

The Chair  
Northern Beaches Planning Panel  
Northern Beaches Council  
PO Box 82  
Manly NSW 1655

20 December 2022

## **PEX2022/0001 – 10-12 Boondah Road, Warriewood.**

Dear Chair and Panel Members,

We have prepared this brief submission which we will address in our presentation to the Panel meeting of 21 December 2022.

It addresses the matters raised in the memo to the panel from staff dated 9 December 2022.

### **(A) Flood Evacuation and Safety**

Attached is a further response from Calibre (Attachment 1) consulting addressing the flood evacuation concerns.

The salient point to observe is the consideration of evacuation against the Flood Risk Management Manual (FRMM) and associated documents (DPIE February 2022).

Calibre has considered the flood risk and emergency evacuation requirements consistent with the flow chart for rezonings in the FRMM, which neither Council or the SES seems to have done so. Given this is the most contemporary manual provided by the State for the assessment of the management of flood risk this seems to be an error.

The Calibre assessment confirms:

- The flood evacuation route is available from the site that is up to the 1% AEP plus climate change event
- Shelter in Place is only an option if evacuation would expose residents to a greater risk. This mixed risk management strategy accords with the intent set by Emergency Management Australia
- Vehicle and pedestrian evacuation is practical before the evacuation route is flooded in a PMF event
- The preparation of an Emergency Management Plan and other documents such as a Flood Impact Risk Assessment (FIRA) could readily be imposed as a condition of Gateway Determination

## **(B) Flood Management**

As noted in the previous response to Memo 1 from Council staff the Calibre consulting memo of 14 October 2022 confirmed compliance with acceptable flood impacts to other properties in all scenarios (including the PMF) except in the 1%AEP event where a 25mm increase in water levels was modelled in a non-habitable area of the Warriewood Valley. The memo and original Water Management Report also identified a strategy that if implemented would be able to reduce this potential impact to water levels that would be suitable to avoid categorisation of impacts as being adverse impacts which was advised by Council flood engineers as being afflux less than 20mm.

There remains through the Gateway process the ability to ensure the afflux is less than a 20mm impact on the non-sensitive land within the Warriewood valley location.

Memo 2 from Council now confirms that clause 6.1 of the DCP may be compiled with by the proposal.

## **(C) Flood Planning**

Again, Clause 5.21 of the PLEP 2014 is a matter to be addressed when determining a development application (DA) and that is the time when a consent authority is required to be satisfied that the clause has been appropriately addressed.

Regardless the various reports from Calibre Consulting have demonstrated that there are strategies and approaches that can be adopted to:

- (a) Demonstrate that a development of the land will be compatible with the flood function and behaviour on the land and the Warriewood Wetlands, and
- (b) Demonstrate no adverse (not no) effects to flood behaviour in a way that results in detrimental increases in the potential flood affectation of other development or properties, and
- (c) Provide measures and strategies for the safe occupation and efficient evacuation of people that would not exceed the capacity of existing evacuation routes for the surrounding area in the event of a flood, and
- (d) Incorporate appropriate measures to manage risk to life in the event of a flood, and
- (e) Demonstrate that development can be undertaken in a manner that will not adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses or overland flow to the Warriewood Wetlands.

## **(D) Biodiversity Impacts**

The amendment to the Planning Proposal by email from Mr Maurici of 17 October 2022 and Travers letter dated 12 October 2022 clearly stated that the C2 Environmental Conservation zone boundary would be adjusted such that this proposed zone would include all of the mapped wetland on the Coastal Wetlands and Littoral Rainforest map. The wetland vegetation would be protected by the proposed C2 Environmental Conservation zoning.

Provided at Attachment 2 is a draft zoning map demonstrating that this outcome is readily achievable and only had to be requested as per the email from the Applicant dated 17 October 2022.

## **(E) Affordable Housing**

Council's policy is noted. The proponent maintains the position in its submission to offer to construct and have managed by a registered housing provider, four dwellings as affordable rental housing for a ten (10) year period. It is also noted that Council's policy provides no clear mechanism for delivery and is more a

statement of intent to develop relationships with housing providers and its legislative references are substantially out of date.

**(F) Height**

The response to memo 1 was instead of being considered a change offers an approach to respond to the concerns raised by Council. The memo from Council staff acknowledges that this issue may be adequately addressed in any case.

The suggested approach is precise in that it would be a mapping amendment to nominate a maximum RL to AHD for the land and could readily be pursued through the Gateway determination process.

**(G) Acquisition obligations**

Response noted.

**(H) Strategic and Site Specific merit**

The applicant maintains that the proposal does demonstrate strategic and site specific merit as the PP as amended has demonstrated:

- Opportunities to enhance and protect bushland and biodiversity
- Accommodation of Climate Change impacts
- Management of flood and bushfire hazards
- Management of water quality
- Contribution towards affordable housing
- Provision of additional housing supply in the right location that is well served by public transport and urban services

**Housing Delivery in the Northern Beaches**

The response to the concerns raised relating to housing delivery in response the response to Memo 1 remain valid. The exhibition of a new plan for Brookvale is in its infancy with no certainty of outcome or delivery of housing. The plans for Ingleside did not eventuate and at this early stage in the engagement there is no certainty of outcome for plans for the Brookvale area that can be relied upon to delay the subject PP request.

The letter to the CEO of 16 December 2021 advising that “any planning proposal for new housing development will be assessed against the Northern Beaches Council LHS, the requirements above and the advisory notes attached” remains appropriate and continues to be the direction from the Department of Planning and Environment. The applicant remains of the view that the PP has clearly demonstrated sufficient strategic and site specific merit to warrant progression for the proposal to Gateway Determination.

Should you require any further information to the above, please do not hesitate to contact me on (02) 9380 9911 or by email at sbarwick@sjb.com.au.

Yours Sincerely,



Scott Barwick  
Director  
Enclosures:

# Attachment 1 – Calibre Consulting memo

Our Ref: 21-000093

20 December 2022

NSW State Emergency Service

PO Box 6126

Wollongong NSW 2500

Attention: Peter Cinque

Dear Peter

**SES Response for Evacuation – Rezoning Development at 10-12 Boondah Road, Warriewood.**

## Introduction

Calibre is in receipt of a memo from Northern Beaches Council (Supplementary Memo No.2 – 09/12/22). This memo provides a response to a letter made by SJB Planning dated 23/11/22, regarding the rezoning application at 10 – 12 Boondah Road, Warriewood. The SES has previously made comment on this development in a response dated the 31/08/22.

Calibre provided a memo dated 16/09/22 in response to the SES's letter. This memo was submitted with the documents from SJB Planning for the 23/11/22. Northern Beaches Council in their Supplementary Memo No.2, report that Calibre's response was referred to the SES, and that no further comment was provided. Calibre is providing this letter addressed to the SES in invitation of a direct response to the matters raised for flood evacuation, and as a proposal to follow through with a Gateway Condition.

## Points of Consideration

### Flood Evacuation Intent and Constraints

Northern Beaches Council is quoted as saying in their memo (regarding the flood evacuation strategy);

*“Our reading of the SES’ preliminary advice is that the agency does not support future development (in this case new residential development enabled by rezoning) on flood prone land where early evacuation, private alarm systems and shelter in place strategies are necessary to manage flood risk...”*

*When assessing a flood risk Council considers the full range of flood events up to the PMF event. During this event, the roads will be cut off and evacuation will not be possible. As such, for events larger than 1% AEP + CC and up to the PMF event the proposal relies on Shelter in Place as the flood strategy to manage flood risk.”*

As stated in our memo dated 16/09/22, the flood evacuation route from the proposed development has been designed to provide safe access up to and including the 1% AEP with the effects of climate change (this is the equivalent of a minimum RL of 3.9 from the driveway access to the development). This will follow a rising grade along Boondah Road of

0.5% to its intersection with MacPherson Street. The grading will ensure no sag points along the evacuation route, providing clear access for any vehicles able to use the route. This will also ensure ponding will only build from the southern end of the road, where it will be within observation of anyone using the route. The evacuation route will also provide access in a PMF storm event, up to 210mins (3 hours and 15mins) from when a PMF storm event of a 360min rainfall duration begins.

Shelter-in-place then is provided only as an alternative for when evacuation would expose residents to greater risks than by remaining where they are. This is consistent with the intent set by Emergency Management Australia (EMA), who permit a mixed strategy such as this. The buildings proposed for this development will be designed to withstand flood impacts up to the PMF and have a habitable floor level above the maximum PMF water level. Northern Beaches DCP provides specific conditions to comply with for shelter-in-place under Item B3.11 (E1), which will be complied with for the proposed development.

The PMF water level determined in both the existing and developed scenarios for this area was determined as RL 5.27. It is not feasible to raise the road to RL 5.27, whilst maintaining suitable access to No. 14 – 18 and units which access Firetail Drive due to the sharp change in vertical levels. The peak of Boondah Road is at RL 5.65, at the intersection with MacPherson Street. It is also not feasible to provide a minimum road grading of 0.5% from a PMF road raising to this intersection, which is required for effective drainage in smaller and more frequent storm events. Calibre thereby argues that shelter in place must be an acceptable option for when evacuation is not possible for a PMF storm. A road level of RL 4.05 (150mm above the 1% AEP with climate change impacts) from the access driveway of this development will permit minimum road grading at this stage.

## Flooding Assessment

In such a rare storm event, land up to and including the intersection at Firetail Drive and Boondah Road will be inundated, including the existing residential housing at No.14 – 18 Boondah Road. It is presumed that such a development has an evacuation strategy in this place. Calibre seeks confirmation of any agreement between the SES and the owners of these lands, so that any such strategies may be adopted for this area.

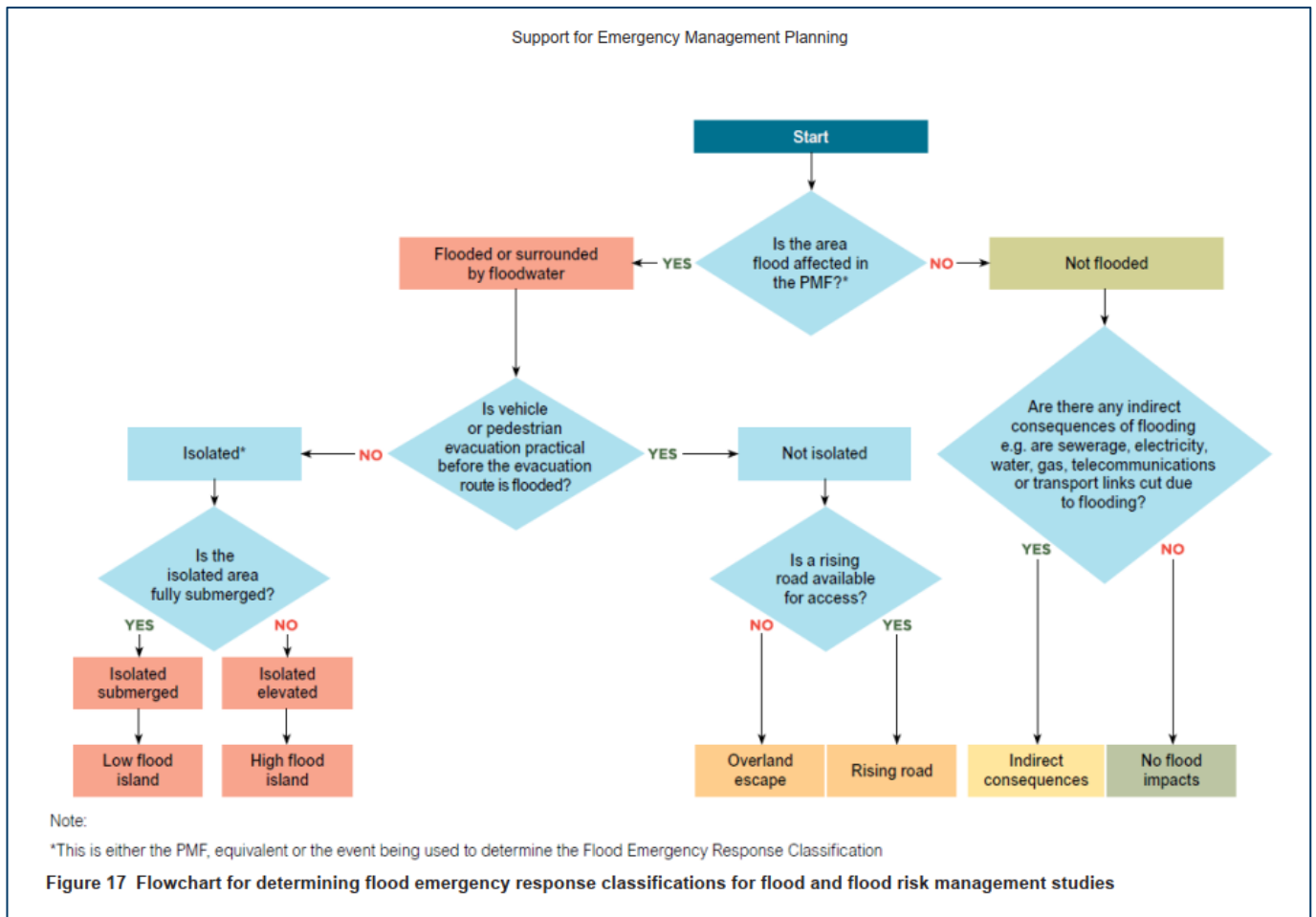
It is noted that the primary objective of the Flood Risk Management Manual (DPIE, Feb 2022) is:

- *“flood prone land is a valuable resource that should not be ‘sterilised’ by unnecessarily precluding its development*
- *if all development applications and proposals for rezoning of flood prone land are assessed according to rigid and prescriptive criteria, some appropriate proposals may be unreasonably disallowed or restricted, and equally, inappropriate proposals may be approved.”*

The ‘Support for Emergency Management Planning’ (EM01) manual goes on to state;

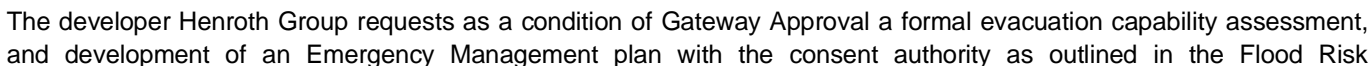
*“Detailed evacuation capability assessment that is fit for purpose requires significantly more information than that derived through the FRM process, including the specifics of a proposal such as proposed land uses, changes in topography, likely vulnerabilities of the development and occupants within the community, information on proposed site access and intersections and internal road layouts, other relevant infrastructure, mitigation works, availability of warning to the future community, etc. This would require a comprehensive assessment of evacuation capability through a flood impact and risk assessment (FIRA) (see FRM Guide LU01) undertaken on a strategic basis to support a proposal.”*

EM01 provides multiple flow charts to assess developments, including rezoning. Figure 17 from the document has been replicated below to show the flood emergency response classifications for flood studies.



In accordance with Figure 17, Calibre confirms that vehicle and pedestrian evacuation is practical before the evacuation route is flooded in the PMF (3 hours 15 minutes), and a rising road is available.

Figure 20 of the same document provides a flowchart for an assessment process for evacuation for proposed rezoning.





Management Guide EM01 (February 2022). As outlined above, this assessment is best carried out via a Flood Impact and Risk Assessment (FIRA) as specified in the FRM Guide LU01. Further modelling and examination of the proposed development and flood management strategy can be provided through this process.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Troy Eyles', with a stylized flourish at the end.

**Troy Eyles**  
Water Resources Lead

# Attachment 2 – Draft Zoning map overlay

