

Otago Regional Council
Proposed Otago Regional Policy Statement 2021

(excluding parts determined to be a freshwater planning instrument)

Minute 12 as to Questions from Hearings Panel to Dr. Kelvin Lloyd

Given the inability of Dr. Lloyd to present in person at the Ecosystems & Indigenous Biodiversity hearing on 17 April, 2023, the Hearing Panel has agreed to pose questions for him in writing, which it has been informed he will have time to answer, if those are provided by 6 April, 2023.

The Panel also expects that either Dr. Lloyd or one of his peer reviewers from Wildlands Consultants Limited will definitely be available to address any issues that arise during the closing submissions by the Otago Regional Council on this chapter on 29 or 30 May, 2023.

The Hearing Panel's questions follow:

Ron Crosby

Hearing Panel Chair

Dated 6 April 2023

Commissioner Cubitt's Questions

1. The starting point for determining the level of decline in biodiversity in Otago appears to be based on ecosystems that would have occurred in Otago prior to human settlement (Appendix 13 to the Section 32 Evaluation). Paragraph 51 of the s42 Report refers to your Overview report and infers that biodiversity decline is *'reflecting the current effects management framework is failing to protect and maintain indigenous biodiversity in the Otago region'*. As a practitioner in the region for over 30 years, this does not reflect my experience of biodiversity management in the region, at least over the last 20 years. It would seem to me from reading Appendix 13 to the Section 32 Evaluation that the majority of the decline occurred prior to this, given Central Otago was originally covered in forest before humans arrived (your reference to McGlone (2001) 'Eight hundred years of fire and 150 years of pastoral development have obscured the original vegetation patterns of the south eastern South Island'). Such a massive area of change would significantly affect the biodiversity decline in the region if this is where the baseline has been set.

Can you clarify from what point the 'decline' has been measured? And if it is based on pre-human conditions, what percentage of the decline has occurred under 'current effects management framework' (i.e. since the RMA came into force)?

2. How do you reconcile the statement at section 6 page 16 of the Appendix 13 to the Section 32 Evaluation (and highlighted again at page 10 of Appendix 17) that there is now 300,000 hectares of tall tussock grassland in Otago more than there would have been historically with

the conclusion of the Appendix 14 report where you say this tussock grassland has experienced considerable recent loss of extent?

3. Why is it being prioritised for identification as a significant natural area under ECO-M2 given how extensive it is? This issue is potentially compounded by the fact that much of these tussock grasslands are in Central Otago, most of which is pastoral farming land. This land was generally not forested when pastoral farming began in the interior of the Otago (and the South Island in general) (i.e. the pre-human natural diversity was already well below the 20% before pastoral farming began) so would tussock in this environment fall under the Rarity criteria(d) (ii)?
4. If tussock is not within the 'below 20%' threshold', what is bearing in mind that the reports essentially say that very little, if any, of that pre-human vegetation is left?
5. Is there a case for a biodiversity management approach in this environment to be more about achieving wider environmental goals such as soil and water quality enhancement, as opposed to purely biodiversity gain, given it is a relatively modified, food producing environment?
6. In the executive summary of the Appendix 14 to the Section 32 Evaluation, you say that coastal forest has been significantly depleted in Otago. In the context of the South Island, the Catlins coastal forest would appear to be the most significant area of such forest left. Historically, when has the depletion of the coastal forest occurred? And what is the evidence you refer to at section 5.2 page 11 of 'recent clearance' in the coast?
7. At section 5.4 of Appendix 14 to the Section 32 Evaluation you observe that limestone ecosystems generally have little indigenous cover remaining and they have also been identified as a priority ECO-M2. Given Otago's main area of limestone landforms no longer reside within the Otago Regional Council boundary (because much of North Otago has been transferred into the Canterbury Regional Councils jurisdiction), how significant is this as an issue in Otago?
8. At section 3.5 of Appendix 14 to the Section 32 Evaluation, you refer to 13 indigenous fish species being threatened or at risk, the most in NZ. Is this due to trout/salmon predation or are there wider environmental issues at play here?
9. In the second paragraph section 3.5 of Appendix 14 to the Section 32 Evaluation, you refer to several rivers and at 3.7.4, to the Tahakopa and Tautuku estuaries. The vast majority of these areas would appear to be within land already protected or owned by the Crown (e.g. riverbed)? Can you confirm this. Likewise, the environments identified in bullet points 1, 2, 4, and 8 of the Conclusion at page 15 of the Appendix 14. If so, what is the role of local authorities in relation to these environments?
10. Where are the majority of the 'ephemeral wetlands' that are of concern? At around 3,000, they do not appear rare and are likely to be located within protected areas or pastoral lease country, where land development is controlled. How are they 'critically endangered' in Otago? Would the NPS-FW not apply here also?

11. In terms of ECO-M5(7) how would you measure/define/determine an appropriate buffer?
Would this approach be permitted under the NES for forestry?
12. I note that the Joint Witness Statement (JWS) has recommended that the reference to 'original natural diversity' in Representativeness criterion (a) be changed to 'pre-human natural diversity' and that the extent of degraded habitats that would be caught under this criterion has been clarified. The criterion still relates to an 'ecological district'. Has the entire region been assessed/broken into ecological districts? [I note the McEwen document referred to in the JWS seems to identify such districts for the entire Otago region, but it does not seem to contain information on them]

What is the relevance of ecological districts in this context, particularly when there may be far better examples of the same SNA in another ecological district? This question is also applicable to Rarity d(i) which also refers to ecological districts.
13. As discussed in questions 1 and 2 above, much of the land in central Otago was under forest cover in pre-human times. How much of the land in Otago is likely to fall under the Rarity criterion (d) (ii)?
And what does 'land environment' mean in this context?
14. Would Rarity criterion (d) (i) also cover non-indigenous 'areas' (such as plantation forestry) that support threaten species such as Karearea and South Island robin (toutouwa)?
15. Why is subsection (ii) and (ii) necessary in the Rarity criterion (d) when (i) essentially covers the board?
16. What is the relevance of 'distributional limit' in the distinctiveness (f) criterion when climate change may impact on this? Also, would environments in (f)(iii) not be covered in other criterion?
17. What is meant in spatial extent terms (on the ground) by (g)(ii) in Ecological context criterion? Does this extend to any land?
18. In relation to the new criterion 'vulnerable and sensitive species' proposed by the s42A report, does this not cover all indigenous biodiversity? And will these areas not be covered under other criteria? (I note that the JWS agreed that this new criterion should be deleted but that was on the basis that it relates to managing effects).

Commissioner Kirikiri's questions

1. The only issue I want to raise is around biodiversity decline and mauri. How do you, for example, align what Ngāi Tahu is saying about the degradation of the mauri of the environment - particularly in the coastal environment - with what science is saying? There are bits of the mahika kai issue wrapped up in this as well. Do you have any views you would like to express about the alignment of matauraka Māori and science?

Commissioner Sullivan's Questions

1. Dr Thorsen, in his evidence for Oceania Gold Limited (OGL), considered the spatial extent of the representativeness and rarity criteria in APP2 for the Otago Region. This sits alongside the work of Wildlands (Appendices 12 and 13 of the s32 report) to determine the extent of indigenous habitat. The approaches of Dr Thorsen and Wildlands are different, and Dr Thorsen is critical that the APP2 criteria could potentially result in large areas unnecessarily qualifying as SNAs. What is your view on Dr Thorsen's approach? Do you consider it to be an accurate estimate of the spatial extent of SNAs for the representativeness and rarity criteria?
2. In your experience, how would a site be evaluated as an SNA? Would this typically involve an on-the-ground ecological survey? How is this undertaken if land access is not provided, or in those cases are the sites not evaluated?
3. Biodiversity offsetting and biodiversity compensation are not defined in the Interpretation section of the pORPS. In response to a submission by QLDC, the s42A report at 10.3.1.2 provides little analysis as to why a definition of biodiversity offsetting is not defined. APP3 and APP4 provide guidance on when offsetting and compensation, respectively, can be used but do not provide a definition or principles for use. In your view, are biodiversity offsetting and biodiversity compensation accepted approaches which practitioners would have a common understanding of? If not, do you consider that the pORPS should define these terms? If you consider that a definition is required, would you recommend the NPSIB exposure draft definitions or something different?
4. How do you believe ECO-O1 will be achieved by a biodiversity compensation outcome?
5. Following from question 4, the effects management hierarchy in ECO-P6 would apply to a Lake Onslow scenario where it would appear offsetting may not be able to be achieved. Is biodiversity compensation realistic in that type of larger scale project setting?

Chair Ron Crosby's Questions

1. In the Wildlands Report Appendix 10C to the s.42A report at para 3.12 the following statement was made:

"Offsetting was originally conceived as relating to significant residual effects, but there are no practical reasons why it cannot address all residual effects."

 - (a) What are the practical reasons why offsetting should be required for all residual effects rather than only for significant residual effects?
 - (b) When did such a change in conception occur, how was that resolved upon, and by whom, and in what process?
2. At para 5.8 of the Wildlands Report Appendix 10C to the s.42A report at p.26 the statement is made:

“The ecological justification for this approach is that it will require potential adverse effects on irreplaceable and vulnerable indigenous biodiversity to be avoided, and this is consistent with the principles of biodiversity offsetting.”

- (a) Does that approach entirely align with the statements such as at para 5.7 of the same report that:

“The key values of SNAs that need to be maintained are the significant values;...”

Or:

- (b) in paragraph 35 of your supplementary evidence that:

“If mining is included as an activity that has such access, then strong standards in APP3 offsetting and APP4 compensation criteria will be required to ensure that significant values are maintained.”

3. At para 25 of your statement of evidence dated 29 September, 2022 you stated:

“At the Deepdell North mine site, only limited areas would qualify as ecologically significant in my opinion, these being the seven ephemeral wetlands and small areas of more diverse indigenous shrubland and rock outcrop habitat which respectively meet the rarity and ecological context criteria in Appendix 4 of the operative Otago RPS.”

- (a) Is the Deepdell North mine site referred to in that paragraph the same as the Deepdell North Stage III project?
- (b) If so how do you reconcile the statement above with the statement in the Wildlands Report Appendix 10C at para 5.7 page 26 as follows:

“The Deepdell North Stage III project, which the submitter notes was consented, did not affect any SNAs.”