

Development Application
967 Barrenjoey Rd
30 April 2016

Prepared by the applicant.

Estaurine Hazard Risk Assessment Report

The subject property is potentially subject to Estaurine Flood Risk Hazard as indicated on the section 149 Certificate.

Summary

It is proposed that in relation to the subject property-

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- (i) practically there is almost no potential hazards to people and property resulting from tide, storm and or wave inundation., and
- (ii) the proposed development does not in any way increase whatever minor risk that may exist for the property.
- (iii) the dwelling and pool proposed for the subject property within this application will be located at much higher RL s above the zone theoretically at risk as calculated by independent expert benchmarks.
- (iv) the theoretically exposed hazard zone within the subject property comprises a minor area only
- (v) further analysis regarding compliance of Pittwater DCPs regarding estaurine hazard mitigation is therefore not applicable.

Detailed Analysis

Reference is made to a May 2015 report by Cardno engineers to Pittwater Council titled “**Pittwater Estuary –Mapping of Sea Level Rise Impacts**”

LJ2882/R2658V8-Final Report which reviewed the policies being adopted by council in relation to this issue.

Section 4.3 Partially Affected Properties and Foreshore Reserves on page 15 of that report is extracted below-

“Due to the relatively steep topography around the foreshore of Pittwater, there are a large number of properties where the estuarine risk mapping only impacts the low lying portion of the property and the dwelling is located outside the risk extent. Whilst there would be no estuarine risk associated with the dwelling, the notification would be still be present on the S149 Certificate. This would ensure that any works proposed on the affected portion of the property (eg boat sheds , jetties or other structures) would consider the impacts of estuarine risks.

A number of properties are fronted by foreshore reserves or have domestic front tenancy arrangements over Crown Land parcels. Where the estuarine risk mapping is contained within these foreshore land parcels, no notification will be present for the private property. Where estuarine risk mapping includes even a small area of the private property , the relevant S149 (2) notation would be present.” End .

The subject property is in this abovementioned category , which-

- (i) adjoins leasehold Crown Lands and has jetty and boatshed structures (see site survey elsewhere in this proposal)
- (ii) is very steep , especially toward the waterfront as it rises up from the leasehold parcel . (see site survey with RL measurements and various architectural sectional plans elsewhere in this proposal)

Note that this development application does not in any way pertain to any proposed works in this waterfront leased area.

Reference is made to **Appendix C** of the above mentioned May 15 report by Cardno where calculations are provided for 2010,2050 and 2100 planning periods (accounting for expected rising seal levels over time)to derive the Estaurine Planning Level (EPL) to apply to properties in localized shoreline areas around Pittwater.

The EPL is theoretical measurement above mAHD (mean sea level) calculated by Cardno used to identify zones on a particular property which should be subject to Pittwater DCP controls to mitigate estuarine hazard.

Referring to the matrix in Appendix C in that report-
The subject property is in Foreshore Location 4 (Careel Bay North,) with a Foreshore Type 1 (Rocky Shoreline 1 in 5 slope) indicates a maximum EPL between 2.38 metres above mAHD (year 2010) and 3.09 metres above mAHD (projected at year 2100)

The site survey for the subject property shows that the the Reduced Level (RL) of the waterfront leased Crown Lands area boatshed floor and deck is approximately 2.5 meters above mAHD at the lowest point along the boundary adjoining the subject property.

The site survey shows the subject site slopes steeply uphill to the east, so clearly the "hazard corridor" area below the EPL of RL 3.09 calculated by Cardno which could be subject to estuarine hazard is very narrow (less than 1.5m wide), and no structures or dwellings are proposed in the area in this application.

In conclusion, even though the 149 certificate notes the subject property is affected by estuarine risk, the above analysis demonstrates that only a very small proportion of the property is theoretically affected.

As new dwellings and structures in this affected area are not proposed by this application, compliance with Pittwater DCPs in relation to estuarine hazard mitigation in relation to the subject property and this Development Application are not applicable.