

Jonathon Tyree  
ARH Warriewood  
c/- Stephen Bowers Architects  
Sent via email: lily.ng@stephenbowersarchitects.com

Ref number: 15WOL-3063

23 December 2015

Dear Jonathon,

### **53C Warriewood Road – ecological advice regarding modified plans**

ARH Warriewood engaged Eco Logical Australia Pty Ltd (ELA) to review modified plans for 53C Warriewood Rd Warriewood and to provide advice regarding consistency with the biodiversity impact assessment. The proposed subdivision and development of the site was previously assessed in 2014 by ELA. The proposed works comprise of:

- Retention of existing dwelling houses, pool and landscaping
- Subdivision of the site into 10 lots consisting of a lot for a residential flat building and seven zero lot line dwellings in addition to the existing dwelling houses
- Construction of a residential flat building
- Construction of seven zero lot line dwellings
- Construction of the extension to Lorikeet Road.

This and the previous impact assessment do not assess impacts of a proposed cycle way, which is shown in the architectural drawings dated December 2015.

To provide this advice, the following documentation was reviewed:

- Eco Logical Australia 2014. *53C Warriewood Road Warriewood – Residential units, Flora and Fauna Assessment*. Prepared for ARH Warriewood Pty Ltd.
- Eco Logical Australia 2014b. *53C Warriewood Road Warriewood – Subdivision, Flora and Fauna Assessment*. Prepared for ARH Warriewood Pty Ltd.
- Eco Logical Australia 2015. *53C Warriewood Road, Warriewood. Riparian Vegetation Management Plan*. Prepared for ARH Warriewood Pty Ltd
- DA 001 Location plan
- DA 002 Survey plan
- DA 003 Site analysis
- DA 004 Subdivision plan / access arrangement.

The architectural drawings were compared with those assessed for the biodiversity impact assessment in 2014 to determine if there were any alterations that may further impact on the biodiversity values present at the site. The site contains the *Threatened Species Conservation Act 1995* listed Endangered Ecological Community (EEC) Swamp Sclerophyll Forest in a modified condition, is adjacent to Narrabeen Creek and has been mapped as terrestrial biodiversity under the Pittwater Local Environment Plan 2014 and the land is considered to be waterfront land. It is marked on the Site Analysis sheet (DA 003) as 'degraded swamp forest' and 'swamp forest' and referred to in the legend as 'Coastal Flats Swamp Mahogany Forest' in three condition states. All of these names and types are still considered as the listed EEC.

The overall building footprints do not appear to have been increased or altered in a way to impact on the EEC beyond the impacts that have already been assessed. As stated, the conceptual cycleway, which appears adjacent to Narrabeen Creek and within the EEC has not been assessed and should not form part of this DA.

A Vegetation Management Plan (VMP) was prepared by ELA in 2015. The VMP outlines matters to be addressed to satisfy the requirements of the *Water Management Act 2000* and the NSW Office of Water. The VMP should still be considered as part of this DA.

The Flora and Fauna Assessment (ELA 2014b) outlined a number of measures to implement to minimise impacts on the EEC Swamp Sclerophyll Forest, Narrabeen Creek and the camp of Grey-headed Flying Fox at Warriewood. These measures remain relevant for this DA. They are:

#### ***Pre-construction***

- Trees to be retained should be marked to avoid accidental clearance.
- Areas of vegetation should be cordoned off with highly visible fencing.
- Workers should be briefed on the sensitive nature of the vegetation and that this should be avoided.
- Hollow bearing trees should be clearly marked and differentiated from other trees to be cleared.

#### ***During construction***

- Clearing of vegetation must only be conducted within the designated impact area.
- An ecologist should be present if hollow-bearing trees are to be removed to ensure wildlife using the hollows are relocated safely.
- Hollow-bearing trees should be removed using soft fall techniques, such as sectioning by an arborist.
- If hollow dependent fauna are present and accidentally injured, a qualified wildlife carer must be contacted to ensure animal welfare.
- A sediment and erosion control plan should be developed to minimise potential impacts to adjacent native vegetation and to minimise sediment run off into the Narrabeen Creek.
- Stock piling, machinery storage and worksite facilities should be on areas already cleared and not in areas of native vegetation.

#### ***Post-construction***

- Any landscaping should include locally indigenous species and consider providing habitat for threatened species.

- Any landscaping should also consider proximity to houses and flammability to minimise conflicts with bushfire risk.
- A Vegetation Management Plan should be considered to manage the ecological values along the riparian corridor.
- Rehabilitation of the Swamp Sclerophyll Forest to the rear of the site should be undertaken to strengthen the values of the habitat corridor outlined in the Pittwater LEP.

Following review of all the listed documentation, it is considered that the proposed development is consistent with the previously assessed plans. If all of the measures, including the VMP are implemented, there should be no additional impacts to the EEC, Narrabeen Creek or the Grey-headed Flying Fox as a result of the modified plans.

Regards,



Dr Meredith Henderson

**Senior Ecologist**

**Accredited BioBanking Assessor**