ii) the general duty of care under that Act;
  - (cc) if the development or project is to be undertaken within, or is likely to have a direct impact on, a marine park, the extent to which the expected effects of the development or project are consistent with—

- (i) the prohibitions and restrictions applying within the marine park under the *Marine Parks Act 2007*; and
    - (ii) the general duty of care under that Act;
  - (d) the proponent's commitments to meet conditions (if any) that should be observed in order to avoid, mitigate or satisfactorily manage and control any potentially adverse effects of the development or project on the environment;
  - (e) other particulars in relation to the development or project required—
    - (i) by the regulations; or
    - (ii) by the Minister.
- (5) After the PER has been prepared, the Minister—
- (a) —
    - (i) must, if the PER relates to a development or project that involves, or is for the purposes of, a prescribed activity of environmental significance as defined by the *Environment Protection Act 1993*, refer the PER to the Environment Protection Authority; and
    - (ia) must, if the PER relates to a development or project that is to be undertaken within the Murray-Darling Basin, refer the PER to the Minister for the River Murray; and
    - (ib) must, if the PER relates to a development or project that is to be undertaken within, or is likely to have a direct impact on, the Adelaide Dolphin Sanctuary, refer the PER to the Minister for the Adelaide Dolphin Sanctuary; and
    - (ib) must, if the PER relates to a development or project that is to be undertaken within, or is likely to have a direct impact on, a marine park, refer the PER to the Minister for Marine Parks; and
    - (ii) must refer the PER to the relevant council (or councils), and to any prescribed authority or body; and
    - (iii) may refer the PER to such other authorities or bodies as the Minister thinks fit,

for comment and report within the time prescribed by the regulations; and
  - (b) must ensure that copies of the PER are available for public inspection and purchase (during normal office hours) for at least 30 business days at a place or places determined by the Minister and, by public advertisement, give notice of the availability of copies of the PER and invite interested persons to make written submissions to the Minister on the PER within the time determined by the Minister for the purposes of this paragraph.
- (6) The Minister must appoint a suitable person to conduct a public meeting during the period that applies under subsection (5)(b) in accordance with the requirements of the regulations.
- (7) The Minister must, after the expiration of the time period that applies under subsection (5)(b), give to the proponent copies of all submissions made within time under that subsection.
- (8) The proponent must then prepare a written response to—

- (a) matters raised by a Minister, the Environment Protection Authority, any council or any prescribed or specified authority or body, for consideration by the proponent; and
  - (b) all submissions referred to the proponent under subsection (7),and provide a copy of that response to the Minister within the time prescribed by the regulations.
- (9) The Minister must then prepare a report (an *Assessment Report*) that sets out or includes—
  - (a) the Minister's assessment of the development or project; and
  - (b) the Minister's comments (if any) on—
    - (i) the PER; and
    - (ii) any submissions made under subsection (5); and
    - (iii) the proponent's response under subsection (8); and
  - (c) comments provided by the Environment Protection Authority, a council or other authority or body for inclusion in the report; and
  - (d) other comments or matter as the Minister thinks fit.
- (10) The Minister must, by public advertisement, give notice of the place or places at which copies of the Assessment Report are available for inspection and purchase.
- (11) Copies of the PER, the proponent's response under subsection (8), and the Assessment Report must be kept available for inspection and purchase at a place determined by the Minister for a period determined by the Minister.
- (12) If a proposed development or project to which a PER relates will, if the development or project proceeds, be situated wholly or partly within the area of a council, the Minister must give a copy of the PER, the proponent's response under subsection (8), and the Assessment Report to the council.



## **APPENDIX B**

### **Relevant Plans of the Proposal**



**SHEEP HILL MARINE PORT**  
CENTREX METALS LTD  
**REGIONAL SITE LOCATION PLAN**

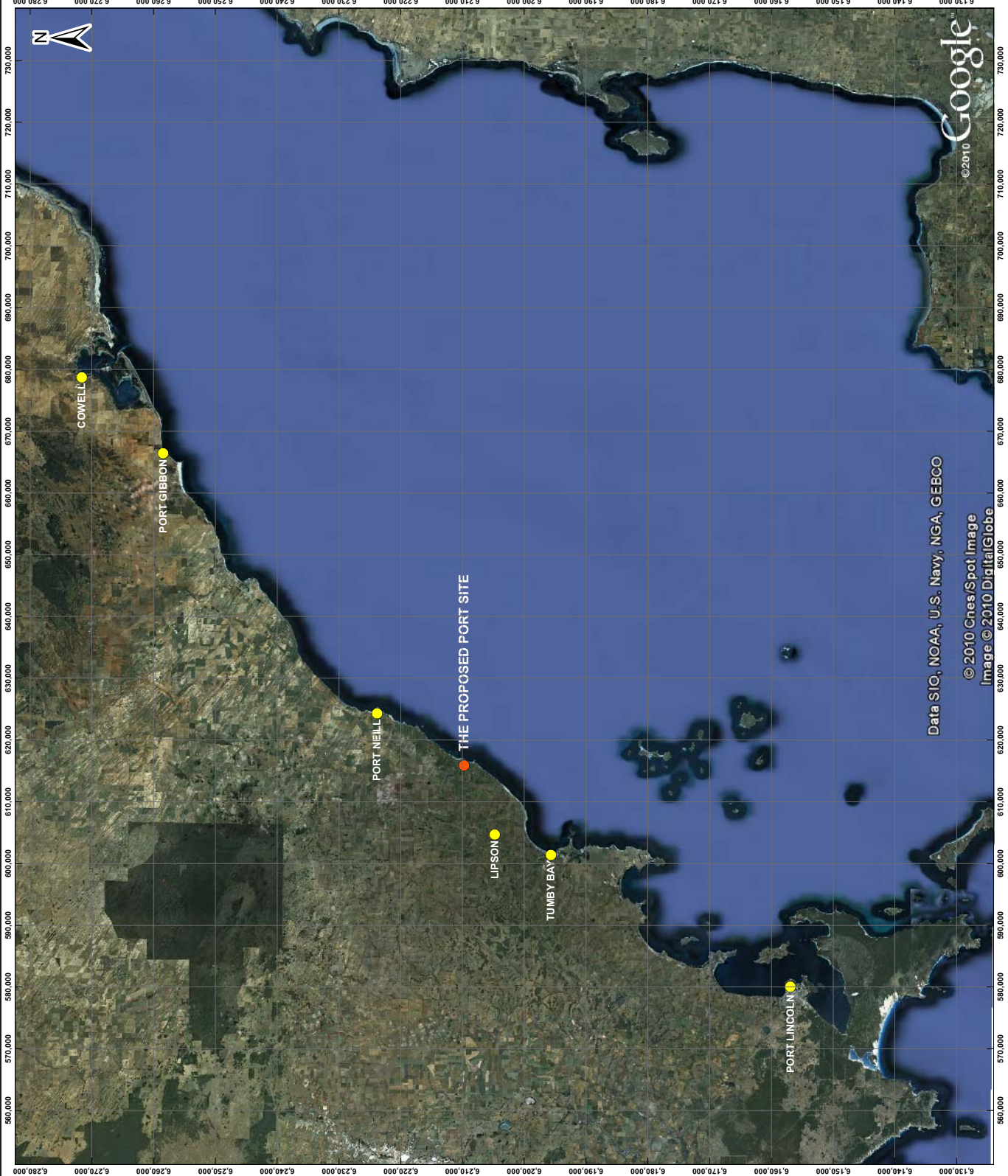


**LEGEND**  
● Township

**COPYRIGHT**  
Aerial image sourced from Google 28.11.2010

0 2.5 5 10 15 20 Kilometers  
**SCALE (at A3) 1:600,000**  
DATUM GDA94, PROJECTION MGA Zone 53

**PROJECT:** 107661001  
**DATE:** 26 NOV 2010  
**DRAWN:** KB  
**CHECKED:** AB



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**SHEEP HILL MARINE PORT**  
CENTREX METALS LTD

**SHEEP HILL MARINE PORT  
AND SWAFFERS ROAD  
CORRIDOR**



**LEGEND**

- Approximate Site boundary
- Approximate location of the wharf
- Swaffers Road Access Corridor
- Lipson Island Conservation Park
- Three Sisters Shipwreck Location

**COPYRIGHT**

Aerial image sourced from DEH, South Australian Government  
Site data sourced from Langkilde Engineering Services,  
Drawing No: 195-07-A-3071, Drawn by: NDM/Drawn On: 17.11.2010



SCALE (at A3) 1:20,000

DATUM GDA94, PROJECTION MGA Zone 53

PROJECT: 107661001  
DATE: 17 FEB 2011  
DRAWN: KB  
CHECKED: JAB



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**SHEEP HILL MARINE PORT**  
**CENTREX METALS LTD**  
**SITE INFRASTRUCTURE**  
**AND LANDUSE PLAN**



**LEGEND**

- Site boundary
- - Approximate location of the wharf
- Stage 2
- Future Hematite Storage
- Future Grain Storage
- Land use - Farming
- Land use - Coastal

**COPYRIGHT**

Aerial images sourced from DEH, South Australian Government  
 Site data sourced from Langkicks Engineering Services.  
 Drawing No: 193-01-A-001, Drawn By: MUM, Drawn On: 17.11.2010

SCALE (at A3) 1:7,500

DATUM: GDA94, PROJECTION: MGA Zone 53

PROJECT: 107661001  
 DATE: 08 FEB 2011  
 DRAWN: KB  
 CHECKED: JAB



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