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Dear Mr Jacob

Koombana Bay Marine Structures – Assessment No. 2049 – Environmental Review Document – Response to Submissions

Thank you for your correspondence dated 13 December 2023 regarding the abovementioned topic, which was received by email.

The South West Development Commission (SWDC) has consulted with relevant agencies and its environmental consultants, to provide some further information and updates to better enable the EPA to prepare its draft assessment report.

Please consider the responses at Attachment 1 and updated versions of each Marine Environmental Quality Management Plan (Attachments 2 and 3), with the changes applied to Table 8.

Any queries on the information provided can be directed to Ms Kyra Nimmo, Project Manager, on 0438 368 153.

Yours sincerely

A handwritten signature in black ink, appearing to read "Ashley Clements".

(on behalf of)
ASHLEY CLEMENTS
DIRECTOR INFRASTRUCTURE AND LANDS

9 JANUARY 2024

Att.1 – Proponent Response to Comments from EPA Services (included within this document)
Att.2 – Revised MEQMP (Rev4 08-01-2024)
Att.3 – Revised MEQMP for CBHD Future Proposal (Rev4 08-01-2024)

Attachment 1

Koombana Bay Marine Structures

Environmental Review Document Assessment No. 2049

Response to Submissions

This document provides the responses to the Comments from EPA Services in relation to the Response to Submission from SWDC to EPA Services regarding the Environmental Review Document for the Koombana Bay Marine Structures proposed by South West Development Commission.

Comments	Proponent response
EPA Services	
1. Marine Environmental Quality Management	
<p>Two Marine Environmental Quality Management Plans (MEQMP) were provided with response to Submissions. One for the Casuarina Boat Harbour (CBH) only, and the other for the entire Koombana Bay Marine Structures proposal. The CBH MEQMP is largely considered acceptable, however the following amendments to in relation to Table 8 are recommended. The use of the 95th percentile of the reference site date is recommended to be amended to use the 80th percentile as indicated below:</p> <p><i>Table 8. Routine monitoring program for the EQO maintenance of ecosystem integrity.</i></p> <p>EQG EI HEPA 1KB: Median chl-a value of the Koombana Bay HEPA monitoring sites should not exceed the 80th percentile of the reference site data.</p> <p>EQG EI MEPA 1: Median chl-a value of the Casuarina Boat Harbour and Inner Harbour monitoring sites should not exceed the 80th percentile of the reference site data.</p> <p>The MEQMP for the entire Koombana Bay Marine Structures proposal (largely intended for implementation by the Koombana Bay Sailing Club future derived proposal) includes the monitoring and management associated with the Leschenault Inlet. There are concerns about the feasibility and effectiveness of the proposed management actions in the MEQMP should the thresholds within the Leschenault Inlet be exceeded.</p> <p>At this point it is proposed to address concerns associated with management action shortfalls within the conditions associated with the Koombana Bay Sailing Club. However, if there has been further consideration of management actions to mitigate potential impacts should the thresholds within the Leschenault Inlet be exceeded these should be provided. If there has been additional consultation with stakeholders</p>	<p>It is noted that the original recommendation from EPA Services (left, received 14 December 2023) was to update both the HEPA and MEPA EQOs for chl-a to 80th percentile. GHD sought further clarification on the request and received the following updated information from EPA Services via email on 3 January 2024:</p> <p><i>From what we can see there is a minor error in both documents.</i></p> <p><i>Sections 4.2.1 of the MEQMP (CBH) and Section 4.2.2 of the MEQMP (KBMS) are both consistent with the EPA 2016 Technical Guidance for Protecting the Quality of the WA Marine Environment.</i></p> <p><i><u>The error lies in the associated tables,</u></i> <i>possibly a copy and paste-like error. Further explanation below.</i></p> <p>MEQMP (CBH) Section 4.2.1 Site specific chl-a for HEPA and MEPA</p> <p><i>Specifies the following:</i> <i>The MEPA EQG for chl-a is the <u>95th</u> percentile (as per Section 3.2.3) of baseline data from reference sites.</i></p>

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<p>such as the City of Bunbury on the management of Leschenault Inlet, EPA Services would like to take this opportunity to request an update.</p>	<p><i>The HEPA EQG for chl-a is the <u>80th</u> percentile (as per Section 3.2.3) of baseline data reference sites.</i></p> <p><i>Table 8. Routine monitoring program for the EQO maintenance of ecosystem integrity Specifies</i> <i>EQG EI HEPA 1KB: Median chl-a value of the Koombana Bay HEPA monitoring sites should not exceed 95th percentile of the reference site data. This should read 80th percentile.</i> <i>EQG EI MEPA 1: Median chl-a value of each of the Casuarina Boat Harbour and Inner Harbour MEPA monitoring sites should not exceed the 80th percentile of baseline data. This should read 95th percentile.</i></p> <p><i>Similar errors apply to the MEQMP (KBMS) Section 4.2.2 States</i></p> <p><i>The MEPA EQG for chl-a is the <u>95th</u> percentile (as per Section 3.2.3) of baseline data from reference sites.</i> <i>The HEPA EQG for chl-a is the <u>80th</u> percentile (as per Section 3.2.3) of baseline data reference sites.</i></p> <p><i>Table 8. Routine monitoring program for the EQO maintenance of ecosystem integrity</i> <i>EQG EI HEPA 1KB: Median chl-a value of each of the Koombana Bay HEPA monitoring sites should not exceed 95th</i></p>

Comments	Proponent response
	<p>percentile of the reference site data. <i>This should read 80th percentile.</i></p> <p>EQG EI HEPA 1LI: Median chl-a value of the Leschenault Inlet HEPA sites should not exceed the 80th percentile of inlet baseline data. <i>This is correct.</i></p> <p>EQG EI MEPA 1: Median chl-a value of each of the MEPA monitoring sites should not exceed the 80th percentile of baseline data. <i>This should read 95th percentile.</i></p> <p>The two versions of the MEQMP have been updated with the typographic errors corrected in Table 8.</p> <p>The concerns regarding the feasibility and effectiveness of the proposed management actions in the MEQMP for the entire KBMS are noted, as well as the intention to address the concerns with conditions for the KBMS approval.</p> <p>Finally, the SWDC can confirm that there has been no additional consultation with stakeholders, at this stage. Discussions will resume with relevant stakeholders once the conditions associated with the Koombana Bay Sailing Club (and any 'management action shortfalls') are known.</p>
2. Coastal Processes	
<p>The Environmental Review Document and associated Coastal Processes Management Plan (CPMP) identify that the Koombana Bay Sailing Club (KBSC), will likely affect coastal processes, resulting in greater sand accretion on the eastern side</p>	<p>The SWDC notes that the 'KBSC future derived proposal may be conditioned to require the CPMP</p>

Comments	Proponent response
<p>of the facility and greater erosion on the western side. The City of Bunbury identifies in a letter dated (4th October 2023), that the City does not currently have the financial or resource capacity to implement all the actions in the CPMP in perpetuity and “would expect financial contribution from the proponent for implementation of actions not already being undertaken”. There are several points noted with regards to the CoB Letter and the updated CPMP.</p> <ul style="list-style-type: none"> • The City of Bunbury letter appears to have been written, in relation to the previous management plan submitted as a part of the ERD. • The revised CPMP is more comprehensive than the previous version and, involves significantly more monitoring effort and potential management. • The City of Bunbury currently undertakes monitoring and management of coastal processes for Koombana Beach and Koombana Beach North (Ski Beach), however it is not as frequent or involved as specified in the updated CPMP. • The KBSC is a private facility, which will affect Koombana Beach and Koombana Beach North (Ski Beach) which are public areas. <p>CPMP is largely considered fit for monitoring and management of coastal processes. However, uncertainty remains about agreement by the relevant parties around their responsibilities for implementation of the plan.</p> <p>As indicated in discussion, the KBSC future derived proposal may be conditioned to require the CPMP to be approved as part of the future derived proposal process. However, if there has been any further consultation of roles and responsibilities for the implementation of the CPMP, EPA Services (EPAS) would like to take this opportunity to request and update.</p>	<p>to be approved as part of the future derived proposal process’.</p> <p>The City of Bunbury (CoB) sighted the EPAS ERD comments on the CPMP (and associated ‘action’) in late September 2023 and provided a response (to the comments) to SWDC, along with their letter dated 4 October 2023. While the CoB offered to provide a description of current coastal monitoring methodology; the methodology changes to the CPMP ended up using the Ocean Reef model as a guide (as requested during a clarification meeting with representatives from EPA Services on 17 August 2023).</p> <p>The CoB’s position on its extended involvement in the project ‘requiring additional funding and appropriately skilled resources’ remains.</p> <p>The SWDC will resume discussions with the CoB, as required, regarding any ‘extended’ role it could play in the implementation of the CPMP (and the source of funding/resourcing needed to do so).</p>
3. Marine Fauna	
<p>A dredging exclusion period the months of December to March largely minimises the potential impacts on seagrass and key marine fauna which utilise Koombana Bay.</p>	<p>In relation to the EPA comments RPS have made the following updates to the MFMP:</p>

Comments	Proponent response
<p>The information presented by the proponent in the RtS in relation to the feeding range of Little Penguins from Penguin Island appears incorrect. The RtS states that Little Penguins remain in close proximity to the nests during egg incubation (i.e. <50km, Collins and et al 1999 and Hoskins et al 2008) and that Koombana Bay is not a key foraging area during breeding. It is noted that these references relate to Little Penguin colonies in Victoria and South Australia. Research on Little Penguins from Penguin Island in WA, identified that during the egg incubation phase (April-November) the area around Bunbury including Koombana Bay, is a key foraging area for Little Penguins (Cannell et al. 2016 and 2019). Whilst the proposed dredging exclusion period does not include the months of April to November, when foraging in the Bunbury region may occur, the risk to Little Penguins is considered acceptable due to the availability of foraging ground outside of Koombana Bay and the short dredging program timeframe.</p> <p>The updated Marine Fauna Management Plan provided in the RtS is largely considered suitable in their current form. However, the above and following amendments are recommended for piling operations.</p> <ul style="list-style-type: none"> • Marine Fauna Observers prestart watch of 30 minutes. • Soft starts of 30 minute minimum. • Shut down protocols should a dolphin approach to within 500 of pile driving activities. 	<ol style="list-style-type: none"> 1. Marine Fauna Observers prestart watch has been updated from 15 to 30 minutes; absence from exclusion zone prior to startup has been updated from 20 to 30 minutes; and restart after detection has been updated from 20 to 30 minutes (Table 12 p32). 2. Five-minute soft start at a lower hammer energy has been updated to 30 minutes (Table 12 p32). 3. In relation to exclusion zone, the MFMP already includes a 500m exclusion zone for piling based on the largest range for behavioural disturbance of dolphins (p28 and Table 12 p32); however, an additional dot point has been added to Table 12 to clarify that this includes shutdown if a dolphin enters the exclusion zone.
4. Benthic Communities and Habitat	
<p>Previous EPAS review noted some uncertainty associated with the dredge plume modelling which normally would require the modelling to be revised to be consistent with the EPA (2016) <i>Technical Guidance for Environmental impact assessment of marine dredging proposals</i>. Of the three dredging components associated with the KBMS proposal, phase I of the CBH is considered the most significant. However, given the short timeframe of dredging the phase I of the CBH (28 days), relatively low</p>	<p>SWDC notes the information provided.</p> <p>In relation to Condition X, the updated MCMMP includes an existing commitment to not undertake dredging during the period between December and March (Table 5 p9, Table 8 p13, Table 9 p14, Table 13 p28, Table 14 p30).</p>

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<p>volume (110,000 m³), and the lower associated risks there was no requirement for remodelling.</p> <p>There remains some concern that dredging could affect remnant seagrass in the inner parts of Koombana Bay, which retains ecological structure and function and supports important social values.</p> <p>Currently dredging in Koombana Bay is proposed to be monitored under the Construction Monitoring and Management Plan (CMMP), with a separate Dredge Spoil Disposal Management Plan provided for Commonwealth waters, as opposed to a dedicated Dredge Management Plan. The RtS provides a commitment to undertake dredging outside of the key growth and reproductive season for seagrass (December to March).</p> <p>Several issues were identified in relation to the CMMP: it uses the wrong terminology for dredging monitoring and management, the terms Environmental Quality Guidelines and Standards are used, which are not dredging related, and the monitoring is only proposed once per week/fortnight, with no justification for the trigger and threshold criteria. Furthermore, seagrass monitoring is based on changes to the extent of seagrass, which is a coarse measure and may not be sufficient to ensure that there are no long-term impacts from dredging. There is a risk that seagrass condition could be significantly impacted from dredging, whilst the extent remains stable.</p> <p>At this point it is likely that dredging impacts can be managed through the CMMP in association with outcome-based conditions to protect the perennial seagrass in Koombana Bay.</p> <p>Conditions such as the following are currently being considered.</p>	

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<p>Condition X Dredging activities associated with Phase I of the CBH proposal will not occur over between the months of December and March to avoid the main period of seagrass growth and reproduction.</p> <p>Condition Y The proponent must ensure the implementation of the proposal does not result in a statistically significant residual impact on the cover or extent of perennial seagrass in Koombana Bay five years following the completion of dredging activities.</p> <p>Condition Z The proponent must implement a monitoring plan with the capacity to demonstrate Condition Y has been achieved.</p>	
Social Surroundings (Heritage)	
<p>Although not considered a key EPA Environmental Factor for the purposes of this assessment, Social Surroundings and associated heritage remains an important factor requiring EPA consideration within the assessment.</p> <p><u>Western Heritage Sites and Shipwrecks</u></p> <p>Advice from Department of Planning, Lands and Heritage's, Heritage and Property Services highlighted the following State, Maritime Archaeology Database and City of Bunbury Heritage Places and interests:</p> <ul style="list-style-type: none"> • P3402 Bunbury Timber Jetty (demolished) • P3379 Jetty Crane, Causeway • P6602 Breakwater • P6685 Jetty Public Baths No 2 – site (demolished) • P5636 Wreck Site – Star of the South • P5663 Wreck Site — believed to be the Solgylt • P5635 Wreck Site — Citizen of London • P5674 Floodgates – Storm Surge Barrier 	<p>P3402 Bunbury Timber Jetty (demolished)</p> <p>The Western Australian Museum (WAM), at the request of DoT, has undertaken an underwater archaeological investigation along a section of the demolished Bunbury Timber Jetty in Koombana Bay, Bunbury, Western Australia. The section investigated lies in the footprint of the proposed northern breakwater. The final report delivered by WAM gave advice and conditions for the proposed dredging operations relating to encountering items of heritage significance.</p> <p>In consultation with DPLH, DoT has also commissioned a landscape design for the end of Jetty Road in the harbour. The interpretative heritage landscape design will celebrate the Old Timber Jetty on the Jetty Road causeway. The landscape design proposes to use reclaimed</p>

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<ul style="list-style-type: none"> • P5662 Wreck Site – Midas <p>EPA Services notes that some consideration of heritage locations is contained in the referral. However, it is requested that further detail and elaboration is provided regarding consideration of each heritage location and consultation with each of the relevant authorities (including the Department of Planning Lands and Heritage, City of Bunbury and the Maritime Museum) under their respective legislation.</p> <p><u>Aboriginal Heritage</u></p> <p>EPA Services also notes that the referral includes some detail on engagement and consultation with traditional owners but understand that additional engagement and consultation has been undertaken by South West Development Commission and/or proponents of future derived proposals. EPA Services requests that an update and if relevant, further detail on consultation with traditional owners and traditional owner groups (such as the South West Aboriginal Land and Sea Council) is provided.</p>	<p>material from the Jetty.</p> <p>P3379 Jetty Crane, Causeway</p> <p>In 2021 DoT commissioned a restorative project for the Jetty Crane as a part of the causeway redevelopment.</p> <p>P6602 Breakwater; P6685 Jetty Public Baths No 2; P5674 Floodgates</p> <p>These heritage places and interests are outside of the development footprint for the Koombana Bay Marine Structures.</p> <p>P6602 is on land owned by the Southern Ports Authority.</p> <p>P6685 was demolished well before Stage 2B (Casuarina Drive Redevelopment) of the Transforming Bunbury Waterfront (TBW) project commenced.</p> <p>P5674 is currently the subject of a WA Disaster Ready Fund application (by DoT and City of Bunbury). If successful, the storm surge barrier would be raised and refurbished to meet projected sea level rise and storm surge predictions.</p> <p>P5636 (Star of the South) / 5663 (Solglyt) / 5635 (Citizen of London) / 5662 (Midas) — Wreck Sites</p> <p>While these wreck sites are indicated as being within / proximate to the proposed Koombana Bay Sailing Club (KBSC) marina, the KBSC and their design consultants have conducted a preliminary</p>

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	<p>analysis of these wrecks. This includes documenting features of the vessels (e.g. size), excavation and removal activities and approximate locations. They have also sourced historical maps (e.g. map of Point McLeod that shows substantive changes to the shoreline in the vicinity of the plug since the 1800s when these wrecks occurred).</p> <p>In practice almost all KBSC works will involve filling, which would not damage any remaining artefacts (but simply cover them over). They will, however, monitor this situation when dredging within the marina location.</p> <p><u>Aboriginal Heritage</u></p> <p>DOT works under the 20211115 Noongar Standard Heritage Agreement Gnaala Karla Booja _LEG 1970, as agreed with SWALSC in 2021.</p> <p>Agreement documents include:</p> <ul style="list-style-type: none"> • 20211115 Noongar Standard Heritage Agreement Gnaala Karla Booja _LEG 1970, and • letter detailing the Noongar Standard Heritage Agreement - Region Wide — Department of Transport / Gnaala Karla Booja Agreement Group. <p>Under the TBW project DoT has submitted two Activity Notices to date: one for the boat ramp and the second for the northern breakwater. Both received “no survey required” Activity Responses.</p>

Comments	Proponent response
	<p>Reference documents are:</p> <ul style="list-style-type: none"> • 2022 AH–NSHA–Activity–Notice Department of Transport — CBH Boat Ramp. • 2022 05 27 Activity Notice Response — HER~ Harbour Boat Ramp Replacement. • 2023 04 18 AH–NSHA–Activity–Notice CBH Rev 0 PDF. • 2023 05 09 Activity Notice Response — HER.1317. <p>DOT has submitted a formal Activity Notice for the refurbishment of the Koombana Bay Groyne:</p> <ul style="list-style-type: none"> • 2023 12 19 AH–NSHA–Activity–Notice Koombana Bay Groyne Rev 0 PDF — submitted 19/12/23 (awaiting response). <p>During 2023, SWDC have met multiple times with Gnaala Karla Booja and recently presented to the Cultural Advisory Committee (CAC). Approval was given to continue with work by DevelopmentWA along Casuarina Drive under TBW Stage 2B. SWDC will work with GKB to investigate the Koombana Bay site and any additional survey work for Stage 3. The CAC will also nominate a subcommittee to work with the SWDC (TBW) team to progress future stages of the development.</p>