

Natural Environment Referral Response - Flood

Application Number:	Mod2018/0076
To:	Tyson Ek-Moller
Land to be developed (Address):	Lot 20 DP 632081 , 79 Cabbage Tree Road BAYVIEW NSW 2104

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 property is subject to high hazard flooding, with a hazard category of up to H6 in both waterways.

The Stormwater Drawing NL171426/C02DA states that the underside of buildings are to be above PMF level. Floor levels for buildings, car parking and emergency response meet the requirements of Part E11 of the DCP.

However, it is considered that it might be too difficult to meet Clause C2, ie that all structures must be designed and constructed to ensure structural integrity (taking into account the forces of floodwater, wave action, flowing water with debris, buoyancy and immersion) up to the Probable Maximum Flood (PMF) level. Hence structural design needs to be provided within the Flood Management Report to confirm that this is possible. The design needs to take into account the requirements for Clause A4.

The earthworks do not meet Clause A4.

Drawing NL171426/C02DA states that "Approximate extent of 1% AEP flood level...nom 8.8m AHD. Batter to match existing at RL9.0m AHD to avoid reduction to flood conveyance. Detailed earthworks plans to be provided at CC stage".

The Flood Report (Northrop, Jan 2018) states that earth works are tied in at about 9.0m AHD, and the drawing shows vertical retaining walls at around this level. However, the PMF level is higher than 9.0m AHD.

The 1% AEP flood level varies from 9.2m AHD at the western end of Building 4A to 8.81m AHD at the eastern end of Building 1A.

The PMF level varies from 10.1m AHD at the western end of Building 4A to 9.6m AHD at the eastern end of Building 1A.

Clause A4 states:

"Development (including earthworks and subdivision) shall not be approved unless it can be demonstrated in a Flood Management Report that it been designed and can be constructed so that in a Probable Maximum Flood event:

(a) There are no adverse impacts on flood levels and velocities caused by alterations to the flood

conveyance;

(b) There are no adverse impacts on surrounding properties; and (c) It is sited to minimise exposure to flood hazard.

Where relevant certification shall also be provided in Northern Beaches Council's Standard Certification Form (Forms A and A1 of Northern Beaches"

The Flood Management Report needs to address all components of the DCP, and in particular the flood impacts in the PMF, based on a design that has been shown to meet the structural integrity and earthworks requirements.

Referral Body Recommendation

Recommended for refusal

Recommended Natural Environment Conditions:

Nil.