



## Office of Environment & Heritage

Your reference: MP10\_0177 (MOD 2)  
Our reference: Doc11/29421  
Our contact: Jennifer Sage 9995 6856

Ms Amy Watson  
Metropolitan & Regional Projects South  
NSW Department of Planning and Infrastructure  
GPO Box 39  
SYDNEY NSW 2001

Dear Ms Watson

I refer to the application made by Meriton Apartments Pty Ltd to modify Condition C19a of Major Project MP 10\_0177 and the accompanying report by Jeffery and Katauskas (2 March 2011) titled "Hydrogeological Assessment for Proposed Residential Development (Stage 1) at 14-18 Boondah Avenue, Warriewood NSW".

Condition C19a prohibits permanent dewatering of groundwater at the development site and relates to the requirement at Condition B20 that there is to be no alteration to the natural flow of groundwaters across the site to Warriewood Wetlands.

Condition C19a currently states

*"The design and construction of the structure must preclude the need for permanent dewatering".*

**Stormwater and Groundwater interaction**

The application to modify Condition C19a seeks to allow intermittent pumping of stormwater that collects in the car park basement during significant rainfall events, e.g. where water enters the basement from cars and the vehicle ramp. OEH notes that the volume of water from this source is likely to be negligible compared to the balance of groundwater still infiltrating to the basement (0.136m<sup>3</sup>/day) and not cut off by the proposed groundwater bypass system (0.72 m<sup>3</sup>/day). OEH also notes that the hydrological report also recommends that a total inflow rate of 1.5m<sup>3</sup>/day be catered for in the building design.

Meriton has proposed the following wording in the proposed modification—

*"The design and construction of the structure permits a permanent pumping system, which would operate intermittently, to be installed and maintained in order to ensure that the basement is free of excess stormwater."*

OEH concerns remain focussed on ensuring the protection of the downstream groundwater-dependent Warriewood wetlands.

The focus of these concerns is to ensure achievement of **two key objectives**:

1. Water Quality - that clean and dirty water (regardless of source) is adequately separated, ensuring only clean water is discharged to receiving waters;

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2. Water Quantity – that Office of Water requirements are met for protection of the groundwater resource in this aquifer and that the specific changes to groundwater/ surface water (eg stormwater) interaction from the proposal, will not impact the downstream Warriewood wetlands.

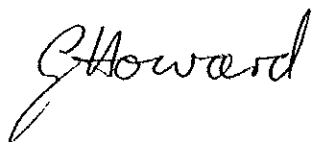
OEH has previously provided detailed information to the Department of Planning and Infrastructure (DP&I) on these sensitive wetland environments (in letter responding to the Preferred Project Report dated 24 September 2010) and has also reviewed in detail the documents provided by the proponent to date. Those documents are not of a sophistication or completeness to ensure that the above objectives have been clearly addressed, and will be met post-development.

It should be noted that these issues are not unusual or new for below-ground developments on sand aquifers in the NSW coastal zone. For example, Randwick Council in the Botany aquifer as well as other LGAs, generally now require 'tanking' or concrete encasing proposed basement areas. This enables groundwater to move around the structure so it is not necessarily brought to the surface, and dirty water is more sustainably minimised, treated and disposed/ discharged.

While OEH is not prescriptive about any measures to address the above objectives, in addition for this proposal there is also a downstream sensitive environment. Consideration also needs be given to the precedent set in this case and the cumulative impact of potential future proposals in the area.

Should DP&I and the proponent wish to further meet with OEH to progress this matter, please do not hesitate to contact Jennifer Sage, Senior Operations Officer on 9995 6856.

Yours sincerely



14 JUL 2011

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