
South of Embley Project Draft Operational Marine and Shipping Management Plan Independent Peer Review

Document Reviewed: South of Embley Project Operational Marine and Shipping Management Plan.

Version: Draft for Independent Review, 3/8/2018.

Independent Peer Reviewer: Dr James Stoddart

Date of Review: 3 August 2018

Precis:

The following table provides a peer review of the document specified above (hereafter called the Plan) against terms of reference approved by the Commonwealth Department of Environment and Energy (DotEE) and appended to this document. This review has been undertaken in compliance with EPBC Approval definitions as follows:

Independent/ly Peer reviewed/ Independent Peer Reviewer – assessment of the assumptions, calculations, extrapolations, alternate interpretations, methodologies, performance goals and performance criteria, and conclusions pertaining to the management plans/strategies/programs by a person/organisation/technical committee, independent of the approval holder and/or employed in any subsidiary company of the approval holder.

This person/organisation/technical committee must have demonstrated expertise in the matter of national environmental significance being reviewed and be approved by the Minister prior to commencement of the review.

Limitations of this Review:

Assessment of calculations relating to project design components (e.g. tonnage, vessel movement, staff numbers) as provided in the Plan have been accepted as correct. An independent assessment of the basis of these numbers would require detailed review of project documents by an expert in project engineering. This has been considered to be beyond the scope normally included for an environmentally focused Peer Review.

Where a technical finding within the Plan is referenced to studies or conclusions of the 2013 RTA Environmental Impact Assessment, it is assumed that such conclusions are correct, with that EIA having been approved previously under the EPBC Act.

Findings:

The Plan is fit for the purpose for which it is intended and is generally compliant with the Terms of Reference provided for this Independent Peer Review.

The Plan is comprehensive in covering the management of risks to the marine environment likely to arise from shipping and marine operations conducted in operating the South of Embley Project. It has considered the most recent

developments in managing shipping impacts available for the North Queensland area.

Suggestions for Improvement:

While the audit of how the Plan deals with the individual Terms of Reference found no major non-compliances, some suggestions are made below against individual items which, in the view of this reviewer, would improve the Plan and/or provide a closer alignment with the wording of the ToR. These are:

Item	Suggestion
1.3	Clarify whether RTA are committing to adopt the recommendations of the guidelines/codes referenced in this section as to how shipping can be managed.
1.5	Provide further detail on what monitoring may be conducted for Introduced Marine Pests to comply with nationally accepted guidelines.
1.7	Consider a more explicit linkage between the measurement of performance criteria and the implementation of management to implement 'adaptive management'.
1.13	Clarify how numbers of local indigenous people employed in the implementation of the Plan will be reported.
2.5	Amend the performance measure reflecting compliance with the noise minimisation management requirements.
2.6	Add a discussion of how interactions with crocodiles are to be managed in terms of protecting listed species.



James A Stoddart
MScience Pty Ltd &
Oceans Institute, University of Western Australia
3 August 2018

TABLE 1: Review comments by Section of the MDMP

Comment	Relevant Report Section	RTA Response
<i>1.1: covers all facets in the operation of all marine related precincts for the South of Embley including but not limited to Boyd Port Development, marine operations activities, shipping activities, barge and ferry terminals and recreational beach use associated with operation of the SoE Project incorporating avoidance and mitigation measures or impacts identified under section 2 below on the outstanding universal values of the Great Barrier Reef World Heritage Property, Great Barrier Reef National Heritage Place, Great Barrier Reef Marine Park, listed turtle species, listed dolphin species, Dugong and Bryde's Whale;</i>		
<p>The Plan satisfies this ToR. There is some disagreement between this ToR and the requirement from the EPBC approval to address Conditions 5 – 11 of the EPBC Approval (which are somewhat different to the ToR), but the current plan meets both those objectives.</p> <p>The Plan addresses the 'covers all facets' specification of this ToR by referring to a raft of other specialist management plans as Related Management Plans in Section 1.2.</p>	S 1.1 & 1.2	Noted
<i>1.2: includes and addresses effective management strategies to mitigate each potential impact, desired outcomes, benchmarks, readily measureable performance indicators and goals, timeframes for implementation and reporting, corrective actions and contingency measures, and specifies the persons/ roles with responsibility for implementing actions;</i>		

Comment	Relevant Report Section	RTA Response
<p>Potential impacts are set out and addressed in the format required by this ToR. Table 12 is a useful summary of each impact against the criteria of this ToR.</p> <p>At present, the goals/targets are specified as process goals rather than environmental outcomes. That is appropriate within an operational plan. Performance indicators specified within Table 12 could be used to good effect as an annual report on performance.</p> <p>The column specifying exactly who is accountable for each row of actions will be very useful for internal management.</p>	<p>Sections 6 & 7, Table 12</p>	<p>Noted. Note Table 12 is now Table 13 within the final plan, due to correction of a typographic error.</p>
<p><i>1.3: includes measures to ensure operational shipping activities are undertaken in accordance with the current version of the Great Barrier Reef Marine Park Zoning Plan (2003);</i></p>		
<p>The Plan notes the implications of the GBRMP Zoning Plan for Designated Shipping Areas and suggests that “<i>commercial shipping generally complies with the IMO and AMSA declared two way route, which is more restrictive than the GBRMPA Designated Shipping Areas</i>”. Section 7.1.4 of the Plan also points to several other management schemes that are or may be implemented for this area (PSSA APM & NE Shipping MP) and specifies what these require. However, the Plan does not explicitly commit to RTA shipping complying with any of these. For future clarity in instructing mariners as to what the RTA plan requires, it would be useful to make expectations very clear.</p>	<p>S 7.1.4</p>	<p>Section 7.1.4 has been updated to clarify that RTA will comply with the PSSA APMs, and all current regulatory requirements within the NE Shipping MP.</p>

Comment	Relevant Report Section	RTA Response
<i>1.4. Includes a process to manage recreational access to listed turtle species beach habitat including but not limited to the implementation of a permit access system;</i>		
<p>Recreational access is covered by the Foreshore Access Management Plan (FAMP). This covers the application of the permit access system and also lists the restrictions on vehicles and the training/induction requirements for anyone contacting this habitat.</p> <p>To ensure that the FAMP is visible and used, consideration should be given to adding it as an appendix to this Plan.</p>	S 7.5	<p>The FAMP is a stand-alone plan however the key commitments of the plan which address recreational use of beaches and management of potential impacts to turtle nesting beaches have been included directly into the OMSMP.</p> <p>The FAMP is already implemented through the same environmental management framework as the OMSMP and therefore including the FAMP in the appendix of the OMSMP would not improve management of recreational uses of turtle nesting habitats.</p>
<i>1.5. includes a marine pest monitoring program that is consistent with the Department of Agriculture, Fisheries and Forestry's Australian Marine Pest Monitoring Manual (version 2.0), or its most current version;</i>		
<p>Based on the text of this section, RTA is familiar with the requirements of the AMPMM and are tracking the update to a new version. There is discussion of the development of a monitoring program to align with future requirements and recommendations from government, but, there is no specific monitoring program proposed and no clear commitment in the Plan to implement a program consistent with the current or future version of the AMPMM.</p>	S 7.2	<p>Section 7.2 has been updated with details of the marine pest monitoring program which will be implemented during operations phase and a commitment to continue consultation with DAF Biosecurity Queensland in regards to updates to the AMPMM. Given this OMSMP is to be reviewed within 2 years of operations commencing any relevant updates to the AMPMM will be reflected in future versions of the OMSMP if available.</p>

Comment	Relevant Report Section	RTA Response
<i>1.6: includes mechanisms to notify the Department of the Environment and Energy in writing within five (5) business days of any confirmed or suspected sighting/s and/or observation/s in the marine environment in and/or around the SoE project area of the Dwarf Sawfish; Green Sawfish; Freshwater Sawfish; or the Speartooth Shark;</i>		
A mechanism to manage reporting under this condition is set out with a commitment to staff training in the area.	Table 3, S 7.6	Noted
<i>1.7: includes adaptive management strategies that benefit listed turtle species, listed dolphin species, Dugong and Bryde's Whale;</i>		
<p>The Plan considers the degree to which listed turtle, listed dolphin, dugong and Bryde's whale species use the area and evaluates risks as generally low. The primary mechanism of impact is identified as vessel strike and this is managed by a series of restrictions on vessel speed and movement. Other actions are in place to protect turtle nesting areas.</p> <p>The above appears to be an appropriate level of response and would be consistent with management applied to other projects in similar areas outside those of critical importance to these species.</p> <p>However, the ToR specifically requires that the Plan includes 'adaptive management strategies'. My understanding of 'adaptive management', in the sense of this ToR, is a system where management actions are responsive to some measurable condition (that could be monitoring of dolphin numbers, or weather conditions, or ship movements etc).</p>	Table 12	<p>Adaptive management strategies were also identified for marine pests in Section 7.2 and RTA Shipping through the GBR shipping in Section 7.1.4.</p> <p>For clarity Sections 7.1, 7.3, 7.4 and 7.5 have been updated with adaptive management strategies which will be implemented if required by monitoring, inspection or incident investigations.</p> <p>Note Table 12 is now Table 13 within the final plan, due to correction of a typographic error.</p>

Comment	Relevant Report Section	RTA Response
<p>Overall, the management sections for these species are not proposed in that type of an adaptive management framework.</p> <p>The one area in which the Plan may loosely meet this condition is with respect to vessel strike. Where a vessel strike is reported on any of these groups, Table 12 dictates that an investigation will occur and appropriate corrective actions will be implemented. That could be viewed as 'adaptive management strategy that will benefit the species.</p> <p>On the basis that the level of risk identified appears low and that vessel strike is the most likely impacting process, the Plan could be considered to comply with this ToR.</p>		
<p><i>1.8: is consistent with relevant management measures contained in relevant threat abatement plans published by the Department of the Environment and Energy;</i></p>		
<p>The Plan is consistent with the following published threat abatement plans:</p> <p><i>Threat abatement plan for predation, habitat degradation, competition and disease transmission by feral pigs (Sus scrofa) (2017) – through its control of feral pig impacts on turtles</i></p> <p><i>Threat abatement plan for the impacts of marine debris on the</i></p>	<p>S 5.1.3.2, S 7.3.2</p>	<p>Noted</p>

Comment	Relevant Report Section	RTA Response
vertebrate wildlife of Australia's coasts and oceans (2018) – through its control of waste management		
<i>1.9: includes any findings from the Feral Pig Management Offset Strategy;</i>		
The implications of the Feral Pig Management Offset Strategy survey findings are set out and included in management strategies within Section 5.1.3.2	S 5.1.3.2	Noted
<i>1.10: includes any findings from the Inshore Dolphin Offset Strategy, including corrective actions and contingency measures relating to operations;</i>		
The Inshore Dolphin Offset Strategy described within the Plan is limited to monitoring of dolphin numbers and is not described in the Plan as a trigger for corrective actions or contingency. Findings of the surveys undertaken to date have been used to inform the dolphin management section of the Plan, and corrective actions and contingency measures are set out in Table 12 should dolphins be involved in vessel strikes.	S 5.1.3.1	Noted Note Table 12 is now Table 13 within the final plan, due to correction of a typographic error.
<i>1.11: includes outcomes from consultation with relevant Commonwealth agencies, including the Australian Maritime and Safety Authority and the Great Barrier Reef Marine Park Authority and state agencies including Maritime Safety Queensland;</i>		
Consultation with the three agencies nominated in this ToR is presented in Section 10. Agency comments have been included within the current version of the Plan and the endorsement from	S 10	Noted

Comment	Relevant Report Section	RTA Response
GBRMPA of the shipping management controls is noted.		
<i>1.12: outlines the process for review of the Operational Marine and Shipping Management Plan including reviews within two (2) years of operations commencing, every three (3) years for the next nine (9) years and unless otherwise agreed by the Minister in writing every five (5) years thereafter for the life of the project.</i>		
The requirement is outlined as stated in the ToR. It is worth RTA considering whether it might be appropriate to involve any stakeholders in the review process, or to add a commitment in this section about considering any complaints or comments from stakeholders during the Plan's operation within the formal review.	S 3.8	Section 3.8 has been updated with the commitment that consultation with relevant stakeholders will occur for any major changes to the plan if it may impact their respective areas of concern.
<i>1.13: details Traditional Owner employment opportunities, and mechanisms for reporting the number of local indigenous person/s actually employed in the implementation of the Operational Marine and Shipping Management Plan (as per EPBC Approval Condition 42);</i>		
Opportunities and mechanisms for employment of Traditional Owners are addressed within the Plan. The current text does not make it clear how the requirement of this ToR to report the number of local indigenous persons employed in the implementation of the Plan will be implemented.	S 8	The number of local Traditional Owners employed in the implementation of this plan will be reported to the Western Cape Communities Co-existence Agreement committees (WCCCA) and the Department through respective quarterly and annual reporting processes. Section 8 and Table 3 have been updated to reflect this requirement.
<i>1.14: adequately identifies publication requirements as per EPBC approval condition 59.</i>		
Condition 59 requires publication of the Plan on the RTA website within 1 month of approval. The Plan establishes that requirement for the Plan, reviews and annual reports.	S 3.6	Noted

Comment	Relevant Report Section	RTA Response
2. INCLUDES MITIGATION MEASURES IMPACTS ASSOCIATED WITH OPERATIONAL ACTIVITY FOR:		
2.1: the marine environment that supports listed turtle species; listed dolphin species; Dugong and Bryde's Whale traversing, foraging and/or breeding habitat including, seagrass, reefs and corals, listed turtle species nesting and/or foraging habitat;		
The Plan includes discussion of potential impacts and their risks and then contains prescriptions for measures to reduce these risks to low or negligible levels. In this regard, the Plan takes a very broad view to include all potential impacts on the environment supporting the species above.	S 4, S6, S7	Noted
2.2: changes to coastal processes, including beach and/or shore erosion from the Port development to ensure operations activities do not alter the beach gradients to such an extent that listed turtle species are prevented from and/or impeded in accessing the beach foreshore to nest or listed turtle species hatchlings are prevented and/or impeded from entering the marine environment;		
The Plan dictates the use of a trestle structure for the wharf to minimise the potential for impacts on coastal process relating to beach or shoreline erosion. It refers to studies undertaken in support of the environmental impact assessment of the SOE project as demonstrating that this design will not impact on coastal erosion under foreseeable weather conditions. That finding is consistent with the results of using trestle structures to minimise disruption of longshore sand transport in other coastal areas.	S 6.6	Noted

Comment	Relevant Report Section	RTA Response
<i>2.3: artificial light related impacts on listed turtle species (including hatchlings) nesting beaches and adjacent marine environment associated with shipping and anchored/moored vessels (but excludes operations within the Hey and Embley Rivers);</i>		
The Plan provides considerable detail around commitments to limit lighting on the facility and to require vessels to manage lighting during critical time windows.	S 6.4, S 7.4	Noted
<i>2.4: impacts from vessel strike to listed turtle species, recreational use of listed turtle nest beach habitat, listed dolphin species or Dugongs including, but not limited to, restricting vessel speed limits to 6 knots in water depths of 2.5 metres or less; and, implementation of a transit lane in the Hey River and Embley River that follows the greatest water depths;</i>		
Vessel strike is identified as a significant risk with the Plan and vessel controls for craft posing such a risk are well specified. Table 12 also contains a zero target for vessel strike and management actions should that target not be met.	S 6.1, S 7.1	Noted Note Table 12 is now Table 13 within the final plan, due to correction of a typographic error.
<i>2.5: impacts of underwater noise from shipping;</i>		
Proactive management to minimise shipping noise is set out within the Plan targeting vessel maintenance and performance. Table 12 lists performance indicators for this factor as the number of vessels complying with noise management measures and the number of vessels with this requirement in their contract. That's not a useful indicator and should be replaced with 'percentage of vessels on site' assessed as compliant.	S 7.1.2	Note Table 12 is now Table 13 within the final plan, due to correction of a typographic error. This performance indicator in Table 13 has been changed to the percentage of vessels on site assessed through vessel inspections as compliant to management measures, consistent with this recommendation.

Comment	Relevant Report Section	RTA Response
<i>2.6: impacts identified in the Environmental Management Plan Outlines at Appendix 7-E (Threatened estuarine and Marine species); Appendix 9-A (Non-avian Migratory Species); Appendix 11-A (Great Barrier Reef Marine Park, World Heritage Area and National Heritage Place); and, Appendix 10- A (Commonwealth Marine Area) in the SoE Project Final Environmental Impact Statement submitted to the Commonwealth in March 2013;</i>		
Impacts from these EMP Outlines appear to be covered and mitigated with the exception of crocodiles. The OMSMP makes no mention of them but Appendix 9-A describes their occurrence at the port area and in the Weipa estuary and lists some management requirements to avoid impacts. <i>C. porosus</i> is a listed migratory species which the EPBC Protected Matters search tool lists for this area. Given that there may be a need to manage crocodiles around the operation (presumably through Qld wildlife officers), I felt this was an omission.	S 6	The Plan has been updated with a new Section 7.7 which details that if safety concerns arise estuarine crocodiles would be managed in accordance with the requirements of the Queensland Department of Environment and Science. Reporting requirement for crocodiles has been clarified in Table 3.
<i>2.7: mechanisms to implement best practice mitigation and management measures for ship loading and unloading, and all other aspects of shipping activities to minimise impacts on the marine environment (including contamination spills);</i>		
The Plan provides details of pre-emptive management to reduce the potential for spillage of product or pollutants during loading, as well response measures to reduce the impact of any accidental spillage. Arrangements for RTA to interact with the spill manager for Queensland coastal spills (MSQ) are set out.	S 7.3	Noted
<i>2.8: measures that minimise the risk of introduced marine pest species, including ballast water</i>		

Comment	Relevant Report Section	RTA Response
<i>management.</i>		
The potential impacts of introduced marine pests are rated as Critical in the Plan's risk assessment. Section 7.2 provides details of management prescriptions appropriate to deal with that level of risk and consistent with current best practice as set out within documents on the National System for the Prevention and Management of Marine Pest Incursions for Shipping and Ports, and its implementation within Queensland.	S 6.2, S 7.2	Noted