

## Natural Environment Referral Response - Flood

<b>Application Number:</b>	DA2024/1091
<b>Proposed Development:</b>	Demolition works and construction of a mixed use development with basement parking comprising of retail uses and a childcare centre, including signage
<b>Date:</b>	01/07/2025
<b>To:</b>	Claire Ryan
<b>Land to be developed (Address):</b>	<p>Lot 5 S/P 32656 , 5 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot 5 S/P 32656 , 5 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot B DP 385973 , 3 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot 3 S/P 32656 , 3 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot 3 S/P 32656 , 3 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot 7 S/P 32656 , 7 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot 7 S/P 32656 , 7 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot 1 S/P 32656 , 1 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot 1 S/P 32656 , 1 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot 4 S/P 32656 , 4 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot 4 S/P 32656 , 4 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot 6 S/P 32656 , 6 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot 6 S/P 32656 , 6 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot 2 S/P 32656 , 2 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot 2 S/P 32656 , 2 / 1 Careel Head Road AVALON BEACH NSW 2107</p> <p>Lot CP SP 32656 , 1 Careel Head Road AVALON BEACH NSW 2107</p>

### 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**

This proposal is for the demolition of an existing shopping centre, construction of basement car parking, ground level retail and first floor childcare facility. The proposal must satisfy the controls for both Vulnerable & Critical Use and Business & Industrial Use. This proposal has been assessed against Section B3.11 of the Pittwater DCP and Clause 5.21 of the Pittwater LEP. The proposed crest height for the basement carpark is 3.70m AHD, which is the PMF and FPL for that location.

Subject to the following conditions the proposal generally complies with Section B3.11 of the Pittwater DCP and Clause 5.21 of the Pittwater 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**

### **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 3.20m 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 3.70m 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 4.91m AHD, with the remainder of the new development designed to ensure structural integrity up to the Flood Planning Level of 3.70m 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 3.70m 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 3.70m 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.

### **Car parking**

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.

D6 - All access, ventilation and any other potential water entry points, including entry ramp crests to the basement car park shall be at or above the Flood Planning Level of 3.70m AHD.

D7 - All access, ventilation and any other potential water entry points, including entry ramp crests to the basement car park shall be at or above the Probable Maximum Flood Level of 3.70m 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.

### **Emergency response**

E1 - The shelter-in-place refuge must:

- a) Have a floor level at or above the Probable Maximum Flood level of 4.91m AHD; and
- b) Have a floor space that provides at least 2m<sup>2</sup> 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 3.70m 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. All access, ventilation, driveway crests and any other potential water entry points to the basement car park have been set at or above the required level
3. There has been no filling on the land other than what has been approved
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 4.91m AHD, and the remainder of the new development up to the Flood Planning Level of 3.70m 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 3.70m 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.