

Natural Environment Referral Response - Flood

Application Number:	DA2024/0172
Proposed Development:	Use of Premises as general industry and associated alterations and additions
Date:	01/03/2024
To:	Reeve Cocks
Land to be developed (Address):	Lot 2 DP 600059 , 75 Old Pittwater Road BROOKVALE NSW 2100

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 the construction of a new laboratory and the relocation of a demountable building.

75 Old Pittwater Road is a large site with varying flood characteristics through out. The Flood Comments from the Pre-Lodgment Meeting PLM2023/0125 narrowed down the flood characteristics within the site of the proposed development. The identified characteristics are as follows:

- Flood Planning Level: 13.50m AHD
- 1% AEP Flood Level: 13.00m AHD
- 1% AEP Hydraulic Category: Flood Fringe
- Probable Maximum Flood (PMF) Level: 14.66m AHD
- PMF Life Hazard Category: H5

According to the architectural plans, both the proposed laboratory and relocated demountable building will be placed on top of screened supports with floor levels above the PMF Level. This ensure the structures do not obstruct flood conveyance and are suitable as shelter in place rooms.

Subject to the following conditions, the proposal complies with Section E11 of the Warringah DCP and Clause 5.21 of the Warringah LEP.

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

Building components and structural soundness

B1 - All new development below the Flood Planning Level of 13.50m AHD shall be designed and constructed from flood compatible materials.

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 14.66m AHD, and the remainder of the new development up to the Flood Planning Level of 13.50m AHD. The depth, velocity, 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 13.50m 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 13.50m AHD.

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.

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 14.66m 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.

Storage of Goods

Storage areas for hazardous or potentially polluting materials shall not be located below the Flood Planning Level of 13.50m 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, 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 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 14.66m AHD, and the remainder of the new development up to the Flood Planning Level of 13.50m 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 13.50m 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 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.