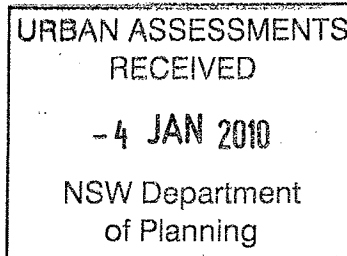


Your reference 09_0162
Our reference : DOC09/59431
Contact : Liz Peterson, 9995 6841



As/nr
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To compile
with OR
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Mr Michael Woodland
Director, Metropolitan Projects
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Mr Andrew Smith

Dear Mr Woodland

MP09_0162 – Residential Development – 14-18 Boondah Rd, Warriewood - Recommended Information Requirements for Environmental Assessment – Pittwater Council

I refer to your request for the Department of Environment, Climate Change and Water's (DECCW) requirements for the environmental assessment (EA) in regard to the above proposal received by DECCW on 14 December 2009.

DECCW notes that no Preliminary Environmental Assessment has been provided with this request.

The proponent should ensure that the EA is sufficiently comprehensive and detailed to allow DECCW to determine the extent of the impacts of the proposal. The key information requirements for the project are summarised below:

1. Flora and Fauna;
2. Floodplain Risk Management Aspects; and
3. Sediment and Erosion Control.

The DECCW requests an opportunity to review and approve any proposed conditions of approval that ascribe a role for this agency.

Should you have any queries regarding this matter please contact Liz Peterson on (02) 9995 6841.

Please also note that all future Part 3A referrals should be sent to Ms Lou Ewins, Manager, Planning and Aboriginal Heritage Section, Metropolitan Branch via the Metropolitan electronic mailbox – eprgarramatta@environment.nsw.gov.au.

Yours sincerely

A handwritten signature in dark ink, appearing to be "Fran Kelly".

23/12/09

Fran Kelly
**A/Manager Planning and Aboriginal Heritage
Metropolitan Branch
Environment Protection and Regulation**

The Department of Environment and Climate Change NSW is now known as the Department of Environment, Climate Change and Water NSW

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Department of **Environment and Climate Change** NSW

Attachment 1 – DECCW's Recommended Environmental Assessment (EA) requirements for residential development – 14-18 Boondah Street, Warriewood

Flora and Fauna

- The EA shall include a flora and fauna impact assessment taking into consideration impacts on any threatened species, populations, ecological communities and/or critical habitat and any relevant recovery plan in accordance with the DECCW's guidelines. This assessment shall include:
- Assessment of the impacts of the full proposal, including of any possible indirect impacts, must be conducted and documented in accordance with the *Guideline for Threatened Species Assessment* (draft, July 2005). Accordingly, any assessment should examine the full extent, nature and timing of the proposal and all associated actions relating to construction, provision and ongoing maintenance and occupation/use of:
 - buildings or other structures;
 - utilities such as for sewage, electricity, gas or water;
 - routes for access and egress;
 - dams and associated infrastructure;
 - pipelines;
 - drainage infrastructure and changes made to surface water flows;
 - bush fire hazard reduction; and
 - landscaping.
- Assessment needs to consider the direct and indirect impacts of these activities which may occur both on or off the subject site. These should include:
 - overshadowing
 - trampling, pollution, rubbish dumping, spread of weeds and predation by domestic animals from caused by future adjacent residential areas
 - clearing, modification and long term degradation of habitat associated with the provision of asset protection zones
 - greater susceptibility to weeds, pests, competition, disease, , insect attack and other disturbances associated with increased edge effects and urbanisation
- It is noted that the development proposes to include flood mitigation works and creek line corridor landscaping and restoration, which will impact on waterways and riparian zones. DECCW also considers that waterways and riparian zones that are off site, but downstream and down slope of, the development, and support remnant native vegetation may also be deleteriously impacted. Therefore, the assessment should also include an evaluation of impacts on these adjacent areas, including those on the regionally significant Warriewood Wetland.
- A description should be provided of the actions that will be taken to avoid or mitigate impacts or compensate for unavoidable impacts of the project on threatened species and their habitat. This should include an assessment of the effectiveness and reliability of the measures proposed and any residual impacts after these measures have been implemented.
- The EA needs to clearly state whether it meets each of the key thresholds set out in Step 5 of the *Guideline for Threatened Species Assessment* (draft, July 2005).
- The following endangered ecological communities – as listed under the *NSW Threatened Species Conservation Act* – are likely to occur on the subject site and would be directly affected by the development:
 - Bangalay Sand Forest of the Sydney Basin and South East Corner Bioregions
 - Swamp Sclerophyll Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions
- The development site is immediately adjacent to the Warriewood Wetland, an environmentally sensitive and regionally significant area, which is the largest remaining sand plain wetland in

the northern Sydney area. The following endangered ecological communities – as listed under the *NSW Threatened Species Conservation Act* – occur within the Warriewood Wetland reserve and elsewhere closely adjacent to or downstream of the subject site and are likely to be directly or indirectly affected by the development:

- Bangalay Sand Forest of the Sydney Basin and South East Corner Bioregions
- Swamp Sclerophyll Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions
- Freshwater Wetlands on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions
- The following threatened fauna – as listed under the *NSW Threatened Species Conservation Act* – have been recently recorded in the vicinity of (i.e. within 500 metres of) the development site and may use habitat that will be directly or indirectly affected by the development:
 - Barking owl *Ninox connivens*
 - Swift parrot *Lathamus discolor* *
 - Grey-headed Flying-fox *Pteropus poliocephalus* *
 - Regent Honeyeater *Xanthomyza phrygia* *
 - Black Bittern *Ixobrychus flavicollis* §
 - Lesser Sand Plover *Charadrius mongolus* §
- The following additional threatened fauna – as listed under the *NSW Threatened Species Conservation Act* – are known from within 2 km of the development site and may be directly or indirectly affected by the development:
 - Australasian Bittern *Botaurus poiciloptilus* §
 - Little Lorikeet *Glossopsitta pusilla*
 - Gang-gang Cockatoo *Callocephalon fimbriatum*
 - Glossy Black-Cockatoo *Calyptorhynchus lathami*
 - Little Bentwing-bat *Miniopterus australis*
 - Eastern Bentwing-bat *Miniopterus schreibersii oceanensis*
 - Southern Myotis *Miniopterus schreibersii oceanensis*
 - Spotted-tailed Quoll *Dasyurus maculatus* *
 - Powerful Owl *Ninox strenua*
- These species may utilise the site (e.g. for food or shelter) or the development site may constitute connective corridors between other habitats for these species. Hence, the assessment should consider likely impacts on these species, including impacts of the connectivity of the site and the potential of the proposal to increase the fragmentation and isolation of populations of these species.

* indicates a species that is listed as threatened under the Commonwealth *Environment Protection and Biodiversity Conservation Act* 1999.

§ indicates a species that is listed as threatened under the Commonwealth *Environment Protection and Biodiversity Conservation Act* 1999.

- As identified, some of these species are also listed as threatened, or as migratory species covered by international treaties, under the Commonwealth *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act). There are also other migratory bird species for which the Warriewood Wetlands and adjacent habitats are important habitat. These threatened and migratory species are considered 'matters of national environmental significance' (NES matters) under the EPBC Act. The proposal will require referral to, and may require the approval of, the Federal Minister for the Environment (in addition to any local or state government consent or approval) if it constitutes an action that will have, or is likely to have, a significant impact on the environment or on a matter of national environmental significance (NES matters). It is the responsibility of the proponent to assess whether the development is likely to have a significant impact on NES matters and, if so, to refer it to the Commonwealth Department of the Environment, Water, Heritage and the Arts (DEWHA).

This information is based on:

- recent (2009) fine scale 'Native Vegetation of the Sydney Metropolitan Catchment Management Authority Area' by DECCW (www.sydney.cma.nsw.gov.au/our-projects/vegetation-mapping.html), currently in draft form
- DECCW's Atlas of Wildlife and several other fauna and flora records datasets which are licensed for DECCW's use.
- Information from Pittwater Council about the adjacent Warriewood Wetlands (www.pittwater.nsw.gov.au/recreation/parks_and_reserves/find_a_park/parks/warriewood/warriewood_wetlands).

Floodplain Risk Management Aspects

Any development should be in accordance with the State Government's Flood Prone Land Policy as outlined in the NSW Government's Floodplain Development Manual (2005) and the Section 117 Direction (4.3 Flood Prone Land). To ensure consistency with Government Policy, the relevant Section 117 Planning Circular and Planning Guideline should also be consulted.

The subject site at 14 to 18 Boondah Road is relatively low lying and is adjacent to the Warriewood Wetlands, which drains to Mullet Creek, a tributary of Narrabeen Lagoon. As a result, flooding of the site would be from short duration local catchment flooding, Narrabeen Lagoon (ocean / total catchment induced) flooding and a combination of both forms of flooding. It is expected that the management of the risks to both people and property from these forms of flooding will be an important EA consideration for the proposed residential development. Because of the short flood warning time in the area, the need for vertical flood evacuation and associated flood proofing of building structures may be one such consideration.

The draft DGRs on "Flooding/Drainage", largely relies on the "consideration of any relevant provisions of the NSW Floodplain Development Manual (2005)" to ensure that the EA addresses all relevant issues. However, over reliance on the Manual provisions may not guarantee that all relevant issues are appropriately assessed. Nevertheless, the draft DGR rightly highlights the need for the EA to consider the potential impacts of climate change on sea levels and rainfall and thus on the development itself.

Although the DGRs are for the site at 14 – 18 Boondah Road, it is understood that the Department of Planning requires joint consideration of both the Boondah Road and Macpherson Street sites. This is in line with good floodplain risk management practice, which would normally include an assessment of the cumulative impacts from all relevant future development. The impacts from a single development in isolation on flooding may be minimal. However, when assessed in combination with all potential development, the impact from an individual development might be significant. This may result in the need for compensatory (for hydraulic impacts) measures.

To correct for an anomaly in the climate change wording, to include a cumulative impact assessment requirement and to cover other important issues, it is recommended that the second paragraph of "14. Flooding/Drainage" DGR be modified as follows:-

"The EA shall provide an assessment of any flood risk to people and property on the site or as a result of the proposed development in consideration of any provisions of the NSW Floodplain Development Manual (2005), including the cumulative impacts of all relevant future development, increased urbanisation and the potential effects of climate change such as sea level rise and an increase in rainfall intensity and volume."

Sediment and Erosion Control

The construction activities have the potential to impact on the impact on the adjoining Warriewood Wetland and waterways and riparian zones both adjoining and downstream of the development site and therefore adequate implementation and maintenance of sediment and erosion controls is

critical. It is important that prior to, during and following construction appropriate soil and water management systems are implemented.

The EA should include:

- A commitment that a comprehensive Sediment and Erosion Control Plan will be developed and implemented in accordance with the guideline "*Managing Urban Stormwater – Soils and Construction, Volume 2D road construction*" DECC 2008, to be read and used in conjunction with Volume 1 "*Managing Urban Stormwater: Soils and Construction*" Landcom 2006.
- Identification of sensitive downstream waterways that may be impacted by the construction and operation of the proposal.
- Assessment of the soil types and potential for erosion; and
- Identification of sites for appropriate erosion and sediment controls (such as sediment basins) during construction to ensure that there is sufficient space allocated for these measures.

Guidance Material:

DECCW guidelines cover a range of different issues regarding stormwater and can be located at the following link: <http://www.environment.nsw.gov.au/stormwater/publications.htm>

