NSW GOVERNMENT | Office of Environment & Heritage

DOC18/84063
SSD8816

Luisa Maguire
DA Coordinator - Social and Other Infrastructure Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Teresa Gizzi

Dear Ms Maguire,

RE: Health Services Administration Building at Royal North Shore Hospital, St Leonards (SSD 8816)

I refer to your letter dated 12 February 2018 requesting input from the Office of Environment and Heritage (OEH) on the proposed State Significant Development (SSD) application for the Health Services Administration Building at Royal North Shore Hospital, St Leonards (SSD 8816).

OEH has reviewed the proposal and related documentation and provides detailed flooding comments at Attachment 1. Please note, OEH waived the requirement to prepare a Biodiversity Development Assessment Report for this SSD in accordance with its letter dated 16 January 2018 and as such no further comments are made in relation to biodiversity.

Should you have any queries regarding this matter, please contact Svetlana Kotevska on 8837 6040 or at Svetlana.kotevska@environment.nsw.gov.au.

Yours sincerely

S. Harrison 13/03/18

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ATTACHMENT 1 – Office of Environment and Heritage comments - Health Services Administration Building at Royal North Shore Hospital, St Leonards (SSD 8816)

1. Floodplain risk management

In accordance with Section 14 of the Secretary Environmental Assessment Requirements (SEARs) the proponent is required to assess any flood risk on site (detailing the most recent flood studies for the project area) and consideration of any relevant provisions of the NSW Floodplain Development Manual (2005), including the potential effects of climate change, sea level rise and an increase in rainfall intensity.

The consultants utilised Council's current DRAINS hydrological model and TUFLOW hydraulic model as the base for the flood risk assessment (Lyall & Associate, December 2017). The assessment analyses existing and post developed scenarios, for design storm events with Average Exceedance Probability (AEPs) ranging from 20% up to 0.2%, as well as the probable maximum flood (PMF).

Section 6.4 of the consultant's assessment outlines a sensitivity analysis to the blockage of the pipe system for two blockage scenarios as required by Council's Technical Standard No. 3 for Floodplain Management as follows:

- Scenario 1 considers the impact of 100% blockage on the 20% AEP and
- Scenario 2 considers the impact of 50% blockage on the 1% AEP.

The assessment indicates an increase in flood depth of 0.67m and up to 2m for Scenario 1 and Scenario 2 respectively at the Trapped point. Likewise, an increase in flood depth of 1m and 0.43m for Scenario 1 and Scenario 2 respectively at Herbert Street. The report also indicates that Scenario 1 and Scenario 2 would inundate the basement to a depth 300mm and 60mm. Accordingly, it is prudent to take into consideration the impact of blockages in the detailed design stage and during the preparation of the site's Emergency Response Plan (ERP) in consultation with Council and the State Emergency Service (SES).

The consultants undertook a sensitivity analysis to assess the potential effects of climate change on flood behaviour due to the increase in rainfall intensity by 10% and 30%, which is outlined in Section 6.5 of the report. The report indicates that Council's existing flood study for Flat Rock Creek Catchment (Flat Rock Creek, Lyall & Associate 2017) found that an increase in sea levels in Middle Harbour will not affect flooding behaviour in the vicinity of the proposed development. Therefore, no assessment for SLR is undertaken in this report. Compliance with Council's flood related planning controls as outlined in sections 4 and 7 should be addressed with Willoughby City Council taking into consideration blockage and climate change sensitivity analyses.

(END OF SUBMISSION)