



**Office of
Environment
& Heritage**

DOC18/679695

Mr David Gibson
Team Leader – Social Infrastructure Assessments
NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Gibson

Exhibition of Concord Repatriation General Hospital Redevelopment (Concept and Stage 1) - 1H Hospital Road, Concord West (SSD 9036)

I refer to your letter dated 10 September 2018 requesting input from the Office of Environment and Heritage (OEH) on the exhibition of the Concord General Hospital State Significant Development (SSD 9036).

The proposal seeks to redevelop Concord Hospital over two stages with a total of 82,000m² additional Gross floor area as follows:

- Stage 1 - Clinical Services Building and multi-storey car park (SSD 9036) and
- Stage 2 - Acute services building and multi-storey car park (separate SSD)

The proposal seeks detailed approval for Stage 1 comprising:

- Construction of a nine storey (including plant level) Clinical Services Building;
- Construction of a five storey multi-storey car park to provide 590 car parking spaces;
- Demolition of eight buildings;
- Installation of two roundabouts; and
- Associated landscaping, tree removal, signage, infrastructure and service works.

Please find attached OEH's comments in relation to flooding in Attachment 1. This is in addition to OEH previous letter dated 9 October, 2018 in Attachment 2.

If you have any queries about this advice, please contact Svetlana Kotevska on 8837 6040 or by email at Svetlana.kotevska@environment.nsw.gov.au.

Yours sincerely

22/10/2018

AMY DUMBRELL
Acting Senior Team Leader - Planning
Greater Sydney
Communities and Greater Sydney Division

**Attachment 1: OEH Comments - Exhibition of Concord Repatriation General Hospital
Redevelopment (Concept and Stage 1) - 1H Hospital Road, Concord West (SSD 9036)**

Floodplain Risk Management

OEH has reviewed the FMA (flood impact assessment) submitted by the proponent and notes that the incremental impacts on flooding conditions following redevelopment of the site would be marginal. It is noted that limited information on parameters and assumptions used in the modelling process was provided in the submitted report. The following details will need to be included in a revised version of the FMA report to ensure that the background assumptions and parameters of the models are accurate and representative to the study area for the assessment of flooding conditions.

- Catchment area and drainage patterns of the study area
- List of past flood studies and drainage investigation reports
- Existing outlets and overland flow paths in the modelled area
- Hydrologic and hydraulic models used in the assessment (separate models or single model, outline these details)
- Source of topographical data used in the model
- Grid size used in the model
- Critical storm duration in the assessment of flooding conditions and flood mapping
- Inclusion of additional maps showing flow velocity and flooding hazards
- Inclusion of additional maps showing hot spot areas which need further investigation

(END OF SUBMISSION)

Attachment 2: OEH Letter dated 9 October 2018 - Exhibition of Concord Repatriation General Hospital Redevelopment (Concept and Stage 1) - 1H Hospital Road, Concord West (SSD 9036)



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- associated landscaping, tree removal, signage, infrastructure and service works.

Please find attached OEH's comments in Attachment 1. OEH will provide comments on floodplain risk management separately once OEH has completed its assessment.

A separate response may be provided on heritage matters by the Heritage Division of OEH as delegate of the Heritage Council of NSW. If you have any queries about this advice, please contact Svetlana Kotevska on 8837 6040 or by email at Svetlana.kotevska@environment.nsw.gov.au.

Yours sincerely

S. Harrison 09/10/18

SUSAN HARRISON
Senior Team Leader - Planning
Greater Sydney
Communities and Greater Sydney Division

Attachment 1: OEH Comments - Exhibition of Concord Repatriation General Hospital Redevelopment (Concept and Stage 1) - 1H Hospital Road, Concord West (SSD 9036)

Biodiversity

On 14 June 2018 OEH determined under s.7.9(2) of the Biodiversity Conservation Act 2016, that a biodiversity development assessment report was not required for this project. The SEARs still required that biodiversity impacts related to the project, including any impact on aquatic ecology, be addressed. OEH recommends the SEARs requirement be adequately addressed, including specific mitigation measures for the operational phase of the development - only mitigation measures for the construction phase are currently listed in the report (see point 5 below).

In terms of assessing the proposal's indirect impacts on the adjoining Council reserve, and so addressing the SEARs requirement for aquatic ecology to be addressed, the current Flora and Fauna Assessment (FFA) is unsatisfactory because:

1. It identifies several vegetation communities, associated with aquatic ecology, in its likelihood of occurrence table but concludes that no assessment of significance is required because of "No impacts on community" (Appendix A, pages 31 and 32). This is at odds with the following statement on page 9 "it was determined that there was the potential for indirect impacts on offsite vegetation within the council reserve in the north of the study area".
2. The following two sentences contain the main references to the "council reserve", which was not mentioned in any greater detail elsewhere in the report: "it was determined that there was the potential for indirect impacts on offsite vegetation within the council reserve in the north of the study area" (page 9) and "a targeted survey for microchiropteran bats in vegetation within an adjacent council reserve was undertaken" (page viii).
3. The FFA refers to the SEARs requirement to "Address biodiversity impact related to the proposal, including any impacts on aquatic ecology" (page 2) but does not address them (refer to points 1 and 2 above, and 4 and 5 below).
4. The FFA states in section 5.3.1 Changes in hydrology, "Once construction is complete, the likely water quality change will be runoff from the new carpark. There is a much higher risk of heavy metals and hydrocarbons entering the waterways. Again this should be mitigated where possible." Regarding this last sentence, mitigation measures are necessary and should be planned for and implemented from the outset. A key activity to assist saltmarsh is to "Protect areas of saltmarsh from runoff that contains high levels of nutrients or pollutants"
<https://www.environment.nsw.gov.au/threatenedSpeciesApp/profile.aspx?id=10866>
5. The FFA states in section '5.3.2 Impacts on aquatic ecology' "There is an increased risk for potential contaminants to enter waterways during the construction phase and operation of the carpark. These potential indirect impacts can be effectively mitigated through appropriate storage of contaminants and runoff controls during construction, and appropriate stormwater management for the operational phase of the development." However, all the mitigation measures listed in section 6 deal with the construction phase only.
6. The FFA states "it was determined that there was the potential for indirect impacts on offsite vegetation within the council reserve in the north of the study area. Two biometric plots were undertaken in this vegetation in accordance with BAM" (page 9). However, the data is not given for these plots and they are not shown on Figure 5 (on page 16) (Figure 5: ELA validated vegetation and location of BAM plots undertaken in adjacent native vegetation (2018)).
7. The FFA states "A targeted survey for microchiropteran bats in vegetation within an adjacent council reserve was undertaken by setting one microbat echolocation recording device (Anabat) adjacent to the subject site." but the location of this reserve, and the location of the Anabat device, is not marked on any map, and no Anabat data is given in the report.
8. Two of the microbats (the Eastern Freetail-bat and Yellow-bellied Sheath-tail-bat) can use tree hollows but the FFA is not clear about the impacts on hollow-bearing trees. For example, the test of significance for the microbats states "no roosting habitat would be impacted by the works" but no data on hollow-bearing trees is given in the report to substantiate this, and the test of significance for the GHFF states "The proposal will result in the removal of two hollow-bearing trees (HBTs) and one dead stag" (page 76?).

9. Regarding the White-bellied Sea Eagle, for which there are many BioNet records on and around the site, the FFA states "The study area did not contain foraging habitat or nests; thus, an impact assessment was not conducted for this species". However, no data is given in the report for the field survey that was carried out and, according to the test of significance for the GHFF, the development will remove two hollow-bearing trees and one dead stag. Further, there are many nearby BioNet records for the Powerful Owl but no test of significance was carried out for this species (which also relies on hollows).
10. A potential mitigation measure for prescribed biodiversity impacts in the BAM 9.3.3.1 (c) is the "retention of habitat features (fallen timber, hollow logs, rocks) within the development site, or the relocation of habitat features such as stags, hollow logs or rocks from the development site onto adjacent retained remnant vegetation to provide habitat". This needs to be a condition for Concord Hospital, if two hollow-bearing trees and a stag are being removed, that the proponent is to have these placed (at their expense, and under the direction of appropriate Local Council staff) in an adjacent, or nearby, Council reserve or on site.

Aboriginal Cultural Heritage

OEH notes that a due diligence Aboriginal heritage assessment was undertaken for the proposal by Biosis (August 2018). This is inconsistent with Item 9 of the Secretary's Environmental Assessment Requirements (SEARs) dated 8 February 2018 that states:

"Where relevant, address Aboriginal Cultural Heritage in accordance with the Guide to investigation, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010."

Due diligence is not a substitute for undertaking an Aboriginal cultural heritage assessment. Due diligence is a legal defence against harm under the National Parks and Wildlife Act 1974 and is inadequate to assess the impacts of the proposed development on the Aboriginal archaeological and cultural heritage values of the subject land.

Further assessment of Aboriginal cultural heritage is recommended in the form of an Aboriginal Cultural Heritage Assessment Report (ACHAR), with formal Aboriginal community consultation and a staged program of archaeological test excavations, to inform the development and satisfy the project SEARs.

Water Quality impacts on Endangered Ecological Communities

The site is located on the foreshore of the Parramatta River in proximity to both Brays Bay and Yaralla Bay and is surrounded by a sensitive estuarine environment. The proposal has not adequately demonstrated the protection of the following Endangered Ecological Communities (EECs) located adjacent to the proposed multi-storey five level car park (Stage 1) and the water quality of Parramatta River.

Endangered Ecological Communities

- Coastal Saltmarsh
- Swamp oak floodplain forest
- Sydney Turpentine Ironbark Forest

Other vegetation communities

- Estuarine mangrove forest
- Riverflat paperbark swamp forest

The SEARs for drainage and Ecologically Sustainable Development (ESD) state:

- Detail drainage associated with the proposal, including stormwater and drainage infrastructure
- Detail measures to minimise operational water quality impacts on surface waters and groundwater
- Include a description of the measures that would be implemented to minimise consumption of resources, water (including water sensitive urban design) and energy.

OEH notes that part of the site is zoned E2 Environmental Conservation in the location where the multi-storey car park is proposed to be located. It is unclear whether the proposed multi storey car park is permissible in this location given the part E2 Zoning, as it is not a prescribed zone under the Infrastructure SEPP (Clauses 56 and 57) and the design of the proposed multi-storey car park does not currently appear to be consistent with the E2 zone objectives.



OEH has reviewed the Soil and Water report prepared by Taylor Thomson Whitting. It states the proposed stormwater systems do not discharge to Council's stormwater system, but directly to Parramatta River / Sydney Harbour. A combination of a GPT plus a Stormwater360 Jellyfish JF3250-24-4 can meet the (pollution) reduction targets for the main works on the southern side of hospital road. It also states that 'the proposed multi-deck car park on the north side of Hospital Road can similarly meet stormwater quality targets through the use of a proprietary stormwater treatment device'. There is no detail of what this device is and how runoff from the development to the north of Hospital Road is to be treated. This is inconsistent with the SEARs. Further, this report states the preliminary site contamination investigation completed by Douglas Partners in June 2016, notes potential sources and types of contaminants at the proposed development site in section 3.2 of the Soil and Water report including at the 'main hospital car park with potential for leakage of engine oil and or petrol penetrating into the ground' with contaminant types being heavy metals, TRH and BTEX.

An updated Soil and Water Report is required that includes stormwater treatment devices to manage runoff and treat and remove contaminants and pollutants generated from the development to mitigate impacts on the sensitive vegetation communities. A Water Quality management plan is required, and the proposal should make use of stormwater quality improvement devices. OEH is concerned with heavy metals and hydrocarbons, oils and runoff flowing directly into river and harbour which is inconsistent with the policies outlined below.

A similar SSD for the Prince of Wales Hospital redevelopment included a hydrocarbons trap or separator to treat runoff generated. The nominated proprietary product will be specifically designed to provide high removal efficiencies of suspended solids and their associated pollutants, oil, and

floatables over a wide range of flow rates. OEH recommends a similar approach for the redevelopment of Concord Hospital.

The above mitigation measures are required to ensure the proposal is consistent with the E2 Objectives of the zone, and the following policies:

Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

Clause 21 requires that:

- (a) development should have a neutral or beneficial effect on the quality of water entering the waterways
- (b) development should protect and enhance terrestrial and aquatic species, populations and ecological communities and should avoid physical damage and shading of aquatic vegetation (such as seagrass, saltmarsh and algal and mangrove communities)
- (c) development should promote ecological connectivity between neighbouring areas of aquatic vegetation (such as seagrass, saltmarsh and algal and mangrove communities)
- (g) development on land adjoining wetlands should maintain and enhance the ecological integrity of the wetlands and, where possible, should provide a vegetative buffer to protect the wetlands.

Also section 46(2) of SEPP states: 'A draft master plan is to be prepared following consultation with the appropriate authority and is to illustrate and explain, where appropriate, proposals for the following:

- (n) protection and enhancement of the natural assets of the site and adjoining land
- (o) protection and enhancement of the waterway (including water quality) and any aquatic vegetation on or adjoining the site (such as seagrass, saltmarsh, mangroves and algal communities).'

Parramatta River Estuary Coastal Zone Management Plan

The Parramatta River Estuary Coastal Zone Management Plan (CZMP) dated 2013 and adopted by The City of Canada Bay Council, incorporates a number of management aims and objectives (refer to Table 3.1 of the CZMP) that are relevant to this SSD given that the site is within 100m of the Parramatta River and stormwater runoff from the site is likely to impact on the water quality and health of the River. This includes the management aim '*To improve water quality in the estuary such that it is suitable for a range of environmental functions and recreational uses*' that is supported by the following objectives:

- Reduce the level of contaminated sediment and other pollutant loads entering the estuary from catchment runoff.
- Ensure all new developments do not have a negative impact on estuarine water quality.

Eastern City District Plan

The following priorities in the Eastern City District Plan (March 2018) are relevant to this SSD:

- Planning Priority E14: Protecting and improving the health and enjoyment of Sydney Harbour and the District's waterways. This gives effect to *A Metropolis of Three Cities*, Objective 25 The coast and waterways are protected and healthier. The plan specifically states that "*New development and investment in infrastructure provide an opportunity to improve the necessary health and quality of the District's waterways, foreshores and riparian corridors, through improving public access to, and along, the foreshores; providing connected green space around the foreshores; conserving cultural heritage; protecting and enhancing flora, fauna, and urban bushland; reducing erosion and sedimentation; which improves bank stabilisation; promoting pervious surfaces; providing riparian vegetation buffers; and recovering and reinstating more natural conditions in highly modified waterways.*" The plan identifies a key action as 'Action 58: Protect environmentally sensitive areas of waterways and the coastal environment area.'
- Planning Priority E15. Protecting and enhancing bushland and biodiversity.

Coastal Management SEPP

Concord Hospital is identified as being located within the 'Coastal Use Area', 'Coastal Environment Area', as well as 'Coastal Wetlands under the Coastal Management SEPP. Further details are required to determine the environmental impacts of the proposal and its consistency with this SEPP.

There is inadequate detail in this SSD about managing the proposals runoff and water quality and its consistency with the Sydney Harbour Catchment REP, District Plan priorities/actions above, Coastal Management SEPP and the CZMP.

Further, the proposed multi-storey car park is in a high-risk acid sulfate soils area. Any forthcoming consent should condition the need to prepare an acid sulfate soils management plan, if for the multi-storey car park, excavation exceeds disturbance of 1000 tonnes of soil and pile diameters exceed 0.6m to 0.9 m diameter on an 8m by 8m grid; and significant excavation is required into alluvial clays (or excavation into clays below RL 5m) for earthworks (as noted in the Soil and Water Report). It is noted that the hospital building basement excavation exceeds 2400 tonnes as such a management plan should be prepared.

Sustainability and Building Design

The SSD should include provisions and design controls relating to sustainability including water sensitive urban design, urban tree canopy and green cover to assist with reducing the urban heat island effect, and local temperatures and improving liveability. OEH recommends the development incorporate green walls, green roof and/or a cool roof into the design. The benefits of Green Roofs and Cool Roofs are outlined in the *OEH (2015) Urban Green Cover in NSW Technical Guidelines* which can be found at the following link:

<http://climatechange.environment.nsw.gov.au/Adapting-to-climate-change/Green-Cover>

Green roofs can increase habitat and biodiversity at the site, particularly if local native plant species are used from the relevant native vegetation community. OEH notes that there are multiple ATLAS records of the White Bellied Sea Eagles on and surrounding the site. This species would benefit from these sustainability initiatives.

OEH also recommends that the NSW and ACT Governments Regional Climate Modelling (NARClIM) **climate change projections** developed for the Sydney Metropolitan area are used to inform the building design and asset life of the project. These include over 100 climate variables, including temperature, rainfall, hot days and cold nights, severe Forest Fire Danger Index (FFDI) and are publicly available online and at fine resolution (10km and hourly intervals) for 20-year time periods: 2020–2039 near future and long- term 2060–2079.

Further, the SSD makes no mention of the Sustainability priorities and strategies in the Eastern City District Plan (March 2018) such as Planning Priority E17: Increasing urban tree canopy cover and delivering Green Grid connections. To achieve this priority the District Plan identifies opportunities for green grid connections and outlines the NSW Governments target to increase tree canopy cover across Greater Sydney to 40 per cent. The SSD needs to detail how it is proposed to be consistent in this regard.

The ESD Statement should be updated to include the above and all WSUD measures to provide clarity as to what the proposals ESD outcomes are and its commitments.

(END OF SUBMISSION)