SUPPLEMENTARY COUNCIL ASSESSMENT REPORT

Panel Reference	**PPSTH-2**
DA Number	**2019.208**
LGA	**Bega Valley Shire Council**
Proposed Development	**Construction of a 154 berth marina comprising three floating pontoon arms restrained by piles, a fixed wave attenuator, minor refurbishment of the existing wharf, landside car park comprising 97 spaces plus 3 loading/unloading spaces, temporary building to house administration and toilets and relocation of 24 swing moorings.**
Street Address	**Cattle Bay Road Eden 2551**
Applicant/Owner	**Eden Cattle Bay Marina Pty Ltd**
Date of DA lodgement	**13/06/2019**
Number of Submissions	**Six (6) submissions received**
Recommendation	**Approval subject to conditions**
Regional Development Criteria (Schedule 7 of the SEPP (State and Regional Development) 2011	**The proposal has been referred to the Southern Regional Planning Panel as the consent authority under Clause 4.5(b) of the Environmental Planning and Assessment Act 1979 as the development is for the purposes of: "(b) marinas or other related land and water shoreline facilities, which meet the requirements for designated development under clause 23 of Schedule 3 to the Environmental Planning and Assessment Regulation 2000"**
List of all relevant s4.15(1)(a) matters	List of relevant Acts of Legislation • Environment Protection and Biodiversity Conservation Act 1999 • Protection of the Environment Operations Act 1997 • Fisheries Management Act 1994 • Biodiversity Conservation Act 2016 • National Parks and Wildlife Act 1974 List of all of the relevant environmental planning instruments under S4.15 (1)(a)(1) – State Environmental Planning Policies • State Environmental Planning Policy (Coastal Management) 2018 • State Environmental Planning Policy (State and Regional Development) 2011 • State Environmental Planning Policy (Infrastructure) 2007 • State Environmental Planning Policy (Primary Production and Rural Development) 2019 • State Environmental Planning Policy No 33 – Hazardous and Offensive Development • State Environmental Planning Policy No. 44 – Koala Habitat Protection • State Environmental Planning Policy No. 55 – Remediation of Land • State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 Local Environmental Plan • Bega Valley Local Environmental Plan (BVLEP) 2013 Other policies • Bega Valley Section 94 and 94A Contribution Plan 2014 List any proposed instrument that is or has been the subject of public consultation under the Act and that has been notified to the consent authority under S4.15(1)(a)(ii) • State Environmental Planning Policy No. 44 – Koala Habitat Protection List any development control plan under S4.15(1)(a)(iii) • Bega Valley Development Control Plan (BVDCP) 2013 List any relevant regulations under S4.15(1)(a)(iv) eg Regs – Nil
List all documents submitted with this report for the	• Appendix 1 – Additional information submitted by applicant • Appendix 2 – Revised draft conditions of consent

Panel's consideration	
Clause 4.6 requests	Nil
Summary of key submissions	N/A
Report prepared by	**Mark Fowler – Senior Town Planner** **Keith Tull – Planning and Sustainability Manager**
Report date	**24 June 2020**

Summary of s4.15 matters Have all recommendations in relation to relevant s4.15 matters been summarised in the Executive Summary of the assessment report?	**Yes**
Legislative clauses requiring consent authority satisfaction Have relevant clauses in all applicable environmental planning instruments where the consent authority must be satisfied about a particular matter been listed, and relevant recommendations summarized, in the Executive Summary of the assessment report? *e.g. Clause 7 of SEPP 55 - Remediation of Land, Clause 4.6(4) of the relevant LEP*	**Yes**
Clause 4.6 Exceptions to development standards If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received, has it been attached to the assessment report?	**Not Applicable**
Special Infrastructure Contributions Does the DA require Special Infrastructure Contributions conditions (S7.24)? *Note: Certain DAs in the Western Sydney Growth Areas Special Contributions Area may require specific Special Infrastructure Contributions (SIC) conditions*	**Not Applicable**
Conditions Have draft conditions been provided to the applicant for comment? *Note: in order to reduce delays in determinations, the Panel prefer that draft conditions, notwithstanding Council's recommendation, be provided to the applicant to enable any comments to be considered as part of the assessment report*	**Yes**

Executive summary

This Supplementary Council Assessment Report is in response to the Southern Joint Regional Planning Panel deferral of the development application at its meeting on 1st April 2020. The Record of Deferral identified 12 matters that needed to be addressed before a determination could be made.

Those matters were provided to the Applicant, who provided a response to Council. That response is attached as Appendix 1 to this Report.

This Supplementary Report responds to the twelve matters raised by the Panel and includes revised draft conditions of consent.

The application is recommended for approval subject to the revised draft conditions of consent included as Appendix 2 to this report.

1. Further design detail and impacts

The Applicant has provided a dimensioned typical cross section of the wave attenuator, shown on Drawing PA1042-MA-SK01 Rev A (refer Attachment A in Appendix 1). The diagram details that it comprises a fixed wave attenuator (wave screen), consisting of a series of vertical and raked piles (or possibly pairs of vertical piles) with an insitu or precast concrete cap, supporting precast concrete panels that span between the sets of piles. The Applicant details that spacing of the sets of piles would be approximately 6m.

The top of the wave panel would be at approximately 2.9m above Chart Datum (2.9m CD) and the bottom of the wave panel would be at approximately -2.0m CD. A wave deflector would be incorporated at the top of the precast panel to mitigate wave overtopping.

The dimensions shown on Drawing PA1042-MA-SK01 Rev A are subject to detailed design but would not be expected to change significantly from the values shown.

The Applicant detailed that proposed final length of the wave attenuator is approximately 260m. The location of the attenuator is shown on Drawing 8A0458 Cattle Bay Marina and Attenuator – General Arrangement Rev A dated 21/08/2015 superimposed on a vertical

aerial photograph of Cattle Bay (refer Attachment B in Appendix 1). The coordinates of the western and eastern ends of the attenuator and the turn point of the 'crank' in the attenuator are provided in Mapping Grid of Australia (MGA) Eastings and Northings.

The above Drawing is the basis for the wave attenuator shown on the Drawings in Appendix 5 of the EIS and in Figures 6 and 7 within the EIS.

The proposed overall area to be occupied by the marina and wave attenuator (Lot 1, DP1242690) is shown on a plan prepared for purposes of a lease application to NSW Crown Lands by Surveyor Colin Robert Hunter dated 01/05/2018 (refer Attachment C in Appendix 1).

The additional information provided by the Applicant clarifies all reports and subsequent modelling undertaken by Cardno in May 2015, on behalf of Royal HaskoningDHV, for the revised cranked attenuator in which the original attenuator was extended at its eastern and western ends. This revised attenuator is the current adopted proposal and is that shown in Appendix 5 of the EIS, in Figures 6 and 7, and in Appendix 1 of this report. The modelling results for the revised cranked attenuator are outlined below.

Assessment of wave reduction for proposed attenuator
The results of the May 2015 modelling of the revised cranked wave attenuator are shown in Figure 2. The output locations for wave height are shown by the circles and correspond to the output locations and letter references R, S, T etc. in Figure 1. In addition, a further output location was added referred to as 'Inshore', located just seaward of the inner-most marina berths located adjacent to the existing jetty. Note that the modelling considered the wave attenuator only, it did not factor in the additional attenuation that would be achieved due to the floating marina structure.

The recommended criteria for 'moderate' wave climate in a marina to satisfy AS3962:2020 are listed in Table 1. The predicted wave heights at each of the wave output locations are listed in Table 2. The following can be stated from a comparison of the information in Table 1 and Table 2:

- *the wave heights at all locations R, S, T, U, V and W satisfy AS3962:2020 noting that the direction of the waves at these locations relative to the berths are either 'head seas' or 'oblique seas' and that peak wave period is greater than 2 seconds for both the 50-year ARI and 1-year ARI events (peak wave periods lie in the range 2.3 to 3.4 seconds); and*
- *the wave heights at the Inshore location due to the wave attenuator only (no factoring of additional wave attenuation from the floating marina structure), do not satisfy the criteria in AS3962:2020 for beam seas (these berths are beam-on). However the modelling ignores the attenuation effect of the multiple floating marina arms which would be located seaward of the Inshore location (in addition, vessels seaward of the Inshore location would provide attenuation of the waves). It can be shown that a transmission coefficient of around 0.6 and 0.7 would be required from the multiple floating marina arms, combined, for the wave climate at the beam-on berths to satisfy AS3962:2020. It can be concluded this would be achieved by reference to design charts for transmission coefficients for individual pontoon systems, as proposed for the marina arms, established from small scale physical model testing, eg. as shown in Figure 33.*

It follows from the above that the wave reduction achieved by the proposed wave attenuator and floating marina outlined in the EIS would be sufficient to enable the marina berths to meet AS3962:2020.

Council are satisfied that the Applicant has provided enough detail to clarify that the proposed cranked design of the wave attenuator detailed in the EIS would be sufficient to enable the marina berths to meet AS3962:2020.

<u>Potential impacts on Cattle Bay and Cocora Beaches</u>
The Applicant has detailed that Royal HaskoningDHV (RHDHV) prepared three specific pieces of correspondence in relation to this matter in response to submissions on the original

2014 EIS and in response to submissions on the re-submitted 2019 EIS. This correspondence comprises:

- RHDHV (April 2015), Cattle Bay Marina – Response to Submissions on EIS – Supplementary Statement on Wave Attenuator and Potential Impacts, dated 8 April 2015;
- RHDHV (February 2019), Cattle Bay Marina – Environmental Impact Statement – Supplementary Wave Impact Statement, dated 21 February 2019;
- RHDHV (September 2019), Cattle Bay Marina – DA2019.208: Response to Submission by Department of Planning Industry & Environment (Biodiversity and Conservation Division), dated 10 September 2019.

The documents are included again in Appendix 1 of this report. The various correspondence addressed the following range of matters:

- potential impacts on Cocora Beach;
- potential impacts on Cattle Bay Beach;
- extreme coastal events at Cocora Beach;
- impacts of coastal erosion on beach amenity and assets at Cattle Bay;
- longer term monitoring program at Cocora Beach.

The key findings in those documents confirmed that for Cocora Beach;

- the wave attenuator would not cause significant changes to the swell wave direction and energy along Cocora Beach since the eastern section of the attenuator is aligned such that reflected swell wave energy is directed south of Cocora Beach, the western section of the attenuator is well aligned with the incoming swell direction and does not cause reflection of swell waves; and
- There is no reason to believe that implementation of the Cattle Bay wave attenuator and Eden Safe Harbour wave attenuator would introduce significant impacts to Cocora Beach for coastal events larger than 50 year ARI. This is because the extreme coastal storm waves that potentially impact on Cocora Beach emanate from the south east sector, the direction and energy of these waves as they enter Twofold Bay and Snug Cove and approach Cocora Beach are controlled by existing natural features (headlands and water depth) and man-made features (Eden Breakwater), and the particular alignment and positioning adopted for the two attenuators do not significantly affect wave energy and wave direction approaching Cocora Beach.

The key findings in those documents identified that for Cattle Bay Beach there would be no net erosion predicted, a sandy beach width is expected to be retained (not lost), however it would be narrower at the western end and wider at the eastern end, evolving over time. As such, while there will be a change to Cattle Bay Beach, the impact on beach amenity is not expected to be significant.

Monitoring proposed by the Applicant should be introduced as soon as possible to provide a longer-term baseline of existing conditions and beach state which would help determine timing of beach nourishment if required.

The modelled rotation of Cattle Bay is of some concern due to the fact that the beach is backed by a seawall and does not have capacity to migrate landwards. Whilst the modelling predicts a minor change in predicted swell direction, an increase in focused wave energy may be more problematic. Council recommends that conditions of consent be included requiring the proponent to undertake periodic beach monitoring of Cocora and Cattle Bay Beaches, and to ensure that beach regrading is undertaken for Cattle Bay Beach to maintain a suitable beach width at the western end of Cattle Bay Beach fronting the sea wall to ensure its protection

Therefore, to ensure that the modelled potential impacts identified for both Cocora and Cattle Bay Beaches are managed, it is recommended that there is a need for ongoing monitoring of both Cocora and Cattle Bay beaches. The following conditions has been recommended;

Obligation to minimise harm to the Environment
"Monitoring of Cocora and Cattle Bay beaches

Surveys every six months shall be undertaken for Cocora and Cattle Bay beach foreshores to measure foreshore erosion to compare to baseline data identified in the approved EIS documents and supplementary reports. The Survey reports shall be included in the Independent Environmental Audits."

"The proponent/marina operator ensure that beach regrading is undertaken to maintain a suitable beach width at the western end of Cattle Bay Beach fronting the sea wall to ensure its protection."

Likelihood of overtopping and inundation of the land based aspects of the development

The Applicant has detailed that certain aspects of this matter are addressed in the letter prepared by RHDHV dated 22 August 2019 in response to the submission from DPIE (Biodiversity and Conservation Division) and included again in Appendix 1.

The Applicant details that the Bega Valley Shire Council's 'Coastal Processes and Hazards Definition Study' (2015), prepared for Council by BMT WBM, considers the erosion and recession hazard, and coastal inundation hazard, for Cattle Bay. In Table 4.9 of that report the present day (2015) design 2% wave runup level for Cattle Bay in the 1% Annual Exceedance Probability (AEP) storm event is given as 2.6m AHD. A reasonable estimate of the design 2% wave runup level in the future 2050 and 2100 (not provided by BMT WBM) is considered to be approximately 3.0m AHD and 3.5m AHD respectively (adding nominally 0.4m and 0.9m for sea level rise projections).

The Applicant for assessment purposes conservatively adopted a wave runup level of 3.0m AHD (the 2050 estimated value) since:

- it is likely the land based component of the project would be redeveloped in accordance with the Part 3A Concept Plan Approval, and hence the temporary facilities upgraded, prior to 2050;
- the wave climate at the foreshore would be attenuated following construction of the marina and wave attenuator hence the wave setup and wave runup components of the elevated oceanic water level calculated for existing and future conditions would be overestimates; and
  it is arguable in practice whether a wave runup level should be adopted for assessment of inundation of building structures as it is a transient phenomenon.

In any case, adopting a wave runup level of 3.0m AHD, the following can be stated:

- the crest level of the seawall is at approximately 2m AHD and hence would be overtopped in a severe ocean storm. Overtopping would comprise some vertical spray and a bore or sheet flow propagating landward in pulses corresponding to the wave period;
- the proposed land based components of the development, eg. the temporary (portable) building to house marina administration and toilets, are situated 30m from the seawall beyond the Public Reserve (refer Appendix 5 of EIS). At this location the land level is approximately 2.5m AHD. The proposed floor level of the temporary building is situated four steps above the ground level (refer plan in Appendix 5 of EIS), ie. approximately 0.7m above the ground level or at approximately 3.2m AHD; and
- a floor level of 3.2m AHD (freeboard of 200mm) is considered reasonable in the circumstances having regard to the conservative factors referred to above. Having said that, the Applicant would be prepared to work with Council staff to revise the floor level upwards if required, for example by including one or two additional steps from ground level.

Additional detail on floor height in the context of localised inundation have been addressed. To ensure that the floor level would not be inundated, it is recommended that the finished floor level be at a height of 0.5 metre above the 1% AEP storm event. The following condition has been included in the revised draft conditions to this effect.

"Floor levels of portable buildings
To ensure that the floor level of the portable buildings would not be inundated, the finished floor levels of these structures are to be at a height of 0.5 metre above the 1% AEP storm event."

Safe navigation

The Applicant detailed that they had provided appropriate communication and consultation with relevant State Agencies including the Port Authority of NSW (PANSW), Roads and Maritime Services (now Transport for NSW), and NSW Department of Industry. That consultation and also response to State Agencies submissions during the processing of the application covered issues associated with cumulative impacts, marine traffic, navigation and safety, hazards and first port of entry requirements.

The Applicant has detailed that the key outcomes from a safe navigation perspective, advised by RHDHV based on consultation with the agencies and information provided to the agencies, can be summarised as follows:

- the two wave attenuator projects can be undertaken compatibly;
- the requirements of PANSW have been included in the Construction Environmental Management Plan (CEMP) and Operational Environmental Plan (OEMP); and
- the proposed Cattle Bay Marina is sufficiently distant from the source of the prop wash for it to be able to be satisfactorily designed.

RHDHV is not aware of any outstanding matters in relation to safe navigation raised by any government agency or other party.

The Applicant has detailed with the plans provided in Appendix 1 that the proposal can comply with AS3962:2020 and therefore maintain Safe navigation within the Marina and that proposed with the POEM Marina proposed to the East further in Snug Cove. It is considered that the Applicant and combined with comments from State Agencies, that the proposed Marina would provide for Safe Navigation.

Competency of the existing seawall

The Applicant provided details on the likely impacts of storm events on the sea wall and included the clock wise rotation of the beach. The Applicant detailed that it is considered unlikely that the risk to the western section of the seawall in storm events would change materially as a result of the proposed works and provided that a mitigation measure could be to initiate a monitoring program to record the behaviour of Cattle Bay Beach to inform any future action regarding the seawall. The ongoing need for a monitoring program could be re-evaluated following operation of Condition C9 of the Part 3A Concept Plan Approval for the tourist facility.

Council consider that the Applicant has reasonably detailed the competency of the existing sea wall which included projected changes to the alignment of Cattle Bay Beach. There is merit to monitor the beach given that it is located within a Council owned parcel of land and Cattle Bay Beach and that reserve is the alignment of the Bundian Way. It is considered that any impacts associated by the marina development should be mitigated by the proponent, not Council.

Given the above, it is recommended that a monitoring program for the beach be undertaken and this can be included in an Independent Environmental Audit for the development. The following conditions are proposed to ensure that Cattle Bay Beach and the competency of the sea wall can be reviewed post operation of the Marina development and maintained.

> *Obligation to minimise harm to the Environment*
> *"Auditing – Independent Environmental Audit*
> *Within 12 months of construction and again after 3 years of operation and thereafter at 5 yearly intervals, unless Bega Valley Shire Council directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the Project against the requirements of this approval. This audit must;*
> *a) Be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by Bega Valley Shire Council;*
> *b) Assess the environmental performance of the Project to assess whether it is complying with the requirements in this approval (including any assessment, strategy, plan or program required under this approval or any EPLs);*

c) Review the adequacy of any approved strategy, plan or program required under the abovementioned approval to manage impacts of the Project including the structural competency of the existing seawall; and
d) Recommend measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under these approvals or licences."

"Within six (6) months of the completion of an audit identified above, or as otherwise agreed by Bega Valley Shire Council, the Proponent shall submit a copy of the audit report to Council, together with its response to any recommendations contained in the audit report."

"In addition to meeting the specific performance criteria established under this consent, the Proponent shall implement all reasonable and feasible measures identified in the Independent Audit Report to prevent and/or minimise any harm to the environment that may result from the construction and operation of the marina."

Changes to public access along the beach
The additional information provided by the Applicant demonstrates that there will be no changes to public access along Cattle Bay Beach as a result of the proposed development. Public access will be maintained to the existing jetty with works to upgrade the existing jetty to ensure that its use can continue in to the future.

Public access will be provided to the floating marina during the hours of 7am to 6pm (Summer daylight saving) and 7am to 5pm (non daylight saving), to Council's satisfaction unless closure is in the interest of public safety and/or security.

Council consider that access along cattle Bay Beach and adjoining reserve would be maintained into the future with no impediments.

2. Location of Marina envelope within Cattle Bay

The Applicant has detailed that the information included in Attachment B (Drawing 8A0458-Cattle Bay Marina and Attenuator – General Arrangement Rev A) and in Attachment C (Plan of Crown Land creating Lot 1) should be sufficient to confirm the location of the marina envelope within Cattle Bay.

The proposed overall area to be occupied by the marina and wave attenuator has been identified by the Applicant as within Proposed Lot 1 DP1242690 prepared for purposes of a lease application to NSW Crown Lands by Surveyor Colin Robert Hunter dated 01/05/2018 (refer Attachment C in Appendix 1).

A review of the additional plans provided by the Applicant confirms that the marina would sit within Cattle Bay as detailed in the EIS.

3. Details of Marina berth layouts to meet Marina design standards

The Applicant has detailed that the proposed marina layout including the nominated range of berth sizes within the marina footprint is shown on Drawing 8A0458-MA-SK10 Rev A (refer Attachment H in Appendix 1). This marina layout drawing was included in Appendix 5 of the EIS.

The information provided includes berth dimensions (double berth) adopted compared to the recommended berth dimensions in AS3962:2001, which was the applicable Standard at the time of the concept design and berth dimensions now recommended in AS3962:2020. It is noted that since the lodgement of the application and its determination that the Australian Standards for marina design have been superseded with the introduction of AS3962.2020.

The Applicant identifies that the adopted berth widths complied with AS3962:2001 and also generally comply with AS3962:2020 (the adopted berth widths slightly exceed the minimum requirements for 12m and 15m vessels, and are slightly less than the minimum requirement for an 18m vessel). The Applicant confirmed that the above dimensional differences are

small and can be accommodated during progress of the marina design from concept to detail to ensure compliance with AS3962:2020 and not affect the proposed marina envelope.

The Applicant has demonstrated that based on the number of berths and the required dimensions now recommended in AS3962:2020, they can be satisfactorily accommodated within the proposed marina.

It is noted that the draft conditions that referred to Australian Standard AS3962:2001 have been reworded to reflect the current Australian Standard being AS3962:2020.

4. Coastal Management Act 2016

The Applicant has detailed that the proposed development would create more sheltered wave conditions along Cattle Bay Beach with a predicted clockwise rotation of the beach in response to the change in mean energy-weighted wave direction for combined sea and swell.

The predicted change in beach alignment (new equilibrium) was illustrated in Figure 8.9 of Cardno (2014) which is reproduced in Appendix 1. The white line depicts the existing beach alignment and the red line depicts the predicted new alignment, assuming no change to the sub-aerial beach volume which is realistic for this closed embayment.

The predicted landward movement at the western end of the beach is approximately 8m and the predicted seaward movement at the eastern end of the beach is approximately 7m. Importantly, a sandy beach is predicted to be sustained along the full beach length.

The Coastal Management Act 2016 has provisions for 'coastal management programs' to be prepared by local Councils for the coastal zone and provisions applying to 'coastal protection works'. There is no Coastal Management Program in effect in Bega Valley Shire under the Coastal Management Act 2016 and the development application for Cattle Bay Marina does not include 'coastal protection works'.

There are thirteen objects of the Coastal Management Act 2016, of which two are particularly relevant to the matter at Cattle Bay Beach, namely:

a) to protect and enhance natural coastal processes and coastal environmental values including natural character, scenic value, biological diversity and ecosystem integrity and resilience, and
b) to support the social and cultural values of the coastal zone and maintain public access, amenity, use and safety.

The Applicant has identified that the predicted changes to beach alignment represent a new equilibrium for Cattle Bay Beach. Given the sandy beach would be retained along its full length with the same sub-aerial volume, it is considered that the above objects of the Act have not been impacted. The additional sheltering of the beach from sea and swell would be of some benefit in reducing erosion of the beach during strong wind events from the southerly sector and during ocean storms and having regard to the above, remediation of the beach as a result of the application is not considered to be necessary.

Council has reviewed these comments provided by the Applicant. The project is arguably in conflict with sections 8(2) and 9(2) of Coastal Management Act (2016) and Division 5 (Clause 15) of Coastal SEPP. However, the modelled impact of the Marina could only be considered minor in terms of its change to the coastal hazard potential at Cattle Bay Beach and impact on beach environment.

The development is in context with the historical use of Cattle Bay and the broader Snug Cove and Twofold Bay marine infrastructure focused development and also concur that no remediation of the beach is considered necessary.

5. Condition of the existing concrete sea wall backing onto Cattle Bay beach

The Applicant detailed that the existing seawall at the back of Cattle Bay Beach comprises a rock revetment structure in the eastern section and a masonry gravity structure in the

western section. The seawall is thought to have been constructed in the 1940s/1950s associated with development of industry at the site. The Applicant identified that even though the seawall is now some 70 years of age, there is no known history of failure of the seawall or erosion of the land beyond the seawall. The seawall would have endured some significant ocean storms during its life including the storms of May-June 1974 and June 2016.

The majority of the seawall will receive enhanced protection due to the presence of the Marina. The lead consultant advises "based on inspections of Cattle Bay Beach by the writer over the past 15 years and the sheltered nature of the site, there is considered to be no immediate or near term concern regarding the competency of the seawall to provide erosion protection for the proposed temporary structures which are located some 30m landward of the seawall, or to mitigate inundation impacts on these structures". Council would concur with this observation.

Given the temporary nature of the on-land component Council do not believe the current structural integrity of the wall is a threat to these facilities. Should there be no condition in the Part 3A approval it would be reasonable to require the Applicant to conduct an engineering assessment of the seawall as a condition of consent.

The Applicant detailed that sea level rise projections adopted in the application documentation were nominally 0.4m at 2050 and 0.9m at 2100, relative to 1990, as noted in Cardno (2014) (refer Section 8.3.3 of that document, included in Appendix 13 Part 1 of the EIS) and detailed in their response to Item 1 above. Cardno (2014) noted that model results for the 2050 (0.4m) and 2100 (0.9m) sea level rise scenarios show that the design wave heights are unlikely to change significantly for these sea level rise projections.

The Applicant detailed that the risk of greater overtopping of the existing seawall and inundation of the proposed portable structures with sea level rise to 2050 has been considered in the response to Item 1. Potential raising of the seawall is also contemplated as an adaptive measure for the seawall in Condition C9 of the Concept Plan Approval for the tourist facility.

It is considered that the portable nature of structures can adequately conform to potential sea level rise associated with the use of the site as a marina and could be readily modified. Any further redevelopment of the site that would seek to provide permanent structures would need to comply with the existing condition of the Major Concept Approval (05_0032) that would be more readily affected by potential overtopping of the sea wall.

6. Options for independent peer review of design prior to construction and also for completed works

The Applicant has detailed that an option for the independent peer reviews noted above would be to include such a requirement in a condition of development consent. The independent peer reviewer should be a 'suitably qualified and experienced independent coastal/maritime engineer'.

Council has recommended that conditions 7 and 8 in the previous draft consent be replaced with the following;

> *"Structural details of Maritime structures – Prior to the commencement of works, the Proponent shall submit to the satisfaction of the Certifying Authority, detailed and dimensioned structural drawings and specifications prepared and signed by a suitably qualified practicing Structural Engineer experienced in the design of all maritime structures that demonstrate compliance with;*
> *a) Australia Standard AS 3962-2020 'Guidelines for Design of Marinas', Australian Standard AS4997 – 2005 'Guidelines for the Design of Maritime Structures' and NSW Maritime Authority Guidance Note 8.3.02.*
> *b) Relevant clauses of the BCA; and*
> *c) The development consent.*
> *The drawings must also identify all new works below the Mean High Water Mark and all their components and interconnections."*

"Prior to the issue of a final occupation certificate
Prior to the issue of a final occupation certificate, the proponent shall engage and be provided with a report from an independent Structural Engineer experienced in the design of all maritime structures detailing that all maritime structures have been completed in accordance with the approved structural plans and are in accordance with

a) Australia Standard AS 3962-2020 'Guidelines for Design of Marinas', Australian Standard AS4997 – 2005 'Guidelines for the Design of Maritime Structures' and NSW Maritime Authority Guidance Note 8.3.02.
b) Relevant clauses of the BCA; and
c) The development consent.

A copy of the report shall be provided to the Certifying Authority and Council prior to the release of any Occupation Certificate."

7. Further details on the portable buildings

The Applicant detailed that the area to be occupied by the portable building is shown in the plans in Appendix 5 of the EIS. The buildings are setback between 3.7m to 4m from the Lot 4 foreshore reserve. The height of the portable building above the slab is single storey of no more than 3.5m to the main roof line. Any ancillary roof elements such as building ventilation elements and/or air-conditioning units which may also be included on the roof would be no more than 1.5m in height above the roof line.

The concerns raised in regard to potential inundation of the site and the impact on portable structures have been addressed early in this report.

As recommended earlier to ensure that the floor level of potable structures would not be inundated, the following condition has been included in the revised draft conditions to this effect.

Floor levels of portable buildings
To ensure that the floor level of portable building would not be inundated, the finished floor levels of these structures are to be at a height of 0.5 metre above the 1% AEP storm event.

8. Compatibility of the development with the approved Major Concept Approval (05_0032)

The Applicant has detailed that the marina development is a catalyst and complementary use for the tourist facility development and that the land based components of the marina development (office, amenities, parking and utility services connections) are proposed as temporary facilities until the tourist facility is developed.

The Applicant identified that the future development of the tourist facility on the land base will include new replacement facilities for the marina including office, amenities, parking, utility services and access for the marina which will need to be subject to a future DA consent. The tourist facility is a use that is compatible with the land based elements of the marina and has a development form with capacity to accommodate these elements for the marina.

As previously reported to the Panel, the proposed land based components of the marina would be sited within Precinct A2 under Concept Approval (05_0032). Precinct A2 comprise a 60 room hotel, 74 serviced apartments and 134 car spaces and is located adjacent to Precinct A1 which comprises a conference building/function room/restaurant and 31 car spaces.

The proposed access into the site for the Marina is consistent with the proposed access for the proposed Hotel and Serviced Apartments.

The design of the proposed land based component of the marina is located to minimise construction works on the site and could be suitably integrated in the design and future development of Precinct A2 identified in Concept Approval (05_0032). The development for

any part of the hotel, serviced apartments and/or conference/function room/restaurant would be subject to the lodgement of separate development applications and would need to consider existing approved developments on the site.

Without detailed design plans for Precincts A1 and A2 identified in Concept Approval (05_0032), Council staff consider that there is suitable land area to accommodate carparking for both the proposed marina and future uses under Concept Approval (05_0032).

9. Location and protection of the Bundian Way

A review of the NSW Office of Environment and Heritage website for Heritage Items identifies that the development site generally falls within what is described as Stage 7 of the Bundian Way. A summary of Stage 7 describes this section of the Bundian Way from Bilgalera (Fisheries Beach) to Eden.

*The walking route follows an old track to Davidson Whaling Station, then follows the shoreline around the inlet passing massive middens of the old Kiah (East Boyd). It snakes round above mangroves and the sand flats westwards to the old crossing of the Towamba River. Across the river it rejoins the old public access road reserve across the ridge to Beermuna (Boydtown), where just before the lagoon it follows a track to the beach. Thence it proceeds round the beach of Nullica Bay to the inlet, which might be waded but the bridge is easier. The way around Mungora (Northcote Point) might only be accessible at low tide and therefore following the ridge above the rocks and Currawalla Beach is easiest. From the north eastern corner of Bungo Beach a delightful track leads to Cocora Beach**, after which it follows a route through Eden** and along Aslings Beach to Ben Boyd NP and through State Forest to Jigamy. A loop route from Jigamy passes through Ben Boyd National Park to Quondolo Beach and Pinnacles Beach and National Park tracks back to Aslings Beach and Eden*.

The Cattle Bay foreshore (Lot 4) was dedicated by the Applicant to Council as a public foreshore reserve as required by the Part 3A Concept Plan Approval for the tourist facility on the land base.

The Applicant identified that landscape rehabilitation of the foreshore is required as part of the first stage of the tourist development as a condition of the approval, and is required to be carried out in consultation with Council and the Local Aboriginal Land Council to address any heritage significance including that associated with the Bundian Way at Cattle Bay.

The dedication of the foreshore to Council as well as the retention of Cattle Bay Beach ensures that the route of the Bundian Way is maintained and protected. It is considered that the proposed revised draft conditions provide suitable measures to protect the Bundian Way and this includes the provisions a compliance report that would monitor Cattle Bay Beach.

10. Monitoring Regime in consent conditions

The Applicant has detailed that the monitoring regime is included in a number of sections in the Operational Environmental Management Plan (OEMP) for the marina including the following:

- Section 3.2: Environmental and safety incident reports, site walkover check completed during regular site inspections, site personnel register completed at induction.
- Section 4: Independent environmental audit after 12 months and again after 3 years operation and thereafter at 5 yearly intervals. Berthed vessel details and owner details. Marina Manager and Dockmaster Reports recording incidents and site conditions.
- Section 6: Annual safety review of the site and identification of hazards.
- Section 8: Reporting on medical emergencies.
- Section 14: Records of the use of the mobile sewage pump-out unit.
- Section 16: Water quality monitoring program.
- Section 19: Monitoring of surface sediments.
- Section 22: Monitoring of Cocora Beach.

A review of the draft conditions previously reported to the Panel did not provide a reporting mechanism identifying compliance with conditions of consent that also includes undertakings in the EIS and supplementary reports to Council and relevant State Agencies.

As a consequence, it is recommended that Condition 11 be modified that respond to this matter identified by the Planning Panel to read;

> *All work required in the construction of the wave attenuator shall be undertaken and completed in accordance with the certified siting and engineering design plans. The proponent shall prepare a Pre-Construction Compliance Report and a Pre-Operation Report to report compliance with the requirements of this approval prior to the commencement of construction and operation, as relevant. The Reports shall be submitted to Council and relevant State Agencies for approval at least one month prior to the commencement of construction, or each stage, or operation as relevant.*
>
> *Reason: These conditions are considered warranted to ensure that the marina and wave attenuator has been suitably designed and constructed.*

And that the following conditions be included; that respond to this matter identified by the Planning Panel. The conditions recommended are;

> *"Auditing – Independent Environmental Audit*
> *Within 12 months of construction and again after 3 years operation and thereafter at 5 yearly intervals, unless Bega Council directs otherwise, the Proponent shall commission and pay the full cost of an independent Environmental Audit of the Project against the requirements of this approval. This audit must;*
> *a) Be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by Bega Valley Shire Council;*
> *b) Assess the environmental performance of the Project to assess whether it is complying with the requirements in this approval (including any assessment, strategy, plan or program required under this approval or any EPLs);*
> *c) Review the adequacy of any approved strategy, plan or program required under the abovementioned approval to manage impacts of the Project including the structural competency of the existing seawall; and*
> *d) Recommend measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under these approvals or licences."*
>
> *"Within six (6) months of the completion of an audit identified above, or as otherwise agreed by Bega Valley Shire Council, the Proponent shall submit a copy of the audit report to Council, together with its response to any recommendations contained in the audit report."*

11. Adequacy of emergency management arrangements regarding accidental contamination events

The Applicant detailed that the emergency management arrangements are included in the Operational Environmental Management Plan (OEMP) for Cattle Bay Marina prepared by Advanced Marina Management and RHDHV (February 2020).

The relevant Emergency management arrangements addresses all aspects of the operation of the Marina and includes;

- marina management, marina staff, marina tenants and marina users who would be provided with appropriate training and instruction in the safe use and management of the marina facility
- identification and reporting of fuel/oil spills or leaks from berthed vessels
- details of management of discharge of sewage and waste
- provision of weekly maintenance inspections
- liquid waste management
- waterway pollution

Further, the draft Construction Environmental Management Plan (CEMP) prepared by RHDHV (February 2020) also addresses potential environmental impacts and their mitigation measures including for emergency management arrangements. Those arrangements include a spill response strategy/procedures and include the contact details of the Port Authority to be notified in the event of a spill.

It is recommended that the draft CEMP section on spill response strategy / procedures be expanded to include the EPA and Council as a contact if a spill was to occur. The following condition detailing this requirement is recommended;

> *The draft CEMP shall be modified to include the EPA and Council as a contact under the spill response strategy/procedures.*

12. Revised set of conditions

The matters raised earlier in this Supplementary Report includes commentary on revised and additional conditions that are recommended for the Panels consideration. The revised set of conditions, including the revised and additional conditions are highlighted in yellow in Appendix 2.

CONCLUSION

The Applicant has provided additional commentary responding to the identified 12 matters of the Record of Deferral. The additional information has clarified the matters raised by the Planning Panel having regard to the design of the marina and wave attenuator, potential impacts associated with the development and how the development would align with the existing approved Major Concept Approval (05_0032).

Council staff have considered this additional information and other issues including matters to safeguard the existing environment in the event of accidental contamination events and ensuring that suitable conditions are formulated in regard to the additional information provided.

This supplementary assessment report includes revised and additional draft conditions and are reflected in the draft consent included as Appendix 2. It is considered that the report suitably details and considers the identified 12 matters of the Record of Deferral.

RECOMMENDATION

That the revised draft conditions be approved as detailed in Appendix 2 of this Supplementary Council Assessment Report**.**