

Natural Environment Referral Response - Flood

Application Number:	DA2023/0038
Proposed Development:	Use of an existing building as a yoga studio and associated alterations and additions
Date:	18/05/2023
To:	Kye Miles
Land to be developed (Address):	Lot 1 DP 502152 , 102 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

Alterations and additions are proposed including a new deck, bifold doors, access ramp and internal reconfiguration.

The property is flood affected, with High and Medium Flood Risk Precinct at the south east corner of the site.

Relevant flood information is as follows:

1% AEP level: 14.84m AHD

Flood Planning Level (FPL): 15.34m AHD

Probable Maximum Flood (PMF) level: 15.44m AHD

Hydraulic Category: Floodway and Flood Storage

Flood Life Hazard Category: Up to H6

Deck level: 14.21m AHD

Ground level below deck: approximately 13.2m AHD to 14.2m AHD

Flood documentation related to the application includes the following:

Flood Impact Assessment Report - C&M Consulting Engineers (May 2022)

Referral comments - Council (04.05.2023)

Flood Impact Assessment Report - C&M Consulting Engineers (June 2022)

Referral comments - Council (07.03.2023)

Revised Flood Impact Assessment Report - C&M Consulting Engineers (March 2022)

The floor level of the existing building is 14.21m AHD, which is below the 1% AEP level of 14.84m AHD. The alterations and additions are permitted for a change of use provided that the building structure is maintained, ie that the floor, roof and external walls are not replaced.

Subject to conditions the development is compliant with Council's flood related development controls.

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 14.84m AHD.

Building Components and Structural Soundness – B1

All new development below the Flood Planning Level of 15.44m AHD 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 of 15.44m 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 15.44m 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.

Flood Emergency Response – E1

The shelter-in-place refuge must:

- a) Have a floor level at or above the Probable Maximum Flood level of 15.44m AHD; and
- b) Have a floor space that provides at least 1m² / 2m² (delete one) per person; and
- c) Be intrinsically accessible to all people on the site, plainly evident, and self-directing, with sufficient access routes for all occupants without reliance on electrical means.

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 of 15.44m AHD unless adequately protected from floodwaters in accordance with industry standards.

Details demonstrating compliance are to be submitted to the Certifier 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) design flood depths and velocities.

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.

Certification of Services (B3)

Certification that new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections are located above the FPL and waterproofing of electrical equipment and installation of residual current devices below the Flood Planning Level (B3)

A suitably qualified electrical engineer or contractor is to certify that all new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections are located above the Flood Planning Level and any existing electrical devices, wiring and the like located below the FPL are protected from water egress 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.

ON-GOING CONDITIONS THAT MUST BE COMPLIED WITH AT ALL TIMES

Flood Management

Storage of Goods (G1)

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

Flood Effects Caused by Development (A2)

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

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.