

**BEFORE THE HEARINGS PANEL
FOR THE PROPOSED TIMARU DISTRICT PLAN**

UNDER the Resource Management Act 1991 (RMA)

IN THE MATTER of the Proposed Timaru District Plan

AND

IN THE MATTER of Ecosystems and Biodiversity

**STATEMENT OF EVIDENCE OF JEAN JACK ON BEHALF OF THE
CANTERBURY REGIONAL COUNCIL**

Ecosystems and Biodiversity

25 October 2024

Next date – 12 - 15 November 2024 - Hearing

INTRODUCTION

1. My full name is Jean-Marie Louise Jack I am employed by the Canterbury Regional Council (**Regional Council**) as an ecologist (Science Team Leader, Land Ecology).
2. I am a member of the Environment Institute of Australia and New Zealand, a professional body for environmental practitioners.

QUALIFICATIONS

3. My principal qualifications include PhD (Ecology), Post-graduate Certificate in Environmental Management and Post-graduate Diploma of Viticulture & Oenology from Lincoln University, and a Bachelor of Commerce & Administration from Victoria University. My PhD concerned the provision of ecosystem services by indigenous plants within agricultural landscapes.
4. I have expertise within several areas of ecology; most of my experience, including routine field survey, relates to Canterbury habitats including braided rivers, wetlands and drylands.
5. My current role at the Regional Council is Team Leader of Land Ecology within the Science Group. I have been working at the Regional Council since 2011.
6. Post tertiary study, my work experience has largely been at the Regional Council providing advice relating to biodiversity. My initial role as a Biodiversity Officer focussed on providing external customers with advice on ecological restoration and protection, and facilitated funding to support conservation works. This work frequently included assessment of ecological significance to inform the prioritisation of Council biodiversity programmes.
7. From 2017 I have worked in the Science Group as a Senior Scientist and for the past year as Team Leader of Land Ecology. These roles involve providing advice to Regional Council staff and external customers regarding ecological monitoring, ecological impact assessment and effects management. I frequently review and undertake assessments of ecological significance.

8. In 2020 I provided advice to Timaru District Council on the identification of areas of significant ecological value within publicly administered riverbed and berm lands of the district. I am therefore familiar with assessments of ecological significance within the context of the Timaru District.

CODE OF CONDUCT

9. While not a requirement for a Council hearing, I confirm that I have read the code of conduct for expert witnesses as set out in the Environment Court's Practice Note 2023. I have complied with the practice note when preparing my written statement of evidence and will do so for any oral evidence I provide.
10. I confirm that the issues addressed in this statement of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

BACKGROUND

11. This statement of evidence supports the Regional Council's submission on the proposed Timaru District Plan (**pTDP**) regarding provisions for the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.
12. The pTDP recognises the responsibility of Timaru District Council (**TDC**) to protect these values and does so partly through the provision of rules governing activities within identified and mapped Significant Natural Areas (**SNAs**). The pTDP does recognise that there are likely to be ecologically significant areas that are not yet assessed, mapped and included within the pTDP's overlay and schedule as SNAs. However, the pTDP does not include rules to protect the ecological values of such unmapped areas.
13. After the pTDP's notification the s42A officer, Ms White, has recommended an amendment to include a new rule as part of ECO-R1. This includes provisions to manage the clearance of indigenous vegetation.

SCOPE OF EVIDENCE

14. In this evidence I outline why the pTDP's current mapped SNA Overlay or schedule cannot be relied on to provide protection to all areas of significant indigenous vegetation and significant habitats of indigenous fauna.

LIMITATIONS OF THE SNA OVERLAY OR SCHEDULE

15. The SNA Overlay and associated schedule identify many sites which have been classified as significant natural areas (SNAs) having met criteria listed in Appendix 5 of the pTDP.
16. However, as recognised by the pTDP¹, I would not consider the current SNA Overlay and schedule to comprehensively identify all areas of significant indigenous vegetation and significant habitats of indigenous fauna. Reasons for this include issues of landowner engagement, data deficiencies and changes in the ecological values of SNAs over time. These reasons are further explained below and have also been canvassed in the evidence of Mr Harding (dated July 2024).

Landowner engagement

17. An important feature of the TDC programme to identify SNAs has been the consultation and engagement with landowners. Engagement with landowners is important to help collect ecological information on any site, and to achieve the outcome sought (that is, protection of significant ecological values). Often the protection of significant ecological values depends on landowner engagement so that information collated on the SNA can be used by the landowner for site management (i.e., determining if or where to undertake stock-exclusion fencing, or what weed control to prioritise to protect the SNA values).
18. This need for landowner engagement has, however, meant that a site's inclusion within schedules has largely relied on landowners' voluntary

¹ The introductory narrative of the ECO - Ecosystems and Indigenous Biodiversity Chapter states: The identified significant indigenous vegetation and habitats are collectively referred to as Significant Natural Areas (SNAs) having been assessed and listed in the proposed Plan. In addition, there are likely to be a range of other areas not yet assessed, but containing significant values.

engagement and their willingness to have an area scheduled in the District Plan.

19. Engagement with any landowner will be at various states of progress for any property. This could be due to a number of reasons including in relation to Council's capacity (time and resources) to undertake surveys and readiness of landowners to engage in the process. It is my understanding that at this stage not all properties in Timaru District have been visited and had ecological significance assessment surveys carried out.

Data deficiencies

20. While TDC has collated existing information (i.e., literature and local knowledge) and undertaken extensive survey effort to assess areas for inclusion within the pTDP's SNA schedule, not all properties in the Timaru District have been assessed for ecological values. Furthermore, assessments often focus on indigenous vegetation values rather than surveying for faunal habitat values.
21. It is my experience that many ecological values at a site only become apparent through thorough field survey. This is particularly the case for the identification of faunal habitats, including those utilising exotic vegetation (Wildlands, 2015)², and for assessment of non-vascular vegetation.

Changes to SNAs over time

22. The ecological significance of ecological features and their extent may change over time. This may occur due to the extent or condition of a specific feature changing, or due to a feature becoming ecologically significant due to a change in how a feature is considered under significance criteria. For example, the area of an SNA may expand or contract with the regeneration or reduction of indigenous vegetation cover over time. This is apparent within the foothills within the Orari Ecological District (McEwen, 1987)³ where indigenous vegetation is regenerating

² Wildland Consultants Ltd. (Wildlands). 2015. Fauna habitat values of sites dominated by exotic vegetation in Canterbury. A report prepared for Environment Canterbury.

³ McEwen, W. 1987. Ecological regions and districts of New Zealand. Biological Resources Centre (N.Z.), New Zealand. Dept. of Conservation ISBN 0-478-01000-1.

and expanding in extent since SNA mapping was conducted some 20 years ago.

23. A further example: a feature may become ecologically significant due to a change in how a feature is considered under significance criteria. For example, a feature such as a species occurring within an SNA may have its national (or regional) threat status (Rolfe et al., 2022)⁴ elevated or reduced following expert revision, and this might have implications for an area's significance assessment under the Rarity Criteria 4 (Appendix 5; Wildlands, 2013).⁵ Other considerations such as the relative importance of a feature may change due to the loss of other examples of that feature elsewhere. For instance, the loss of an example of vegetation or faunal habitat from its southern-most location due to clearance, or climate induced stressors, may elevate the importance of the feature being considered where it then becomes the southern-most example or of higher relative importance for the conservation of a species (considerations of Criteria 4 (Rarity) or 10 (Context)).

ADDITIONAL VEGETATION CLEARANCE RULE

24. I am supportive of the proposed Rule ECO-R1 that Ms White is recommending, albeit with some clarifications.
25. I agree with the evidence of Mr Harding (dated July 2024) that this would assist in maintaining indigenous biodiversity outside SNAs in Timaru District. Noting that the efficacy of the proposed rule relies on the definition of indigenous vegetation and improved pasture.
26. With regards to proposed Rule ECO-R1, I would recommend the term 'depositional landforms' is further described or possibly mapped to increase the certainty of where these occur in the upper Rakitata catchment.

⁴ Rolfe, J., Hitchmough, R., Michel, P., Makan, T., Cooper, J., de Lange, P., Townsend, A., Miskelly, C., and Molloy, J. 2022. New Zealand Threat Classification System manual 2022. Department of Conservation, Wellington.

⁵ Wildland Consultants Ltd. (Wildlands). 2013. Guidelines for the application of ecological significance criteria for indigenous vegetation and habitats of indigenous fauna and wetlands in Canterbury. Contract Report No. 2289c prepared for Environment Canterbury.

27. I also recommend that further consideration is given to the provisions permitting the clearance of indigenous vegetation for the purpose of maintaining cultivated land. The pTDP's definition for cultivation has no temporal reference and may provide for clearance of indigenous vegetation occurring on historically cultivated land which has subsequently developed significant indigenous vegetation.
28. Notably however, provisions for indigenous vegetation clearance will not provide for all areas of significant habitats of indigenous fauna outside of SNAs. Many indigenous fauna utilise exotic vegetation or other land cover types without indigenous vegetation (Wildlands, 2015).
29. An ongoing SNA scheduling effort, including a focus on surveying and identifying non-indigenous vegetation habitats utilised by indigenous fauna would assist in protecting significant habitats of indigenous fauna. Habitats which might be particularly valuable include those occurring within acutely and chronically threatened land environments (Walker et al., 2007) where original indigenous land cover has been reduced to less than 10% or 20% respectively. Potential habitats which may be particularly at risk are exotic low producing grasslands (including but not limited to roadside areas) and broom and gorse shrubland.

CONCLUSION

30. Due to the reasons outlined above, I do not consider a Plan schedule of SNA sites is capable of identifying all areas of significant indigenous vegetation and significant habitats of indigenous fauna. The resourcing to engage with landowners and undertake comprehensive and repeated surveys necessary to address all data deficiencies would be expensive. Therefore, planning provisions that contain both an (iterative) SNA scheduling approach, and mechanisms to protect unscheduled areas of significant indigenous vegetation and significant habitats of indigenous fauna are needed.
31. The ecological significance criteria as provided within the pTDP's Appendix 5 should be used to identify areas of significant ecological vegetation and habitats beyond currently identified SNAs.
32. This will enable the consideration of ecological features in areas proposed for activities including vegetation clearance, earthworks, subdivision and

land use which might negatively impact significant habitats of indigenous fauna.

SUMMARY OF EVIDENCE

33. In summary, it is my opinion that:
- a. Existing SNA maps will not comprehensively cover all areas of significant indigenous vegetation and significant habitats of indigenous fauna.
 - b. It is not feasible to maintain a comprehensive and contemporary map of all areas of significant indigenous vegetation and significant habitats of indigenous fauna.
 - c. Some SNAs within the pTDP were identified approximately 20 years ago. Since those assessments were made changes to the extent or condition of the ecological features initially described within an SNA may have occurred.
 - d. Provisions including rules in the pTDP are required for the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna. Provisions cannot solely rely on a static map (the SNA Overlay) or schedule of SNA sites to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna.
 - e. The proposed rule ECO-R1 relating to indigenous vegetation clearance outside SNAs has the potential to assist with the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.
 - f. Additional effort, including a focus on identifying non-indigenous vegetation habitats utilised by indigenous fauna would assist in protecting significant habitats of indigenous fauna.

Dated this 25th day of October 2024



Jean – Marie Louise Jack