



Our Ref: 18/305

Mr Darren Walsh  
Chair  
Environmental Protection Authority  
8 Davidson Terrace  
JOONDALUP WA 6027

To Mr Walsh,

**SOUTH THOMSON DEVELOPMENT BARGE LANDING – SECTION 40(2)(a)  
REFERRAL – NOTICE REQUIRING INFORMATION FOR ASSESSMENT**

Please see the below responses to the Notice Requiring Information for Assessment dated 14 January 2025.

If you have any questions, please contact David Pond, Environment Compliance and Approvals Coordinator – [david.pond@dbca.wa.gov.au](mailto:david.pond@dbca.wa.gov.au).

Yours sincerely

A handwritten signature in black ink, appearing to be 'J Banks', with a long horizontal stroke extending to the right.

Jason Banks  
EXECUTIVE DIRECTOR

17 March 2025

**Schedule 1 – Additional information requested**

| Item | EPA Comments and Required Actions  | RIA Response  |
|------|--|---|
| 1.   | <p>The EPA's ability to consider whether its environmental objectives are met is improved when it is provided with information about proposed environmental outcomes or information about residual environmental impacts, rather than just being provided with measures to minimise or manage impacts. An environmental outcome, in the context of EIA, is the state of the environment at a point in time during implementation or after a proposal has been implemented (see <a href="#">Interim guidance - environmental outcomes and outcome-based conditions</a>). Note that:</p> <ul style="list-style-type: none"> <li>Residual impacts are the impact/s of a proposal that are expected to remain after the application of the mitigation hierarchy.</li> <li>Environmental outcomes are the state of the environment at a point in time during implementation or after a proposal has been implemented.</li> </ul> <p><b>Action:</b></p> <ol style="list-style-type: none"> <li>Develop and propose environmental outcomes that are considered achievable during construction and operation of the proposal consistent with the EPA's guidance.</li> <li>Describe monitoring to be undertaken that is robust and capable of substantiating whether the environmental outcomes have been achieved.</li> <li>Where environmental outcomes are not practical for an environmental value, provide a justification as to why not, and propose an environmental objective and describe how the objective will be achieved, monitored and substantiated.</li> </ol>  | <ol style="list-style-type: none"> <li>Environmental outcomes have been revised. Please refer to revised Environmental Referral Document (ERD).</li> <li>Monitoring has been revised in accordance with the changes to environmental outcomes. Please refer to revised DEMMP (ERD Appendix O), CEMP (ERD Appendix P) and OEMP (ERD Appendix Q).</li> <li>Environmental outcomes are considered to have been provided for all environmental values.</li> </ol> |
| 2.   | <p>The supporting document specifies that EMPs have been developed to address various environmental matters during the construction and operation of the proposal. The proponent should note the EPA's preference is for outcomes-based conditions rather than EMPs.</p> <p>Conditioned EMPs may be appropriate where impacts to environmental values may be significant without particular management measures in place, and where outcome-based conditions are not practical (refer to item 1). Generally, where proponents have proposed environmental outcomes (consistent with EPA guidance), then they should include details about whether and how proposed environmental outcomes can be assured by conditions, monitoring (via EMPs) or other statutory decision-making processes.</p> <p>In determining whether an EMP is appropriate, the proponent should also have particular regard to the outcome-based EMPs section of the EPA's <a href="#">Instructions: How to prepare EP Act Part IV environmental management plans</a>. Outcome-based EMPs are performance-based. They should focus on monitoring and evaluating specific measurable outcomes and are typically driven by trigger and threshold criteria. Outcome-based EMPs are not prescriptive about management practices, allowing opportunities for proponents to be pragmatic and innovative about how to achieve the environmental outcomes, including those set in outcomes-based conditions of Ministerial Statements.</p> <p>Additional guidance from EPA services can be provided during the revision of the OEMP and DEMMP if required.</p> | <p>The EMPs have been revised to address this item. Please refer to relevant items below regarding EMPs (items 3, 4, 5, 6).</p>   |

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|    | <b>Action:</b><br>Refer to items 3, 4, 7 and 8 below for specific matters related to EMPs.  |  |
| 3. | <p>To fully address the EPA's <a href="#">Technical Guidance - Protection of Benthic Communities and Habitats</a>, the following actions will need to be undertaken:</p> <p><b>Action:</b></p> <ol style="list-style-type: none"> <li>1. Update the OEMP to include methods and monitoring protocols capable of determining actual impacts to BCH (seagrass) during the operational phase of the proposal. The monitoring must include an evaluation against the predicted losses to determine if the proposed BCH outcomes are being achieved. Proposed methods and monitoring are to be developed in accordance with the framework in <a href="#">Technical Guidance - Protection of Benthic Communities and Habitats</a>.</li> <li>2. BCH monitoring should align with water and sediment quality monitoring as outlined in item 5.</li> </ol>   | <ol style="list-style-type: none"> <li>1. The OEMP has been revised to address this item. Please refer to revised OEMP (ERD Appendix Q).</li> <li>2. The DEMMP and OEMP have been revised to address this item. Please refer to the revised DEMMP (ERD Appendix O) and OEMP (ERD Appendix Q).</li> </ol>   |
| 4. | <p>To ensure sufficient information is provided to assess coastal processes and is consistent with the requirements of the <a href="#">Environmental Factor Guideline - Coastal Processes</a>, the following actions will need to be undertaken.</p> <p><b>Action:</b></p> <ol style="list-style-type: none"> <li>1. Review and revise environmental outcomes relating to Coastal Processes with a particular emphasis on sediment and seagrass wrack accumulation (refer to item 1).</li> <li>2. Provide estimated volumes of seagrass wrack and sediment material that is likely to be trapped as a result of the proposal. The <i>South Thomson Bay Barge Development- Coastal Processes Assessment</i> (Baird 2024) suggests a potential increase in sediment and seagrass wrack on the eastern side, however no specific quantities were provided to support this claim.</li> <li>3. Update the OEMP to include monitoring for sediment and wrack accumulation with management actions should realised volumes exceed predictions, or the coastal process environmental outcomes are not achieved (refer to item 2).</li> <li>4. Describe how matters raised in <i>RIA Peer Review of Dredge Plume Modelling and Coastal Processes Reports</i> (RPS 2024c) have been considered and addressed. The supporting document does not clearly outline if comments provided by RPS in the peer review have been addressed.</li> <li>5. Provide a site-specific Coastal Hazard Risk Management and Adaptation Plan (CHRMAP). The CHRMAP framework, as outlined in State Planning Policy no. 2.6, includes Schedule One, which provides guidance on estimating the impact of coastal erosion and inundation hazards.</li> </ol> | <ol style="list-style-type: none"> <li>1. Environmental outcomes have been revised to address this. Please refer to revised ERD.</li> <li>2. Please refer to CHRMAP prepared by Baird (2025) (ERD Appendix W) that addresses this item.</li> <li>3. The OEMP has been revised to address this item. Please refer to revised OEMP (ERD Appendix Q).</li> <li>4. The peer review comments have been addressed via the revision of these reports which are included as Appendix D and F of the ERD. One comment (#12) on the Dredge Plume Modelling report required RPS to re-check Baird's response to the comment, which has been closed out by RPS. Refer to Attachment 1 of this letter.</li> <li>5. Please refer to CHRMAP prepared by Baird (2025) (ERD Appendix W).</li> </ol> |
| 5. | <p>To fully address the EPA's <a href="#">Technical Guidance - Protecting the Quality of WA Marine Environment</a> and <a href="#">Technical Guidance - EIA of Marine Dredging Proposals</a>, the following actions will need to be undertaken.</p> <p><b>Action:</b></p> <ol style="list-style-type: none"> <li>1. With reference to item 1, review and revise the environmental outcomes relating to marine environmental quality to ensure risks, including sediment toxicants and water quality during the construction and operational phases of the proposal are adequately addressed. In preparing monitoring programs to substantiate proposed</li> </ol>   | <ol style="list-style-type: none"> <li>1. Environmental outcomes have been revised. Please refer to revised ERD.</li> <li>2. Environmental outcomes have been revised to address this item. Please refer to revised ERD.</li> <li>3. The DEMMP and OEMP have been revised to address these points.</li> </ol>  |

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|    | <p>environmental outcomes, have regard to monitoring requirements outlined in <a href="#">Technical Guidance - Protecting the Quality of WA Marine Environment</a> and <a href="#">Technical Guidance - EIA of Marine Dredging Proposals</a>.</p> <p>2. Subject to item 6, provide environmental outcomes and associated monitoring for potential maintenance dredging should it be likely to be required.</p> <p>3. Revise the OEMP and DEMMP to:</p> <ul style="list-style-type: none"> <li>• Include monitoring methods for determining actual impacts to marine environmental quality during construction and operation</li> <li>• Include monitoring of toxicants associated with sediments and sediment-elutriates and water quality during operations</li> <li>• Include methods to enable substantiation that the environmental quality management framework outcomes will be achieved</li> <li>• Include a figure identifying the levels of ecological protection and the implementation of the environmental quality management framework in the OEMP</li> <li>• Include a tiered monitoring and management framework (TMMF) to ensure that monitoring sites, management triggers and management actions during dredging activities are clearly identified and rationalised</li> <li>• Ensure methods are developed in accordance with the <a href="#">Technical Guidance - Protecting the Quality of Western Australia's Marine Environment</a></li> <li>• Include a consideration for BCH outcomes related to MEQ (dredging) and ensure the required monitoring is consistent with <a href="#">Technical guidance - Environmental Impact Assessment of Marine Dredging Proposals</a>.</li> </ul> <p>4. Describe what actions would be included in an emergency HAZMAT spill response plan.</p> | <p>Please refer to revised DEMMP (ERD Appendix O) and OEMP (ERD Appendix Q).</p> <p>4. Please refer to Spill Prevention and Response Plan (RIA 2025) (ERD Appendix V).</p>  |
| 6. | <p>To ensure sufficient information is provided to assess marine fauna and is consistent with the requirements of the Environmental Factor Guideline - Marine Fauna, the following actions will need to be undertaken.</p> <p><b>Action:</b></p> <p>1. Revise the measures, protocols and exclusion zones to include temporary mitigation measures to prevent susceptible fauna injuries during any likely hammer piling method. It is noted that there is a commitment to the use of a vibratory piling method during construction, with the contingency to use impact hammer piling in the event piling refusal occurs. Based on data provided in the underwater acoustic assessment the size of the proposed exclusion zone is only adequate for vibratory piling activities. In the event the hammer piling contingency is implemented, the proposed exclusions zones are not considered adequate to protect dolphins and whales.</p> <p>2. Include additional information to cover invertebrate and fish species as a result of impacts to seagrass meadows. Additionally, impacts to infauna (e.g., polychaetes, crustaceans, bivalves) and epifauna (e.g. sponges, echinoderms, gastropods, decapods) are to be considered.</p>   | <p>1. The CEMP has been updated to address the potential use of hammer piling. Please refer to revised CEMP (ERD Appendix P).</p> <p>2. The ERD has been updated to address this item. Please refer to revised ERD.</p> <p>3. The ERD has been updated to address this item. Please refer to revised ERD.</p> |

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|     | 3. Update the supporting document to recognise the haul out site at Dyer Island used by Australian sea lions adjacent to Rottnest Island. The supporting documentation only recognised this haul out for fur seals.   |   |
| 7.  | <p>To fully address the EPA's <a href="#">EPA Technical Guidance - Flora and Vegetation Survey for Environmental Impact Assessment</a>, the following actions will need to be undertaken.</p> <p><b>Action:</b></p> <ol style="list-style-type: none"> <li>1. Update the supporting document to correctly identify FCT30a as the TEC to be impacted with implementation of the proposal. The threatened ecological community (TEC) '<i>Callitris preissii</i> (or <i>Melaleuca lanceolata</i>) forests and woodlands, Swan Coastal Plain' was identified within the development envelope. This community was in correctly identified as Floristic Community Type (FCT) 30c. DBCA determined this community to be the Critically Endangered - <i>Biodiversity Conservation Act 2016</i> (BC Act) FCT 30a.</li> <li>2. Review and revise the environmental outcomes relating to terrestrial flora to ensure that indirect impacts on the TEC during both the construction and operational phases of the proposal are adequately addressed.</li> </ol> | <ol style="list-style-type: none"> <li>1. The ERD has been updated to address this item. Please refer to revised ERD.</li> <li>2. The ERD has been updated to address this item and the CEMP and OEMP have been updated to ensure that impacts to the TEC are addressed. Please refer to revised ERD, CEMP (ERD Appendix P) and OEMP (ERD Appendix Q).</li> </ol> |
| 8.  | <p>The assessment of potential impacts to Aboriginal cultural heritage (ACH) is currently limited to registered sites. It is noted that no registered sites were identified within or adjacent to the proposed development envelope. However, the EPA recognises that ACH includes tangible and intangible aspects, and living and historical values and expects the assessment to include the extent to which ACH values may be directly or indirectly affected by the proposal. See <a href="#">Technical Guidance - EIA of Social Surroundings - Aboriginal Cultural Heritage</a> with a particular regard to section 3.2 and 3.3.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>• Update the supporting document to provide information consistent with section 3 (information requirements) of the EPA's technical guidance.</li> </ul>   | Section 13 of the ERD has been updated to address this item. Please refer to the revised ERD.   |
| 9.  | <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>• Review the zone of high impact (ZoHI) and the boundary of the proposal. If required, a request to amend the proposal should be submitted to ensure the area of irreversible impact is included in the development envelope of the proposal. The Supporting Document defines the ZoHI as the area where impacts on benthic communities or habitats are predicted to be irreversible. The term irreversible means 'lacking a capacity to return or recover to a state resembling that prior to being impacted within a timeframe of five years or less'.</li> </ul>  | The Development Envelope has been revised. Please refer to figures within the revised ERD.  |
| 10. | <p>Data associated with land-based biodiversity survey reports submitted to the <a href="#">Department of Water and Environmental Regulation</a> (DWER), the <a href="#">Environmental Protection Authority</a> (EPA) under the EP Act are required to be submitted to IBSA. This includes surveys conducted for assessment and post-assessment processes for significant and strategic proposals, schemes and scheme amendments, native vegetation clearing permits and works approvals and licences.</p> <p>For instructions on preparing IBSA and IMSA data packages please see <a href="#">Instructions for preparing IBSA data packages</a> and <a href="#">Instructions for preparing IMSA data packages</a>.</p> <p><b>Action:</b></p> <ul style="list-style-type: none"> <li>• Submit relevant survey reports to IBSA and IMSA and advise IBSA and IMSA numbers once received.</li> </ul>   | <p>RIA confirms that relevant IBSA and IMSA submissions have been completed. The IMSA submission was completed on 15 August 2024 although IMSA numbers are not generated. The IBSA numbers are:</p> <ul style="list-style-type: none"> <li>• IBSASUB-20240805-A371209D</li> <li>• IBSASUB-20240802-70B354C3.</li> </ul>   |

**Attachment 1**

**From:** Dawson, Rebecca  
**To:** David Pond  
**Subject:** RE: Baird response to peer review comments  
**Date:** Wednesday, 12 March 2025 10:03:18 AM  
**Attachments:** [image005.png](#)  
[image006.png](#)  
[image007.png](#)  
[image008.png](#)  
[image009.png](#)

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Hi David,

RPS' coastal engineers and modellers have reviewed Table 4.3 from Baird's report. The stated loss rates of dredged sediments and initial vertical distribution of suspended sediments in the water column are sensible and broadly in line with how we would define dredging source terms for a BHD and the values are considered fine.

I think we can consider the comment in the email below closed.

Regards,

**Rebecca Dawson**  
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**From:** David Pond <[david.pond@dbca.wa.gov.au](mailto:david.pond@dbca.wa.gov.au)>  
**Sent:** Thursday, March 6, 2025 9:16 PM  
**To:** Dawson, Rebecca <[Rebecca.Dawson@rpsconsulting.com](mailto:Rebecca.Dawson@rpsconsulting.com)>  
**Subject:** Baird response to peer review comments

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Hi Bec,

Baird have updated the Plume Modelling and Coastal Processes reports. There was one peer review comment by RPS on the plume modelling report, see the last sentence where it seems to note that final assessment would be needed once Baird defined the comment. See attached the Baird report. Can you check if this comment can be closed out?

| Report section | RPS Comment  | Baird response   | Item closed (Y/N) | RIA comments  |
|----------------|--|--|-------------------|---|
| Section 4.3.2  | Table 4.3 lists parameters used to configure the sediment plume model (Delft3D-MOR), but two key dredging source terms are not included or discussed elsewhere: the loss rate of dredged sediment to the water column (i.e. what proportion of the in situ dredge quantity is assumed by the model to be 'mobile'); and the vertical distribution of sediment initially suspended in the water column (prior to far-field dispersion and settlement). Both of these parameters serve to relate sediment sources to the type of dredge plant being used and to the manner in which it brings sediment from seabed to surface. Without knowledge of how these source terms have been defined, the accuracy of the predicted dredge plume cannot be fully judged. | These parameters have been included in the modelling through the inputs to the MOR module (e.g., specific density, cohesive or non cohesive soil, settling velocities), as well as the release of sediment into the model at different rates/percentages within the 5 vertical layers of the modelled water column. Explicit detail of the release into each layer of the model can be specified in Table 4.3 if RIA would like an updated report, which would include the percentages of loss to the water column included in In2Dredging's reporting on typical and expected source terms for this site that have been included in the input parameters for this model. A table showing the percentage of the source terms that have been included in each of the 5 model layers can be included in Section 4.3.2. | Check with RPS.   | Noting that this is now Section 4.4.2, RIA confirms that the following model parameter features and descriptions/settings have been added to table 4.3:<br>- Loss rate of dredged sediment to the water column<br>- Vertical distribution of sediment initially suspended in the water column (prior to far-field dispersion and settlement).<br><br>Query whether RPS need to add any further assessment given their final sentence and with these features now described? |

Regards

**David Pond**  
Environment Compliance and Approvals Coordinator | **Rottneest Island Authority**  
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**Acknowledgement**

Rottneest Island Authority kaadaj Wadjak Noongar moort. Baalap Wadjemup kaardjny, baalabang malayin nakolak-ngat wer wim kalaykoort noyinyang koort boodja-k wer kep-ak. Ngakak kaadaj neddingar, biridiya wer boordaken Noongar moort. Ngakak kaardaj kaadaj maaman wer noba wim ali kalika nginow noyinyang Wadjemup ngardak boodja-k. Baalabang moort maambarti-boort, ngooni-boort, kongk-boort wer Biridiya-boort.

Rottneest Island Authority acknowledge Whadjuk Noongar families. They Wadjemup caring, their culture and spirits always connected Island to and water-to. We acknowledge ancestors, Elders and future Noongar families. We truly acknowledge men and boys' spirits who still remain connected Wadjemup under ground-in. Their family's father-without, brother-without, uncle-without and Elder-without.

Translation courtesy of Sharon Gregory

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