

Natural Environment Referral Response - Flood

Application Number:	DA2023/1790
Proposed Development:	Alterations and additions to a dwelling house including an outbuilding
Date:	21/12/2023
To:	Brittany Harrison
Land to be developed (Address):	Lot 3 DP 10000 , 3 Ross Smith Parade GREAT MACKEREL BEACH NSW 2108 Lot B DP 440802 , 3 Ross Smith Parade GREAT MACKEREL BEACH NSW 2108

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 residential dwelling. The works include minor cosmetic alterations, extension to the existing powder room and the addition of a new hallway and new gym/multipurpose living structure.

All the proposed development is within the Medium Risk Flood Planning Precinct. The development site has the following flood characteristics:

- 1% AEP Flood Level: 2.35m AHD
- 1% AEP Hydraulic Category: Flood Fringe - Flood Storage
- Flood Planning Level (FPL): 2.85m AHD
- Probable Maximum Flood (PMF) Level: 2.97m AHD
- PMF Life Hazard Category: H3 - H5

Subject to the following conditions, council is satisfied that the proposal is generally 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 2.35m AHD. The flood storage compensatory works are to be completed in accordance with the Flood Risk Management Report prepared by Northern Beaches Consulting Engineers, Issue A, (Dated 8/11/2023).

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 2.85m 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 2.97m AHD, with the remainder of the new development designed to ensure structural integrity up to the Flood Planning Level of 2.97m 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 2.85m 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 new gym/multipurpose studio shall be set at or above the Flood Planning Level of 2.85m AHD.

C3 - The underfloor area of the dwelling and new detached structure 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.

C4 - The one-off addition to the powder room below the Flood Planning Level of less than 30 square metres (in total, including walls) is considered acceptable because:

- (a) it is an extension to an existing room; and
 - (b) the Flood Planning Level is incompatible with the floor levels of the existing room; and
 - (c) out of the 30 square metres, not more than 10 square metres is below the 1% AEP flood level.
- This provision has previously not been utilised since the making of this Plan. The structure must be floodproofed to the Flood Planning 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 2.97m AHD; and
- b) Have a floor space that provides at least 2m² 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.

E2 - The shelter-in-place refuge must contain emergency power and a practical means of medical evacuation.

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 2.85m 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 and garage are set at or above the required level
2. There has been no filling on the land other than what has been approved and flood storage has been made available in accordance with the submitted Flood Risk Management Report.
3. Openings are provided under floor areas 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 2.97m AHD, and the remainder of the new development up to the Flood Planning Level of 2.85m 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 2.85m 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 2.35m 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 2.85m 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.