

Natural Environment Referral Response - Flood

Application Number:	DA2022/0778
Date:	21/07/2022
To:	Claire Ryan
Land to be developed (Address):	Lot 331 DP 16719 , 6 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 Probable Maximum Flood (PMF) Level at the site is 4.9m AHD. As per clause E1 of section B3.11 of DCP, new development must provide a shelter-in-place (SIP) refuge above the PMF level where there is no flood free evacuation route.

The amended plans shows that SIP will be provided in the roof space (above 6.28m AHD) and accessed via a pulldown ladder in the garage.

The SIP is above the PMF level and meets clause E1.

An opening skylight is not required.

The shelter in place area will need to be structurally sound to the PMF.

Previous Comments

The development proposes to construct a new single storey building with garage and a pool.

The proposed habitable and garage finished floor level of 3.53mAHD and 3.03mAHD are at the FPL and 1% AEP flood level respectively. This is compliant with Council's DCP requirement.

The Probable Maximum Flood (PMF) Level at the site is 4.9m AHD. The site is in a H5 hazard area and there is no flood-free evacuation route in the PMF flood event. As per clause E1 of section B3.11 of DCP, new development must provide a shelter-in-place refuge above the PMF level where there is no flood-free evacuation route at the peak flood level.

Accordingly, a safe shelter in place refuge, for example an attic area, must be provided. Amended plans and amended Flood Impact Assessment showing this are required to be provided.

The proposal is therefore supported.

Note: Should you have any concerns with the referral comments above, please discuss these with the Responsible Officer.

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:

Flood Effects Caused by Development – A2

There is to be no filling of the land or any other reduction of the available flood storage which results in a net loss of storage below the 1% AEP flood level.

Building Components and Structural Soundness – B1

All new development below the Flood Planning Level (3.53m AHD) 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 – B2

All new development must be designed to ensure structural integrity up to the Flood Planning Level (3.53m AHD) and the shelter in place must be designed to ensure structural integrity up to the Probable Maximum Flood (4.9m AHD), taking into account the forces of floodwater, wave action, flowing water with debris, buoyancy and immersion.

Building Components and Structural Soundness – B3

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.

Fencing – F1

New fencing (including pool fencing, boundary fencing, balcony balustrades and accessway balustrades) shall be open to allow for the unimpeded movement of flood waters. It must be designed with a minimum of 50% open area from the natural ground level up to the 1% AEP flood level. Openings should be a minimum of 75mm x 75mm.

Storage of Goods – G1

Storage areas for hazardous or potentially polluting materials shall not be located below the Flood Planning Level unless adequately protected from floodwaters in accordance with industry standards.

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 (B2)

A suitably qualified structural engineer is to certify the structural stability of the shelter in place considering lateral flood flow, buoyancy, suction effects, wave action and debris load impact of the Probable Maximum Flood (4.9 m AHD) design flood depths and velocities.

Details demonstrating compliance are to be submitted to the Certifying Authority for approval.

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.