



Environmental Protection Authority

EPA REFERRAL
FORM
PROPONENT

Referral of a Proposal by the Proponent to the Environmental Protection Authority under Section 38(1) of the *Environmental Protection Act 1986*.

PURPOSE OF THIS FORM

Section 38(1) of the *Environmental Protection Act 1986* (EP Act) provides that where a development proposal is likely to have a significant effect on the environment, a proponent may refer the proposal to the Environmental Protection Authority (EPA) for a decision on whether or not it requires assessment under the EP Act. This form sets out the information requirements for the referral of a proposal by a proponent.

Proponents are encouraged to familiarise themselves with the EPA's *General Guide on Referral of Proposals* [see Environmental Impact Assessment/Referral of Proposals and Schemes] before completing this form.

A referral under section 38(1) of the EP Act by a proponent to the EPA must be made on this form. A request to the EPA for a declaration under section 39B (derived proposal) must be made on this form. This form will be treated as a referral provided all information required by Part A has been included and all information requested by Part B has been provided to the extent that it is pertinent to the proposal being referred. Referral documents are to be submitted in two formats – hard copy and electronic copy. The electronic copy of the referral will be provided for public comment for a period of 7 days, prior to the EPA making its decision on whether or not to assess the proposal.

CHECKLIST

Before you submit this form, please check that you have:


	Yes	No
Completed all the questions in Part A (essential).	✓	
Completed all applicable questions in Part B.	✓	
Included Attachment 1 – location maps.	✓	
Included Attachment 2 – additional document(s) the proponent wishes to provide (if applicable).	✓	
Included Attachment 3 – confidential information (if applicable).		✓
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping but excluding confidential information.	✓	

Following a review of the information presented in this form, please consider the following question (a response is optional).

Do you consider the proposal requires formal environmental impact assessment?	
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<input type="checkbox"/> Not sure	
If yes, what level of assessment?	
<input type="checkbox"/> Assessment on Proponent Information	<input type="checkbox"/> Public Environmental Review

PROPONENT DECLARATION (to be completed by the proponent)

I, Kevan Wheeler, declare that I am authorised on behalf of Southern Ports Authority. Port of Bunbury (being the person responsible for the proposal) to submit this form and further declare that the information contained in this form is true and not misleading.

Signature: 	Name (print): Kevan Wheeler
Position: Manager – Engineering and Projects	Company: Southern Ports Authority. Port of Bunbury
Date: 10/10/14	Email: kevan.wheeler@byport.com.au

PART A - PROPONENT AND PROPOSAL INFORMATION

(All fields of Part A must be completed for this document to be treated as a referral)

1 PROPONENT AND PROPOSAL INFORMATION

1.1 Proponent

Name	SPA Port of Bunbury
Joint Venture parties (if applicable)	Not applicable (NA)
Australian Company Number (if applicable)	ABN 30 044 341 250
Postal Address (where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State)	PO Box 4 Bunbury WA 6231
Key proponent contact for the proposal: <ul style="list-style-type: none">• name• address• phone• email	Kevan Wheeler 54 Casuarina Drive Bunbury (08) 9729 7039 kevan.wheeler@byport.com.au
Consultant for the proposal (if applicable): <ul style="list-style-type: none">• name• address• phone• email	Fionnuala Hannon Level 1 10 Victoria St Bunbury WA 6230 (08) 9721 0711 fionnuala.hannon@ghd.com

1.2 Proposal

Title	Construction of a revetment wall at Point Busaco, Bunbury
Description	The SPA Port of Bunbury is proposing to construct a 230m rock revetment and undertake sand renourishment along eastern Koombana Beach, Bunbury. The revetment will provide erosion protection to the Ports Lease Area, while sand renourishment will reduce the erosion threat to foreshore infrastructure located to the west.
Extent (area) of proposed ground disturbance.	The proposed works will directly impact an approximate area of 0.23 ha (230 m by 10 m). Construction is entirely based on land.
Timeframe in which the activity or development is proposed to occur (including start and finish dates where applicable).	The construction period is anticipated to be six to eight weeks commencing November/December 2014.
Details of any staging of the proposal.	The project will be entirely completed within 6-8 weeks.

Is the proposal a strategic proposal?	No
Is the proponent requesting a declaration that the proposal is a derived proposal? If so, provide the following information on the strategic assessment within which the referred proposal was identified: <ul style="list-style-type: none"> • title of the strategic assessment; and • Ministerial Statement number. 	No
Please indicate whether, and in what way, the proposal is related to other proposals in the region.	NA
Does the proponent own the land on which the proposal is to be established? If not, what other arrangements have been established to access the land?	Yes
What is the current land use on the property, and the extent (area in hectares) of the property?	<p>The revetment wall will be along the eastern foreshore of Koombana Beach (Figure 1). The revetment is 230m in length, extending approximately 150m east of the Dolphin Discovery Centre (western end) to the groyne at Point Busaco (eastern end) , which forms the entry to the Inner Harbour.</p> <p>The land is not used for recreational purposes and provides access to Cristal's lease area.</p>

1.3 Location

Name of the Shire in which the proposal is located.	City of Bunbury
For urban areas: <ul style="list-style-type: none"> • street address; • lot number; • suburb; and • nearest road intersection. 	Koombana Drive Part of Lot 962 on Plan 220558 Vittoria WA 6230 Koombana Drive and Estuary Drive
For remote localities: <ul style="list-style-type: none"> • nearest town; and • distance and direction from that town to the proposal site. 	NA
Electronic copy of spatial data - GIS or CAD, geo-referenced and conforming to the following parameters: <ul style="list-style-type: none"> • GIS: polygons representing all activities and named; • CAD: simple closed polygons representing all activities and named; • datum: GDA94; • projection: Geographic (latitude/longitude) or Map Grid of Australia (MGA); • format: Arcview shapefile, Arcinfo coverages, Microstation or AutoCAD. 	Enclosed?: Yes / No

1.4 Confidential Information

Does the proponent wish to request the EPA to allow any part of the referral information to be treated as confidential?	Yes / No
If yes, is confidential information attached as a separate document in hard copy?	Yes / No

1.5 Government Approvals

Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.		Yes / No	
Is approval required from any Commonwealth or State Government agency or Local Authority for any part of the proposal? If yes, please complete the table below.		Yes / No	
Agency/Authority	Approval required	Application lodged Yes / No	Agency/Local Authority contact(s) for proposal
Department of Environmental Regulation (DER)	Works approval	No. However, DER was briefed by SPA Port of Bunbury on the project on 9 September	Neville Welsh (DER officer, Southern

		2014.	Region)
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PART B - ENVIRONMENTAL IMPACTS AND PROPOSED MANAGEMENT

2. ENVIRONMENTAL IMPACTS

Describe the impacts of the proposal on the following elements of the environment, by answering the questions contained in Sections 2.1-2.11:

- 2.1 flora and vegetation;
- 2.2 fauna;
- 2.3 rivers, creeks, wetlands and estuaries;
- 2.4 significant areas and/ or land features;
- 2.5 coastal zone areas;
- 2.6 marine areas and biota;
- 2.7 water supply and drainage catchments;
- 2.8 pollution;
- 2.9 greenhouse gas emissions;
- 2.10 contamination; and
- 2.11 social surroundings.

These features should be shown on the site plan, where appropriate.

For all information, please indicate:

- (a) the source of the information; and
- (b) the currency of the information.

2.1 Flora and Vegetation

2.1.1 Do you propose to clear any native flora and vegetation as a part of this proposal?

[A proposal to clear native vegetation may require a clearing permit under Part V of the EP Act (Environmental Protection (Clearing of Native Vegetation) Regulations 2004)]. Please contact the Department of Environment and Conservation (DEC) for more information.

(please tick) ☒ Yes

If yes, complete the rest of this section.

☐ No

If no, go to the next section

2.1.2 How much vegetation are you proposing to clear (in hectares)?

One tree (*Allocasuarina humilis*) will be removed. This tree is currently uprooted and is now virtually on its side. *A. humilis* is endemic to the south west coast of Western Australia.

2.1.3 Have you submitted an application to clear native vegetation to the DEC (unless you are exempt from such a requirement)?

☐ Yes

☒ No

If yes, on what date and to which office was the application submitted of the DEC?

2.1.4 Are you aware of any recent flora surveys carried out over the area to be disturbed by this proposal?

☐ Yes

✓ No

If yes, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).

If no, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

2.1.5 Has a search of DEC records for known occurrences of rare or priority flora or threatened ecological communities been conducted for the site?

☐ Yes

✓ No

Not applicable

If you are proposing to clear native vegetation for any part of your proposal, a search of DEC records of known occurrences of rare or priority flora and threatened ecological communities will be required. Please contact DEC for more information.

The site is highly degraded and principally comprises of kikuyu grass and a range of annual and perennial weeds.

2.1.6 Are there any known occurrences of rare or priority flora or threatened ecological communities on the site?

☐ Yes

✓ No

Not applicable

If yes, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

2.1.7 If located within the Perth Metropolitan Region, is the proposed development within or adjacent to a listed Bush Forever Site? (You will need to contact the Bush Forever Office, at the Department for Planning and Infrastructure)

☐ Yes

☐ No

✓ Not applicable

If yes, please indicate which Bush Forever Site is affected (site number and name of site where appropriate).

2.1.8 What is the condition of the vegetation at the site?

The vegetation condition is completely degraded. Construction of the revetment will provide erosion protection to remaining native vegetation on the southern side of the existing erosion scarp.

2.2 Fauna

2.2.1 Do you expect that any fauna or fauna habitat will be impacted by the proposal?

(please tick)

☐ Yes

If yes, complete the rest of this section.

✓ ☒ No

If no, go to the next section.

2.2.2 Describe the nature and extent of the expected impact.

2.2.3 Are you aware of any recent fauna surveys carried out over the area to be disturbed by this proposal?

☐ Yes

☐ No

If yes, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).

If no, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

2.2.4 Has a search of DEC records for known occurrences of Specially Protected (threatened) fauna been conducted for the site?

☐ Yes

☐ No

(please tick)

2.2.5 Are there any known occurrences of Specially Protected (threatened) fauna on the site?

☐ Yes

☐ No

If yes, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

2.3 Rivers, Creeks, Wetlands and Estuaries

2.3.1 Will the development occur within 200 metres of a river, creek, wetland or estuary?

(please tick)

☐ Yes

If yes, complete the rest of this section.

✓ ☒ No

If no, go to the next section.

2.3.2 Will the development result in the clearing of vegetation within the 200 metre zone?

☐ Yes ☐ No **If yes,** please describe the extent of the expected impact.

2.3.3 Will the development result in the filling or excavation of a river, creek, wetland or estuary?

☐ Yes ☐ No **If yes,** please describe the extent of the expected impact.

2.3.4 Will the development result in the impoundment of a river, creek, wetland or estuary?

☐ Yes ☐ No **If yes,** please describe the extent of the expected impact.

2.3.5 Will the development result in draining to a river, creek, wetland or estuary?

☐ Yes ☐ No **If yes,** please describe the extent of the expected impact.

2.3.6 Are you aware if the proposal will impact on a river, creek, wetland or estuary (or its buffer) within one of the following categories? (please tick)

Conservation Category Wetland	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Perth's Bush Forever site	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Environmental Protection (Swan & Canning Rivers) Policy 1998	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
The management area as defined in s4(1) of the <i>Swan River Trust Act 1988</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Which is subject to an international agreement, because of the importance of the wetland for waterbirds and waterbird habitats (e.g. Ramsar, JAMBA, CAMBA)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure

2.4 Significant Areas and/ or Land Features

2.4.1 Is the proposed development located within or adjacent to an existing or proposed National Park or Nature Reserve?

☐ Yes ✓ No **If yes,** please provide details.

2.4.2 Are you aware of any Environmentally Sensitive Areas (as declared by the Minister under section 51B of the EP Act) that will be impacted by the proposed development?

☐ Yes ✓ No **If yes**, please provide details.

2.4.3 Are you aware of any significant natural land features (e.g. caves, ranges etc) that will be impacted by the proposed development?

☐ Yes ✓ No **If yes**, please provide details.

2.5 Coastal Zone Areas (Coastal Dunes and Beaches)

2.5.1 Will the development occur within 300metres of a coastal area?

(please tick) ✓ Yes **If yes**, complete the rest of this section.

☐ No **If no**, go to the next section.

The SPA Port of Bunbury has identified ongoing erosion along the foreshore fronting the Cristal's lease area, which in 2011 had undermined sections of an existing access track. The constructed revetment will provide erosion protection to the Cristal's lease area and maintain access for pedestrians and emergency vehicles. The location of the revetment is shown in Figure 1.

2.5.2 What is the expected setback of the development from the high tide level and from the primary dune?

Construction of the revetment wall will be undertaken along the eastern foreshore (including beach) of Koombana Beach (refer to Figure 2). For ease of construction, construction is planned for either October/November 2014 or January/ February, 2015 when tide levels are generally low and weather conditions are favourable.

2.5.3 Will the development impact on coastal areas with significant landforms including beach ridge plain, cusped headland, coastal dunes or karst?

☐ Yes ✓ No **If yes**, please describe the extent of the expected impact.

It has been identified that the revetment wall is likely to transfer some erosive pressure to the west. The SPA Port of Bunbury has subsequently committed to undertake nourishment works to reduce the erosion threat to existing foreshore infrastructure located towards the centre of Koombana Bay with already limited foreshore setbacks. This will involve trucking clean coarse sand from a sand trap on the ocean (western) side of the Outer Harbour breakwater and placement in front and immediately west of the revetment. Geological testing of this sand has confirmed the coarse nature of this material and that it is not contaminated.

2.5.4 Is the development likely to impact on mangroves?

☐ Yes ✓ No **If yes**, please describe the extent of the expected impact.

2.6 Marine Areas and Biota

2.6.1 Is the development likely to impact on an area of sensitive benthic communities, such as seagrasses, coral reefs or mangroves?

☐ Yes

✓ No

If yes, please describe the extent of the expected impact.

2.6.2 Is the development likely to impact on marine conservation reserves or areas recommended for reservation (as described in *A Representative Marine Reserve System for Western Australia*, CALM, 1994)?

☐ Yes

✓ No

If yes, please describe the extent of the expected impact.

2.6.3 Is the development likely to impact on marine areas used extensively for recreation or for commercial fishing activities?

☐ Yes

✓ No

If yes, please describe the extent of the expected impact, and provide any written advice from relevant agencies (e.g. Fisheries WA).

SPA Port of Bunbury requires the Contractor to install a silt curtain (turbidity barrier) around the excavation area during the construction period. The silt curtain will contain and control the dispersion of any potential floating silt that may be disposed to the ocean. The silt curtain will extend from the beach to approximately 10-15m off-shore and would be approximately 70m in length and 2m in depth, Figure 3. The majority of the sand fraction however will be coarse beach sand which will further reduce the risk of turbidity at the excavation site.

In the unlikely event of turbidity occurring, it is anticipated that this will dissipate overnight.

2.7 Water Supply and Drainage Catchments

2.7.1 Are you in a proclaimed or proposed groundwater or surface water protection area?

(You may need to contact the Department of Water (DoW) for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

☐ Yes

✓ No

If yes, please describe what category of area.

2.7.2 Are you in an existing or proposed Underground Water Supply and Pollution Control area?

(You may need to contact the DoW for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

☐ Yes

✓ No

If yes, please describe what category of area.

2.7.3 Are you in a Public Drinking Water Supply Area (PDWSA)?

(You may need to contact the DoW for more information or refer to the DoW website. A proposal to clear vegetation within a PDWSA requires approval from DoW.)

☐ Yes ✓ No **If yes**, please describe what category of area.

2.7.4 Is there sufficient water available for the proposal?

(Please consult with the DoW as to whether approvals are required to source water as you propose. Where necessary, please provide a letter of intent from the DoW)

✓ Yes ☐ No (please tick)

Water will only be required for dust suppression as required during construction of the revetment wall. The Contractor will be required to source water offsite from the Contractors agreed source of supply. and transport to site via tankers for this purpose.

2.7.5 Will the proposal require drainage of the land?

✓ Yes ☐ No **If yes**, how is the site to be drained and will the drainage be connected to an existing Local Authority or Water Corporation drainage system? Please provide details.

Minimal dewatering activities will be required where seawater infiltrates the areas excavated during construction of the revetment wall. This seawater will be removed in the first instance using the excavator bucket and be disposed at the location of the excavator.

2.7.6 Is there a water requirement for the construction and/ or operation of this proposal?

(please tick) ✓ Yes **If yes**, complete the rest of this section.
☐ No **If no**, go to the next section.

Water will only be required for dust suppression during construction of the revetment wall. Water will not be required once the revetment wall is complete.

2.7.7 What is the water requirement for the construction and operation of this proposal, in kilolitres per year?

The volume of water required has not been calculated as it will only be required if visible dust becomes excessive during construction.

2.7.8 What is the proposed source of water for the proposal? (e.g. dam, bore, surface water etc.)

The Contractor will supply water on an 'as-needed' basis from their agreed supplier and supply source on an as needed basis. The SPA Port of Bunbury will not be required to supply water during construction.

2.8 Pollution

- 2.8.1 Is there likely to be any discharge of pollutants from this development, such as noise, vibration, gaseous emissions, dust, liquid effluent, solid waste or other pollutants?

(please tick) ☒ Yes **If yes**, complete the rest of this section.

☐ No **If no**, go to the next section.

Truck movements, rock tipping (from truck), rock breaking, rock placement and construction machinery will generate noise. Rock/material tipping, rock breaking, rock/material placement and construction machinery movements will generate dust.

- 2.8.2 Is the proposal a prescribed premise, under the Environmental Protection Regulations 1987?

(Refer to the EPA's *General Guide for Referral of Proposals to the EPA under section 38(1) of the EP Act 1986* for more information)

☐ Yes ☒ No **If yes**, please describe what category of prescribed premise.

- 2.8.3 Will the proposal result in gaseous emissions to air?

☒ Yes ☐ No **If yes**, please briefly describe.

It is anticipated that air quality may occasionally be impacted as a result of dust during construction, which is likely to take between 6- 8 weeks. Any visible dust that may occur is expected to be contained to the site and will only occur for short periods of time.

The most likely sources for dust emissions are truck and construction machinery movements and rock dumping. Indicative truck movements are between 40-50 vehicles per week (over a 6-8 week period) for movement of rock and 100-150 vehicles per week (over a 3-5 week period) for transporting sand from the outer harbour to site for re-nourishment of the beach.

The Contractor will be required to source water and as required for dust suppression as part of their Construction Management Plan. This will restrict visible dust movement offsite.

- 2.8.4 Have you done any modelling or analysis to demonstrate that air quality standards will be met, including consideration of cumulative impacts from other emission sources?

☐ Yes ☒ No **If yes**, please briefly describe.

- 2.8.5 Will the proposal result in liquid effluent discharge?

☐ Yes ☒ No **If yes**, please briefly describe the nature, concentrations and receiving environment.

2.8.6 If there is likely to be discharges to a watercourse or marine environment, has any analysis been done to demonstrate that the State Water Quality Management Strategy or other appropriate standards will be able to be met?

☐ Yes ✓ No

2.8.7 Will the proposal produce or result in solid wastes?

☐ Yes ✓ No **If yes**, please briefly describe the nature, concentrations and disposal location/ method.

2.8.8 Will the proposal result in significant off-site noise emissions?

✓ Yes ☐ No **If yes**, please briefly describe.

Noise emissions sources include truck movements, operation of construction equipment (one excavator and one loader) and activities associated with rock movement such as tipping, pounding and moving rocks into the rock wall.

The Contractor will be required to manage noise to ensure that noise levels do not exceed the statutory requirements for construction noise. All construction will occur during the hours of 7 am and 5 pm from Monday to Saturday. No work will occur on Sunday and night work is not anticipated.

2.8.9 Will the development be subject to the Environmental Protection (Noise) Regulations 1997?

☐ Yes ✓ No **If yes**, has any analysis been carried out to demonstrate that the proposal will comply with the Regulations?

Please attach the analysis.

2.8.10 Does the proposal have the potential to generate off-site, air quality impacts, dust, odour or another pollutant that may affect the amenity of residents and other “sensitive premises” such as schools and hospitals (proposals in this category may include intensive agriculture, aquaculture, marinas, mines and quarries etc.)?

☐ Yes ✓ No **If yes**, please describe and provide the distance to residences and other “sensitive premises”.

2.8.11 If the proposal has a residential component or involves “sensitive premises”, is it located near a land use that may discharge a pollutant?

☐ Yes ☐ No ✓ Not Applicable

If yes, please describe and provide the distance to the potential pollution source

2.9 Greenhouse Gas Emissions

2.9.1 Is this proposal likely to result in substantial greenhouse gas emissions (greater than 100 000 tonnes per annum of carbon dioxide equivalent emissions)?

☐ Yes

☒ No

If yes, please provide an estimate of the annual gross emissions in absolute and in carbon dioxide equivalent figures.

2.9.2 Further, if yes, please describe proposed measures to minimise emissions, and any sink enhancement actions proposed to offset emissions.

2.10 Contamination

2.10.1 Has the property on which the proposal is to be located been used in the past for activities which may have caused soil or groundwater contamination?

☐ Yes

☒ No

☐ Unsure

If yes, please describe.

2.10.2 Has any assessment been done for soil or groundwater contamination on the site?

☐ Yes

☒ No

If yes, please describe.

2.10.3 Has the site been registered as a contaminated site under the *Contaminated Sites Act 2003*? (on finalisation of the CS Regulations and proclamation of the CS Act)

☐ Yes

☒ No

If yes, please describe.

2.11 Social Surroundings

2.11.1 Is the proposal on a property which contains or is near a site of Aboriginal ethnographic or archaeological significance that may be disturbed?

☐ Yes

☒ No

☐ Unsure

If yes, please describe.

2.11.2 Is the proposal on a property which contains or is near a site of high public interest (e.g. a major recreation area or natural scenic feature)?

☒ Yes

☐ No

If yes, please describe.

The site is approximately 150 m from the Dolphin Discovery Centre, which contributes to regional tourism. Dolphin Discovery Centre is a not-for-profit organisation that undertakes research, education and conservation programs. These programs are funded through tourism experiences associated with interaction with wild dolphins in Koombana Bay. Access controls, such as fencing, signage and a traffic management plan will be established during construction. The Manager of the Dolphin Discovery Centre has been consulted on this Project and will be advised as to when work will commence.

2.11.3 Will the proposal result in or require substantial transport of goods, which may affect the amenity of the local area?

☐ Yes

☒ No

If **yes**, please describe.

3. PROPOSED MANAGEMENT

3.1 Principles of Environmental Protection

3.1.1 Have you considered how your project gives attention to the following Principles, as set out in section 4A of the EP Act? (For information on the Principles of Environmental Protection, please see EPA Position Statement No. 7, available on the EPA website)

- | | | |
|--|---|-----------------------------|
| 1. The precautionary principle. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. The principle of intergenerational equity. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. The principle of the conservation of biological diversity and ecological integrity. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Principles relating to improved valuation, pricing and incentive mechanisms. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. The principle of waste minimisation. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

3.1.2 Is the proposal consistent with the EPA's Environmental Protection Bulletins/Position Statements and Environmental Assessment Guidelines/Guidance Statements (available on the EPA website)?

☒ Yes

☐ No

3.2 Consultation

3.2.1 Has public consultation taken place (such as with other government agencies, community groups or neighbours), or is it intended that consultation shall take place?

☒ Yes

☐ No

If **yes**, please list those consulted and attach comments or summarise response on a separate sheet.

Consultation was undertaken with representatives from Cristal and the Dolphin Discovery Centre and the City of Bunbury on September 9th. – refer to Attachment 2.

Attachment 1

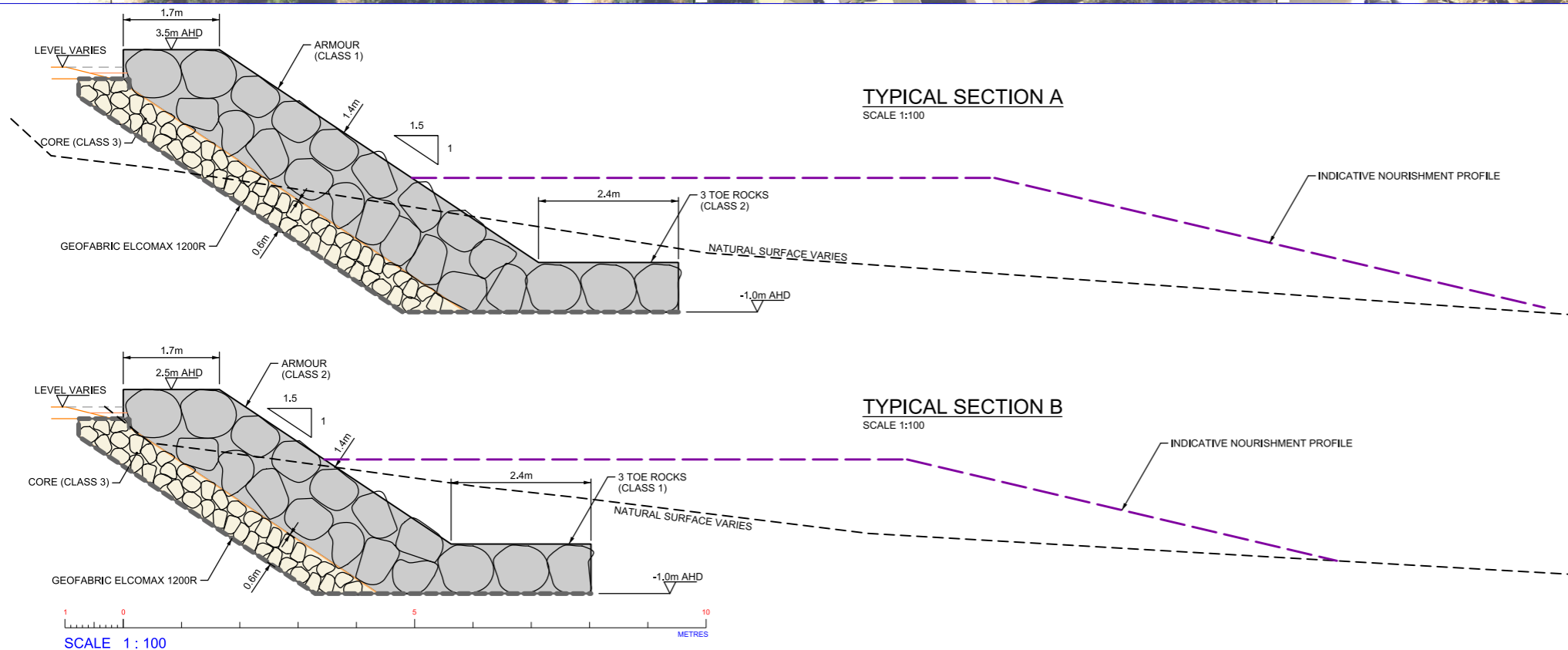
Figure 1 – Site Locality Map

Figure 2 – Site Detailed Design (Ref. DA-2296-2-1)

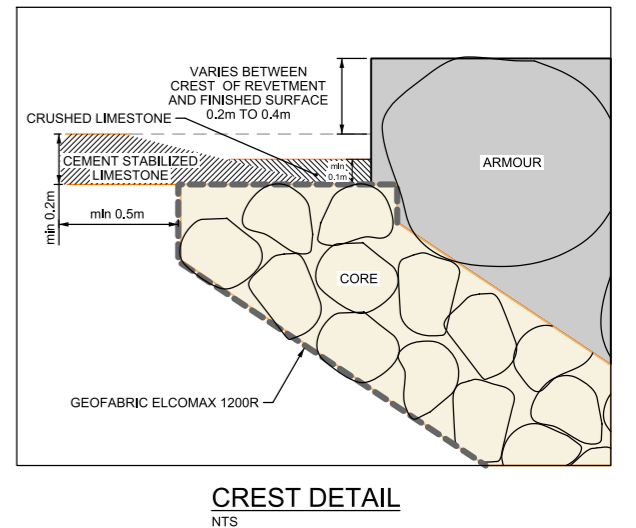
Figure 3 – Conceptual illustration of the location of the Silt Curtain.



Figure 1 – Site Locality Map



ROCK TYPE	SIZE RANGE	ESTIMATED QUANTITIES
TOE (CLASS 1)	0.85 - 1.5t (50% > 1.25t)	750t (DENSITY 2.6t/m³) or 850t (DENSITY 3.0t/m³)
ARMOUR (CLASS 2)	0.4 - 1.2t (50% > 0.85t)	4150t (DENSITY 2.6t/m³) or 4550t (DENSITY 3.0t/m³)
CORE (CLASS 3)	0.15 - 0.5m (50% > 0.3m)	1750t (DENSITY 2.3t/m³) or 1950t (DENSITY 2.6t/m³) or 2200t (DENSITY 3.0t/m³)



- NOTES
1. A MINIMUM 0.5m OVERLAP IS REQUIRED BETWEEN SHEETS OF GEOFABRIC
 2. EXCAVATED MATERIAL IS LIKELY TO CONSIST OF ROCKY MATERIAL, MIXED WITH SAND, GRAVEL AND COBBLE
 3. SERVICES HAVE BEEN IDENTIFIED NEAR THE WESTERN EXTENT OF THE REVETMENT. THE CONTRACTOR IS REQUIRED TO LOCATE ANY SERVICES PRIOR TO EXCAVATION.
 4. SAND REQUIRED FOR BACKFILLING AND NOURISHMENT SHOULD BE IMPORTED FROM THE OUTER HARBOUR SAND TRAPS. VOLUME OF SAND IMPORTED WILL BE ADVISED BY THE SUPERINTENDENT.
 5. AERIAL IMAGERY: BUNBURY TOWNSITE 2010

DATUM
VERTICAL AHD
HORIZONTAL PCG94

Seashore Engineering

BebbCart
Marine, Cadastral &
Topographic Mapping,
Civil Drafting.

ENGINEER	G.McCORMACK	15.10.13
DRAWN	J.BARTLETT	15.10.13
DRAFTING CHECK	G.BEBBINGTON	26.11.13
ENGINEERING CHECK	S.BARR	26.11.13
APPROVED PROJECT MGR		

CLIENT	BUNBURY PORT AUTHORITY
PROJECT	POINT BUSACO REVETMENT
TITLE	DETAILED DESIGN
DRAWING NUMBER	DA-2296-2-1
REV	D

REV	DATE	AMENDMENT	DRN	APP
D	02.10.14	DRAWING UPDATED WITH NEW SURVEY INFORMATION	SM	
C	09.04.14	DRAWING TRANSFORMED TO PERTH COASTAL GRID 94	SJM	
B	10.12.13	AMENDMENTS FROM ENGINEERING CHECK	CJL	
A	29.10.13	ISSUED FOR CLIENT REVIEW	JB	
ORIG SIZE	ARCHIVE	DA-2296-2-1D.dgn, BU_2014-09-00_MGA_AHD.dtm		
A3				

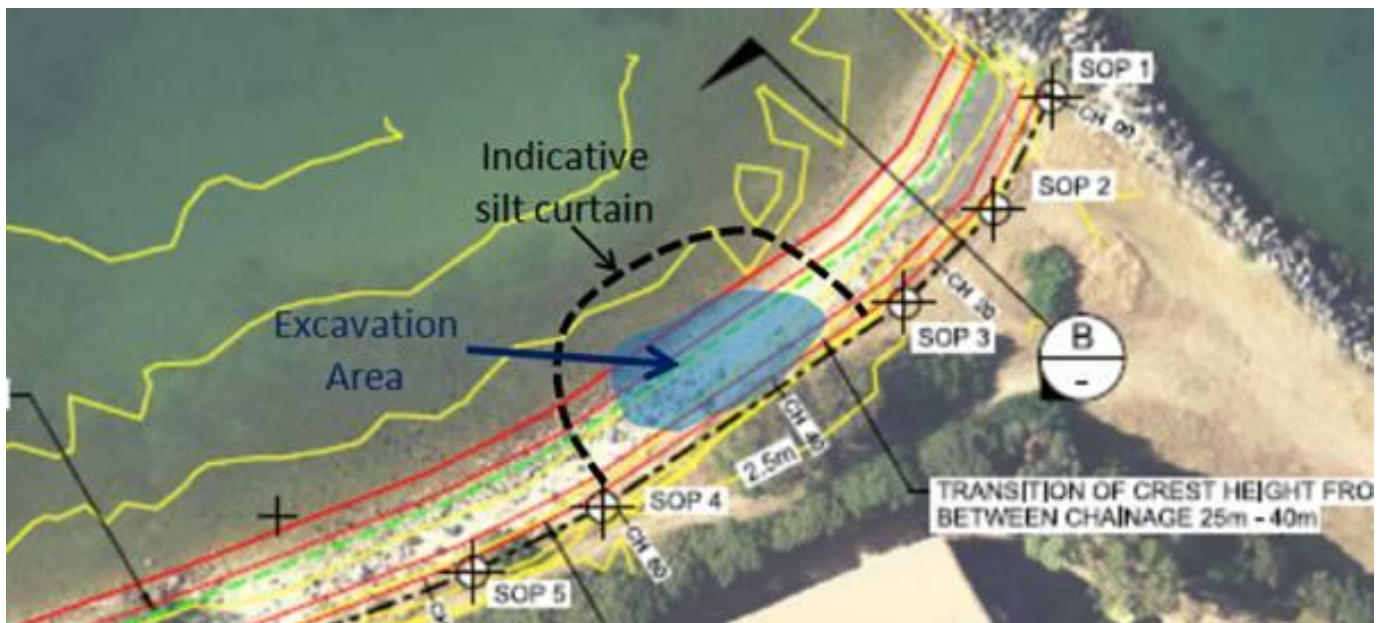


Figure 3: Conceptual illustration of the location of the Silt Curtain.

Attachment 2 Community Consultation List



Memorandum

10 September 2014

To Bunbury Port Authority

Copy to

From Fionnuala Hannon

Tel 61 8 9721 0711

Subject Stakeholder Consultation: Revetment Wall Point
Busaco

Job no. 61/31493

The Bunbury Port Authority and SeaShore Engineering presented a discussion on the proposed construction of a revetment wall at Point Busaco, Koombana Bay. The presentation included the purpose of the construction, timing of the construction and the environmental and social impacts that may arise.

Those attending the presentation were:

- 1 Neville Welsh, Department of Environmental Regulation
- 2 Ken Bell, Cristal
- 3 Phil Johnston, Cristal
- 4 Daniel Marshall, South West Development Commission
- 5 Ashley Clements, South West Development Commission
- 6 David Kerr, Dolphin Discovery Centre
- 7 Fionnuala Hannon, GHD
- 8 Jason Gick, City of Bunbury
- 9 Kevan Wheeler, BPA
- 10 Duncan Gordon, BPA
- 11 David Lantry, BPA
- 12 Mick Griffin, BPA
- 13 Stuart Barr, SeaShore Engineering

There was broad support for this work due to the extent of the erosion that has occurred to date. The risk of turbidity as a result of construction was raised as a possible environmental impact. On this basis, and that the Dolphin Discovery Centre is 150m to the west of the excavation site, the meeting recommended that advice from the EPA is sought as to whether this Project should be formally referred.

ACTION: Fionnuala Hannon, GHD, to contact the EPA to seek advice as to whether this Project requires referral under s38 of the *Environmental Protection Act 1986*.

Regards

Fionnuala Hannon

Principal Environmental Consultant