



Our ref: 2270174A-ECO-LTR-001 RevB

By email
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13 March 2018

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Dear Daniel

SD 6471 - Response to Office of Environment & Heritage comments regarding biodiversity dated 15/02/2018

This letter provides a response to issues raised by the Office of Environment & Heritage (Letter dated 15/02/2018) on SD 6471 _ Art Gallery of NEW Project - Sydney Modern '*Terrestrial Biodiversity Impact Assessment*' WSP, Rev D, dated November 2017.

The comments raised by the Office of Environment & Heritage have been categorised into two specific issues;

1. Biodiversity offsetting;
2. Threatened species, assessment of significance

Biodiversity offsetting

The proposed impact will result in the loss of 136 planted native / non-native horticultural trees and the transplanting of 9 trees. This vegetation does not form part of any native vegetation plant community type. Offset calculations based on FBA 2014 or BBAM 2014 were not able to be run due to the vegetation not forming any recognised native vegetation community with quantified ecological benchmarks.

The Terrestrial Biodiversity Impact Assessment (WSP, 2017) assesses potential habitat loss and concludes that the impact is unlikely to lead to a significant impact on threatened species, populations, ecological communities or their habitats. It is considered that the loss of native / non-native planted horticultural trees would not be an impact that would meet impact thresholds for landscape features, native vegetation and threatened species and populations, under Section 9 of the FBA 2014, that would require a formal biodiversity offset. Given this, the potential for offset requirements for this project, based on assessed impacts, are considered not warranted.

Whilst a formal biodiversity offset is not considered warranted, it is acknowledged that the loss of 136 native planted horticultural trees should be considered in the context of a maintain or improve biodiversity outcome for the project. In this regard, the planting of 274 new trees would provide close to a 2:1 ratio tree replacement that will ensure a positive long-term urban biodiversity outcome for the project.

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Threatened species, assessment of significance

The issue raised by the Office of Environment & Heritage is; ‘...the report’s assessment of significance section Appendix C omits reference to the southern myotis and large-footed myotis and also the Black-faced Monarch and Rufous Fantail (report states that the site is seasonal breeding habitat for migratory birds) and the report is considered deficient in this regard.’

In response to the Southern Myotis and Large-footed Myotis, these are considered a single species being *Myotis macropus* (<http://www.environment.nsw.gov.au/threatenedSpeciesApp/profile.aspx?id=10549>). The Southern Myotis is generally considered a cave dwelling species and as such the potential impact associated with this species will be consistent with the Section 5A assessment completed for cave-dwelling microchiropteran bat species.

For completeness, a Section 5A assessment has been prepared for the Southern Myotis and is attached to this letter. The outcome of this assessment is that the action proposed is unlikely to lead to a significant impact on the Southern Myotis or its habitat.

In response to the Black-faced Monarch and Rufous Fantail, Appendix B provides likelihood of occurrence assessments to determine a list candidate species. Candidate species are then considered further within the report if there is a moderate or higher likelihood that the species may utilise potential habitat within the site. This assessment identified a moderate likelihood of occurrence, based on potential habitat, for the EPBC Act listed migratory species Black-faced Monarch and Rufous Fantail.

These two EPBC Act listed species were considered further under Section 4.4 (Page 17) of the report, where it was stated;

‘Based on the findings of the database searches and presence of suitable habitat two Migratory species are considered to have potential habitat within the subject site; Black-faced Monarch and Rufous Fantail.

While terrestrial Migratory species of bird may potentially use the area, the site would not be classed as ‘important habitat’ as defined Significant Impact Guidelines 1.1 – Matters of National Environmental Significance (Department of the Environment, 2013) as the site does not contain:

- *habitat utilised by a migratory species occasionally or periodically within a region that supports an ecologically significant proportion of the population of the species*
- *habitat utilised by a migratory species which is at the limit of the species range*
- *habitat within an area where the species is declining.*

As such, it is not likely that the proposed activity would significantly affect Migratory species and this group is not considered further.’

This finding is considered appropriate in the context of EPBC Act Significant Impact Guidelines 1.1 – Matters of National Environmental Significance.

If you require any further clarification on any of the matters addressed above, please do not to contact me to discuss.

Yours sincerely



Mark Stables BSc (Hons.)

Encl: Southern Myotis - Assessment of Significance

***Myotis macropus* (Southern Myotis / Large-footed Myotis)**

Section 5A Assessment of significance

In the case of a threatened species, whether the action proposed 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

There is no roosting opportunity within the study site for the Southern Myotis.

There are foraging opportunities for this species associated with the canopies of native horticultural vegetation, throughout the subject site and in the wider locality. Only a relatively small area of foraging habitat would be affected by the project (136 native / non-native planted horticultural trees). These species often prefer to forage along the ecotonal edges between open and wooded habitats and these types of foraging opportunities will continue to exist throughout the subject site.

Therefore, the project is unlikely to cause significantly adverse effects upon the Southern Myotis, due to the relatively small area of vegetation removal, which contained no cave-roosting microhabitat elements. Further, foraging areas will remain within and adjacent to the subject site post project construction and replacement plantings will provide foraging habitat in the medium to long-term. Given this, the action proposed is unlikely 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

In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction

Not applicable.

In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

- **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**

Not applicable.

- **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**

Not applicable.

In relation to the habitat of a threatened species, population or ecological community:

- **the extent to which habitat is likely to be removed or modified as a result of the action proposed**

Potential foraging habitat for the Southern Myotis was recorded within the subject site during field surveys, in the form of canopies associated with native planted horticultural trees. A small area of foraging habitat is likely to be affected by the project (136 native / non native planted horticultural trees). Potential foraging habitat within the subject site likely represents only a small part of a greater home range for the Southern Myotis in the locality.

- **whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action**

While the subject site occurs in predominantly disturbed land, proposed vegetation removal will consist of horticultural plantings (136 trees), as no remnant native vegetation occurs onsite. As the project will remove a relatively small amount of foraging habitat in a locality that provides an abundance of similar or greater quality habitat, which is easily accessed due to the species high mobility, the project is unlikely to represent significant increases to habitat isolation and or fragmentation.

- **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**

The subject site provided a relatively small amount of potential foraging habitat for this species. Foraging opportunities occurring within the subject site will continue to exist and similar and higher quality foraging opportunities will remain available within the Botanic Gardens, Domain and the wider locality. The proposed action would not impact habitat considered important to the long-term survival of populations in the locality and is unlikely to further create a barrier to movement for this species.

Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly)

Critical habitat refers to those areas of land listed in the Register of Critical Habitat kept by the Director General of Department of Environment and Heritage. No critical habitat has been listed for any microchiropteran bat to date.

Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan

The project is not likely to adversely affect any of any recovery actions, as the subject site does not provide vital foraging or roosting habitat for the Southern Myotis.

Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

With respect to the Southern Myotis, the project is not consistent with any key threatening processes under the BC Act, as onsite native vegetation is part of past horticultural plants – no native remnant vegetation exists within the subject site.

The extent of native vegetation clearing and habitat removal associated with the project is considered relatively small (136 native / non-native planted horticultural trees). Although the project will represent an incremental loss of potential foraging, such habitat would only be a small component of an abundance of locally occurring resources accessible to this species.

Conclusion

While the subject site provides potential foraging resources for the Southern Myotis most the subject site has been previously disturbed and fragmented for recreational and urban development activities. Vegetation clearance will be small, with 136 native / non-native planted horticultural trees likely to be affected.

Microhabitat foraging opportunities, such as ecotonal edges, that occur within the subject site will continue to exist and an abundance of similar quality foraging habitat will be retained within the subject site and in the wider locality.

The action proposed will be generally restricted to existing disturbed areas and vegetation removal will be a relatively small extent. The action is not likely to further fragment or isolate potential habitat for these species and project landscape plantings will offset short-term vegetation losses in the medium to long-term. Therefore, the project is unlikely to lead to a significant impact on the Southern Myotis or its habitat.