

23 August 2018

Re: Response to Agency (Ku-ring-gai Council and OEH) comments – Lindfield Learning Village (SSD 8114).

Dear Emma,

This letter has been prepared in response to the comments made by Ku-ring-gai Council (Letter to Teresa Gizzi dated 17 July 2018) and the Office of Environment and Heritage (OEH) (Letter to Karen Harragon dated 19 July 2018) to a Biodiversity Assessment Report (BAR) prepared by Ecoplanning for the above development (report dated 1 June 2018). A response is provided for each of the comments below (**Table 1**).

Table 1: Response to Agency comments.

Ku-ring-gai Council Comments	
Comment	Response
<p>The Biodiversity Assessment Report (BAR) prepared by eco-planning consultants assumes the absence of threatened fauna (species) as none were detected within the development area at the time of the fauna surveys.</p> <p>A detailed flora and fauna investigation was undertaken ERM Australia over the former University Technology, Sydney (UTS) site as part of the part 3a concept plan approval (Application Number: 06_0130).</p> <p>ERM Australia whom prepared the flora and fauna assessment recorded the following threatened species: <i>Darwinia biflora</i>, Red-crowned Toadlet and Powerful Owl within the UTS site.</p> <p>The habitat/vegetation to be removed as a result of the proposed development and the asset protection zones provides known habitat for these species. The BAR fails to provide any species credits to offset the loss of habitat as a result of the proposal. An amended BAR should provide species credits to offset the loss of known habitat for <i>Darwinia biflora</i>, Red-crowned Toadlet and</p>	<p><i>Darwinia biflora</i> is not considered a species credit species as it is not a candidate species for either of the two PCTs identified within the subject site. Given that ERM (2004) recorded the species close to the current subject site Ecoplanning conducted numerous targeted flora surveys across the subject site (Figure 1):</p> <ul style="list-style-type: none"> • 24/03/17 - 7 hours, Lucas McKinnon • 27/03/2017 - 6 hours, Tom Hickman • 5/05/2017 - 17 hours, Tom Hickman and Tammy Paartalu • 23/11/2017 - 2.5 hours, Tammy Paartalu <p>Ecoplanning botanists (Tammy Paartalu and Tom Hickman) identified and counted a number of <i>Darwinia biflora</i> outside of the subject site to the east of Charles Bean oval but no individuals were recorded within the subject site.</p> <p><u>Red-crowned Toadlet</u> Survey effort for the species is specified in Table 4.3 of the BAR and included call playback</p>

Powerful Owl.	<p>conducted over two survey nights on 27/03/2017 and 12/04/2017. Daylight survey was conducted in all areas of potential habitat, including intermittent drainage lines with a build-up of litter or other debris. The location of call playback was outside of the subject land to the west, prior to knowing the current extent of the direct footprint, but within the APZ (Outer Protection Area).</p> <p>Additional survey is not considered necessary.</p> <p><u>Powerful Owl</u> is not considered a Species credit species following assessment of geographic and habitat features in the credit calculator. Essentially this means there are no hollow bearing trees to constitute suitable breeding habitat within the subject site. The subject site represents foraging habitat only. Powerful Owl is, is considered an Ecosystem credit species for foraging habitat and has been treated as such in the BAR.</p>
OEH Comments	
Comment	Response
<p>The likelihood table in the BAR (Appendix C) lists a number of species as having a 'high' or 'moderate' likelihood of occurrence prior to field assessment. Table 4.3 of the BAR lists the species credit species requiring further assessment. It is unclear why two flora species (i.e. <i>Darwinia biflora</i> and <i>Epacris purpurascens</i> var. <i>purpurascens</i>) listed in Appendix C as having a high or moderate likelihood of occurrence, have not been included in the species credit species requiring further assessment. This suggests that targeted surveys have not been undertaken for these species. This is particularly concerning for <i>D. biflora</i>, given there are a number of recent records of this species very close to the subject site, the closest record being within 15 metres. The assessor should confirm that adequate surveys have been undertaken for these species and there is certainty that they will not be impacted, or further surveys will need to be undertaken.</p>	<p><i>Darwinia biflora</i> and <i>Epacris purpurascens</i> var. <i>purpurascens</i> have not been included in Table 4.3 as 'species credits requiring further assessment' because they are not candidate species for the two PCTs identified within the subject site.</p> <p>The subject site was sufficiently surveyed (see Figure 1) by botanists Tom Hickman and Tammy Paartalu to determine the presence of these species. Whilst most surveys are outside the survey months for <i>Darwinia biflora</i> and <i>Epacris purpurascens</i> var. <i>purpurascens</i> (except for 23/11/ 2017), both species can be identified all year round without flowers, especially in a modified environment.</p>
<p>It is noted that Plot/transect 4 occurs wholly outside the subject site, and Plot/transect 1 extends outside the subject site. No justification has been provided for using these plots/transects in the assessment.</p>	<p>One plot was completed partially outside the subject site (Plot 1) and one plot was completed totally outside the subject site (Plot 4) due to the subject site boundary being refined several times during the life of the project. Both plots were</p>

	<p>previously within the project boundary, and although now partially or totally outside the subject site the data captured adequately reflects the condition of the vegetation zone being sampled.</p>																															
<p>OEH's previous comments (August 2017) included that the Biodiversity Offset Strategy was not adequate. It is noted the BOS provided in the updated BAR is identical to the previous BOS. Therefore, it is still considered inadequate and OEH's previous comments on this issue still apply (Except in regard to the comment about the Biodiversity Conservation Fund, which is now operational).</p>	<p>Due to a lack of credits available on the market the proponent intends to offset the project through payment to the Biodiversity Conservation Trust (BCT). Discussions will be held with the BCT to begin this process.</p>																															
<p><i>Planning for Bushfire Protection (PBP) (RFS 2006)</i> states that an Outer Protection Area (OPA) should provide a tree canopy cover of less than 30%. It is noted that this 30% figure is a maximum, and no minimum figure is provided. Also, the PBP states that all understorey should be managed (mowed) to treat all shrubs and grasses.</p> <p>Appendix B provides the following calculations of future site value for the OPAs:</p> <table border="1" data-bbox="185 1171 785 1370"> <thead> <tr> <th>PCT</th> <th>Benchmark</th> <th>Site Attribute</th> <th>Current site value score</th> <th>Future site value score</th> </tr> </thead> <tbody> <tr> <td rowspan="3">PCT1782</td> <td>14-41%</td> <td>Native overstorey cover</td> <td>3</td> <td>3</td> </tr> <tr> <td>6-35%</td> <td>Native mid-storey cover</td> <td>3</td> <td>3</td> </tr> <tr> <td>11-39%</td> <td>Native ground cover (shrubs)</td> <td>1</td> <td>1</td> </tr> <tr> <td rowspan="3">PCT1776</td> <td>14-41%</td> <td>Native overstorey cover</td> <td>2</td> <td>2</td> </tr> <tr> <td>6-35%</td> <td>Native mid-storey cover</td> <td>0</td> <td>0</td> </tr> <tr> <td>11-39%</td> <td>Native ground cover (shrubs)</td> <td>1</td> <td>1</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Native over-storey cover for PCT1782; a future site score of 3 has been assumed for PCT1782 as, it is argued, the target of 30% cover for OPAs remains well within benchmark. However, as stated above, the target for an OPA is not 30% cover but a maximum of 30% cover. OEH considers the assumption that this attribute will remain within benchmark can only be made if there is certainty that the over-storey cover will not be reduced to less than 14%. If this outcome is uncertain, then a precautionary approach should be taken and a lower future site value score should be assumed. • Native ground cover (shrubs) for PCT1782 and PCT1776: future site value scores have been maintained for these attributes. However, 	PCT	Benchmark	Site Attribute	Current site value score	Future site value score	PCT1782	14-41%	Native overstorey cover	3	3	6-35%	Native mid-storey cover	3	3	11-39%	Native ground cover (shrubs)	1	1	PCT1776	14-41%	Native overstorey cover	2	2	6-35%	Native mid-storey cover	0	0	11-39%	Native ground cover (shrubs)	1	1	<p>The APZ have been altered and calculations revised following additional design inputs, response to submissions and additional advice on clearing extent from Blackash and Kleinfelder (see Section 3.2.3 and Appendix B of Ecoplanning 2018).</p>
PCT	Benchmark	Site Attribute	Current site value score	Future site value score																												
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	11-39%	Native ground cover (shrubs)	1	1																												
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<p>OEH considers that these values should be zero, as the PBP states that all shrubs should be mowed.</p> <ul style="list-style-type: none">• Native mid-storey cover for PCT1782: the future site value score has been maintained for this attribute. OEH does not consider this assumption to be valid. The mid-storey is composed of tall shrubs over 1m high and small trees. All shrubs will be removed, and many of the small trees are likely to be removed, in preference to retention of larger trees. Therefore, OEH considers there should be a reduction in the future site values scores for this attribute to reflect this likely outcome. It is acknowledged that the future site value score for PCT 1776 is already zero.	
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If you would like to discuss any of the above responses and recommendations further, please contact me on the below details.

Sincerely,

Lucas McKinnon

Director and Principal Ecologist

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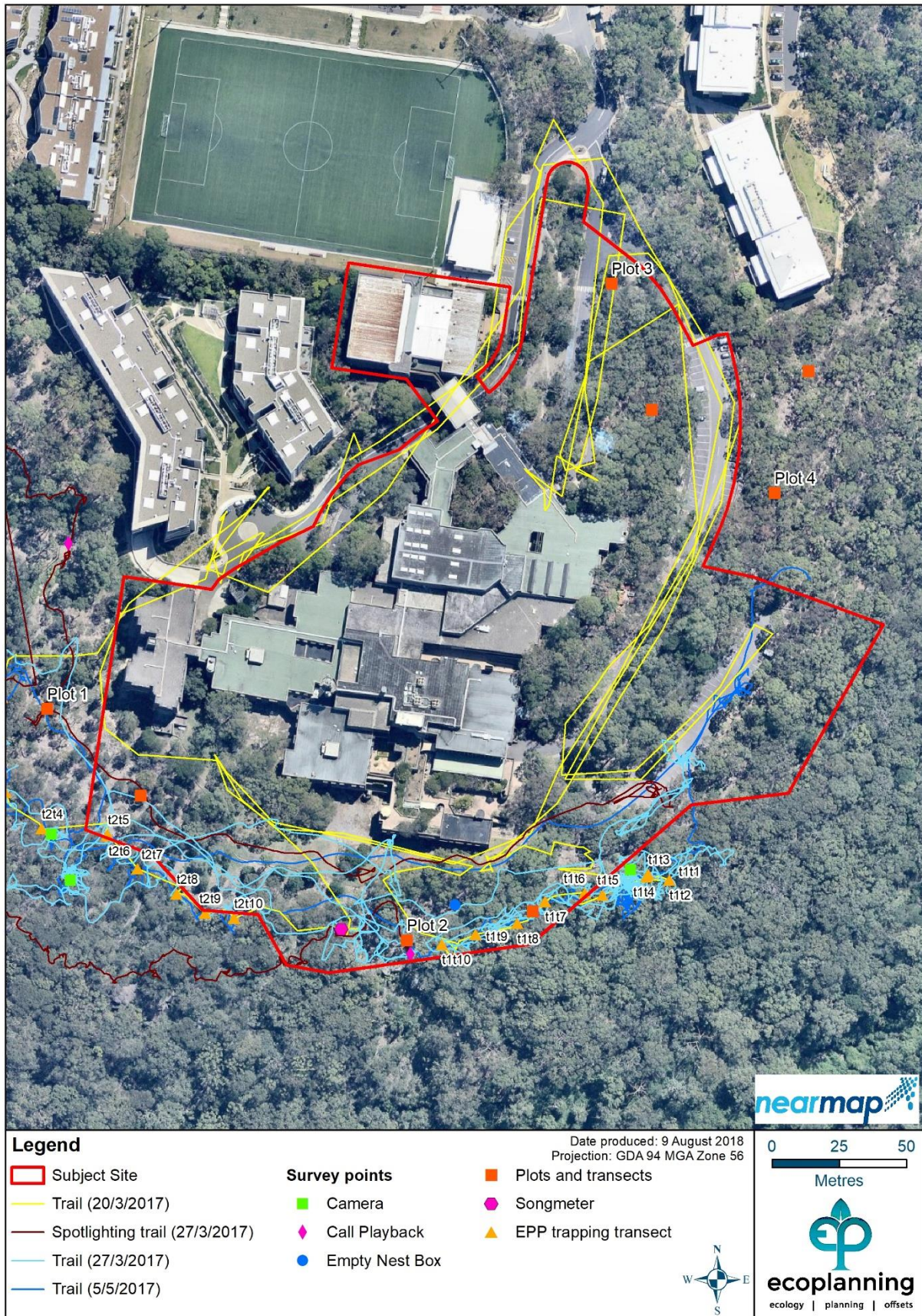


Figure 1: Survey effort.