

Natural Environment Referral Response - Flood

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| Application Number: | DA2022/0564 |
| Date: | 10/05/2022 |
| To: | Olivia Ramage |
| Land to be developed (Address): | Lot 24 DP 242678 , 39 Jeanette Avenue MONA VALE NSW 2103 |

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.

A new house is proposed outside the 1% AEP flood extent. The max PMF depth at the site is 0.38m.

The maximum Flood Planning Level for the site is 18.65 m AHD and the proposed ground floor is 18.71 m AHD.

The second storey (RL 21.76m AHD) will provide shelter in place above the PMF level of 19.14m AHD.

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:

Building Components and Structural Soundness – B1

All new development below the Flood Planning Level of 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 18.65 m AHD, taking into account the forces of floodwater, wave action, flowing water with debris, buoyancy and immersion. The shelter in place area (1m² per person) must be designed to ensure structural integrity up to the PMF level of 19.14m AHD.

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 – C1

New floor levels within the development shall be set at or above the Flood Planning Level of 18.65 m AHD.

Flood Emergency Response – E1

The shelter-in-place refuge must:

- a) Have a floor level at or above the Probable Maximum Flood level; and
- b) Have a floor space that provides at least 2m² per person where the flood duration is long (6 or more hours) in the Probable Maximum Flood event, or 1m² per person for less than 6 hours;
- c) Is intrinsically accessible to all people on the site, plainly evident, and self-directing, with sufficient capacity of access routes for all occupants without reliance on an elevator.

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 (PMF) 19.14m 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.