

## Department of Planning and Environment

Our ref: DOC22/859656

Your Ref: SSD-13619238

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28 October 2022

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**Subject: Request for Advice: Greenwich Hospital Redevelopment - Detailed Design (SSD-13619238)**

Dear Ms Fu

Thank you for your email received 26 September 2022 seeking comments on the environmental impact statement (EIS) for the above project. Environment and Heritage Group (EHG) has reviewed the EIS for this project and considers that:

- additional consideration and clarification are required for aspects relevant to the potential flood impact and risk
- the biodiversity development assessment report has not complied with the requirements of the Biodiversity Assessment Method 2020.

Detailed comments from EHG can be found at **Attachment A**. EHG advises that Heritage NSW has not been consulted and may need to be approached separately.

If you have any queries please contact David Way, Senior Conservation Officer via [David.Way@planning.nsw.gov.au](mailto:David.Way@planning.nsw.gov.au) or 02 8275 1324.

Yours sincerely,



Susan Harrison  
Senior Teams Leader  
Greater Sydney Branch  
Biodiversity and Conservation

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**Attachment A:** EHG Comments for Greenwich Hospital Redevelopment - Detailed Design (SSD-13619238)

### Biodiversity

It is unclear if the biodiversity development assessment report (BDAR) and associated Biodiversity Assessment Method 2020 (BAM) credit report was finalised within the 14-day requirement. The BDAR is dated April and the exhibition period started in September.

EHG also notes that this review was undertaken without access to the assessment in the BAM calculator as the case has not been submitted. The assessor must 'submit to consent authority' where the consent authority is 'Greater Sydney – Compliance & Regulation'.

In addition, this review has been undertaken without access to GIS files, as these have not been provided to EHG.

#### *Identification of Subject Land (all areas of impact)*

The definition of the extent of the "Subject Land" is unclear. The "Study Area" has been mapped but this is not the BAM requirement. The definitions within the BDAR state that the "Development Footprint" is the same as "Subject Land" but fails to include indirect impacts and the Asset Protection Zone in this area. The utilisation of hardstand concrete or buildings (what has been incorrectly identified as the development footprint) does not assist the assessor in the identification of indirect impacts, prescribed impacts and impacts from ancillary works. The BDAR is to consistently apply the label of "Subject Land" as defined and required clearly within the BAM.

The "Development Footprint" has not identified areas where the trees may be required to be removed because of major encroachments into the Tree Protection Zone nor areas where services or batters are required to be installed or Asset Protection Zones. It is unclear if the maps of the project footprint and the indirect impacts zones are complete given these inadequacies.

The identification of indirect impacts in section 5.3.3 of the BDAR include edge effects, increased soil nutrients from runoff, increase in runoff from impervious surfaces and noise and light pollution. These indirect impact areas have not been included within the "Subject Land" mapping and adequately offset.

#### *Identification of plant community types (PCTs)*

The BDAR - Section 3.1.3: plant community types discusses the justification of the identified PCTs on the Subject Land. In Table 3.2: PCT shortlist, there are several PCTs considered based on the number of diagnostic species in each Plot.

Section 4.2 of the BAM describes how assessors are to identify and map the distribution of PCTs, or the most likely PCT. The identification of any threatened ecological communities (TEC) must be consistent with the Threatened Species Scientific Committee Final Determination for the TEC. Given there are TECs listed in Table 3.2 in the BDAR, it remains unclear how the assessor has determined that these TECs are not present on the Subject Land.

For example, Blue Gum High Forest is ranked as number 2 in Plot 1 and ranked equal 3<sup>rd</sup> in Plot 2. It is noted that this vegetation community is also mapped in proximity (within 100m) to the south of the Subject Land in the Eastern NSW PCT classification (C1.1.M1).

EHG requires further justification on PCT identification. Noting the number of diagnostic species for each PCT that were found in each quadrat, is not adequate justification.

There are concerns as to the adequacy of the mapping of direct and indirect impacts mapped and hence the extent of Native Vegetation impacted by the proposal is likely to be an underestimate.

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As discussed above, there are concerns regarding the identification of PCTs on the Subject Land which would affect the identification of ecosystem credit species (ECS). The correct identification of the "Subject Land" would also affect the calculation of species credit species (SCS).

### *Species Credit Species*

Section 4.4.3 of the BAM Operational Manual – Stage 1 states "The BAR must include...(C) details of the field assessment conducted to determine if a. is absent, or if present, whether a. and/or b. are degraded to the point that the species is unlikely to use the subject land (or specific vegetation zones)". The BDAR has stated that, with reference to the Subject Land, that "the site is moderately to highly disturbed".

The BDAR has assumed species presence for several species credit species (SCS) rather than undertaking adequate survey or considering microhabitat requirements. The assumption of species presence incurs a credit offset requirement. EHG considers that if adequate survey or assessment of microhabitat requirements it is likely that some of these species may be discounted.

While the BAM allows for the assumption of presence of SCS, and steps taken within the BDAR in this regard do not require amendment to comply with the BAM requirements, it is noted that there may be some opportunity to reduce credits requirements to reflect more accurately the likely impacts to biodiversity.

It is worth noting that section 4.4.4 of the BAM Operational Manual – Stage 1 states "Where one of these options is selected a species survey cannot subsequently be used to assess presence at some time post development application lodgement or approval. In this regard, adequate assessment and justification within a BDAR and the lack of survey undertaken is worthy of additional consideration."

EHG notes the following examples of considerations for fauna SCS:

1. The Eastern Pygmy-possum has been included as a SCS. The BDAR includes this species because trapping surveys were not undertaken in the required survey period. Looking at the habitat requirements for this species, even though it can rely on the presence of Eucalyptus as a food source, in small patches of vegetation in fragmented landscapes, they require shrubby understorey or grassy groundcovers to persist. The consideration of the quality of the habitat could be further considered to demonstrate how the vegetation within the Subject Land qualifies as a confirmed candidate species. Surveys for other species were undertaken during the recommended survey period for the Eastern Pygmy-possum.
2. The field survey personnel were on the Subject Land in the correct time periods for the survey of amphibians, yet no amphibians survey was undertaken and so again were assumed present with an associated credit obligation.
3. *Deyeuxia appressa* has been assumed present with the associated credit requirement recommended within the BDAR. Survey on the subject land was undertaken two months either side (October and February) of the recommended survey period (December). This species is a serious and irreversible impacts (SAIL) entity and any impacts to this species would be considered a SAIL. Survey to confirm its presence is a necessary part of the BAM requirements if the habitat on the site is considered suitable. The BDAR provides conflicting information in this regard stating that the species is unlikely to occur and that the habitat is moderately to highly disturbed.

The above are examples of further considerations required by the BAM and is not a complete list of deficiencies in the assessment of SCS for which an assumed presence may be unnecessary. The full list of SCS should be reviewed with reference to the above discussion.

EHG recommends that further details regarding habitat requirements for SCS are included to assist in determining if the range of SCS should be a confirmed species or if habitat on the site is not suitable for the species.

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### *Avoid and mitigate*

Avoidance measures include the retention of significant habitat tree SHT2 which contains large hollows. The tree is located within the development footprint. It is unclear how this tree would be retained within this location. Even given the retention of the tree, the built form in close proximity would reduce the likelihood of its continued use by fauna into the future.

The indirect impacts firstly need to be adequately identified. Once correctly identified, mitigation measures can be provided to control the risks associated with indirect impacts.

### *Prescribed impacts*

The prescribed impacts have not been adequately mapped and included within the assessment.

### *Serious and Irreversible Impacts*

There are a number of issues in the identification of suitable habitat for species susceptible to SAIL in relation to their assumed presence, as discussed above.

For example, EHG notes the BDAR stated “further survey is necessary to assess presence of breeding habitat and breeding individuals of Large-eared Pied-bat, and presence of *Deyeuxia appressa*”.

Impacts to these SAIL species, if they are present, is a cause for concern and additional avoidance and mitigation measures would be required. Assuming presence of these species brings the assessment of SAIL into scope, particularly regarding whether the avoidance and mitigation measures are adequate.

SAIL species should be surveyed to ensure adequate assessment of the adequacy of the BDAR.

### **Flooding**

The project site is in the Lane Cove local government area and is subject to overland flooding mainly from rare flooding events. EHG considers that the flood assessment and EIS are considered reasonable, however additional consideration and clarification are required for a few aspects relevant to considering the potential flood impact and risk.

EHG considers that the flood the assessment must consider climate change impacts from increased rainfall and sea level rise (if applicable). This may include the 0.5% and 0.2% annual exceedance probability (AEP) year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change.

EHG notes the flood report conclude the proposed landscaping bunding along the southern boundary would reduce flood risk to neighbouring properties to the south. These properties had previously been subject to shallow overland flow but now are no longer flooded by the 1% annual exceedance probability (AEP) event. However, insufficient detail on the proposed landscaping bund has been provided to support this conclusion.

EHG requests that either suitable justification to support this conclusion is provided or a permanent reliable solution is desirable. Furthermore, the impact of flooding to neighbouring properties from the full range of flooding needs to be analysed and solutions provided to mitigate the impact.

EHG also notes that the flood assessment - Appendix E provided a map of the 1% flood impact assessment, but there is no such map for the probable maximum flood (PMF) event. This mapping should be provided.

EHG considers that the flood assessment would benefit from clarification and additional detail on the potential impacts on managing risk to life, emergency management arrangements, evacuation and access, and contingency measures for the development considering the full range of flood risk (based upon the PMF).

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EHG recommends that these matters are discussed with the NSW State Emergency Services and Lane Cove Council before the design stage. Emergency management can be complex and encompasses multiple responses including evacuation, potential human behaviours, and severity of hazards. This development must not increase the existing risk to life and the potential for effective evacuation, if required.

The local flood plan, if available, should be considered in the assessment. Furthermore, it is critical that occupiers and owners of the project site are educated on the potential flood risks within and outside the vicinity of the development, before, during and after a flood event. Community education and awareness information should be readily available to all concerned.

EHG notes the finished floor levels of the proposed development is proposed at or above the PMF level adjacent to each entry. It is proposed that occupants can safely shelter in place during a flood event with the support of a flood emergency response plan. The concept of shelter in place is a matter that should be endorsed by the NSW State Emergency Services, as the responsible agency, particularly as this is a vulnerable development and secondly, EHG considers that shelter in place is not a preferred strategy for new development.

EHG considers that to address the suitability of the proposed shelter in place strategy, the flood assessment should provide clear information on the duration of sheltering in place and potential impacts on services and infrastructure such as power supply, telecommunication and water supply during flood events.

In reviewing the suitability of the proposed shelter in place strategy EHG also recommends that the applicant should also consider the structural soundness of the proposed senior buildings to ensure they can withstand flood and debris impacts up to the PMF to ensure they are designed and constructed as safe as possible to occupy during flood events.

EHG considers that given the steep topography, the project site is not expected to be subject to mainstream flooding from Gore Creek. The summary section of the flood assessment report should confirm that mainstream flooding from Gore Creek (accounting for climate change considerations) is not an issue for this proposal.

**(End of Submission)**