Ecological Letter for 47 Hilltop Rd, Avalon Beach, NSW 2107

Date: 28th April 2022

1. Summary

- Ecological Consultants Australia (ECA) have been contracted to prepare an ecological review of the proposed development (construction of garage and driveway) at 47 Hilltop Rd, Avalon Beach NSW 2107 ("the site") in particular to respond to Council's request for an appropriately qualified person to provide information on whether the development triggers the Biodiversity Offset Scheme (BOS), specifically if a BDAR is needed. Author is an accredited assessor number BAAS19008.
- The Subject Site (the "Site") is defined as the whole of the property at Lot 8/DP 21933 (47 Hilltop Rd), Avalon Beach NSW 2107. The site area is located within the Northern Beaches Local Government Area (LGA). Figure 1.2 shows the site location.
- The whole site is within Pittwater and Wagstaffe Spotted Gum Forest (PWSGF) vegetation community (PCT 1214 - Figure 1.3).
- With regard to triggering the BOS
    - The site is partly within the biodiversity mapped area (Figure 1.4).
    - On ground survey resulted in the area of proposed direct development is wholly outside the Biodiversity Values Mapped area.
    - Clearing outside of the Biodiversity Vales Mapped area (existing garden with canopy trees) is well below the BOS threshold.
- 5-Part test conducted for Pittwater Spotted Gum Forest EEC resulted in no significant impacts.

Hence the proposal does not trigger the BOS and a BDAR is not required.

Figure 1.1. Extract from Arboricultural Impact Assessment. Source: raintree Consulting 2/02/22.

- 1 *Glochidion ferdinandi* (T1) located outside of the BV purple area and within the road reserve is recommended for removal and replacement with additional 3 of the same species.
- 2 exempt Jacaranda's (T6, and T8) require removal to facilitate the development design.
- Trees 3, 4, 5 are within proximity to the development and proposed for retention and protection. Further arboricultural root investigations are required during construction to fully assess the viability of the trees, post construction. Refer to arborcultural impact assessment report for further details.

Figure 1.2. Location of the site. Source: SixMaps, 2022.

1.2. Plant Community Types (PCTs) and Vegetation Zones

All vegetation on site threatened under the Biodiversity Conservation Act 2016 and Commonwealth EPBC Act 1999. The PCT is identified in Table 1.1 and maps in Figure 1.2 and 1.3.

Figure 1.3. PWSGF vegetation zone. Source: SEED 2022.

Figure 1.4. Biodiversity values. Source: DPIE and accessed 2022.

Table 1.1. Table of vegetation communities

NSW PCT Code	PCT Name	BC Act 2016	EPBC Act 1999
1214	Spotted Gum - Grey Ironbark open forest in the Pittwater and Wagstaffe area, Sydney Basin Bioregion	Pittwater and Wagstaffe Spotted Gum Forest in the Sydney Basin Bioregion Endangered Ecological Community (EEC)	Pittwater and Wagstaffe Spotted Gum Forest in the Sydney Basin Bioregion Not associated

1.3. Images from the site

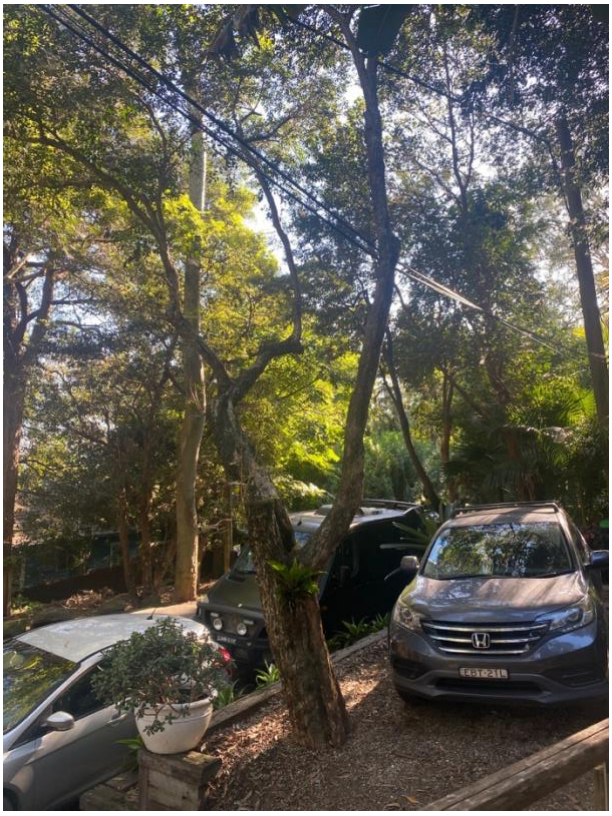

Plate 1. T1 Proposed for removal and replacment

Plate 2. T4 Lilly Pilly. Follow arborist recommendations for retention plan.

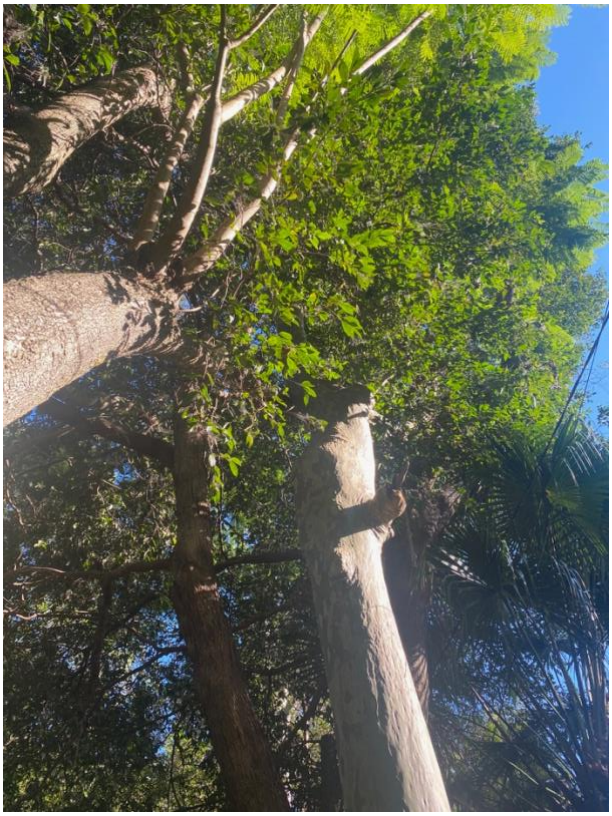

Plate 3. T4 and T5 roots to protected as per arborist recomendations

Plate 4. T4 and T5

Plate 5. T4 and T5

Plate 6. T2 and T3 no impact follow arborsit recommendations

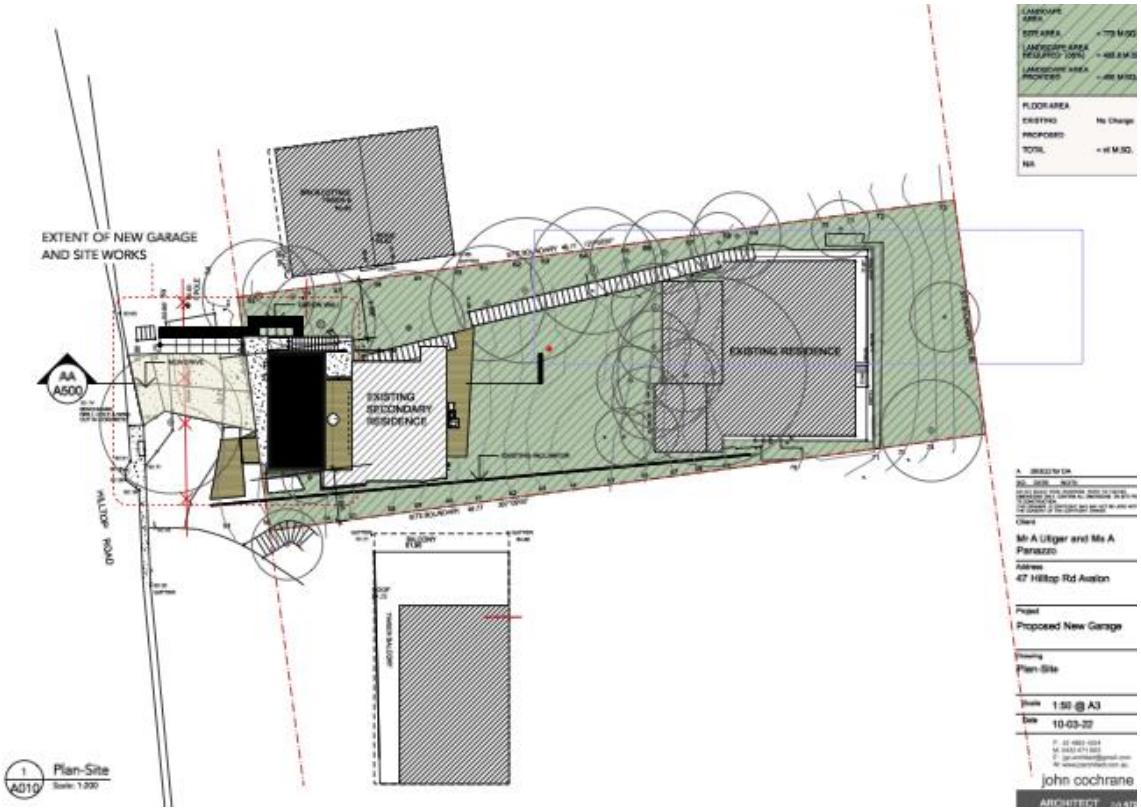

Figure 1.5. Site Plan. Source: John Cochrane Architect 28/03/22 Rev A.

1.4. 5 Part Test for Pittwater Spotted Gum EEC PSGF

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 a Threatened Species

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

(i) 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 PWSGF is already at risk of extinction. The site contains a significantly modified under and mid storey (no native remaining). The existing studio, dwelling and landscaped areas have significantly modified the PWSGF on site. As such, the PSGF community is not in a near natural state.

One Cheese Tree (*Glochidion ferdinandi*) is proposed for removal.

The proposal is unlikely to place the community at a greater risk of extinction than what it currently is (pre-development).

The recommended inclusion of canopy tree planting (3 tube-stock) locally sourced be required now. Future planting of locally native mid and understory species will be a benefit to the community.

(ii) 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 site is currently highly modified and is not representative of the PSGF community in a near natural state. The local occurrence of PSGF is already at risk of extinction. It is proposed that four trees which do not form part of the PSGF community will be removed.

The proposal is unlikely to substantially and adversely modify the composition of the EEC, such that its local occurrence is likely to be placed at an increased risk of extinction.

b) In relation to the habitat of a threatened species or ecological community:

(i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

A total of one (1) tree is proposed for removal.

Areas of habitat for PSGF are already highly modified at the site. The existing dwelling and landscaped areas have significantly modified the site and associated habitat attributes. Due to the current poor condition and habitat value of the site, the proposed actions are unlikely to contribute toward habitat degradation on site.

(ii) 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, and

Spotted Gum community here is already fragmented this area will not become isolated as a result of the proposed tree removal. Canopy will be reduced on-site however, this alone, is not expected to fragment areas of habitat for the EEC or associated threatened species more than they already are.

(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality,

Areas of habitat for PWSGF are already highly modified at the site. The existing dwelling and landscaped areas have significantly modified the site and associated habitat attributes. The addition of a garage and driveway will not significantly removed the EEC and future weed removal and inclusion of PWSGS will improve the diversity and resilience of PWSGC on this site.

c) 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),

Declared areas of outstanding biodiversity value have not yet been declared in this area.

d) 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.

Clearing is a key threatening process. Although the area of impact is small and does not significantly alter or impact the PSGF EEC. The proposal will not cause an increase in any KTP.

Conclusion

Ecologists have concluded that there will be no significant impact upon Pittwater Spotted Gum Forest EEC as a result of this development. The proposed development area is highly modified, with exotic species in abundance throughout existing landscaped gardens. The inclusion of canopy tree planting (3 tube-stock) required now and future planting of locally native mid and understory species will be a benefit to the EEC and native fauna which may use the area.

Please direct questions to: Geraldene Dalby-Ball Director and Principle Ecologist

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Statement of Authorship

This certification of ecological works is by Geraldene Dalby- Ball BSc Hons I. With over 20 years' experience in ecological matters and author of the flora and fauna impact studies for this site.

Name	Signature	Date
Geraldene Dalby-Ball		29th April 2022

Ecological Consultants Australia PTY LTD TA: Kingfisher Urban Ecology and Wetlands Sydney Melbourne Brisbane.

Over 20 years experience in managing bushland in Sydney and was the manager of Environment and Education at Northern Beaches Council.

Qualifications	Experience
• BSc (Ecology) Hons I (Sydney University) • Over 20 yrs. Experience in Ecological Consulting **Positions** • Board Member of Ecological Consulting Association of NSW • Technical Advisor Sydney Olympic Park – WET Wetlands Education and Training **Accreditations / Licenses** Geraldene Dalby-Ball am an accredited assessor number BAAS19008 and a Practising Member of NSW Ecological Consultants Australia	Geraldene's key areas are in urban ecology, riparian, waterway, and salt- and fresh-water wetland rehabilitation. She has over 20 years wetland experience and has presented papers on the topic at the NSW Coastal Conference, Sydney LLS and Hawkesbury Nepean forums. Geraldene is skilled in experimental design and analysis; research; teaching (Sydney University and TAFE), environmental legal work, negotiating and strategic planning. She has also contributed to several community and professional workshops on topics of ecological importance. Geraldene is a joint author on Burnum Burnum's popular book, *Wildthings*, published by Sainty and Associates and author of the chapter on engaging community in rehabilitation projects in Estuary Book. During her early professional years, she worked with wetland expert Geoff Sainty of Sainty and Associates for over 5 years. **Ecologist and key team member in award winning projects including:** ***Multi-award winning*** (nationally and internationally) Sydney Park Water-Reuse Scheme. See link for lists of awards. https://www.governmentarchitect.nsw.gov.au/resources/case-studies/2017/11/sydney-park ***Excellence in Integrated Stormwater Design*** – Wangal Park: Where stormwater creates liveability – a joint project of Burwood Council, Alluvium Consulting, McGregor-Coxall, Dragonfly Environmental, Glascott Landscape & Civil and Neverstop Water. http://stormwaternsw.asn.au/events/awards-excellence/ Sydney Ports Corporation's Port Botany Expansion project won the ***Australian Construction Achievement Award***. The award included the major environmental rehabilitation works and the successful creation of the largest planted saltmarsh known globally. Geraldene, with the Dragonfly team, has been a key person in the rehabilitation and expansion of Penrhyn Estuary to create a secure estuarine environment https://www.projectlink.com.au/news/major-award-for-sydneys-port-botany-expansion-project

Licences: Animal Ethics and Scientific Licence

TRIM 19/2066 (2) Secretary's ACEC 195 25 MARCH 2019

ANIMAL CARE AND ETHICS COMMITTEE OF

THE SECRETARY
NSW DEPARTMENT OF INDUSTRY

CERTIFICATE OF APPROVAL

Ms Geraldene Dalby-Ball
Ecologist
30 Palmgrove Road
AVALON NSW 2107

Is approved to conduct the following research

FAUNA SURVEYS NSW WIDE

as approved by and in accordance with the

ANIMAL CARE AND ETHICS COMMITTEE OF
THE SECRETARY
NSW DEPARTMENT OF INDUSTRY

Being animal research carried out in accordance with the Code of Practice, for a recognised research purpose and in connection with animals (other than exempt animals) that have been obtained from the holder of an animal suppliers licence

This approval remains in force from **25 March 2019** to **25 March 2022** unless suspended, cancelled or surrendered

PHILIP WRIGHT
GROUP DIRECTOR SCIENCE, CHIEF SCIENTIST*
CHIEF SCIENTIST BRANCH

18 July 2019

NSW Department of Primary Industries, an Office of NSW Department of Industry
*Delegate of the Secretary of the Department of Industry

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