## Referral of a Proposal to the Environmental Protection Authority under Section 38 of the Environmental Protection Act 1986.

#### PURPOSE OF THIS FORM

Section 38 of the Environmental Protection Act 1986 (EP Act) makes provision for the referral to the Environmental Protection Authority (EPA) of a proposal (significant proposals, strategic proposals and proposals under an assessed scheme) by a proponent, a decision making authority (DMA), or any other person.

The purpose of this form is to ensure that EPA has sufficient information about a proposal to make a decision about the nature of the proposal and whether or not the proposal should be assessed under Part IV of the EP Act. Information provided in the referral form must be brief (no more than 30 pages), sharp and succinct to achieve the purposes of this form.

This form does not prevent the referrer from providing a supplementary referral report. Should a referrer choose to submit a supplementary referral report please ensure the following.

- i. Information is short, sharp and succinct.
- Attachments are below eight megabytes (8 MB) as they will be published on the EPA's website (exemptions apply) for public comment. To minimise file size, "flatten" maps and optimise pdf files.
- iii. Cross-references are provided in the referral form to the appropriate section/s in the supplementary referral report.

This form is to be used for all proposals<sup>1</sup> which can be referred to the EPA under section 38 of the EP Act; i.e. referrals from: proponents of proposals (significant proposals, strategic proposals, derived proposals, proposals under an assessed scheme); DMAs (significant proposals); and third parties (significant proposals).

This form is divided into several sections, including; Referral requirements and Declaration; Part A - Information of the proposal and proponent; and Part B Environmental Factors. Guidance on successfully completing this form is provided throughout the form and is also available in the EPA's Environmental Assessment Guideline for Referral of a Proposal under s38 of the EP Act (EAG 16).

#### Send completed forms to

Office of the Environmental Protection Authority Locked Bag 10, East Perth WA 6892

or

Email: Registrar@epa.wa.gov.au

#### **Enquiries**

Office of the Environmental Protection Authority Locked Bag 10, East Perth WA 6892

Telephone: 6145 0800 Fax: 6145 0895

Email: info@epa.wa.gov.au Website: www.epa.wa.gov.au

<sup>&</sup>lt;sup>1</sup> Please note that this form consolidates and replaces the following forms: Referral of a Proposal by the Proponent to the EPA under section 38(1) of the EP Act; Referral of a Proposal by a third party to the EPA under section 38(1) of the EP Act, and Referral of a development proposal to the EPA by the decision making authority.

# **Referral requirements and Declaration**

The following section outlines the referral information required from a proponent, decision making authority and third party.

#### (a) Proponents

Proponents are expected to complete all sections of the form and provide GIS spatial data to enable the EPA to consider the referral. Spatial GIS data is necessary to inform the EPA's decision.

The EPA expects that a proponent will address Part B of the form as thoroughly as possible to demonstrate whether or not the EPA's objectives for environmental factors can be met.

If insufficient information is provided the EPA will request more information and processing of the referral will commence once the information is provided or the EPA decides to make a precautionary determination on the available information.

| Proponent to complete before submitting form   |   |
|--|---|
| Completed all the questions in Part A (essential)  | ⊠ Yes □ No  |
| Completed all the questions in Part B  | ⊠ Yes □ No  |
| Completed all other applicable questions   | ⊠ Yes □ No  |
| Included Attachment 1 – any additional document(s) the proponent wishes to provide   | ⊠ Yes □ No  |
| Included Attachment 2 – confidential information (if applicable)   | ☐ Yes   |
| Enclosed an electronic copy of all referral information, including spatial data and contextual mapping but clearly separating any confidential information | ⊠ Yes □ No  |
| Completed the Declaration  | ⊠ Yes □ No  |
| What is the type of proposal being referred?  * a referred proposal seeking to be declared a derived proposal  | ☐ significant ☐ strategic ☐ derived* ☐ under an assessed scheme |
| Do you consider the proposal requires formal environmental impact assessment?  | ☐ Yes ☐ No  |
| If yes, what level of assessment?  API = Assessment of Proponent Information  PER = Public Environmental Review  | ☐ API Category A ☐ API Category B ☐ PER                         |

**NB:** The EPA may apply an Assessment on Proponent Information (API) level of assessment when the proponent has provided sufficient information about:

- the proposal;
- the proposed environmental impacts;
- the proposed management of the environmental impacts; and
- when the proposal is consistent with API criteria outlined in the <u>Environmental Impact</u> Assessment (Part IV Division 1 and 2) Administrative Procedures 2012.

If an API A formal level of assessment is considered appropriate, please refer to Environmental Assessment Guideline No. 14 *Preparation for an Assessment on Proponent Information (Category A) Environmental Review Document EAG 14* (EAG14).

#### **Declaration**

I, Ashley Clements declare that I am authorised on behalf South West Development Commission (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) Ash   | ley Clements                 |           |
|-----------|--|--------------------|------------------------------|-----------|
| Position  | Strategic Manager<br>Infrastructure    | Organisation       | South West Dev<br>Commission | relopment |
| Email     | ashley.clements@swdc.wa                | a.gov.au           |                              |           |
| Address   | 9 <sup>th</sup> Floor Bunbury<br>Tower | 61 Victoria Street |                              |           |
|           | Bunbury                                |                    | WA                           | 6230      |
| Date      | 24 March 2015                          |                    |                              |           |

# (b) Decision-making authority

The EPA expects decision-making authorities to complete applicable sections of Part A of the form and provide the proponent an opportunity to provide additional information in Part B of the form where appropriate.

Wherever possible the DMA should obtain relevant spatial information from the proponent and provide this to the EPA with the referral.

| DMA to comp  | lete before submitting forn                     | m            |   |               |         |
|--|---|--------------|---|---------------|---------|
| Completed all the questions in Part A (essential)  |   |              |   | ☐ Yes         | ☐ No    |
| Provided Part B to the proponent for completion  |   |              | ☐ Yes   | ☐ No          |         |
| Completed all  | other applicable questions                      |              |   | ☐ Yes         | ☐ No    |
| Included Attac   | hment 1 – any supporting ir                     | nformation   |   | ☐ Yes         | ☐ No    |
| Enclosed an electronic copy of all referral information, including spatial data and contextual mapping                           |   |              | ☐ Yes   | ☐ No          |         |
| Completed the  | e below Declaration                             |              |   | ☐ Yes         | ☐ No    |
|  | er the proposal requires for impact assessment? | mal          |   | ☐ Yes         | ☐ No    |
| What is the type   | pe of proposal being referre                    | -d?          |   | significant p | roposal |
|  |   |              | significant proposal under an assessed scheme |               |         |
| Declaration  I,, (full name) submit this referral to the EPA for consideration of the environmental significance of its impacts. |   |              |   |               |         |
| Signature  |   | Name (print) |   |               |         |
| Position   |   | Organisation |   |               |         |
| Email  |   |              | _   |               |         |
| Address  | Street No. Street Name                          |              |   |               |         |
| Suburb   |   | State        | e P   | ostcode       |         |
| Date   |   |              |   |               |         |

#### (c) Third Party

Third parties are asked to have consideration for the Significance Test outlined in Part A Section 1.5 of this form before referring a significant proposal to the EPA. The EPA will only consider proposals that are likely, if implemented, to have a significant effect on the environment.

Third parties are to provide sufficient information to clearly identify the significant proposal, the proponent, and their reasons for referring the proposal. This can be done by completing as much of Part A of the form as possible, taking into consideration the information available. Third parties may wish to fill in Part B of the form to advance their own views of the significance of the environmental impacts and the need for EPA assessment.

In most cases the EPA will seek additional information from the proponent. This will be to confirm or amend the identity of the proponent, the proposal, and to allow the proponent opportunity to provide its views on the significance of the environmental impacts and the need for EPA assessment.

| Third Party to             | o complete before su                                       | abilitting form            |                |             |           |
|----------------------------|--|----------------------------|----------------|-------------|-----------|
| Complete all a             | applicable questions in Part A and B                       |                            | ☐ No           |             |           |
| Completed the              | mpleted the Declaration                                    |                            | ☐ Yes          | ☐ No        |           |
| Do you conside assessment? | consider the proposal requires formal environmental impact |                            |                | ☐ No        |           |
| Declaration                |  | , <i>(full name)</i> sul   | bmit this refe | rral to the | e EPA for |
| consideration o            |  | significance of its impact |                |             |           |
|                            |  |                            |                |             |           |
| consideration o            |  | significance of its impact |                |             |           |
| consideration of Signature |  | significance of its impact |                |             |           |
| Signature Email            |  | Name (print)               |                |             |           |
| Signature Email Position   | of the environmental s                                     | Name (print)  Organisation |                |             | stcode    |

### PART A: Information on the proposal and the proponent

All fields of Part A must be completed by the proponent and/or decision-making authority for this document to be processed as a referral. Third party referrers are only expected to fill in the fields they have information for.

#### 1 PROPONENT AND PROPOSAL DESCRIPTION

#### 1.1 The proponent of the proposal

| Proponent and/or DMA to complete  |   |
|---|---|
| Name of the proponent   | South West Development Commission   |
| Joint Venture parties (if applicable)   |   |
| Australian Company Number(s) (if applicable)  |   |
| 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) | South West Development Commission<br>PO Box 2000<br>Bunbury Western Australia 6231  |
| Key proponent contact for the proposal  Please include: name; physical address; phone; and email.   | Ashley Clements Strategic Manager Infrastructure South West Development Commission  A: 9th Floor Bunbury Tower 61 Victoria Street BUNBURY WA 6230  P: 08 9792 2000  E: ashley.clements@swdc.wa.gov.au |
| Consultant for the proposal (if applicable)  Please include: name; physical address; phone; and email.  | Steve Rolls Business Director – Environment RPS  A: Level 2, 38 Station Street SUBIACO WA 6008 P: 9211 1111 E: steve.rolls@rpsgroup.com.au  |

#### 1.2 Proposal

Proposal is defined under the EP Act to mean a "project, plan, programme policy, operation, undertaking or development or change of land use, or amendment of any of the foregoing, but does not include scheme". Before completing this section please refer to <a href="Environmental Protection Bulletin 17">Environmental Protection Bulletin 17</a> — Strategic and derived proposals (EPB 17) and <a href="Environmental Environmental Protection Bulletin for Defining the Key Characteristics of a proposal (EAG 1)">Environmental Environmental Environment

| Proponent and/or DMA to complete       |  |
|--|--|
| Title of the proposal                  | Koombana Bay Marine Structures                 |
| What project phase is the proposal at? | X Scoping  Feasibility  Detailed design  Other |
| Proposal type                          | ☐ Power/Energy Generation                      |

| Proponent and/or DMA to complete   |  |
|--|--|
| More than one proposal type can be identified, however for filtering purposes it is recommended that only the primary proposal type is identified. | <ul> <li>☐ Hydrocarbon Based – coal</li> <li>☐ Hydrocarbon Based – gas</li> <li>☐ Waste to energy</li> <li>☐ Renewable – wind</li> <li>☐ Renewable – wave</li> <li>☐ Renewable – solar</li> <li>☐ Renewable – geothermal</li> </ul>                                |
|  | <ul> <li>Mineral / Resource Extraction</li> <li>□ Exploration – seismic</li> <li>□ Exploration – geotechnical</li> <li>□ Development</li> </ul>  |
|  | Oil and Gas Development  Exploration  Onshore – seismic  Onshore – geotechnical  Onshore – development  Offshore – seismic  Offshore – geotechnical  Offshore – development  |
|  | <ul><li>☐ Industrial Development</li><li>☐ Processing</li><li>☐ Manufacturing</li><li>☐ Beneficiation</li></ul>  |
|  | □ Land Use and Development □ Residential – subdivision □ Residential – development □ Commercial – subdivision □ Commercial – development □ Industrial – subdivision □ Industrial – development □ Agricultural – subdivision □ Agricultural – development □ Tourism |
|  | Linear Infrastructure Rail Road Power Transmission Water Distribution Gas Distribution Pipelines   |
|  | <ul> <li>Water Resource Development</li> <li>□ Desalination</li> <li>□ Surface or Groundwater</li> <li>□ Drainage</li> <li>□ Pipelines</li> </ul>  |

| Proponent and/or DMA to complete   |   |
|--|---|
|  | ☐ Managed Aquifer Recharge  |
|  | X Marine Developments  Port  X Jetties  X Marina  |
|  | Canal Aquaculture X Dredging If other, please state below: Other  |
| Proponent and/or DMA to complete   |   |
| Description of the proposal – describe the key characteristics of the proposal in accordance with <u>EAG 1</u> . | Proposal involves the extension of existing marine structures in Koombana Bay, Bunbury, to meet existing demand and future requirements for small craft maritime infrastructure. The three proposed future marine structures include new mooring facilities for commercial and recreational vessels; floating jetties; a boat servicing facility; improved public ablution facilities; and an upgraded boat launching and storage facilities. |
| Casuarina Harbour Development  |   |
| Area to be Dredged   | To be determined, but it estimated approximately 20, 000 m2 of sediment may need to be removed to realign the boating channel   |
| Internal Jetties   | Approximately 10–13 new floating jetties  |
| Boat Pens  | Approximately 400 new boating pens  |
| Area of Potential Reclamation  | Approximately 30,000 m2 of coastal / marine environment is proposed for land reclamation  |
| Area of Potential Terrestrial Disturbance from Construction  | Approximately 96,000 m2 of existing port development is proposed for redevelopment  |
| Breakwater Footprint   | Approximately 13,600 m2   |
| Koombana Sailing Club Marina   |   |
| Area to be Dredged   | To be informed by the outcomes of future investigations   |
| Internal Jetties   | 4–6 new floating jetties  |
| Boat Pens  | To be advised.  |
| Area of Potential Reclamation  | Approximately 24,200 m <sup>2</sup>   |
| Rock Groyne Footprint and Extension  | Approximately 15,100 m <sup>2</sup> , Approximately 360 m into the marine environment   |
| Timeframe in which the proposal is to occur (including start and finish dates where applicable).                 | Construction is anticipated to commence in 2019   |

| Proponent and/or DMA to complete  |  |
|---|--|
| Details of any staging of the proposal.   | Staging of future derived proposals has not been decided upon.                                     |
| What is the current land use on the property, and the extent (area in hectares) of the property?  | Refer Table A and Figure 1 in the Environmental Referral Document.                                 |
| Have pre-referral discussions taken place with the OEPA?  | September 23 <sup>rd</sup> 2014, 14 <sup>th</sup> November 2014 and 16 <sup>th</sup> February 2015 |
| If yes, please provide the case number. If a case number was not provided, please state the date of the meeting and names of attendees.   |  |
| DMA (Responsible Authority) to complete   |  |
| For a proposal under an assessed scheme (as defined in <u>section 3 of the EP Act</u> , applicable only to the proponent and DMA) provide details (in an attachment) as to whether: |  |
| The environmental issues raised by the proposal were assessed in any assessment of the assessed scheme.   |  |
| The proposal complies with the assessed scheme and any environmental conditions in the assessed scheme.   |  |

# 1.3 Strategic / derived proposals

Complete this section if the proposal being referred is a strategic proposal or you are seeking the proposal to be declared a derived proposal. Note: Only a proponent may refer a strategic proposal and seek a proposal to be declared a derived proposal.

| Proponent to complete   |              |
|---|--------------|
| Is this referred proposal a strategic proposal?   | ⊠ Yes □ No   |
| Are you seeking that this proposal be declared a derived proposal?  | ☐ Yes   ⊠ No |
| If you are seeking that this proposal be declared a derived proposal, what is the Ministerial Statement number (MS #) of the associated strategic proposal? | MS #:        |

#### 1.4 Location

Proponents and DMAs must provide spatial data. Please refer to <u>EAG 1</u> for more detail.

| Proponent, DMA and Third Party to complete  |   |
|---|---|
| Name of the Local Government Authority in which the proposal is located.  | City of Bunbury   |
| Location:   | Koombana Bay marine environment   |
| <ul> <li>a) street address; lot number; suburb; and nearest<br/>road intersection; or</li> </ul>  |   |
| <ul> <li>b) if remote the nearest town; and distance and<br/>direction from that town to the proposal site.</li> </ul>  |   |
| Have maps and figures been included with the referral (consistent with <u>EAG 1</u> where appropriate)?  The types of maps and figures which need to be provided (depending on the nature of the proposal) include:  • maps showing the regional location and context of the proposal; and  • figures illustrating the proposal elements. | ∑ Yes  □ No     Refer to Figures 1 and 2 in the Environmental Referral Document |
| Proponent and DMA to complete   |   |
| Have electronic copies of spatial data been included with the referral?   |   |
| <b>NB:</b> Electronic spatial (GIS or CAD) data, geo-referenced and conforming to the following parameters:   | disc  |
| <ul> <li>GIS: polygons representing all activities and named;</li> </ul>  |   |
| <ul> <li>CAD: simple closed polygons representing all<br/>activities and named;</li> </ul>  |   |
| <ul><li>datum: GDA94;</li></ul>   |   |
| <ul> <li>projection: Geographic (latitude/longitude) or Map<br/>Grid of Australia (MGA);</li> </ul>   |   |
| <ul> <li>format: ESRI geodatabase or shapefile, MapInfo<br/>Interchange Format, Microstation or AutoCAD</li> </ul>  |   |

# 1.5 Significance test and environmental factors

| Proponent, DMA and Third Party to complete |                                     |  |
|--|-------------------------------------|--|
| What are the likely significant            | ⊠ Benthic Communities and Habitat   |  |
| environmental factors for this proposal?   | □ Coastal Processes                 |  |
|  | Marine Environmental Quality        |  |
|  | Marine Fauna                        |  |
|  | ☐ Flora and Vegetation              |  |
|  | ☐ Landforms                         |  |
|  | ☐ Subterranean Fauna                |  |
|  | ☐ Terrestrial Environmental Quality |  |
|  | ☐ Terrestrial Fauna                 |  |
|  | ☐ Hydrological Processes            |  |

| Proponent, DMA and Third Party to comple  | ete   |  |
|---|---|--|
|   | ☐ Inland Waters Environmental Quality   |  |
|   | ☐ Air Quality & Atmospheric Gases   |  |
|   | Amenity   |  |
|   | Heritage  |  |
|   | ☐ Human Health  |  |
|   | Offsets   |  |
|   | Rehabilitation and Decommissioning  |  |
| Having regard to the Significance Test (refer to Section 7 of the EIA Administrative Procedures 2012) in what ways do you consider the proposal may have a significant effect on the environment and warrant referral to the EPA?                   | The likely key engineering works that will be required to facilitate construction of the proposal, include dredging of a boating channel; construction of rock groynes revetment walling and floating jetties; and reclamation works, will impact sea-themed environmental factors. |  |
| 1.6 Confidential information  All information will be made publically available upor subject to the Freedom of Information Act 1992   |   |  |
| Proponent to complete   |   |  |
| Does the proponent request that the EPA treat any part of the referral information as confidential?  ☐ Yes ☐ No   |   |  |
| Ensure all confidential information is provided in a separate attachment in hard copy.  |   |  |
| <ul> <li>2 REGULATORY CONSIDERATIONS This section applies to the Local, State and Commonwealth regulatory considerations for the referred proposal.</li> <li>2.1 Government approvals</li> <li>2.1.1 State or Local Government approvals</li> </ul> |   |  |
| DMA to complete   |   |  |
| What approval(s) is (are) required from you as a decision-making authority?   |   |  |
| Is rezoning of any land required before the proposal can be implemented?  | ☐ Yes ☐ No  |  |
| If yes, please provide details.   |   |  |

#### 2.1.2 Regulation of aspects of the proposal

Complete the following to the extent possible.

| Proponent to complete  |   |
|--|---|
| Do you have legal access required for the implementation of all aspects of the proposal? | ⊠ Yes □ No  |
| If yes, provide details of legal access authorisations / agreements / tenure.            | South West Development Commission is a statutory authority  |
| If no, what authorisations / agreements / tenure is required and from whom?              | responsible for implementing a variety of key infrastructure projects in the south west. The Koombana Bay Marine Structure proposal has the cooperation and support of the Department of Transport, Port of Bunbury and the Koombana Bay Sailing Club |

Outline both the existing approvals and approvals that will be / are being sought as a part of this proposal.

| Proponent to complete  |                  |                                      |  |
|--|------------------|--------------------------------------|--|
| Aspects* of the proposal   | Type of approval | Legislation regulating this activity | Which State agency /entity regulate this activity? |
| To be determined following further investigations as part of the future EIA process. |                  |                                      |  |
|  |                  |                                      |  |
|  |                  |                                      |  |
|  |                  |                                      |  |

# 2.1.3 Commonwealth Government *Environment Protection and Biodiversity Conservation Act 1999* approvals

Refer to the <u>assessment bilateral agreement</u> between the Commonwealth of Australia and the State of Western Australia for assistance on this section.

| Pro | Proponent to complete  |   |  |
|-----|--|---|--|
| 1.  | Does the proposal involve an action that may be or is a controlled action under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)? | ☐ Yes ☐ No  If no continue to Part A section 2.3.4.   |  |
| 2.  | What is the status of the decision on whether or not the action is a controlled action?  | <ul> <li>□ Proposal not yet referred</li> <li>□ Proposal referred, awaiting decision</li> <li>□ Assessed – controlled action</li> </ul> |  |
|     |  | Assessed – not a controlled   |  |

<sup>\*</sup>e.g. mining, processing, dredging

| Pro | Proponent to complete  |            |  |
|-----|--|------------|--|
|     |  | action     |  |
| 3.  | If the action has been referred, when was it referred and what is the reference number (Ref #)?          | Date:      |  |
|     |  | Ref #:     |  |
| 4.  | If the action has been assessed, provide the decision in an attachment. Has an attachment been provided? | ☐ Yes ☐ No |  |
| 5.  | Do you request this proposal to be assessed under the bilateral agreement?                               | ☐ Yes ☐ No |  |

Complete the following to the extent possible for the Public Comment of EPBC Act referral documentation.

| Proponent to complete  |  |
|--|--|
| Have you invited the public to comment on your referral documentation?   | ☐ Yes ☐ No  Concept Plan developed by the Bunbury Marine Facilities Steering Committee for the Koombana Bay Waterfront included the marine structures subject to this proposal. The Bunbury community has been engaged and informed on the proposed Koombana bay marine structures e.g. proposed amendments to Casuarina Harbour and the Koombana Bay Sailing Club |
| 7. How was the invitation published?   | newspaper website  |
| 8. Did the invitation include all of the following?  |  |
| (a) brief description of the action  | ☐ Yes ☐ No   |
| (b) the name of the action   | ☐ Yes ☐ No   |
| (c) the name of the proponent  | ☐ Yes ☐ No   |
| (d) the location of the action   | ☐ Yes ☐ No   |
| (e) the matters of national environmental significance that will be or are likely to be significantly impacted | ☐ Yes ☐ No   |
| (f) how the relevant documents may be obtained   | ☐ Yes ☐ No   |
| (g) the deadline for public comments   | ☐ Yes ☐ No   |
| (h) available for public comment for 14 calendar days  | ☐ Yes ☐ No   |

| Proponent to complete  |   |
|--|---|
| (i) the likely impacts on matters of national environmental significance | ☐ Yes ⊠ No  |
| (j) any feasible alternatives to the proposed action                     | ☐ Yes ⊠ No  |
| (k) possible mitigation measures   | ⊠ Yes □ No  |
| Were any submissions received during the public comment period?          | ☐ Yes ☐ No  |
| Have public submissions been addressed? If yes provide attachment.       | ☐ Yes ☐ No  |
| yes provide attachment.  | Refer to Section 2.3 in Environmental Referral Document |

### 2.1.4 Other Commonwealth Government Approvals

| Proponent, DMA and Third Party to complete  |                   |                |           |  |
|---|-------------------|----------------|-----------|--|
| Is approval required from other<br>Commonwealth Government/s for any<br>part of the proposal? |                   | lf.            | yes, plea | ☐ Yes ☐ No se complete the table below.          |
| Agency /<br>Authority   | Approval required | Applic<br>lodg |           | Agency / Local Authority contact(s) for proposal |
|   |                   | ☐ Yes          | ☐ No      |  |
|   |                   | ☐ Yes          | ☐ No      |  |

### 3. SUPPORTING INFORMATION

Please attach copies of any relevant information on the proposal, supporting evidence and / or existing environmental surveys, studies or monitoring information undertaken and list the documents below.

| Propo | Proponent, DMA and Third Party to complete |   |   |
|-------|--|---|---|
| (1)   | Environmental<br>Referral<br>Document      | RPS for the South<br>West Development<br>Commission | Outlines the proposal, key environment factors, environmental impacts and potential investigations / management actions to manage / mitigate environmental impacts. |
| (2)   |  |   |   |
| (3)   |  |   |   |

#### PART B: ENVIRONMENTAL FACTORS

The purpose of Part B is to assist the EPA to determine the significance of the likely environmental impacts of the proposal in accordance with the EPA's *Environmental Assessment Guideline for Environmental factors and objectives* (EAG 8) and *Environmental Assessment Guideline for Application of a significant framework in the EIA process* (EAG 9). Referrers completing Part B should refer closely to EAG 8 and EAG 9.

The EPA has prepared <u>Referral of a Proposal under s38 of the EP Act EAG No.16 - Appendix A</u> (Appendix A) to assist in identifying factors and completing the below table. Further guidance can be found in the guidance and policy documents cited in Appendix A under each factor.

#### How to complete Part B

For each environmental factor, that is likely to be significantly impacted by the implementation of the proposal, make a copy of the table below and insert a summary of the relevant information relating to the proposal. The table can be broken down into more than one table per factor, if the need arises. For example the hydrological processes factor can be presented in two separate tables, one for surface water and one for groundwater, or similarly one for construction and one for operations.

For complex proposals a supplementary referral report can be provided in addition to the referral form. If this option is chosen the table must still be completed (summaries are acceptable) to assist the Office of the EPA with statistical reporting and filtering proposals for processing.

Proponents expecting an API level of assessment must provide information in accordance with the EPA's *Environmental Assessment Guideline for Preparation of an API-A environmental review document* (EAG 14).

For <u>each</u> of the significant environmental factors, complete the following table (Questions 1 - 10).

| Propo | Proponent to complete. DMA and Third Party to complete to the best of their knowledge.  |  |  |
|-------|---|--|--|
| 1     | Factor, as defined in <u>EAG 8</u>  | Benthic Communities and Habitat  |  |
| 2     | EPA Objective, as defined in <u>EAG 8</u>   | To maintain the structure, function, diversity, distribution and viability of benthic communities and habitats at local and regional scales  |  |
| 3     | Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?   | <ul> <li>EAG No. 3: Protection of Benthic Primary Producer Habitats in Western Australia's Marine Environment.</li> <li>EAG No. 7: Marine Dredging Proposals.</li> <li>Draft EAG No. 15: Protecting the Quality of Western Australia's Marine Environment.</li> </ul>  |  |
| 4     | Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:  • anticipated level of public interest in the impact;  • consultation with regulatory agencies; and  • consultation with community. | <ul> <li>Pre-referral consultation has been undertaken with Port of<br/>Bunbury (PoB) to determine sampling locations for marine<br/>water and sediment quality and marine monitoring<br/>methodology to ensure that Koombana Bay marine<br/>environment is treated holistically accounting for cumulative<br/>impacts.</li> </ul> |  |

#### Proponent to complete. DMA and Third Party to complete to the best of their knowledge. Various studies within Koombana Bay and the PoB suggest the 5 Baseline information - describe the area is unlikely to support significant seagrass meadows or relevant characteristics of the receiving extensive macro algal communities. The benthic habitat is environment expected to be predominantly bare, un-vegetated sand. This may include: regional context; Koombana Bay may provide a feeding or nursery grounds for known environmental values, current blue swimmer crabs. quality, sensitivity to impact, and current Management of benthic habitat will depend on the outcomes level of cumulative impacts. from dredge requirements and hydrodynamic and sediment modelling. If there is a low dredge volume required the impacts to marine water quality and benthic habitats is also likely to be considered low. Benthic communities and habitat were a key environmental factor in the consideration of the Inner Harbour Expansion PER with the EPA requiring further detailed evaluation. Benthic communities and habitat related environmental issues (loss of seagrass and loss of benthic habitat) were also raised for the Bunbury Waterfront Project by the EPA. From the Inner Harbour EIA assessment it is noted: GHD completed an Environmental Quality Marine Framework (WQMF) that includes Koombana Bay in 2014. A hydrodynamic model was prepared by GHD 2014 where Koombana Bay and surrounding waters were included in the modelling domain. The impact of the activity proposed for this Project area will be readily modelled, taking into account, if required, the cumulative impact of dredging undertaken by the PoB and dredging required for construction activities associated with this Project. The construction of the marine structures will disturb areas of 6 Impact assessment - describe the shallow water that potentially provides a substrate to support potential impact/s that may occur to the marine benthic habitats and communities. Temporary environmental factor as a result of construction impacts are likely to include indirect disturbance to implementing the proposal. benthic fauna and flora in the project area, associated with increased turbidity during the dredging/pile-driving process. The tolerances of aquatic organisms to increased turbidity levels are highly variable (Wilber et al. 2005) and impacts will depend on the sediment load and duration of exposure. The impacts to benthic fauna are potentially greater if the sediments disturbed during construction contain elevated levels of contaminants, and this is not appropriately managed.

Direct impacts associated with construction will be limited to sessile and slow-moving benthic organisms occurring in the

Operational impacts will be long-term and will include the shading or smothering of benthic communities and habitat. The shading produced by the structures may preclude the growth of benthic communities and habitat in some near shore areas of

direct path of pile driving and/or dredging.

Koombana Bay.

| Propo  | nent to complete. DMA and Third  | Party to complete to the best of their knowledge.  |
|--------|--|--|
| 7      | Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed:  • Avoidance - avoiding the adverse environmental impact altogether;  • Minimisation - limiting the degree or magnitude of the adverse impact;  • Rehabilitate – restoring the maximum environmental value that is reasonably practicable; and  • Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a project or activity.   | <ul> <li>Quantify direct and indirect (e.g. turbidity) impacts (or potential cumulative loss) to benthic communities and habitats from the construction marine structures and dredging in the context of EAG No. 3: Protection of Benthic Primary Producer Habitats in Western Australia's Marine Environment.</li> <li>1. GHD (2014) undertook an assessment of the potential impact construction activity for the expansion of the PoB may have to marine fauna. This assessment included consultation with the Dolphin Discovery Centre and may be readily updated to include potential impacts as they occur in the project area.</li> <li>2. Impacts to benthic communities and habitats will be addressed through the implementation of project specific Dredge and Spoil Disposal Management Plan (DSDMP) and Construction Management Plan (CMP). These plans will include water quality and benthic habitat monitoring which would be employed during dredging and construction phases.</li> <li>Management triggers for benthic habitats will be adopted in the DSDMP and CMP.</li> <li>Benthic community and habitat monitoring and triggers will be established (if not already established) in cooperation with EPA.</li> <li>Silt curtains will be employed e.g. for reclamation and revetment wall works to restrict silt movement.</li> </ul> |
| 8      | Residual impacts – review the residual impacts against the EPA objectives.  It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage. Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA's objective for this factor would be met if residual impacts remain. This will require:  • quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions;  • putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and  • comparison against any established environmental policies, guidelines, and standards. | To be determined through the Environmental Impact Assessment process and following further investigations.   |
| 9      | EPA's Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? <i>Refer to EAG 9</i>   |  |
| 10     | Describe any assumptions critical to your conclusion (in Question 9). e.g. particular mitigation measures or regulatory conditions.  | With the implementation of the DSDMP and CMP, inclusive of silt curtains to restrict silt transport, the construction of the proposed marine structures, inclusive of dredging activities, is unlikely to result in long-term negative impacts on the benthic communities and habitat within Koombana Bay.   |
| Propon | ent to complete. DMA and Third Party to  | complete to the best of their knowledge.   |
| 1      | Factor, as defined in <u>EAG 8</u>   | Coastal Processes  |

| Propone | ent to complete. DMA and Third Party to  | complete to the best of their knowledge.   |
|---------|--|--|
| 2       | EPA Objective, as defined in <u>EAG 8</u>  | To maintain the morphology of the sub-tidal, intertidal and supratidal zones and the local geophysical processes that shape them.  |
| 3       | Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?  | State Planning Policy 2.6: State Coastal Planning Policy   |
| 4       | Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:  • anticipated level of public interest in the impact;  • consultation with regulatory agencies; and  • consultation with community.  | The Department of Transport, City of Bunbury and the PoB will be consulted during the development of the Foreshore Management Plan for Koombana Bay.   |
| 5       | Baseline information - describe the relevant characteristics of the receiving environment.  This may include: regional context; known environmental values, current quality, sensitivity to impact, and current level of cumulative impacts.   | Coastal landforms and processes in Koombana Bay have been substantially altered by existing coastal development and existing marine infrastructures.   |
| 6       | Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.   | Construction of groynes / breakwaters may have an impact upon the local landform and processes by altering local sediment movement and deposition (e.g. cause erosion on neighbouring beaches). The key risk is the shoreline and foreshore within Koombana Bay may be impacted by the proposed marine structures and require ongoing and long-term management to control localised areas of erosion or accretion.   |
| 7       | Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed:  • Avoidance - avoiding the adverse environmental impact altogether;  • Minimisation - limiting the degree or magnitude of the adverse impact;  • Rehabilitate – restoring the maximum environmental value that is reasonably practicable; and  • Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a project or activity. | To be confirmed with OEPA.  However, a Foreshore Management Plan (FMP) for Koombana Bay is anticipated to be required,. The FMP would be finalised in collaboration with the Department of Transport, City of Bunbury and the PoB, to ensure that the impact of all coastal structures is accounted for and coastal processes are managed efficiently.  The "whole foreshore" management plan will be based upon the outcomes of the coastal processes assessment. The FMP will include an analysis of foreshore monitoring and modelling results to identify any areas of sediment accretion or erosion. The FMP would also outline any long-term requirements for management such as any localised sand nourishment for instance in identified localised erosion prone areas if required.  In assessing the management options for Koombana Bay the following adaptation measures will likely need to be considered by a coastal engineer after the coast processes assessment:  building design  coastal protection  beach nourishment and profile enhancement to manage the assessed erosion hazard. |

| Proponent to complete. DMA and Third Party to complete to the best of their knowledge. |   |  |
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| 8  | Residual impacts – review the residual impacts against the EPA objectives.  | To be determined through the Environmental Impact Assessment process and following further investigations.   |
|  | It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage. Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA's objective for this factor would be met if residual impacts remain. This will require:  understand quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions;  putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and  comparison against any established environmental policies, guidelines, and standards. |  |
| 9  | EPA's Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? <i>Refer to EAG 9</i>  | <ul> <li></li></ul>  |
| 10   | Describe any assumptions critical to your conclusion (in Question 9). e.g. particular mitigation measures or regulatory conditions.   | The implementation of the approved FMP will ensure that the construction of the proposed marine structures, inclusive of dredging activities, will not result in long-term negative impacts on the Koombana Bay foreshore environment. |

| Propo | Proponent to complete. DMA and Third Party to complete to the best of their knowledge.  |   |
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| 1     | Factor, as defined in <u>EAG 8</u>  | Marine Environmental Quality  |
| 2     | EPA Objective, as defined in <u>EAG 8</u>   | To maintain the quality of water, sediment and biota so that the environmental values, both ecological and social, are protected.   |
| 3     |   | EAG No. 3: Protection of Benthic Primary Producer Habitats in Western Australia's Marine Environment.   |
|       |   | ■ EAG No. 7: Marine Dredging Proposals.   |
|       | Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?   | <ul> <li>Draft EAG: Protecting the Quality of Western Australia's<br/>Marine Environment.</li> </ul>  |
|       |   | <ul> <li>Australian and New Zealand Guidelines for Fresh and<br/>Marine Water Quality.</li> </ul>   |
|       |   | <ul> <li>Australian and New Zealand National Ocean Disposal<br/>Guidelines for Dredged Material.</li> </ul>   |
|       |   | <ul> <li>State Water Quality Management Strategy Document No. 6.</li> </ul>   |
|       |   | <ul> <li>Perth's Coastal Waters: Environmental Values and<br/>Objectives, Environmental Protection Authority Position<br/>Statement.</li> </ul>   |
| 4     | Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:  • anticipated level of public interest in the impact;  • consultation with regulatory agencies; and  • consultation with community. | Pre-referral consultation has been undertaken with PoB to determine ensure the GHD Environmental Quality Marine Framework (WQMF) includes Koombana Bay and the hydrodynamic modelling can account for any cumulative impacts. |

| Propone | ent to complete. DMA and Third Party to  | complete to the best of their knowledge.  |
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| 5       | Baseline information - describe the relevant characteristics of the receiving environment.  This may include: regional context; known environmental values, current quality, sensitivity to impact, and current level of cumulative impacts.   | The numerous environmental quality studies have been undertaken for the PoB as part of development of the port, previous dredging and placement of dredged material activities, and environmental compliance have identified:  there is a correlation between rainfall and river flow from the Preston River and water quality (turbidity and nutrient levels) within Koombana Bay  turbidity levels within Koombana Bay are more variable and likely to be influenced by river inflows and tidal exchange from the Leschenault Estuary, wind speed and direction, wave height, and re-suspension of bottom sediment  analysis of metals in the marine sediment identified arsenic levels were above the screening level (20 mg/kg), at the Inner Harbour, Outer Harbour and sites around Koombana Bay. The distribution of the elevated arsenic concentrations in water suggest this is naturally occurring outside of the port area  polychlorinated biphenyls, organochlorine pesticides and aromatic hydrocarbons were below detection levels in the marine sediment quality testing.   |
| 0       | potential impact/s that may occur to the environmental factor as a result of implementing the proposal.  | <ul> <li>Dredging activity may result in the smothering or removal of seagrass.</li> <li>Dredging activity will result in the creation of a turbidity plume resulting from seabed sediments becoming mobilised and re-suspended in the water column. Dredging activity is likely to reduce temporarily light available to seagrass and may cause avoidance behaviour in marine fauna.</li> <li>Dredging activities may potentially release acid, metals and other toxicants into the water column which have the potential to impact upon benthic communities within the predicted dredge plume.</li> <li>Dredge spoil from the project site may contain ASS.</li> <li>Dredging and construction activities such as rock dumping during groyne/breakwater construction will affect turbidity levels in the immediate vicinity of these activities in Koombana Bay.</li> <li>Construction of the Koombana Sailing Club Marina may create a water body with the capacity to retain marine water for extended periods of time, and to receive groundwater and from Leschenault Inlet. Poor flushing of the water body could create conditions suitable for algal blooms or other water quality issues which may in turn have broader implications for water quality and ecosystem health within Koombana Bay.</li> </ul> |
| 7       | Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed:  • Avoidance - avoiding the adverse environmental impact altogether;  • Minimisation - limiting the degree or magnitude of the adverse impact;  • Rehabilitate – restoring the maximum environmental value that is reasonably practicable; and  • Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a project or activity. | <ul> <li>Identify potential use, treatment and disposal methodology for dredge spoil.</li> <li>Manage any predicted impacts to benthic communities and habits resulting from dredging activities.</li> <li>Impacts to marine environmental quality will be addressed through the implementation of project specific Dredge Spoil Disposal Management Plan (DSDMP) and Construction Management Plan (CMP) which will include:         <ul> <li>water quality parameters and triggers established under GHD's 2014 WQMF that includes Koombana Bay.</li> <li>samples will be assessed against ANZECC and ARMCANZ and State Water Quality Management guidelines.</li> </ul> </li> </ul>  |

| Propon | ent to complete. DMA and Third Party to  | complete to the best of their knowledge.   |
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| 8      | Residual impacts – review the residual impacts against the EPA objectives. It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage.  Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA's objective for this factor would be met if residual impacts remain. This will require:  quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions; putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and comparison against any established environmental policies, guidelines, and standards. | To be determined through the Environmental Impact Assessment process and following further investigations.  However it is noted:  A hydrodynamic model was prepared by GHD 2014 where Koombana Bay and surrounding waters were included in the modelling domain. The impact of the activity proposed for this Project area will be readily modelled, taking into account, if required, the cumulative impact of dredging undertaken by the PoB and dredging required for construction activities associated with this Project.  GHD completed a WQMF that includes Koombana Bay in 2014 this would be used in the design and implementation of management plans e.g. DSDMP and CMP |
| 9      | EPA's Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? Refer to EAG 9  | □ meets the EPA's objective     □ may meet the EPA's objective     □ is unlikely to meet the EPA's objective   |
| 10     | Describe any assumptions critical to your conclusion (in Question 9). e.g. particular mitigation measures or regulatory conditions.  | With the implementation of the DSDMP and CMP, inclusive of silt curtains to restrict silt transport, the construction of the proposed marine structures, inclusive of dredging activities, is unlikely to result in long-term negative impacts to the quality of the marine environment within Koombana Bay.   |

| тор | onent to complete. DMA and Third Party to   | complete to the best of their knowledge.  |
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| 1   | Factor, as defined in <u>EAG 8</u>  | Marine Fauna - Dolphins   |
| 2   | EPA Objective, as defined in <u>EAG 8</u>   | To maintain the diversity, geographic distribution, and viability of fauna at the species and population levels   |
| 3   | Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?   | <ul> <li>Wildlife Conservation Act 1950</li> <li>Guidance Statement No. 8: Environmental Noise (Draft)</li> </ul>   |
| 4   | Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:  • anticipated level of public interest in the impact;  • consultation with regulatory agencies; and  • consultation with community. | Liaison with the Dolphin Discovery Centre concerning the management of dolphins during construction activities will be undertaken to ensure that such activities can be conducted with negligible risk to dolphins.  It is noted, GHD (2014) undertook an assessment of the potential impact construction activity for the expansion of the PoB may have to marine fauna. This assessment included consultation with the Dolphin Discovery Centre and may be readily updated to |
| 5   | Baseline information - describe the relevant characteristics of the receiving environment.  This may include: regional context; known environmental values, current quality, sensitivity to impact, and current level of cumulative impacts.  | include potential impacts as they occur in the Project area.  Studies undertaken to date have identified 196 individual dolphins occurring in the region. Dolphin abundance varies seasonally, with greater numbers occurring during summer and autumn.   |
| 6   | Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.  | <ul> <li>Expansion works that require the construction of breakwater, piling, reclamation and dredging present a risk to marine fauna, especially dolphins that inhabit Koombana Bay.</li> <li>Vessel movements in the project area have the potential to collide with marine fauna, in particular fauna that are required to come to the surface to breathe (mammals, birds and reptiles).</li> </ul>  |

| Propoi  | nent to complete. DMA and Third Party to   | complete to the best of their knowledge.   |
|---|--|--|
| 7   | Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following  | To be confirmed by the OEPA post review however, following management measures are proposed:   |
|   | <ul> <li>should be addressed:</li> <li>Avoidance - avoiding the adverse environmental impact altogether;</li> </ul>  | <ol> <li>Application of methodologies, such as socketing and/or<br/>pinning the piles during construction, to reduce underwater<br/>noise generation.</li> </ol>   |
|   | <ul> <li>Minimisation - limiting the degree or<br/>magnitude of the adverse impact;</li> <li>Rehabilitate - restoring the maximum<br/>applications and the state in</li> </ul>   | <ol> <li>Engagement of construction contractors experienced in<br/>drilling in marine environments in situations where noise<br/>and vibration impacts need to be considered.</li> </ol>   |
| Offsets – actions the environmental benchmark     counterbalance significant. | reasonably practicable; and  Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a  | 3. Marine fauna (dolphin) monitoring will be undertaken by dedicated marine fauna observers during dredging works or marine (groyne / jetty piling) construction works.  Management of marine fauna (e.g. dolphin monitoring and siting during construction work, regulating the timing of works) will be addressed within the Dredge Spoil Disposal Management Plan (DSDMP) and Construction Management Plan (CMP). |
|   |  | <ol> <li>Dredge activities will be limited to winter months (April to<br/>October) to avoid the peak dolphin calving period and the<br/>majority of the blue swimmer crab spawning season.</li> </ol>  |
|   |  | <ol> <li>Ongoing education program for boat users will be<br/>implemented to control against the negative impacts (boat<br/>strikes) that vessel movements have on marine fauna.</li> </ol>  |
|   |  | <ol> <li>Release of solid and liquid wastes, their associated impacts<br/>and ways to reduce environmental impacts will be<br/>addressed as specific aspects in the CMP.</li> </ol>  |
| 8   | Residual impacts – review the residual impacts against the EPA objectives. It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage.  Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA's objective for this factor would be met if residual impacts remain. This will require:  • quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions;  • putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and  • comparison against any established environmental policies, guidelines, and standards. | To be determined through the Environmental Impact Assessment process and following further investigations.   |
| 9   | EPA's Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? <i>Refer to EAG 9</i>   | <ul> <li></li></ul>  |
| 10  | Describe any assumptions critical to your conclusion (in Question 9). e.g. particular mitigation measures or regulatory conditions.  | With the implementation of the proposed management measures (described above in Sections 4, 7 and 8) the construction of the proposed marine structures, inclusive of dredging activities, is unlikely to result in long-term negative impacts to the marine fauna within Koombana Bay.  |

In circumstances where there was some uncertainty on the level of significance of a particular factor it is recommended that a brief summary (no longer than 1 - 2 paragraphs) is provided on the steps taken to determine why a factor was not considered to be significant.