Natural Environment Referral Response - Flood

Application Number:	DA2023/1708
Proposed Development:	Demolition works and construction of a Recreation Facility (indoor) with signage
Date:	20/05/2024
To:	Gareth David
Land to be developed (Address):	Lot 2743 DP 752038 , 431 Pittwater Road NORTH MANLY 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 demolition of the existing site structures and the construction of a purpose-built gymnastics and multisport facility with associated carpark and landscaping. A hydraulic bin lift has been proposed to access the waste room in the report prepared by Boston Blyth Fleming Town Planning dated 7 May 2024.

The development is affected by the identified Medium and High Risk Flood Precincts. The site has the following flood planning characteristics:

- 1% AEP Flood Level: 3.21m AHD
- 1% AEP Hydraulic Category: Fringe, Storage & Floodway
- Flood Planning Level: 3.71m AHD
- Probable Maximum Flood (PMF) Level: 5.70m AHD
- PMF Life Hazard Category: H5

Subject to the following conditions, council is generally satisfied that the proposal is compliant with Section 5.4.3 Flood Prone Land from the Manly DCP 2013 and Clause 5.21 of the Manly LEP 2013.

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 3.71m AHD.

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 3.71m 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 5.7m AHD, with the remainder of the new development (including the proposed hydraulic lift) to be designed to ensure structural integrity up to the Flood Planning Level of 3.71 m 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 3.71m AHD, protected from flood water or have residual current devices installed to cut electricity supply during flood events.

B4 - The proposed hydraulic bin lift proposed to access the waste room is to be designed and constructed from flood compatible materials. All electrical and hydraulic equipment, wiring and connections associated with the bin lift are to be protected from flood waters up to the FPL.

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 3.71m AHD.

C3 - The underfloor area of the building 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.

Car parking

D1 - Open carpark areas and carports shall not be located within a floodway.

D2- The lowest floor level of open carparks shall be constructed no lower than the natural ground levels, unless it can be shown that the carpark is free draining with a grade greater than 1%.

D4 - Vehicle barriers or restraints such as bollards or railing are to be installed so as to prevent vehicle movement from the car parking area. Protection must be provided for all events up to the 1% AEP flood event.

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 5.7m 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.

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 3.71m 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
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
5. Vehicle barriers or restraints have been installed.

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 5.70m AHD, and the remainder of the new development (including hydraulic lift) up to the Flood Planning Level of 3.71 m 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 3.71m AHD, are protected from flood water or have residual current devices installed to cut electricity supply during flood events.

B4 - The manufacturer of the proposed hydraulic bin lift is to certify that is has been designed and constructed to be protected from flood waters up to the flood planning level of 3.71m AHD.

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.