

Natural Environment Referral Response - Flood

Application Number:	DA2023/1068
Proposed Development:	Demolition works and construction of self-storage units including a take away food and drink premises
Date:	15/09/2023
To:	Dean Pattalis
Land to be developed (Address):	Lot 3 DP 617781 , 69 Bassett Street 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 proposal seeks consent for the demolition of existing structures and construction of a three storey storage facility with an incorporated ground floor business premises.

The property is partially affected by the 1% AEP Flood extent, PMF Flood extent, Flood Storage Area and a H4 flood life hazard category. Furthermore, the climate change flood scenario has been considered in this assessment because development proposes to increase commercial floor space.

As detailed in the Flood Management Report prepared by Northern Beaches Consulting Engineers (14 April 2023) issue A, a maximum 1% AEP flood level of 2.96m AHD, a 300mm freeboard and a FPL of 3.26m AHD have been adopted and justified based on a change to localised flood behavior. The change to flood behaviour is a direct result of the proposed suspended ground floor structure which is expected to remove the trap point and ponding on the western side of the property and allow for the free passage of floodwaters below the structure towards Tengah Crescent beyond the eastern boundary.

The proposed ground floor level is 3.46m AHD, above the adopted FPL of 3.26m AHD.

Subject to the following conditions, council is satisfied that the proposal is compliant with Section B3.11 and B3.12 of the Pittwater 21 DCP 2021 and Clause 5.21(2)(a-e) of the Pittwater LEP 2014, with consideration of Clause 5.21(3)(a-d) of the Pittwater LEP 2014

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 2.96m AHD, as detailed in the Flood Management Report prepared by Northern Beaches Consulting Engineers (14 April 2023) issue A.

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 adopted Flood Planning Level of 3.26m AHD shall be designed and constructed from flood compatible materials.

B2 - The shelter in place refuge must be designed to ensure structural integrity up to the Probable Maximum Flood level of 3.72m AHD, with the remainder of the new development designed to ensure structural integrity up to the Flood Planning Level of 3.26m 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 3.26m 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 shall be set at or above the Flood Planning Level of 3.26m AHD.

C3 - As detailed in the Flood Risk Management Report prepared by Northern Beaches Consulting Engineer (Apr 2023) Issue A and illustrated in the plans submitted by MHDP Architects (Dec 2022) Issue A. The underfloor area of the dwelling below the 1% AEP flood level is to be designed to allow clear passage of floodwaters.

Where practical, the perimeter of the underfloor area on the Eastern and Western side of the development must be of open design and free from obstruction from the natural ground level up to the 1% AEP flood level to provide a clear flow path below the structure towards Tengah Crescent beyond the eastern boundary. The proposed rainwater tanks and supporting structure are to be raised above the 1% AEP flood level or relocated as to allow clear passage of floodwaters.

In addition, as illustrated on the submitted plans (Dec 2022) a perimeter subfloor wall designed to withstand flooding is to be constructed along the eastern side of the dwelling up to the 1% AEP flood level to ensure there are no adverse flood impacts on downstream properties.

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 - The shelter-in-place refuge must:

- a) Have a floor level at or above the Probable Maximum Flood level of 3.72m AHD; and
- b) Have a floor space that provides at least 1m² per person; and
- c) Be 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 electrical means.

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.

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.

Storage of Goods

Storage areas for hazardous or potentially polluting materials shall not be located below the Flood Planning Level of 3.26m AHD unless adequately protected from floodwaters in accordance with industry standards.

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 ground floor and shelter in place refuge are set at or above the required level
2. There has been no filling on the land other than what has been approved
3. Openings are provided under floor areas and there are not obstructions where required for the free passage of flood waters
4. Openings are provided in fencing where required for the free passage of flood waters

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 structural integrity of the shelter in place up to the Probable Maximum Flood level of 3.72m AHD, and the remainder of the new development up to the Flood Planning Level of 2.96m 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 3.26m 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.

ON-GOING CONDITIONS THAT MUST BE COMPLIED WITH AT ALL TIMES**Flood Management**Flood Effects Caused by Development (A2)

There shall be no filling of the land below the 1% AEP flood level of 2.96m AHD, blocking of areas required by DA consent to be left open, or any other obstruction of flow paths through the property.

Storage of Goods (G1)

Hazardous or potentially polluting materials shall not be stored below the Flood Planning Level of 3.26m AHD unless adequately protected from floodwaters in accordance with industry standards.

Flood Emergency Response (E1)

Appropriate access to the shelter in place refuge is to be maintained at all times from all areas within the development and it must contain as a minimum: sufficient clean water for all occupants; portable

radio with spare batteries; torch with spare batteries; and a first aid kit.

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.