

Natural Environment Referral Response - Coastal

Application Number:	DA2018/1989
----------------------------	-------------

Responsible Officer	Alex Keller
Land to be developed (Address):	Lot 8 DP 629464 , 102 Cabarita Road AVALON BEACH NSW 2107 Lot 15 DP 858130 , 100 Cabarita Road AVALON BEACH NSW 2107 Lot 14 DP 858130 , 96 Cabarita Road AVALON BEACH NSW 2107 Lot 9 DP 629464 , 104 Cabarita Road AVALON BEACH NSW 2107

Reasons for referral

This application seeks consent for land located within the Coastal Zone.

And as such, Council's Natural Environment Unit officers are required to consider the likely impacts on drainage regimes.

Officer comments

Estuarine Risk Management

The coastal engineer engaged by the applicant has independently derived an Estuarine Planning Level (EPL) of RL 3.2m AHD for the subdivision site at a distance 10.0m landward of the existing seawall. The coastal engineer considers that development on all of the allotments created would be at an acceptably low risk of damage from estuarine inundation and wave action for a design life of 100 years as long as the recommendations listed in Section 7 of the submitted Estuarine Risk Management Report are adopted as relevant. The proposed subdivision is therefore able to satisfy the relevant requirements of the Estuarine Risk Management Policy and associated B3.10 Estuarine Hazard controls subject to conditions.

Section 7 of the approved Estuarine Risk Management Report (Horton Coastal Engineering Pty Ltd, dated 10 December 2018) further recommends that the existing seawall is repaired at locations where it is currently in poor condition to rectify voids in the seawall face and to prevent migration of soil occurring through the wall. The necessary works should be completed before the subdivision certificate is issued and conditions to this effect have been included as a part of this assessment.

State Environmental Planning Policy (Coastal Management) 2018 12 Development on land within the coastal vulnerability area

Development consent must not be granted to development on land that is within the area identified as "coastal vulnerability area" on the Coastal Vulnerability Area Map unless the consent authority is satisfied that:

- (a) *if the proposed development comprises the erection of a building or works—the building or works are engineered to withstand current and projected coastal hazards for the design life of the building or works, and*
- (b) *the proposed development:*

- (i) *is not likely to alter coastal processes to the detriment of the natural environment or other land, and*
 - (ii) *is not likely to reduce the public amenity, access to and use of any beach, foreshore, rock platform or headland adjacent to the proposed development, and*
 - (iii) *incorporates appropriate measures to manage risk to life and public safety from coastal hazards, and*
- (c) *measures are in place to ensure that there are appropriate responses to, and management of, anticipated coastal processes and current and future coastal hazards.*

Comment:

The subject land has not been included on the Coastal Vulnerability Area Map under *State Environmental Planning Policy (Coastal Management) 2018* (CM SEPP) and in regard to clause 15 of the CM SEPP the proposed development is unlikely to cause increased risk of coastal hazards on the subject land or other land.

As such, it is considered that the application complies with the requirements of *State Environmental Planning Policy (Coastal Management) 2018* as they relate to development on land identified as a coastal vulnerability area or land that may be affected by coastal hazards.

Referral Body Recommendation

Recommended for approval, subject to conditions

Refusal comments

Recommended Natural Environment Conditions:

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION CERTIFICATE

Estuarine Hazard Design Requirements

The following applies to all development:

All development or activities must be designed and constructed such that they will not increase the level of risk from estuarine processes for any people, assets or infrastructure in surrounding properties; they will not adversely affect estuarine processes; they will not be adversely affected by estuarine processes; they will not reduce access to or diminish the amenity of adjoining public foreshore land.

Reason: To minimise potential risk associated with estuarine hazards for development in the coastal zone.

Estuarine Planning Level Requirements

An Estuarine Planning Level (EPL) of RL 3.2m AHD has been independently derived for the subject site as outlined in the approved Estuarine Risk Management Report, prepared by Horton Coastal Engineering Pty Ltd dated 10 December 2018, and shall be applied to all development proposed below this level as follows:

- All structural elements below RL 3.2m AHD shall be of flood compatible materials;
- All electrical equipment, wiring, fuel lines or any other service pipes and connections must be located either above RL 3.2m AHD or waterproofed to this level; and
- The storage of toxic or potentially polluting goods, chemicals or materials, which may be

hazardous or pollute the waterway, is not permitted below RL 3.2m AHD.

Reason: To ensure aspects of the development that may be affected by estuarine processes are built at the appropriate level.

Compliance with Estuarine Risk Management Report

The development is to comply with all recommendations of the approved Estuarine Risk Management Report prepared by Horton Coastal Engineering Pty Ltd, dated 10 December 2018, including the recommendation to repair the existing seawall to rectify voids and prevent migration of soil through the wall, and these recommendations are to be incorporated into construction plans and engineering specifications as necessary.

Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To minimise potential risk associated with estuarine hazards for development in the coastal zone.

Structural Engineering Design for the Repair of the Existing Seawall

Structural engineering design for the repair of the existing seawall shall be prepared by a civil or structural engineer, with input as necessary from a specialist coastal engineer who is a registered engineer with chartered professional status and coastal engineering as a core competency, to ensure that the repaired seawall is able to withstand likely loadings and wave impact/over-topping forces for its intended design life.

Reason: To ensure that structural engineering design and specifications are prepared by appropriately qualified professionals

Engineers Certification of Structural Engineering Plans

The structural design for the seawall repairs shall be prepared by and each plan/sheet signed by, a registered professional civil or structural engineer with chartered professional status (CP Eng) who has an appropriate level of professional indemnity insurance and shall be submitted to the Certifying Authority prior to the release of the Construction Certificate.

Reason: To ensure structural engineering design and specifications are prepared by an appropriately qualified professional

CONDITIONS THAT MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF ANY STRATA SUBDIVISION OR SUBDIVISION CERTIFICATE

Post Construction Certification by Coastal Engineer

Post construction certification that all recommended works as relevant, including the seawall repairs, have been constructed in accordance with the intent of the approved Estuarine Risk Management Report (Horton Coastal Engineering Pty Ltd, 10/12/2018) shall be prepared and signed by a specialist coastal engineer, with coastal engineering as a core competency who is a registered professional engineer with chartered professional status (CP Eng), and shall be submitted to Council prior to the issue of the subdivision certificate.

Reason: To ensure development achieves the acceptable risk management criteria for estuarine tidal inundation and wave action defined in P21 DCP (DACNEHPS1)