



Our Ref: DOC17/365948
Your Ref: MP_0083 MOD 5

Ms Emma Butcher
NSW Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

Dear Ms Butcher

Re: Sandy Beach North Residential Subdivision Concept Plan Approval - Proposed Modification 5

Thank you for your email dated 7 July 2017 about the proposed concept plan approval modification for the Sandy Beach Residential Subdivision seeking comments from the Office of Environment and Heritage (OEH). I appreciate the opportunity to provide input.

The OEH has statutory responsibilities relating to biodiversity (including threatened species, populations, ecological communities, or their habitats), Aboriginal and historic heritage, National Parks and Wildlife Service estate, flooding and estuary management.

We have reviewed the documents supplied and advise that, although we have no issues to raise about NPWS estate, Aboriginal cultural heritage or historic heritage, a number of issues are apparent with respect to potential impacts of the proposed modification on biodiversity values and stormwater management on the subject land.

In summary, the modification application lacks sufficient detail to enable the OEH to assess the potential implications of the proposed modification in terms of:

- a) impacts on the Conservation Area;
- b) management of peak stormwater runoff discharges;
- c) effectiveness of proposed stormwater management measures for all Stages of the proposed development; and
- d) protection and enhancement of wallum froglet habitat.

These issues are discussed in detail in **Attachment 1** to this letter.

The OEH provides the following recommendations that should be addressed by the applicant prior to the Department of Planning and Environment determining the modification application:

1. Amend the stormwater quality assessment to consider potential implications of the proposed modification on peak runoff discharges.
2. Ensure that the proposed modification incorporates stormwater management infrastructure with the capacity to attenuate peak post-development 100-year recurrence storm discharge from all catchments to match the peak pre-development discharge.
3. Revise the stormwater quality assessment to consider the impacts of revised stormwater management measures for all Stages subject of the proposed modification.
4. Amend the modification application to include a map that compares the approved and proposed footprint of the stormwater management infrastructure.
5. Ensure that proposed changes to the stormwater management infrastructure do not increase the extent of encroachment into the Conservation Area beyond that of the stormwater infrastructure considered in the Environmental Assessment.
6. Revise the modification application to include an explanation of how the proposed design and layout of stormwater retention ponds will meet the wallum froglet habitat enhancement actions specified in the draft Environmental Management Strategy.

If you have any further questions about this issue, Mr Don Owner, Regional Operations Officer, Regional Operations, OEH, can be contacted on 6659 8233 or at don.owner@environment.nsw.gov.au.

Yours sincerely



DIMITRI YOUNG
Senior Team Leader Planning, North East Branch
Regional Operations

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6659 8233

Enclosure: Attachment 1: Detailed OEH Comments – Sandy Beach North Residential Subdivision Concept Plan Approval - Proposed Modification 5

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- c) effectiveness of proposed stormwater management measures for all Stages of the proposed development; and
- d) protection and enhancement of wallum froglet habitat.

Stormwater Quality Assessment

Concept Approval A3 requires the Concept Plan and all future applications to be carried out generally in accordance with the Environmental Assessment and the Preferred Project Report.

The Water Management Strategy (WMS) prepared for the project by Patterson Britton in October 2008 formed part of the Environmental Assessment. The WMS predicted that without on-site detention the proposed development would result in increases of up to 20% in the peak runoff discharges.

Changes to peak runoff discharges have the potential to detrimentally impact on environmentally sensitive areas downstream of the subject land. Consequently, the WMS incorporated a series of a water quality control ponds with sufficient capacity to ensure that the peak post-development 100-year recurrence storm discharge from all catchments could be attenuated to match the peak pre-development discharge.

Section 3.4 of the Preferred Project Report (refer to page 25) also indicates that the proposed development would incorporate stormwater management measures (including water volume discharge controls) to ensure that high water quality is maintained in and around the Hearn's Lake ecosystem.

The stormwater quality assessment prepared for the modification by Advisian in May 2017 assesses potential implications of the proposed modification on stormwater quality, but does not consider its potential impacts on peak runoff discharges.

OEH Recommendations:

1. Amend the stormwater quality assessment to consider potential implications of the proposed modification on peak runoff discharges.
2. Ensure that the proposed modification incorporates stormwater management infrastructure with the capacity to attenuate peak post-development 100-year recurrence storm discharge from all catchments to match the peak pre-development discharge.

The proposed modification applies to all Stages of the proposed development covered by the concept approval. However, the stormwater quality assessment prepared for the modification by Advisian in May 2017 only applies to Stages 1 and 3 of the proposed development.

OEH Recommendation:

3. Revise the stormwater quality assessment to consider the impacts of revised stormwater management measures for all Stages subject of the proposed modification.

Impacts on the Conservation Area

The modification application prepared by ADW Johnson Pty. Ltd. in May 2017 does not include any comparison of the approved and proposed stormwater management infrastructure designs in terms of the extent to which both designs encroach into the Conservation Area.

The application for modification does state that *"the development footprint approved by the concept approval as it relates to the location of road carriageways and lots will not be increased"*. However, this statement does not mention stormwater management infrastructure (e.g. drainage swales and bio-retention basins), most of which appears in the modified design to be relocated from within the approved development footprint into the proposed Conservation Area.

The proposed expansion of stormwater infrastructure into the Conservation Area beyond that considered in the concept approval is likely to be inconsistent with Concept Approval C5(e), which states that *"water quality control devices are to be sited in such a way as to minimise their impact with the Conservation Area"*.

OEH Recommendations:

4. Amend the application for modification to include a map that compares the approved and proposed footprint of the stormwater management infrastructure.
5. Ensure that proposed changes to the stormwater management infrastructure do not increase the extent of encroachment into the Conservation Area beyond that of the stormwater infrastructure considered in the Environmental Assessment.

Wallum Froglet Habitat

The Draft Environmental Management Strategy (EMS) prepared for the project by Conacher Environmental Group in October 2008 formed part of the Environmental Assessment. Section B5 (page 18) of the EMS proposed to use shallow water constructed wetlands in the water treatment and storage process to provide additional habitat to aid in the conservation of the wallum froglet within the site. The proposed modification appears to replace the large shallow water constructed wetlands with a series of narrow linear ponds, which presumably would be deep rather than shallow to provide enough volume capacity to retain and treat high peak runoff flows (i.e. retention pond volumes and dimensions were not provided in the application for modification). The application for modification does not discuss the suitability of the modified retention pond design and layout for creating habitat for the wallum froglet.

OEH Recommendation:

6. Revise the application for modification to include an explanation of how the proposed design and layout of stormwater retention ponds will meet the wallum froglet habitat enhancement actions specified in the EMS.