



Environmental Protection Authority

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Our Ref: OEPA2011/000311-1
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Dear Mr Riordan

PROJECT NAME: Bunbury Port Berth 14 Expansion and Coal Storage
and Loading Facility
ASSESSMENT NO: 1886
LEVEL OF ASSESSMENT: Public Environmental Review (6 weeks)

The attached Environmental Scoping Document (ESD), specifying the scope and content of the Public Environmental Review (PER) document for the above proposal, was considered by the Environmental Protection Authority (EPA) at meeting number 1013 on 15 September 2011. The ESD has been approved as providing an acceptable basis for the preparation of the PER document.

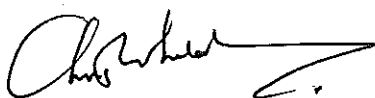
A number of issues were raised in meeting number 1013 and, where appropriate, the attached Final ESD has been amended accordingly. These issues were as follows:

- The requirement for blasting and associated rock fracturing must be detailed in the PER, including the potential removal of, and impact to, the confining groundwater basalt layer below Berth 14;
- A Level Two Targeted survey for waterbirds and shorebirds that are protected by national and international agreements must be undertaken;
- Cathodic protection of the sheet pile wall must be considered in relation to ongoing threats to the marine environmental quality;
- Coal stockpile fire management must be outlined in the PER, including the management of associated particulate matter;
- A Leachate Management Plan must be developed for the PER to address how leachate from the coal stockpiles will be collected, assessed and discharged in a manner that will mitigate potential environmental impacts; and

- The approved *Environmental Assessment Guideline No. 7 Marine Dredging Proposal* has been incorporated into the Final ESD, and should be considered in the preparation of the PER.

During the preparation of the PER you are encouraged to consult with Matt Spence, the Office of the EPA assessment officer for the project, who can be contacted on telephone number 6467 5530.

Yours sincerely



Dr Chris Whitaker
DEPUTY CHAIRMAN

22 September 2011

Encl.

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ENVIRONMENTAL SCOPING DOCUMENT

PROPOSAL:	Bunbury Port Berth 14 Expansion and Coal Storage and Loading facility (Assessment No. 1886)
LOCALITY:	City of Bunbury
PROPONENT:	Lanco Resources Australia Pty Ltd
LEVEL OF ASSESSMENT:	Public Environmental Review with an 6 week public review period

This scoping document is provided to define the requirements for the proponent's environmental review document (Public Environmental Review). The specific environmental factors to be addressed are identified in Section 2. The generic guidelines for the format of an environmental review document are provided in Attachment 2.

The environmental review document must adequately address all elements of this scoping document prior to approval being given to commence the public review.

The environmental review document must also address any requirements of the Commonwealth Government under the *Environment Protection and Biodiversity Conservation Act 1999*, where the assessment is being undertaken under the bilateral agreement.

The Environmental Protection Authority expects the proponent to fully consult with interested members of the public and relevant stakeholders, and to take due care in ensuring any other relevant environmental factors which may be of interest to the public and stakeholders are addressed. The PER should document the results of all consultation undertaken.

1. Introduction

The *Environmental Protection Act 1986* (EP Act) sets out that where a proposal is considered to have a significant environmental impact it will be subject to an assessment by the Environmental Protection Authority (EPA) under section 38 of the EP Act. This proposal is being assessed by way of a Public Environmental Review (PER) because it raises significant environmental factors.

Where a proposal is subject to PER, the proponent is required to produce a PER document in accordance with an approved Environmental Scoping Document (ESD). The purpose of the ESD is to:

- develop proposal-specific guidelines to direct the proponent on the key environmental issues for the proposal that should be addressed in preparing the PER document; and

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- identify the necessary impact predictions required for the assessment of the proposal, and the information on the environmental setting required to carry out the assessment.

The EPA has determined that it will prepare and issue the ESD outlining the scope and content of the PER in relation to this proposal.

The EPA, in its formulation of the ESD, undertakes consultation with the proponent regarding the details of the proposal, its environmental setting and the environmental surveys and investigations required and expected outcomes. In addition the EPA will consult with the relevant government agencies, including Decision Making Authorities. The Office of the EPA (OEPA) provides services and facilities for the EPA. In many cases the OEPA will act for the EPA.

The proponent will then be required to prepare a PER document in accordance with the ESD. When the EPA is satisfied that the PER document has adequately addressed all of the environmental factors and studies identified in the ESD, the proponent will be required to release the document for a public review period normally between 4 and 12 weeks.

ESDs prepared by the EPA are not subject to a public review period. The ESD will be available on the EPA website (www.epa.wa.gov.au) upon finalisation and should be included as an appendix in the PER document.

The proposal that is the subject of this assessment is Lanco Resources Australia Pty Ltd's proposed Bunbury Port Berth 14 Expansion and Coal Storage and Loading Facility. The proposal description is provided in Section 2 of this guideline and a map showing the approximate location of the proposal is shown in Attachment 1.

An important aspect of the environmental impact assessment process is the review by the public. The EPA requires public input into the possible environmental impacts of this proposal and its implementation. To facilitate adequate public input, the Public Environmental Review should be made available as widely as possible and at a reasonable cost.

2. Specific Guidelines for the Preparation of the Environmental Review

2.1 The proposal

Lanco Resources Australia Pty Ltd's proposal aims to progress the development of Berth 14 located within Bunbury Port Inner Harbour. The proposal is consistent with the Bunbury Port Authority's Inner Harbour Structure Plan, which is currently being assessed separately by the EPA as a Strategic Environmental Assessment. Key objectives of the Structure Plan are to guide future development and associated decision making within the Inner Harbour. The Structure Plan conforms to the strategic planning requirements under the *Port Authorities Act 1999*. The project area is indicated in the attached plan (Attachment 1). The construction and operation of Berth 14 will accommodate 15 million tonnes per annum of coal exports from Bunbury Port.

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Key Characteristics Table

Marine Components	Description
Berth Pocket	Berth pocket dredged to -12.7m Chart Datum (CD) to accommodate Panamax sized vessels. Associated approach navigational area dredged to -12.2mCD. The PER should state the area (ha) of the dredged berth pocket.
Dredging <ul style="list-style-type: none"> • Capital • Maintenance 	<p>Dredge volume up to 2.7 million cubic metres. Underwater blasting may be required to remove 20,000 cubic metres of rock.</p> <p>Required approximately every 4 years.</p>
Spoil Disposal	The offshore spoil disposal site has been identified to occur in Commonwealth waters, and as such does not form part of this assessment. The suitability of this site, as well as the disposal of spoil, will be assessed by the Commonwealth DSEWPaC under the Commonwealth <i>Environmental Protection (Sea Dumping) Act 1981</i> . Other disposal options include landside placement for re-use for onsite construction requirements and beach nourishment as a coastal protection measure will form part of the proposal.
Berth Structure	The final quantities will be determined as the final designs for berth 14 are prepared. It is likely that construction of a rock armour seawall with sheet pile walls along the Berth length will be undertaken, in addition to rock armoured slope protection at the entrance to the basin and the construction of the wharf facility.

Terrestrial Components	Description
Material Handling Infrastructure	Train unloader, conveyors, stackers, coal storage facility and ship loading equipment.
Rail	New dump station and rail loop. The assessable section of the rail loop is located within the site boundary, beginning and terminating to the north west of the Preston River.
Throughput	15 Million tonnes per annum.
Construction Period	Approximately 18 months.

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Water requirements	The volume of water required is still to be determined as designs for the Berth14 are still under preparation.
Vegetation Loss	Approximately 2ha of native vegetation would be lost. Additional vegetation would be lost however this is either highly disturbed or planted.
Terrestrial Ground Disturbance	50ha.

2.2 Environmental factors, scope of works and policy documents relevant to this proposal

The PER should give a detailed assessment of each of the environmental factors identified for this proposal. At this preliminary stage, the Office of the Environmental Protection Authority (OEPA) believes the relevant environmental factors, objectives and work required is detailed in Table 2.

Table 2 also identifies a list of relevant policy documents for this proposal, which set out how the expects the environmental factors to be considered. The EPA expects that the treatment of environmental factors will be consistent with the approaches set out in these policy documents.

Table 2: Environmental factors and scope of works relevant to the proposal

Terrestrial flora and vegetation	
EPA objective	To maintain the abundance, diversity, geographic distribution and productivity of flora at species and ecosystem levels through the avoidance or management of adverse impacts and improvement in knowledge.
<u>Construction and Operational Phase</u>	
Potential Impact	The Proposal will have a direct impact on native vegetation through the clearing of approximately 2 ha. There is also potential for indirect impacts to occur on the flora and vegetation communities in the adjacent Leschenault Estuary.

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Work and output required	<ul style="list-style-type: none"> - Complete a 'Level 1 (Reconnaissance) flora and vegetation survey as described in EPA Guidance Statement 51 within the proposal footprint and immediate adjacent area. The survey should identify flora present, and describe and map the vegetation communities present and condition as per Keighery (1994), as well as identify the ecological value of the proposal area in local, regional and State context using the criteria for determining regional significance in EPA Guidance Statement 10. Identify the construction and operational elements of the proposal that may affect significant flora and vegetation. - Describe and assess the potential direct and indirect impacts that may result from construction and operations of the proposal on flora and vegetation. This should be done in accordance with EPA Guidance Statement No. 51 and the degree to which the advice has been followed should be provided. - Identify and assess all direct and indirect impacts to native vegetation in regional and public open space and the adjacent Leschenault Estuary from the proposal. - Identify any coastal set-backs or buffer zones that will be required between the development and adjacent flora and vegetation as well as how they will be incorporated into the design of the proposal. - Define the specific environmental outcome(s) to be achieved for loss of native vegetation consistent with the Draft EPA Environmental Assessment Guideline No. 4 - Towards Outcome Based Conditions. - Identify management measures to mitigate¹ adverse impacts on the significant flora and vegetation so that the EPA's objectives can be met.
Relevant policy/guidance documents	<p>EPA Position Statement No. 3 <i>Terrestrial biological surveys as an element of biodiversity protection.</i></p> <p>EPA Position Statement No. 7 <i>Principles of environmental protection.</i></p> <p>EPA Guidance Statement No. 6 <i>Rehabilitation of terrestrial ecosystems.</i></p> <p>EPA Guidance Statement No. 51 <i>Terrestrial flora and vegetation surveys for environmental impact assessment in Western Australia.</i></p> <p>EPA Guidance Statement No. 10 <i>Level of Assessment for proposals affecting natural areas within the System 6 region and Swan Coastal Plain portion of the System 1 Region.</i></p>
Terrestrial Fauna	
EPA objective	To maintain the abundance, diversity, geographic distribution and productivity of fauna at species and ecosystem levels through the avoidance or management of adverse impacts and improvement in knowledge.
Construction and Operational Phase	
Potential Impact	The Proposal will potentially include disturbance to an area of 50 Ha. These activities would have the potential to impact fauna values within the proposal footprint, as well as water bird habitat in the adjacent Leschenault Estuary.

¹ To mitigate means a sequence of proposed actions designed to help manage adverse environmental impacts, and which includes (in order of preference):

1. avoidance – avoiding the adverse environmental impact altogether;
2. minimisation – limiting the degree or magnitude of the adverse impact;
3. rectification – repairing, rehabilitating or restoring the impacted site as soon as possible; and
4. reduction – gradually eliminating the adverse impact over time by preservation and maintenance operations during the life of the action.

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Work and output required	<ul style="list-style-type: none"> - Design and detail a Level 2 target survey for waterbirds and shorebirds which are protected by national and international agreements. The level of target survey should be carried out as outlined in EPA Guidance Statement No. 56 and Section 3 of the Technical Guide – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA 2010). The survey should target the distribution, nesting and roosting habits of all waterbird and shorebird species with consideration of survey timing to meet suitable weather conditions, time of day and season for presence of waterbirds. - Identify the construction and operational elements of the proposal that may affect significant fauna and fauna habitat. - Describe and assess the potential direct and indirect impacts that may result from construction and operation of the proposal on waterbirds and shorebirds and their habitat. Define the specific environmental outcome to be achieved for terrestrial fauna consistent with the Draft EPA Environmental Assessment Guideline No. 4 - Towards Outcome Based Conditions. - Identify measures to mitigate adverse impacts on significant fauna and fauna habitat so that the EPA's objectives can be met.
Relevant policy/guidance documents	<p>EPA Position Statement No. 3 <i>Terrestrial biological surveys as an element of biodiversity protection.</i></p> <p>EPA Guidance Statement No. 20 <i>Sampling of short-range endemic invertebrate fauna for environmental impact assessment in Western Australia.</i></p> <p>EPA Guidance Statement No. 56 <i>Terrestrial fauna surveys for environmental impact assessment in Western Australia.</i></p> <p>EPA Technical Guide – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment</p> <p>EPA Checklist for documents submitted for environmental impact assessment on marine and terrestrial biodiversity should be completed and submitted.</p>
Groundwater Quality	
EPA objective	To maintain the quality and quantity of groundwater so that existing and potential environmental values, including ecosystem maintenance, are protected.
<u>Construction and Operation Phase</u>	
Potential Impact	Potential impact to the confining basalt layer through blasting and dredging activities, exposing fresh confined groundwater systems to saline water intrusion.

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Work and output required	<ul style="list-style-type: none"> - Characterise the hydrogeology of the groundwater system and the quality and quantity of the groundwater within the project areas and surrounding area. Where the groundwater is contaminated, determine the extent of the contamination. - Identify the potential direct and indirect impacts to groundwater from the proposal. This should include potential impacts to groundwater dependent ecosystems and impacts to current groundwater allocation within the area. - Develop a conceptual hydrogeological model and predict the hydrogeological changes that will result from the proposal (including dewatering). The extent, severity and duration of potential impacts should be predicted and include changes to local and regional groundwater flows and levels, extent of drawdown, impacts to local water quality through management of dewater effluent and impacts to other groundwater users. - Predict the likelihood that rock fracturing will breach the confining basalt layer of the Yarragadee aquifer, potentially allowing saline water to intrude into the public water supply. - Define the specific environmental outcome to be achieved for groundwater quality consistent with the Draft EPA Environmental Assessment Guideline No. 4 - Towards Outcome Based Conditions. - If contaminated groundwater is encountered, prepare a remediation and/or disposal plan for contaminated material. This should be independently reviewed by an accredited contaminated sites auditor. - Describe contingency and monitoring plans should a breach of the confining layer of the Yarragadee Aquifer occur, including methods to seal the breach to prevent saline intrusion into the public drinking supply.
Policy context	<p><i>Waterways Conservation Act 1976</i> <i>Rights in Water and Irrigation Act 1914</i> <i>Contaminated Sites Act 2003</i> Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC and ARMCANZ, 2000) EPA Position Statement No. 7 <i>Principles of environmental protection</i> DEC Contaminated Sites Management Series, including</p> <ul style="list-style-type: none"> - Assessment Levels for Soil, Sediment and Water - Development of Sampling and Analysis Programs - A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities. <p>Department of Health (2006) Contaminated Sites Reporting Guideline for Chemicals in Groundwater</p>
Marine Environmental Quality	
EPA objective	To maintain the quality of waters, sediment and/or biota so that the environmental values, both ecological and social, are protected.
<u>Construction Phase</u>	
Potential Impact	<p>The proposal will involve dredging of a berth pocket to -12.7m CD and reclamation. There is potential for dredging and reclamation to result in:</p> <ul style="list-style-type: none"> • Temporary sediment plumes; and • Adverse effects of contaminant release and dispersion on ecological and human use environmental values.

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Work and output required	<ul style="list-style-type: none"> - Conduct a baseline water and sediment quality survey program to characterise pre-development marine water and sediment quality in the area of the proposal and to identify background levels of toxicants and physio-chemical parameters, with the scope of survey parameters to be informed by an assessment of threats and pressures to marine water and sediment quality. - Provide for inclusion into the PER of any baseline data collected to date, with the aim to complete the birds survey and present the remaining data to the OEPA prior to the response to submission period. - Complete a sampling and analysis plan to the satisfaction of OEPA and in consultation with the Department of Environment and Conservation (DEC) and Commonwealth Department of Sustainability, Environment, Water, Population and Communities for ocean disposal and reclamation. - Undertake analysis of sediment samples and interpret resultant data in accordance with the National Assessment Guidelines for Dredging. Detail the proposed dredging and spoil placement methods– eg. type of dredge, management of dredge overflow etc. - Assessment to determine if the EVs, EQOs and associated levels of protection proposed for operations phase (see below) would be temporarily compromised for the duration of the construction phase. If so, then the proponent shall predict the extent, severity and duration of temporary potential impacts of construction on the relevant EVs, EQOs and associated levels of protection. - Detail management measures and contingency plans proposed to protect the environmental values, and achieve objectives and levels of ecosystem protection during construction. - Propose the environmental protection outcome to be achieved for marine water and sediment quality consistent with the Draft EPA Environmental Assessment Guideline No. 4 - Towards Outcome Based Conditions. - Consider cumulative impacts of the proposal in the context of existing and approved developments and activities in the area, including consideration of the loss of marine water quality to other industrial uses of marine water in the area.
<u>Operational Phase</u>	
Potential Impact	Deepening of the entrance channel and harbour at the Berth 14 has the potential to impact on the flushing and mixing rate of the harbour. This combined with inputs from Port operation activities including surface water inputs can affect quality in the proposal area.

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<p>Work and output required</p>	<ul style="list-style-type: none"> - Conduct water, sediment and/or biota quality surveys as necessary, with survey parameters informed by an assessment of threats and pressures to environmental quality and taking into account seasonality where necessary, to establish the existing environmental quality in the area potentially affected by the proposal. - Propose Environmental Values (EVs), Environmental Quality Objectives (EQOs) and spatially define the levels of ecological protection that are to be achieved by the proposal throughout the operations phase, consistent with <i>State Water Quality Management Strategy Document No.6</i> (Government of WA, 2004) and the <i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality</i> (ANZECC/ARMCANZ) and considering principles established in the Cockburn Sound SEP and Pilbara coastal waters Outcomes. - Identify and assess ongoing threats and pressures to marine water and sediment quality within the berth pocket and its approach (excluding the navigation channel) from operation of the proposal and the measures taken, or proposed to be taken, to avoid or minimise those threats and pressures. Descriptions of threats and pressures should include, but not be limited to, the frequency and quantity of maintenance dredging, ship loading, stormwater and groundwater inputs and uncontrolled contaminant discharges. - Predict consequences of the threats and pressures identified in accordance with the point above and couch the outcomes of those predictions in the context of proposed EVs, EQOs and levels of ecological protection. Examine the likely effectiveness of the design of the proposal and proposed management measures. If, during the assessment, it is determined that there is a high risk of not meeting the ecological and/or social EVs and EQOs, and levels of ecological protection, then evaluate and spatially define the degree of conformity and non-conformity of the proposal. - Develop a Marine Environmental Management plan in close collaboration with the Bunbury Port Authority. This marine environmental management plan should be designed to give effect to the proposed EVs, EQOs and associated levels of protection for the operation phase of the proposal and include procedures for environmental monitoring using appropriate water and sediment quality indicators and environmental quality criteria, and a suitable decision framework for interpreting monitoring results. Cathodic protection of the sheet pile wall must be considered in relation to ongoing threats to the marine environmental quality and detailed in the management plan. - Detail management measures and contingency plans proposed to meet the environmental values, objectives and levels of ecosystem protection during operations.
<p>Relevant policy/guidance documents</p>	<p>Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC and ARMCANZ, 2000)</p> <p>National Assessment Guidelines for Dredging (Australian Government, 2009)</p> <p>State Water Quality Management Strategy Document No.6 (Government of WA, 2004)</p> <p>EPA Environmental Assessment Guideline No. 7 Marine Dredging Proposals McAlpine K.W., Wenziker, K.J. Apte S.C., Masini R.J. (2005) Background quality for coastal marine waters of Perth, Western Australia, Department of Environment, Perth, Western Australia, 6000</p> <p>EPA Position Statement (2000) Perth's Coastal Waters: Environmental Values and Objectives</p> <p>State Environmental (Cockburn Sound) Policy (2005)</p> <p>Revised Draft Environmental Protection (Cockburn Sound) Policy (EPA, 2002) Pilbara Coastal Water Quality Consultation Outcomes: Environmental Values and Environmental Quality Objectives (2006)</p>

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Benthic Habitats (including benthic primary producer habitats)	
EPA objective	To maintain marine ecological integrity through protection, management and improved knowledge of benthic habitats, including benthic primary producer habitats (BPPH).
	<u>Construction Phase</u>
Potential Impact	The proposal will involve dredging and potential ocean disposal of dredge spoil of up to 2.7 million cubic metres of material. There is potential for indirect impacts on benthic habitats and communities from the effects of sediments introduced to the water column by dredging.
Work and outputs required	<ul style="list-style-type: none"> - Using scientifically sound approaches, conduct surveys to identify the key components of different benthic habitats and report the findings of those surveys, noting levels of confidence and any assumptions that underpin the surveys and associated reporting. Notes: <ul style="list-style-type: none"> • Benthic surveys should cover the area potentially affected by the proposal. • Seasonality of key biota should be addressed where appropriate. • Surveys and data interpretation should provide confidence in habitat boundaries and the communities they represent. • Key components of different benthic habitats should be described to a taxonomic resolution that is sufficient to inform the application of relevant guidance (e.g. EAG No.3 and EAG No.7) and to inform the design and implementation of a scientifically robust, relevant and cost-effective environmental monitoring program. - Based on the findings of benthic surveys, produce spatially-accurate maps showing the extent and distribution of the different benthic habitats and present these at an appropriate scale. - Identify the proposal-related activities that would potentially impact benthic habitats. - Detail the measures exercised to avoid and, where avoidance is not possible, minimise impacts of the proposal on benthic habitats. - Provide scientifically sound predictions of the likely extent, severity and duration of direct and indirect impacts of the proposal on benthic habitats. Impacts on benthic habitats should be couched in the context of the guidance set out in EAG No.7 (Marine Dredging Proposals). - Implement guidance set out in EAG No.3 (Protection of Benthic Primary Producer Habitats in Western Australia's Marine Environment) when losses of, or serious damage to, BPPH are predicted. - Detail the proposed environmental monitoring and management arrangements designed to minimise impacts and ensure that the environment will be protected to at least the level indicated by the predictions. - Propose the specific environmental protection outcome(s) to be achieved for BPPHs consistent with the EPA's Draft Environmental Assessment Guideline No. 4 - Towards Outcome Based Conditions.
Relevant policy/guidance documents	Environmental Assessment Guideline No. 3 Protection of Benthic Primary Producer Habitat in Western Australia's Marine Environment (EAG3) Environmental Assessment Guideline No. 7 Marine Dredging Proposal

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Marine Fauna	
EPA objective	To maintain the abundance, diversity, geographic distribution and productivity of fauna at species and ecosystem levels through the avoidance or management of adverse impacts and improvement in knowledge.
Construction and Operation Phase	
Potential Impact	The Proposal has the potential to disturb marine fauna from impacts such as noise (blasting, pile driving and dredging) and introduction of invasive marine organisms. The proposal also has the potential to conflict with fisheries and impact on fish, their habitats and fisheries production.
Work and output required	<ul style="list-style-type: none"> - Identify and assess the values and significance of marine faunal assemblages within the proposal area and immediate adjacent area and describe these values in a local, regional and State context. - Identify critical windows of environmental sensitivity for marine mammals and key fisheries in the area. <p><i>Marine mammals</i></p> <ul style="list-style-type: none"> - Describe the presence of marine mammals, particularly bottlenose dolphins, in the proximity of the proposal and any known uses of the area by them (e.g. foraging, calving and nursing etc). - Undertake underwater noise modelling to determine the potential noise exposure levels result from blasting, pile driving and wharf construction on marine fauna. - Consult with the Bunbury Dolphin Discovery Centre on measures to mitigate effects of the proposal on the dolphin population in Koombana Bay. - Describe management and monitoring protocols to be implemented during blasting, pile driving and wharf construction that will reduce the risk of marine fauna being exposed to noise transmitted through water. <p><i>Fisheries</i></p> <ul style="list-style-type: none"> - Describe the major fisheries in the Geographe Bay/Bunbury region and Leschenault estuary that may be affected by the proposal. - Describe and assess the potential direct and indirect impacts on recreationally and commercially important marine species, including impacts to migratory patterns, spawning areas and nursery areas. <p><i>Introduced Marine Organisms (IMOs)</i></p> <ul style="list-style-type: none"> - Surveys to indentify and describe the abundance and extent of any invasive marine species already present in the project area. - Evaluate risk of invasive marine species introduction from dredging plants and from ongoing operations. - Describe management and monitoring protocols to be implemented during dredging and construction to avoid introduction of IMOs. Describe controls available to manage risk of IMOs from ongoing operations. - Define the specific environmental outcome(s) to be achieved for marine fauna consistent with the Draft EPA Environmental Assessment Guideline No. 4 - Towards Outcome Based Conditions.
Relevant policy/guidance documents	National Biofouling Management Guidance for Non-trading Vessels (Commonwealth of Australia, 2009).
Soil Quality	
EPA objective	To ensure that rehabilitation achieves an acceptable standard compatible with the intended land use, and consistent with appropriate criteria.
Construction Phase	
Site Specific	The Proposal includes excavation and dredging activities in soil and sediment

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Impact	known to contain PASS, which may become acid producing ASS.
Work and output required	<ul style="list-style-type: none"> - Carry out investigations to identify land where there is a risk of disturbing acid sulphate soils based on the DEC's acid sulphate soil guidelines. - Identify and map known and suspected contaminated sites (consider guidance in the DEC Contaminated Sites Management Series). - Identify known and suspected contaminated sites and complete investigations to characterise the nature of the contamination. A Sampling and Analysis Plan should be prepared <i>to the satisfaction of an accredited contaminated sites auditor</i>. - Describe and assess the potential direct and indirect impacts from acid sulphate soils resulting from the proposal on the receiving environment. This should include the potential for monosulphidic black oozes to form in the Inner Harbour. - Identify areas where disturbance of contaminated sites will result from the construction of the proposal. Where contaminated sites are to be disturbed, describe and assess the potential direct and indirect impacts resulting from the disturbance of contaminated material. This should include impacts where there is the potential for contaminated material to be liberated into the environment, such as through water or dust. - Describe the potential to generate acidic conditions during dewatering activities in areas known to contain acid sulphate soils. - Describe the measures that will be implemented to ensure that contaminated sites are identified and remediated to a standard that protects the environment, is compatible with the intended land use system, and is consistent with the appropriate criteria and legislation. - Define the specific environmental outcome(s) to be achieved for soil quality consistent with the Draft EPA Environmental Assessment Guideline No. 4 - Towards Outcome Based Conditions.
Relevant policy/guidance documents	<p>DEC Contaminated Sites Management Series</p> <p>DEC Identification and Investigation of Acid Sulfate Soils and Acidic Landscapes</p>
Air Quality	
EPA objective	To ensure that dust emissions do not adversely affect environment values of the health, welfare and amenity of people and land uses by meeting statutory requirements and acceptable standards.
Site Specific Impact	Air quality impacts associated with the Proposal include dust and air emissions from various sources during the construction and operational phases. Sources include fugitive, process and stack emissions.

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Work and output required	<p>Construction</p> <ul style="list-style-type: none"> - Develop a Dust Management Plan for those areas that are likely to be affected consistent with DEC's 'A guideline for managing the impacts of dust and associated contaminants from land development sites' <p>Operational</p> <ul style="list-style-type: none"> - Identify all sources of air emissions from the proposal as a result of material handling and loading activities. - Describe the control measures that will be implemented (e.g. sheds and enclosed systems) to ensure that dust emissions from material handling infrastructure and stockpiles are managed to a standard that protects the surrounding environment and NEPM standards. - Undertake modelling of all emission sources incorporating proposed control measures consistent with the Department of Environment (2006) Air Quality Modelling Guidance Notes. Identify and map the likely extent of dust emissions, taking into consideration local air-sheds and wind patterns. - Describe the air quality monitoring procedures that will be carried out. - Detail management measures to be implemented to prevent, control and mitigate the risk of fire occurring within the coal stockpiles, including management of the associated particulate matter dispersed as a result of fire. - Define the specific environmental outcome to be achieved for operational dust consistent with the Draft EPA Environmental Assessment Guideline No. 4 - Towards Outcome Based Conditions.
Relevant policy/guidance documents	<p>DEC (2011) - A guideline for managing the impacts of dust and associated contaminants from land development sites.</p> <p>Department of Environment (2006) Air Quality Modelling Guidance Notes</p> <p>EPA Guidance Statement No.18: Prevention of air quality impacts from land development sites</p>
Noise and Vibrations	
EPA objective	To protect the amenity of nearby residents from noise impacts resulting from activities associated with the proposal by ensuring the noise levels meet statutory requirements and acceptable standards.
Construction & Operational Phase	
Work and output required	<ul style="list-style-type: none"> - Identify the likely noise emission sources during the construction and operational phases of the proposal. - Evaluate the potential noise impacts of the proposal consistent with EPA's Draft Guidance Statement No.8: Environmental Noise. - Evaluate the potential noise impacts from the transport of material to the port using the noise exposure levels in the Statement Planning Policy 5.4 - Road and Rail Transport Noise and Freight Considerations in Land Use Planning and EPA Guidance No 14 - Road and Rail Transportation Noise (Preliminary Draft). - Identify management and amelioration measures to mitigate noise impacts of the proposal. - Define the specific environmental outcome to be achieved for noise emissions consistent with the Draft EPA Environmental Assessment Guideline No. 4 - Towards Outcome Based Conditions.
Relevant policy/guidance documents	<p>Environmental Protection (Noise) Regulations 2007</p> <p>EPA Draft Guidance Statement No.8: Environmental Noise</p> <p>Statement Planning Policy 5.4 - Road and Rail Transport Noise and Freight Considerations in Land Use Planning</p> <p>EPA Guidance No 14 - Road and Rail Transportation Noise (Preliminary Draft).</p>

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Surface Water Flow - Coal Stockpile Management	
EPA Objective	To maintain the quality of water and air emissions so that existing and potential environmental values, including ecosystem maintenance, are protected.
Construction & Operational Phase	
Work and output required	- Develop a Leachate Management Plan for the coal stockpiles at the storage and loading facility. The management plan should indicate how leachate will be collected, assessed and discharged in a manner that will mitigate potential environmental impacts.

These factors must be addressed within the environmental review document for the public to consider and make comment to the EPA. The EPA anticipates addressing these factors in its report to the Minister for the Environment.

2.3 Other Environmental Issues

The EPA expects the proponent to take due care in ensuring all other relevant environmental impacts which may be of interest to the public are addressed and that management is covered in the environmental review.

The EPA has identified other environmental factors which it considers to be relevant to the proposal which are considered to be significant enough to warrant attention as part of the environmental review of this proposal to the extent that the PER should show how these factors will be managed. These include but are not limited to the following;

- Surface drainage
- Solid and liquid wastes
- Aboriginal and European Heritage

This list is provided to assist with the preparation of the Environmental Review document, but during the course of the preparation of the document other factors may be found also to be relevant, and they should be included in the detailed discussion.

2.4 Agreed Assessment Milestones

EPA Environmental Assessment Guideline No. 6 "Timelines for EIA of Proposals" addresses the responsibilities proponents and EPA for achieving timely and effective assessment of proposals.

This timeline (Table 3) is agreed between the EPA and proponent. Proponents are expected to meet the agreed proposal assessment timeline, and in doing so, provide adequate, quality information to inform the assessment. Proponents will need to allocate sufficient time to undertake the necessary studies to the appropriate standard and incorporate the outcomes of the studies into the PER.

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Where an agreed timeline is not being met by the proponent, or if adequate information is not submitted by the proponent, the timeline for subsequent steps will be re-established. Where the OEPA is unable to meet a date in the agreed timelines the proponent will be advised and the timeline adjusted.

The EPA will report to the Minister for Environment on whether the agreed proposal assessment timeline has been met. Where the timeline has not been met, the reasons for this will be identified.

Table 3: Agreed Milestones for the proposal

Key Stage of Proposal	Agreed Milestone
EPA approval of ESD Document	23 September 2011
Proponent submits first adequate draft of PER Document	28 October 2011
OEPA provides comment on first draft PER Document	6 weeks
Proponent submits adequate revised draft PER Document	January 2012
EPA authorises release of PER Document	2 weeks
Proponent releases approved PER Document	19 January 2012
Public Review of PER Document	6 weeks
Response to Public Submissions	2 weeks
OEPA assesses proposal for consideration by EPA	7 weeks
Preparation and finalisation of EPA Report (including 2 weeks consultation on draft conditions with proponent and key Government agencies)	5 weeks from receipt of final information

2.5 Decision Making Authorities

At this preliminary stage, the Environmental Protection Authority (EPA) had identified the following Decision Making Authorities (DMAs) (see Table 4). These Decision Making Authorities are constrained from making any decision that could have the effect of causing or allowing the proposal to be implemented. Throughout the assessment process further DMAs may be identified.

ENVIRONMENTAL PROTECTION AUTHORITY

Table 4: Nominated Decision Making Authorities

Decision Making Authority	Relevant Legislation
Department of Environment and Conservation	<i>Part V of the Environmental Protection Act 1986</i>
Minister for Water	Dewatering Licence Bore Application for Dust Suppression
Bunbury Port Authority	Port Authorities Act
Minister for State Development	State Agreements Act

DMAs are not prevented from parallel processing, up to the point of their decision, so that their views can inform the ministerial consultation process.

2.6 Preparation of the Environmental Review Document

The recommended format for the Environmental Review document is enclosed as Attachment 2.

When the EPA is satisfied with the standard of the environmental review document (see EAG 6 Section 4.3) it will provide a written sign-off, giving approval to advertise the document for public review. The review document may not be advertised for release before written approval is received.

The proponent is responsible for advertising the release and availability of the Public Environmental Review (PER) in accordance with the guidelines which will be issued to the proponent by the OEPA. The EPA must be consulted on the timing and details for advertising the document.

Attachment 1

Approximate Location of Proposal



Attachment 2

**Generic Guidelines for the preparation of an
Public Environmental Review document**

