

Natural Environment Referral Response - Flood

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| Application Number: | DA2024/0011 |
| Proposed Development: | Alterations and additions to a dwelling house |
| Date: | 19/01/2024 |
| To: | Olivia Ramage |
| Land to be developed (Address): | Lot 7 DP 347397 , 138 Lagoon Street 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 proposal is for alterations and additions to the existing property. The works include an extension to the lower ground floor garage, the addition of a carport, a first floor addition and interior and exterior alterations.

The property its within the Medium Flood Risk Precinct and has the following flood characteristics:

- 1% AEP Flood Level: 3.02m AHD
- Flood Planning Level (FPL): 3.52m AHD
- 1% AEP Flood Hydraulic Category: Flood Fringe & Flood Storage
- Probable Maximum Flood (PMF) Level: 4.79m AHD
- Max Flood Life Hazard Category: H5

Subject to the following conditions the following conditions, the proposal generally complies with the Section E.11 of the Warringah DCP (2011) and Clause 5.21 of the Warringah LEP (2011).

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**

Flood effects caused by development

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 3.02m AHD.

Details demonstrating compliance are to be submitted to the Principal Certifier 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.

Building components and structural soundness

B1 - All new development below the Flood Planning Level of 3.52m AHD shall be designed and constructed from flood compatible materials.

B2 -All new development is to be designed to ensure structural integrity up to the Flood Planning Level of 3.52m AHD. The forces of floodwater, debris load, wave action, buoyancy and immersion must all be considered.

B3 - All new and existing electrical equipment, power points, wiring and connections must be located above the Flood Planning Level of 3.52m AHD, protected from flood water or have residual current devices installed to cut electricity supply during flood events.

Details demonstrating compliance are to be submitted to the Principal Certifier 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.

Floor levels

C1 - New floor levels within the development, except the garage extension, shall be set at or above the Flood Planning Level of 3.52m AHD.

Details demonstrating compliance are to be submitted to the Principal Certifier 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.

Car parking

D3 -The carport is to have at least two sides completely open and be free draining.

D4 - Vehicle barriers or restraints such as bollards or railing are to be installed so as to prevent vehicle movement from the car parking area. Protection must be provided for all events up to the 1% AEP flood event.

Details demonstrating compliance are to be submitted to the Principal Certifier 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.

Emergency response**E1 - Emergency Response**

In accordance with the Flood Risk Management Report prepared by Northern Beaches Consulting Engineers. "Flood Free Evacuation is possible for this site and in the event of a flood, occupants are to exist the site via Malcolm Street to the intersection between Malcom Street and Lagoon Street (RL 5.85m AHD). Occupants are to begin to evacuate to Lagoon Street and head south bound once the Lagoon level adjacent to the property begins to inundate the existing lower ground floor or as ordered by the SES.

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.

Fencing

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 along any straight length, from the natural ground level up to the 1% AEP flood level. Openings shall be a minimum of 75mm x 75mm.

Details demonstrating compliance are to be submitted to the Principal Certifier 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.

**CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE
OCCUPATION CERTIFICATE****Certification of Works as Executed**

A suitably qualified engineer and/or registered surveyor is to certify that the completed works have been constructed in accordance with this consent and the approved plans with respect to the following:

1. Floor levels for internal ground floors are set at or above the required level
2. There has been no filling on the land other than what has been approved
3. Car ports have at least two sides completely open
4. Vehicle barriers or restraints have been installed.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Occupation 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.

Building Components and Structural Soundness

B2 - A suitably qualified structural engineer is to certify the new development up to the Flood Planning Level of 3.52m AHD. The depth, velocity, debris load, wave action, buoyancy and immersion must all be considered.

B3 - A suitably qualified electrician or contractor is to certify that all new and existing electrical equipment, power points, wiring and connections are located above the Flood Planning Level of 3.52m AHD, are protected from flood water or have residual current devices installed to cut electricity supply

during flood events.

Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Occupation 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.