

Natural Environment Referral Response - Flood

Application Number:	DA2021/1151
Date:	02/08/2021
To:	Gareth David
Land to be developed (Address):	Lot 25 DP 28354 , 8 Darius 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 application is for major alterations and additions to a property at 8 Darius Avenue, North Narrabeen. The property is identified as severely flood prone with 1% AEP flood levels anticipated to exceed current floor levels by up to 50cm. Ground floor additions are proposed. A covered deck at the current floor level is proposed with an open subfloor to ensure no net loss of flood storage. Further enclosed ground floor additions are proposed at the Flood Planning Level, which similarly have an open sub-floor to not reduce the available flood storage volume. A in-ground swimming pool with the coping flush with natural ground is included in the application. As a result of these design considerations, the development complies with Council's requirements for developing flood prone land.

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 3.02m AHD

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 Probable Maximum Flood level of 4.84m 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 of 3.52m AHD. 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 ground floor enclosed additions development shall be set at or above the Flood Planning Level of 3.52m AHD.

Floor Levels – C3

The underfloor area of the dwelling 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.

Car parking – D4

Vehicle barriers or restraints are to be installed so as to prevent vehicles leaving the site. Protection must be provided for all events up to the 1% AEP flood event.

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 of 3.02m AHD. 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 new development considering lateral flood flow, buoyancy, suction effects, wave action and debris load impact of the Probable Maximum Flood (PMF) level of 4.84m 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.

Undercroft Area below the 1% AEP Flood Level – (C3)

A restriction shall be imposed on the title of the land, pursuant to S88B of the Conveyancing Act confirming that the undercroft area does not impede flows and is not to be enclosed, with the perimeter having a minimum of 50% open area from the natural ground level up to the 1% AEP flood level.

The terms of such a restriction are to be prepared to Council's standard requirements at the applicant's expense and endorsed by Council prior to lodgement with NSW Land Registry Services. Northern Beaches Council shall be nominated as the party to release, vary or modify such restriction.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority 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.