

## Natural Environment Referral Response - Flood

Application Number:	DA2021/1060
Date:	02/08/2021
To:	Gareth David
Land to be developed (Address):	Lot 52 DP 16685 , 18 Grenfell 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 existing living room is proposed to be extended by 15m<sup>2</sup>. The pool is proposed with coping at ground level. The alfresco area is proposed to be constructed on piers. Open carport proposed. The existing garage RL 2.2m AHD is proposed to be refurbished using flood compatible materials. Porch at 2.2m AHD. The existing floor level is 2.49m AHD which is below the FPL of 3.54m AHD. The proposed second storey is above the PMF providing shelter in place.

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 of 3.04m AHD.

##### Building Components and Structural Soundness – B1

All new development below the Flood Planning Level of 3.54m 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 Probable Maximum Flood (4.95m 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. All existing electrical equipment and power points located below the Flood Planning Level must have residual current devices installed to cut electricity supply during flood events.

#### Floor Levels – C3

The underfloor area of the new extension below the 1% AEP flood level is to be designed to allow clear passage of floodwaters. At least 50% of the perimeter of the underfloor area must be of an open design from the natural ground level up to the 1% AEP flood level.

#### Car parking – D3

Car ports are to be designed to allow flood waters to pass through and are to have a minimum of 50% of the perimeter open.

#### 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.

#### Recommendations

The development must comply with the recommendations outlined in the Flood Management Report for 18 Grenfell Avenue, North Narrabeen prepared by Pittwater Data Services dated 3/6/21.

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 (PMF) 4.95m 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.

### **Certification of Services (B3)**

Certification that new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections are located above the FPL and waterproofing of electrical equipment and installation of residual current devices below the Flood Planning Level.

A suitably qualified electrical engineer or contractor is to certify that all new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections are located above the Flood Planning Level and any existing electrical devices, wiring and the like located below the FPL are protected from water egress or have residual current devices installed to cut electricity supply during flood events.

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.