Natural Environment Referral Response - Flood

Application Number:	DA2019/0819

To:	Catriona Shirley
Land to be developed (Address):	Lot 330 DP 16719 , 8 Lido Avenue NORTH NARRABEEN NSW 2101

Reasons for referral

This application seeks consent for the following:

- All Development Applications on land below the 1 in100 year flood level;
- All Development Applications located on land below the Probable Maximum Flood levels.

And as such, Council's Natural Environment Unit officers are required to consider the likely impacts on drainage regimes.

Officer comments

The proposed DA generally complies with the flood controls in the LEP and DCP.

The site has a **H5** PMF Flood Life Hazard Category, is in a high risk precinct and in a 1% AEP Flood Storage area.

An upper floor level is proposed over the existing ground floor footprint. Work to the ground floor includes a new kitchen, new living/dining, new en suite, new laundry etc. A new in ground pool and outdoor kitchen is also proposed.

The existing ground floor level is RL 2.470m AHD and during a 1% AEP event the dwelling will have 500mm of over floor flooding. The FPL at the site is 3.53m AHD.

Council's environmental officers need to be satisfied that the economic and social costs, which arise from damage to property from flooding, is not exacerbated by the proposed development. All building materials used or located below 3.53m AHD is to be flood compatable.

Referral Body Recommendation

Recommended for approval, subject to conditions

Recommended Natural Environment Conditions:

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION CERTIFICATE

Flooding

In order to protect property and occupants from flood risk the following is required:

Building Components and Structural Soundness – C1

All new development shall be designed and constructed as flood compatible buildings in accordance with Reducing Vulnerability of Buildings to Flood Damage: Guidance on Building in Flood Prone Areas, Hawkesbury-Nepean Floodplain Management Steering Committee (2006).

Building Components and Structural Soundness – C2

All new development must be designed and constructed to ensure structural integrity up to the Probable Maximum Flood, taking into account the forces of floodwater, wave action, flowing water with debris, buoyancy and immersion. Structural certification shall be provided confirming the above.

Building Components and Structural Soundness – C3

All new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections must be waterproofed and/or located above the Flood Planning Level. All existing electrical equipment and power points located below the Flood Planning Level must have residual current devices installed that cut electricity supply during flood events.

Storage of Goods – D1

Hazardous or potentially polluting materials shall not be stored below the Flood Planning Level unless adequately protected from floodwaters in accordance with industry standards.

Flood Emergency Response – E2

Appropriate access to the shelter in place refuge should be available from all areas of the new development. Structural certification shall be provided confirming that the shelter in place refuge has been designed and constructed to ensure structural integrity up to the Probable Maximum Flood.

Car parking – G4

Vehicle barriers or restraints are to be installed to a minimum height of the Flood Planning Level.

Perimeter walls/louvres installed as vehicle barriers or restraints are to be designed to allow flood waters to pass through and are to have a minimum of 50% open area below the 1% flood level.

Car parking – G6

Car ports are to be designed to allow flood waters to pass through and are to have a minimum of 50% open area below the 1% AEP flood level.

Fencing – H1

Fencing (including pool fencing, boundary fencing, balcony balustrades and accessway balustrades) shall be open for passage of flood waters - All new fencing on the property must be design with a minimum of 50% open area between the 1% AEP flood level and natural ground level, to allow flood waters to pass through.

Recommendations

The development must comply with all recommendations outlined in:

- The Flood Management Report by Pittwater Data Services Pty Ltd dated 15/07/2019.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To reduce the impact of flooding and flood liability on owners and occupiers of flood-prone property and reduce public and private losses in accordance with Council and NSW Government policy.

CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE OCCUPATION CERTIFICATE

Certification of the structural stability of the building

A suitably qualified structural engineer is to certify the structural stability of the shelter in place considering lateral flood flow, buoyancy, suction effects, and debris load impact of the PMF design flood depths and velocities. Details demonstrating compliance are to be submitted to the Certifying Authority for approval.

Reason - To protect people and reduce public and private losses in accordance with Council and NSW Government policy.

Flood Management Report Compliance
A suitably qualified engineer is to demonstrate compliance with the recommendations in the Flood Management Report including locating the Action Plan in Appendix B of the Flood Management Report in a visible location.

Reason: To reduce the impact of flooding and flood liability on owners and occupiers of flood-prone property and reduce public and private losses in accordance with Council and NSW Government policy.