

BEFORE THE HEARING PANEL

UNDER the Resource Management Act 1991

IN THE MATTER of submissions and further submissions on Upper Hutt City Council Plan Change 49 - Variation 1 to the Operative District Plan Silverstream Spur.

Submitter **GUILDFORD TIMBER COMPANY LTD**
(Submitter 82, Further Submitter 12).

**STATEMENT OF REBUTTAL EVIDENCE OF Dr VAUGHAN FRANCIS KEESING
(ECOLOGY)**

ON BEHALF OF GUILDFORD TIMBER COMPANY LTD

Dated: 15 March 2023

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1.0 INTRODUCTION

1.1 My full name is Vaughan Francis Keesing. I have the experience and qualifications outlined in my evidence in chief dated 17 November 2023.

1.2 In this rebuttal evidence, I respond to the ecology evidence presented on behalf of the Upper Hutt City Council by Mr Nicolas Paul Goldwater, and address the following matters:

- a) A brief summary of Mr Goldwater's evidence;
- b) Matters we agree on;
- c) Points of difference;
- d) Any changes I would make to my recommendations.

2.0 SUMMARY OF MR GOLDWATER'S EVIDENCE

2.1 I have reviewed Mr Goldwater's evidence (ecology) 8 March 2024.

2.2 By way of an overall summary, I note Mr Goldwater addresses the SNA criteria related to the Spur which set it as significant, being the Ecological Context criterion in Policy 23 of the Regional Policy Statement (RPS) and specifically linkage and buffering.

2.3 I note to assist Mr Goldwater assess the SNA significance of the Spur, he went to site in December 2023 and walked areas and took photographs which he considered representative (para. 17 of his evidence). As I understand, he did not undertake any vegetation plots or plant descriptions based on transects or locations. No additional data other than familiarising himself with the site appears to have occurred.

2.4 In my view, the level of investigation undertaken by Mr Goldwater is not sufficient for him to come to the conclusion that lower quality vegetation should be included in the SNA, based on the significance criteria contained in Policy 23 of the RPS and Appendix 1 of the National Policy Statement for Indigenous Biodiversity (NPS-IB). My recommendation of the revised extent of the SNA on the Spur is based on more extensive investigations of the site over a period of time, as outlined in Sections 4 and 5 of my evidence in chief, and an assessment of the Spur vegetation against the NPS-IB Significance (SNA) criteria from Appendix 1, as included in Table 1, para. 7.12 of my evidence in chief.

3.0 MATTERS WE AGREE ON

3.1 Mr Goldwater (at para 18) states that he 'generally' agrees with my description of the vegetation of the southern ridge and gully based on my vegetation plots, the age of some of the tree ferns aside.

3.2 Mr Goldwater (at para. 19) also states that he is satisfied that the SNA I have proposed for revision does contain a representative example of hard beech-kamahi forest. While it is not entirely clear to me, I assume Mr Goldwater is not referring to the area I propose to be removed from the SNA (i.e. as shown in Figure 5; para. 7.13 of my evidence in chief) because in paragraph 22 he agrees with me that the area I propose to be removed from the draft SNA does **not** meet the representativeness criteria. I can only assume therefore that Mr Goldwater is referring to the small beech-kamahi area south and east which I revised but retained.

3.3 With respect to that smaller beech-kamahi-seral area (south-eastern bit), I note Mr Goldwater states (at para.20) that while he did not access or view this area, based on interpretation of aerial imagery it appears to support good quality mature indigenous forest, and I have assumed he therefore agrees with my revised size and shape and retention of the area as SNA.

3.4 Mr Goldwater (at para. 22) agrees with me that the large area of emergent pine over tree ferns within the draft SNA would not meet the Representativeness criterion in both Policy 23 of the RPS or the NPS-IB.

3.5 Mr Goldwater (at para. 27) agrees with me that evidence is lacking that the location of the Spur in relation to other natural features in the Hutt Valley acts as a stepping stone to larger tracts of indigenous forest for highly mobile bird species. This was justification in the Wildlands Report (2021) for the site meeting the Ecological Context criterion (para. 21 of Mr Goldwater's evidence).

3.6 POINTS OF DIFFERENCE

3.7 The following are the points of difference between Mr Goldwater and myself, and on which I provide comment on below:

- a) Mr Goldwater considers the area of ponga-mamaku tree fernland meets the Ecological Context criterion under both the RPS and NPS-IB (para. 22 of his evidence) for reasons discussed below;

- b) Mr Goldwater considers the two remnants of beech-kamahi forest are of relevance when assessing the inherent value of the low-diversity ponga-mamaku tree fernland between them against the significance criteria set out in Policy 23 of the RPS and Appendix 1 of the NPS-IB. This is because, according to Mr Goldwater, the tree fernland provides a contiguous east-west linkage between the two forest remnants, while providing a partial buffering function (para. 23 of his evidence).
- c) Mr Goldwater therefore considers the area of ponga-mamaku tree fernland satisfies the linkage/connectivity and buffering attributes of the Ecological Context criterion in both Policy 23 and the NPS-IB and he recommends the boundary of the SNA UH070 remain in its current form, albeit with one minor change being the removal of the narrow gully comprising 'degraded hard beech forest between pine forest, gorse and manuka shrubland' to the north of the site (paras. 29; 30 of his evidence).

3.8 I disagree with Mr Goldwater that the area of ponga-mamaku tree fernland meets the Ecological Context criterion under both the RPS and NPS-IB. I have provided a detailed assessment of this area in my evidence in chief, and summarised in para. 9.3 that in my expert view there is no evidential ecological basis for inclusion of the wider area in the SNA as proposed in the s.42A Report. I summarised these areas as:

- a) Of low ecological value.
- b) There is no rarity,
- c) No distinctiveness or any important patterns or ecotones or gradients.
- d) The areas I have excluded consist of common early seral species which have not progressed to develop for many decades (i.e., does not show signs of rapid development).
- e) Is no different to the assemblages under plantation pine,
- f) Is not a representative assemblage and does not have important ecological contextual functions (buffering, corridors etc).
- g) My assessment is consistent with and has taken into account the now operative NPS IB (2023).

- 3.9 I do not agree with the reasons Mr Goldwater gives (in b) above) that the two areas we agree are beech-kamahia forest require connection, and it is the interceding tree fern that provides that linkage and partial buffering that is therefore of a value and function sufficient to meet the significance criteria.
- 3.10 One of the problems with the Ecological Context criteria is that linkage and buffering requirements or functions and their importance are virtually impossible to prove or disprove.
- 3.11 If we accept that there is a small range of species that pass between the beech forest areas and are somewhat specific to that habitat type such that they search it out, then there remains at least four paths that do not rely solely on tree fern and are facilitated by a mature pine over canopy (refer to Figure 1 below).
- 3.12 Even if the tree fern seral vegetation is not SNA, that does not mean it will not exist and the connectivity between beech remnants for flighted species will be little to no different.
- 3.13 If the concern is that in the absence of an SNA status would mean the ridge vegetation might be removed (for a road say) then a 20m gap might occur¹. In this landscape if a species can not cross a 20m vegetation gap then it is already unable to get to or leave any of the SNA fragmented in this or the wider landscape. In my opinion, the tree fern vegetation is absolutely not required for avian movement. While its presence may “enhance” connectivity, in my view it is not necessary and ‘important’, and in its absence connectivity would most likely still persist as abundantly as it does today.
- 3.14 While Mr Goldwater is correct in para. 23 in stating that I indicated the ridge tree fern and seral shrubland can and does form a buffer to the beech-kamahia hardwood remnants, in my opinion it does not require the entire area incorporated in the Wildlands SNA for that function, and my revised SNA boundary includes a buffer of the seral vegetation before the hardwood forest proper. Additionally, a buffer to ‘what’ is a reasonable question, as to the south there is just more spur and pine forest.
- 3.15 At para. 26 (and in the last paragraph of his Site Notes in Attachment B), Mr Goldwater also considers the buffer and linkage functions further. I do not accept Mr Goldwater’s assertion

¹ I note in para. 33 that Mr Goldwater refers to the s.32 Report that states that 10% of the Spur would be required to construct the road, equating to approximately 3.5 hectares of vegetation removal. Mr Hall addresses the extent of the area likely to be required for a road in his rebuttal evidence which I understand to be much less than the figures quoted in the s.32 Report and relied on by Mr Goldwater to inform his opinion.

that the tree fern ridge and gully contributes anything but a low / small role in protecting the indigenous biodiversity in the wider landscape, the role it plays is not **“important”** with respect to linkage or buffering. It is important that the word “important” forms a key component of the criterion.

3.16 Mr Goldwater also recommends the removal of the “narrow gully” comprising ‘degraded hard beech forest between pine forest, gorse and manuka shrubland’ to the north of the site (paras. 29; 30 of his evidence). I have walked the edge of this vegetation and while I have not undertaken vegetation plots, I considered the indigenous cover to be better than the areas I seek to remove, with greater representativeness and would likely retain that area as SNA.

4.0 ANY CHANGES TO MY RECOMMENDATIONS

4.1 As I have discussed above, the evidence provided by Mr Goldwater clarifies the matters that we are in agreement on, and the points of differences that remain. In my opinion, the assessment undertaken by Mr Goldwater, and the subsequent conclusion that the area of ponga-mamaku tree fernland should be included in the SNA, for linkage and buffering reasons, is flawed. I therefore confirm that I recommend no changes to the reduction in the extent of the SNA I have proposed in Figure 5 of my evidence in chief.

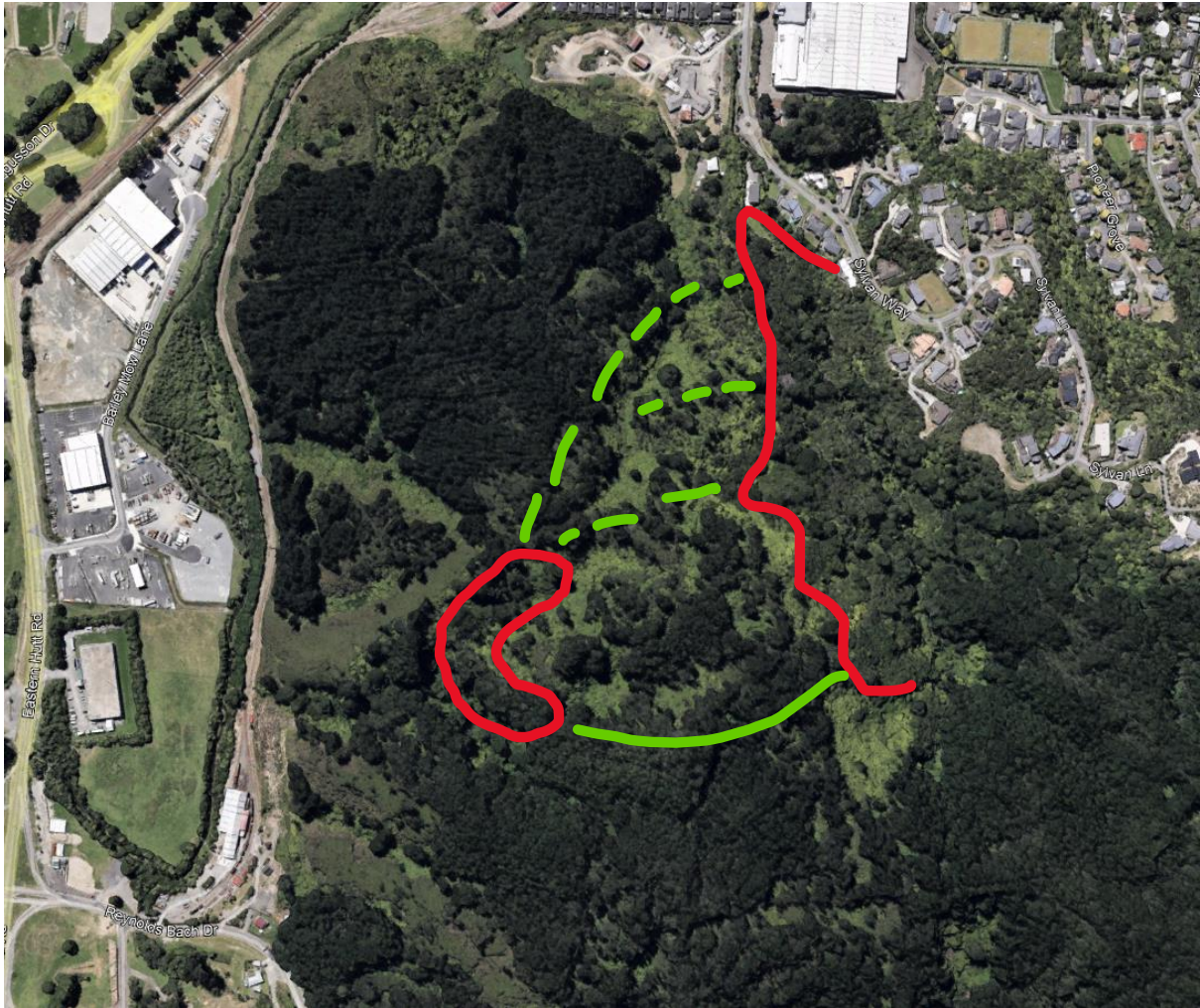


Figure 1. Routes between beech-kamahi fragments that offer pine and tall tree corridors in and above the wider tree fern vegetation.

Conclusion

- 4.2 Mr Goldwater and I are in agreement as to what the area I proposed to be removed from the SNA layer is in terms of its vegetation cover.
- 4.3 We are agreed that that area does not meet any significance criteria other than the linkage and buffering part of Ecological Context.
- 4.4 We are in disagreement with regard to that linkage and buffering criteria as that relates to the tree fern vegetation area I seek removed from the SNA.
- 4.5 I maintain that the ponga-mamaku tree fern area does not play an **important** role or function in either linkage or buffering of the beech-kamahi SNA areas, Mr Goldwater says otherwise.

4.6 Given I am not swayed by Mr Goldwater's evidence I maintain that the ponga-mamaku tree fern and scrub area I recommended be excluded from the SNA should subsequently be removed from the SNA proposed.

4.7 I note with respect to plate 3 Appendix 2 of Mr Goldwater's evidence, and to ensure there is no confusion, where there is mature hard beech over a subcanopy of natives I do not propose to remove such areas from the SNA, quite to the contrary these are the in areas I have tried to set the boundary about.

A handwritten signature in blue ink, appearing to read 'V. Keesing', written in a cursive style.

Dr Vaughan Keesing

15.03.2024