NSW GOVERNMENT | Office of Environment & Heritage

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Mr David Gibson
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NSW Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Gibson

Exhibition of Nepean Hospital and Integrated Ambulatory Services Redevelopment (Stage 1) - 35-65 Derby Street, Kingswood (SSD 8766)

I refer to your letter dated 10 September 2018 requesting input from the Office of Environment and Heritage (OEH) on the exhibition of the Nepean Hospital Redevelopment State Significant Development (SSD 8766).

The proposal comprises:
- demolition works
- construction of a fifteen-storey building (including plant level) with 57,000m² additional gross floor area to accommodate inpatient wards, intensive care unit, maternity unit and associated spaces, operating theatres, outpatient and ambulatory services, ancillary services, administration spaces and rooftop helipad and
- associated landscaping, tree removal, signage, infrastructure and service works.

Please find attached OEH's comments in Attachment 1 with floodplain risk management comments to be forwarded separately when 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 10/10/18

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Attachment 1: OEH Comments - Exhibition of Nepean Hospital and Integrated Ambulatory Services Redevelopment (Stage 1) - 35-65 Derby Street, Kingswood (SSD 8766)

Biodiversity

The Biodiversity Development Assessment Report (BDAR) needs to be updated to address the following matters, and all details must be consistent between the plans and supporting technical studies. The following additional information must be submitted for OEH to undertake a thorough assessment of the proposal.

1. Clarification is required on which trees are to be retained and removed and this is to be shown on one map, as the proposal is currently unclear in this regard. The Biodiversity Development Assessment Report (BDAR) needs to be consistent with the Arboricultural Development Assessment Report. The information in the BDAR is confusing, for example it includes the following "The locations of trees in Figure 8 do not align with the location of trees in Figure 11. It is assumed that Figure 8 in general provides a more accurate location of trees on part of the site. These two figures (Figure 11 and Figure 8) are an attempt to try to reconcile the two different tree plans" (page 76).
2. The measures to mitigate and manage impacts on the retained trees need to be made clear from the outset and needs to be consistent between the BDAR and Arboricultural Development Assessment Report.
    a. The BDAR states "Use appropriate fencing and arboricultural practice consistent with the Australian Standard Protection of trees on development sites (AS 4970-2009) to minimise the likelihood of damage to any of the retained trees within the proposal area. Liaison between the arborist and the engineer will be required to ensure that on-ground methods of tree protection will be suitably installed. This will include documenting the accurate location of the trees on a plan and their tree protection fencing." (page 9). As previously stated, point 1 above needs to be addressed.
    b. The Arboricultural Development Assessment Report states "5.2 Implementation of Tree Protection Zone: All tree protection works should be carried out before the start of demolition or building work" (page 16). However, all tree protection zones and structural root zones need to be set up on-site before any construction work starts. These zones need to be fenced off to prohibit the entry of people, vehicles and machinery, and to prohibit the use of the area for storing plant and vehicles, building supplies, building wastes etc.
    c. Sedimentation fences also need to be used around the tree protection zones and structural root zones. This is to help prevent the ingress of soil and sediment, to protect the native ground species of Cumberland Plain Woodland.
    d. Soil stockpiles should not be located near the tree protection zones and structural root zones.
    e. The Arboricultural Development Assessment Report states "The following activities shall be avoided within the TPZ of any tree to be retained; Erecting site sheds or portable toilets; Trenching, ripping or cultivation of soil (with the exception of approved foundations and underground services); Soil level changes or fill material (pier and beam or suspended slab construction are acceptable); Storage of building materials; Disposal of waste materials, solid or liquid" (page 17). However, pier and beam, and suspended slab construction methods, have the potential to impact biodiversity values, for example through changes to hydrology and the removal of native plants. Therefore, if these methods are proposed they need to be appropriately assessed prior to approval. Furthermore, the impacts on biodiversity values from foundations and underground services will also need to be appropriately assessed.
    f. The Arboricultural Development Assessment Report states "4.5 Further assessment will be required to assess impacts from service trenching once new service locations have been confirmed. This report should be updated for this purpose" (page 15). However, all impacts associated with this development should be assessed and considered at the same time.
3. A map showing the developments construction footprint and operational footprint needs to be submitted.
4. Landscape features need to be shown on the site and location maps, as per section 4.2.1.3 of the BAM, this includes any applicable soil hazard features for the Luddenham soil landscape. Also, the colours used for map keys need to match the contents of the maps.
5. The justifications for excluding the Swift Parrot and Southern Myotis from the assessment i.e. "No breeding habitat observed" and "Does not breed in NSW" (pages 36-37) are inadequate because

they are dual credit species due to other (non-breeding) constraints. There is also an Atlas record of the Swift Parrot being present on the site.

6. It appears that no targeted flora surveys were carried out so the justifications for excluding the cryptic species Pimelea spicata and Sydney Plains Greenhood, for which there are nearby BioNet records, are inadequate

Aboriginal Cultural Heritage

OEH notes that the SEARs did not require the preparation of an Aboriginal Cultural Heritage Assessment (ACHAR) or consultation as required by OEH guidelines. A Preliminary Aboriginal Heritage Assessment has been prepared (Extent 2018). Based on the geographic location of the site, the limited survey which has occurred in the area, limited consultation and surface investigation only, the consultant concluded that there is a low likelihood of Aboriginal objects being present within the study area and therefore low risk of harm to Aboriginal cultural heritage material through the proposed works.

However, without any archaeological testing it is not possible to exclude the presence of sub-surface artefacts across the site, including under existing buildings where no basement exists. OEH notes that the proposal requires extensive excavation with an approximate volume of cut of 32,315m^3. Given this significant site works there may be impacts on sub-surface Aboriginal objects if present.

As such OEH recommends the following conditions of consent:

- Prepare an Unexpected Finds Procedure. The procedure is to detail the actions to be taken when potential Aboriginal objects or human remains are found during construction activities.
- Prior to onsite ground disturbance commencing, the project team including all contractors on site undergo cultural awareness training including details of possible objects and the contents of the Unexpected Finds Procedure.

Water Sensitive Urban Design (WSUD)

The proposal accommodates 2,009 car spaces comprising the additional spaces on the multi-deck car park roof level and some at-grade areas around the Stage 1 Building and a helipad. OEH has reviewed the Integrated Water Management Plan (WMP Appendix 1) that states "Water quality treatment measures are proposed to ensure that site runoff complies with Penrith City Councils water quality requirements. These treatment measures include proprietary systems such as Enviropods and Stormfilter cartridges. Vegetated swales and bio-retention may also be used to ensure that the stormwater discharge from the proposed site meets the water quality targets. MUSIC modelling has been undertaken to confirm that the water quality targets are met." OEH notes that the Stormfilter cartridges are shown on the WMP.

Similarly, the Civil Design Report and Drawings (Appendix 12) states the "water quality strategy for the site incorporates a swale, enviropods and stormfilters. The eastern roof including the helipad drains towards a Puraceptor (SPEL) model P050 (located between the new Ambulance Bays and the new cul-de-sac servicing the Emergency Department) to treat stormwater runoff (potentially from a fuel/oil spill) before entering the stormfilter chamber for further treatment. The western roof area drains to a stormfilter chamber for treatment. The runoff from Barber Avenue road extension and the new cul-de-sac servicing the proposed Emergency Department is captured and filtered by Enviropods in each stormwater inlet pit before passing through a Stormfilter chamber to meet Council's water quality targets". OEH supports these WSUD measures and notes the landscape plans also shows the vegetated swales and raingardens to filter and overland flow. OEH recommends the use of local native plant species in these vegetated swales.

Sustainability and Building Design

OEH recommends the development incorporate green walls, green roofs 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. While, the rooftop landscape plan shows a 'sedum green roof' on Level 9, local natives should be used preferably, and the uppermost roof level presents a good opportunity for an additional green roof.

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 ATLAS records of several species such as the Swift Parrot on site and nearby that would benefit from these initiatives. Further, the SSD should detail the extent of the proposed green cover that will assist with reducing the urban heat island effect, local temperatures and contribute to meeting Greater Sydney's urban tree canopy target of 40 per cent consistent with the District Plan's Planning Priority.

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.

(END OF SUBMISSION)