

6 March 2024

Our ref: 21WOL-19654

Health Infrastructure NSW
Planning Group
Department of Planning and Environment
4 Parramatta Square, NSW 2150

Attention: Marcus Haines

Dear Marcus,

Ryde Hospital Redevelopment Temporary Structures REF Impact Statement

INTRODUCTION

Eco Logical Australia Pty Ltd (ELA) was engaged by Health Infrastructure NSW to provide a test of significance under section 7.3 of the *Biodiversity Conservation Act 2016* (BC Act) regarding the biodiversity impacts associated with the Ryde Hospital Redevelopment Temporary Structures Review of Environmental Factors.

ELA has previously provided a Biodiversity Development Assessment Report (BDAR) for the Ryde Hospital Redevelopment Concept and Stage 1 (SSD-36778089) which was approved on 30 June 2023. No biodiversity credits were required to offset residual biodiversity impacts of the Concept and Stage 1. The Concept and Stage 1 was also referred to the then Commonwealth Department of Agriculture, Water and the Environment (EPBC 2022/09219) to determine whether the project was a Controlled Action. The outcome was a Not Controlled Action, therefore the project did not require further assessment or approval regarding the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

This letter provides analysis of potential biodiversity impacts associated with the development at Ryde Hospital (herein referred to as the 'study area'). Specifically, the proposed the construction of a temporary road in the east of the study area along the edge of remnant native vegetation. ELA understands the proposed activity, to be assessed under Part 5 of the *Environmental Planning and Assessment Act 1979*, is for the construction of a temporary road access at the rear of the current childcare centre. The temporary road facilitates the construction of the new Intensive Care Unit as part of the Ryde Hospital redevelopment (SSD-36778089). The temporary road is about 25 m long by about 5 m wide and is partly suspended over a small area of the Blue Gum High Forest. Three concrete piers about 400 mm in diameter would be pile driven from above the forest from the existing hardstand. The piers would support the portion of temporary road, suspended over the current embankment.

METHOD

Eco Logical Australia (ELA) was engaged by Health Infrastructure NSW to provide an ‘assessment of significance’ (5-part test) under s7.3 of the BC Act for the construction of a temporary road at the Ryde Hospital redevelopment site. If a species, population or ecological community listed under Schedules 1 or 2 of the BC Act is likely to be affected, the factors set out to establish if there is likely to be a significant impact on that species, population, ecological community or habitat, must be assessed. The assessment sets out five factors, which when considered, allow proponents to undertake a qualitative analysis of the likely impacts of an action and to determine whether a significant impact is likely. All factors must be considered, and an overall conclusion made based on all factors in combination.

Threatened species, populations and / or ecological communities to be assessed under the BC Act, which occur within the study area is the critically endangered ecological community (CEEC), Blue Gum High Forest. This ecological community is listed under the BC Act and EPBC Act.

No additional field survey was carried out, rather the information gathered from the BDAR was used to inform the test of significance.

EXISTING ENVIRONMENT

The Ryde Hospital development site is located approximately 14 km north west of the Sydney Central Business District at 1 Denistone Road, Denistone NSW (Lot 11, DP 1183279, Lots A and B DP 323458) within the City of Ryde Local Government Area (LGA). The lands form part of the Eora Nation, lands of the Wallumedegal clan (City of Ryde). The site is bounded by Denistone Road, Florence Avenue, Ryedale Road and Fourth Avenue. The development site is 7.69 ha. Ryde hospital buildings and associated infrastructure (including carparks and internal access roads) are located in the northern section of the development site and is about 2.8 ha (hardstand areas and gardens). The southern section is approximately 3.8 ha and consists of Blue Gum High Forest along a steep slope that is heavily weed affected (herein referred to the ‘vegetation zone’).

The ‘subject site’ refers to the proposed construction of a temporary road to support the redevelopment of Ryde Hospital. The area of the temporary road is about 25 m long by about 5 m wide. There would be three piers driven into the understorey of the Blue Gum High Forest.

The study area is the area of the subject site plus a small buffer to account for potential indirect impacts. This buffer is 10 m downslope and 2 m at grade adjacent to the proposed road. There are no mapped watercourses within the study area. The study area is surrounded by urban development to the north and the Blue Gum High Forest to the south.

The condition of the remnant Blue Gum High Forest within the study area is poor relative to the benchmark vegetation integrity scores for this Plant Community Type. The discrepancy between the vegetation integrity for the Blue Gum High Forest is seen across the ground, mid and canopy strata. The canopy stratum is dominated by *Eucalyptus saligna* (Sydney Blue Gum) with *Eucalyptus paniculata* (Grey Ironbark) and *Syncarpia glomulifera* (Yanderra) recorded in lower frequencies. No characteristic native mid-storey species were observed during the field survey, due to historical disturbances that have occurred within the study area. *Pittosporum undulatum* (Mock Orange) was present sporadically throughout. Groundcover species were observed where dense weeds were not present and comprised of ferns, and mesic herbaceous species such as *Pellaea falcata* (Sickle Fern), *Dianella caerulea* var.

producta (Blue Flax Lily), *Glycine clandestina*, *Dichondra repens* (Yilibili) and *Sticherus flabellatus* (Umbrella Fern).

IMPACT ASSESSMENT

The Blue Gum High Forest ecological community is limited to the Ku-ring-gai, Hornsby, Ryde and Baulkham Hills local government areas. Blue Gum High Forest occurs mainly in areas with deep clay soil derived from shale, generally at altitudes greater than 100 m above sea level and with an annual rainfall of more than 1,050 mm. Blue Gum High Forest is also known to occur in isolated valleys on soils associated with localised volcanic intrusions. Blue Gum High Forest is a moist, tall open forest community, with dominant canopy trees of *Eucalyptus saligna* (Sydney Blue Gum) and *Eucalyptus pilularis* (Blackbutt). *Allocasuarina torulosa* (Forest Oak) and *Angophora costata* (Sydney Red Gum) also occur. Species adapted to moist habitat such as Lilly Pilly (*Acmena smithii*), Sandpaper Fig (*Ficus coronata*), Rainbow Fern (*Calochleana dubia*) and Common Maidenhair (*Adiantum aethiopicum*) may also occur.

Blue Gum High Forest was originally restricted to the ridgelines in the north of Sydney, from Crows Nest to Hornsby, and extended west along the ridges between Castle Hill and Eastwood. In 2000 there was less than 200 hectares remaining (about 4.5% of its original extent). It only occurs in small remnants of which the largest is less than 20 hectares. The remnants mainly occur in the Lane Cove, Willoughby, Ku-ring-gai, Hornsby, Baulkham Hills, Ryde and Parramatta local government areas.

The anticipated impacts would arise from three 400 mm diameter areas of direct impact to the groundcover of the Blue Gum High Forest, and temporary construction noise and vibration. There is no requirement to remove any of the Blue Gum High Forest trees or shrubs to construct the temporary road. Indirect impacts would include noise, dust and vibration during construction, with the potential for erosion and sedimentation.

Table 1 Blue Gum High Forest in the Sydney Basin Bioregion CEEC BC Act Test of Significance

BC Act	Question	Response
7.3.1 a)	In the case of a threatened species: whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction	Not applicable.
7.3.1 b) i	In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity: Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or	The local occurrence of Blue Gum High Forest within the development site is 3.8 ha. This stand of Blue Gum High Forest is one of many small remnant patches of Blue Gum High Forest within Ryde LGA. These fragmented patches are retained within a matrix of urbanisation. Nevertheless, the remnant patches of Blue Gum High Forest provide important connectivity to more substantive remnant stands of Blue Gum High Forest 8 km north west in Hornsby LGA. This is particularly true for more mobile fauna species associated with this community that may facilitate seed dispersal, pollination and subsequent gene flow between remnant stands.

BC Act	Question	Response
		The section of Blue Gum High Forest affected by the proposed activity is a small section in the east of the study area where the vegetation zone abuts a managed lawn. Both the mid and ground strata are highly disturbed throughout the remnant patch. The understorey has a high frequency of weed species such as <i>Lantana camara</i> (Lantana), <i>Ochna serrulata</i> (Mickey Mouse Plant) and <i>Ligustrum lucidum</i> (Large-leaved Privet). The proposed activity includes the construction of three 400 mm wide piers to be driven into the ground from existing hardstand above the forest. This will not require the removal of any canopy species, however a section of the mid and ground strata will be adversely affected, approximately 0.37m². The removal of such a small extent of mid and ground strata in poor condition is not likely to place the local occurrence of The Blue Gum High Forest at risk of extinction.
7.3.1 b) ii	In the case of an endangered ecological community or critically endangered ecological community: Whether the proposed development or activity is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.	The proposed development footprint will impact the understorey of Blue Gum High Forest in the east of the study area. The Blue Gum High Forest present in the subject site is the north eastern edge of the vegetation zone. Along the edge there are native canopy trees including <i>Eucalyptus saligna</i> (Sydney Blue Gum) and <i>Syncarpia glomulifera</i> (Yanderra), as well as a disturbed mid and ground strata comprising of native and exotic plant species. The proposed activity will not affect the canopy strata. However, a small section of mid and ground strata in the east of the study area will be adversely affected. Species recorded in the ground and mid strata in this section includes High Threat Exotics (HTE) such as <i>Lantana camara</i> (Lantana), <i>Ochna serrulata</i> (Mickey Mouse Plant) and <i>Ligustrum lucidum</i> (Large-leaved Privet). Furthermore, the vegetation zone is degraded as a result of historic clearing, surrounding development, and incursion of weeds. There are no unique species that only occur within the areas proposed for removal, and a majority of the Blue Gum High Forest within the development site (3.8 ha) being retained. Given the degraded condition and the lack of diversity in the vegetation to be affected, the proposal is unlikely to substantially and adversely modify the composition of the ecological community in a way that would place the local occurrence of this community at risk of extinction.
7.3.1 c) i	In relation to the habitat of a threatened species or ecological community:	The proposed construction of the temporary road will remove a small amount of Blue Gum High Forest understorey to facilitate the construction of three 400

BC Act	Question	Response
	The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity	mm piers which will be driven into the ground from existing hardstand above the canopy. The proposed method of construction means the project has largely avoided clearing of the vegetation zone. The understorey to be removed is in poor condition and contains a high frequency of HTE species. Furthermore, a majority of the 3.8 ha of Blue Gum High Forest within the development site is being retained.
7.3.1 c) ii	In relation to the habitat of a threatened species or ecological community: Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity	The patch of Blue Gum High Forest that will be affected by the proposal is very small and construction works will only affect the understorey. A small amount of native vegetation will be removed as part of the proposed works, however all canopy strata will be retained within the subject site and connectivity will exist between these trees and the contiguous patch of Blue Gum High Forest in the south of the study area. The proposed development has a small footprint along the north east edge of the vegetation zone and will not create more patches of Blue Gum High Forest. Therefore, the proposed development will not contribute to further fragmentation within the subject site.
7.3.1 c) iii	In relation to the habitat of a threatened species or ecological community: The importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.	Removal of a small amount of understorey along the north east edge of the remnant patch Blue Gum High Forest will not create more patches, therefore the proposed activity would not contribute to further fragmentation within the study area. This area of Blue Gum High Forest will not become fragmented or isolated from other areas of habitat as a result of the proposed development. Measures have already been implemented to limit the development footprint, including constructing the road as a suspended concrete slab, only using three piers in the forest floor and pile driving from above rather than construction at grade. The majority of the remnant patch of Blue Gum High Forest in the development site is to be retained and connectivity to the wider landscape will be maintained. There are no hollow bearing trees proposed for removal. The Blue Gum High Forest to be removed is a small section of understorey that is highly disturbed. The small section along the north east edge of the vegetation zone to be affected is not important for the long-term survival of the ecological community in the locality. The impact on vegetation is unlikely to affect the long-term survival of this ecological community in the locality as the activity will not significantly affect the long-term viability, tenure, quality and integrity of the habitat within the locality.

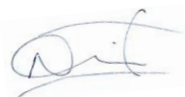
BC Act	Question	Response
7.3.1 d)	Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly).	The proposal would not directly or indirectly effect any declared area of outstanding biodiversity value identified by the Office of Environment and Heritage.
7.3.1 e)	Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.	A number of Key Threatening Processes (KTP) are relevant to this proposal with respect to the Blue Gum High Forest in the Sydney Basin Bioregion. These include: • clearing of native vegetation • invasion by weeds • edge effects • urban runoff. This remnant patch of Blue Gum High Forest is already affected by weeds, underscrubbing, urban runoff and is edge affected due to the small patch size. The area of potential habitat to be affected by the activity is small and consists of mixed native and exotic understorey only. No canopy species will be affected by the proposed activity. Mitigation measures to protect against the aforementioned KTPs include: • using existing hardstand to largely avoid clearing of the CEEC • implementation of a Vegetation Management Plan in the retained BGHF prior to commencement of the proposed development • mitigation measures will be implemented to reduce the spread of weeds and pathogens • a Bushland Restoration Plan will be implemented to ensure the effective management and eradication of weeds and replanting native understorey species that align with the existing plant community. It is unlikely that the proposal would exacerbate any key threatening processes to such an extent that they would place any local occurrences of Blue Gum High Forest at risk of extinction. Furthermore, management plans implemented as a result of the proposed development have the potential improve the condition of this patch of remnant Blue Gum High Forest.
Conclusion	Is there likely to be a significant impact?	A small section of understorey along the north east of the vegetation zone will be affected by the proposed activity. The scale and impact of vegetation removal is considered small because the ecological value of the vegetation on the subject site to the overall community is relatively minor. The proposed development is unlikely to pose a significant impact upon the critically endangered ecological community because: • the local occurrence of this community would not be placed at risk of extinction

BC Act	Question	Response
		- the proposal will not further fragment or isolate this ecological community from other patches of Blue Gum High Forest - the community within the subject site is already significantly disturbed and degraded - the extent of the community that will be affected is small in comparison to the extent of the community in the local occurrence - the patches to be removed do not contain unique or significant species. On the basis of the above considerations, it is unlikely that the proposed development will result in a significant impact on Blue Gum High Forest CEEC.

CONCLUSION

This letter has been prepared by Eco Logical Australia (ELA) for Health Infrastructure NSW to provide a test of significance under 7.3 of the *Biodiversity Conservation Act* (2016) to assess the potential impacts of the construction of a temporary road on the remnant patch of the Blue Gum High Forest within the development footprint. From this, it can be determined that the construction of a temporary road in the east of the subject area will not have a significant effect on the critically endangered ecological community, Blue Gum High Forest and mitigation measures described in the Review of Environmental Factors can be applied.

Regards,



Ali Jeffery
Ecologist