

BEFORE THE HEARINGS PANEL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of submissions on the Proposed Otago Regional
Policy Statement 2021 (non-freshwater parts)

SUMMARY STATEMENT OF EVIDENCE OF SCOTT HOOSON

FOR OCEANA GOLD NEW ZEALAND LIMITED

CHAPTER 10 – ECO AND APP 2, 3 AND 4

Dated 17 April 2023

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INTRODUCTION AND BACKGROUND

1. My name is Scott Hooson. I hold the position of Senior Principal / Senior Ecologist in Boffa Miskell Limited's Ōtautahi Christchurch Office.
2. Oceana Gold New Zealand Limited has asked me to review and provide evidence on three policies: ECO-P2, ECO-P3 and ECO-P4 in the ECO Chapter of the Proposed Otago Regional Policy Statement, as well as APP2 - Significance criteria for indigenous biodiversity, APP3 – Criteria for biodiversity offsetting and APP4 – Criteria for biodiversity compensation.
3. Dr Thorsen and Mr Christensen have also provided evidence for Oceana Gold on the policies in the ECO Chapter and Appendices 2 to 4.
4. I will now provide a summary of my evidence, beginning with Policies ECO-P2, ECO-P3 and ECO-P4. I will then discuss Appendices 2, 3 and 4.

ECO POLICIES

ECO-P2 – Identifying significant natural areas and taoka

5. The intent of ECO-P2 is broadly consistent with national guidance which requires territorial authorities to assess, identify and map significant areas.
6. The purpose of ECO-P2 (i) is to identify and map significant natural areas (or SNAs) in accordance with APP2, rather than indigenous biodiversity values, or the indigenous biodiversity values within SNAs. For this reason, and for clarity and simplicity, I recommend amending the wording of this policy by removing the wording "*the areas and indigenous biodiversity values of*" so that the first part of ECO-P2 more simply reads:

"Identify and map:

(1) significant natural areas in accordance with APP2....

ECO-P3 – Protecting significant natural areas and taoka

7. Policy ECO-P3 provides direction on how SNAs and indigenous species and ecosystems that are taoka are to be protected. The direction of this policy is clear that any activities must first avoid adverse effects that result in:
 - a. any reduction of the area or indigenous biodiversity values identified and mapped under ECO-P2(1)...and
 - b. any loss of taoka values identified and mapped under ECO-P2(2)....
8. The proposed wording of this policy is generally consistent with section 6(c) of the RMA, which requires the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna. It is also broadly consistent with other Regional Policy Statements and the NPS-IB Exposure Draft. However, for new activities that are unable to avoid the adverse effects described in ECO-P3(1) and are not provided for in ECO-P4, then that activity cannot proceed because the effects management hierarchy in ECO-P6 is not available.

ECO-P4 – Provision for new activities

9. As drafted in the 31 October 2022 version of the pORPS, ECO-P4 did not provide for new mineral extraction activities in SNAs. I discussed this issue in paragraphs 26 – 32 of my evidence.
10. Since my evidence was filed, Ms Hardiman has prepared supplementary evidence proposing changes to ECO-P4¹ including amendments to the wording of the policy² so that it now provides a consenting pathway for new mineral extraction activities.

¹ Paragraphs 15 – 30.

² Paragraph 26.

Ms Hunter, consultant planner for Oceana Gold, has suggested further changes in her supplementary evidence. I have reviewed both amended versions and prefer the changes proposed by Ms Hunter, particularly because they are consistent with the direction of the NPS-FM.

SIGNIFICANCE CRITERIA

11. The significance criteria for indigenous biodiversity in APP2 are in most respects similar to criteria in other operative second-generation Regional Policy Statements.
12. I discussed the workability of each of the significance criteria in APP2 in my evidence. Since preparing my evidence, expert witness caucusing was held in relation to APP2 on 31 March 2023. Areas of agreement and disagreement between the ecologists are recorded in the Joint Witness Statement (JWS) dated 31 March 2023 prepared during that caucusing.
13. During expert caucusing, many of the issues I identified in my evidence in relation to the workability and interpretation of the ecological significance criteria were resolved. However, there is clearly still disagreement between the ecologists on several of the significance criteria. I will not discuss all the matters of disagreement between the ecologists, but for your benefit, will discuss those aspects of APP2 that are, in my opinion, particularly important. To assist you, I have prepared a version with my preferred wording of the APP2 significance criteria and provided the rationale for my position in the right-hand column. This is attached as Appendix A to this summary.
14. In paragraph 61 of my evidence I recommended the inclusion of assessment principles or guidelines to accompany APP2 to assist the interpretation of the significance criteria. An important area of agreement between the ecologists was that it is essential that a guidance document is prepared to assist interpretation and application of the criteria in APP2. The JWS records some matters for which all in

attendance agreed guidance should be provided. In my experience, the non-statutory guidelines that accompany the Canterbury Regional Policy Statement³ are a useful example.

15. As recorded in the JWS, in my opinion, the threshold for significance under the criteria in APP2 is low. In my experience with similar significance criteria, many areas of indigenous (and exotic) vegetation types and habitats in Otago will be significant under these criteria. This has important implications for the application of the Policies and Rules in the ECO Chapter and in particular, the strong policy direction in ECO-P3 to first avoid any reduction of the area or indigenous biodiversity values of SNAs. A number of the ecologists agreed during expert caucusing that the implications of implementing the criteria have not been analysed as part of Section 32 of the RMA or the Section 42A reports.
16. I will now briefly discuss two of the significance criteria for which agreement was unable to be reached during expert caucusing.
17. For the Rarity criterion (d)(ii), my preference is to retain the assessment scales in the 31 October version of the pORPS, including assessment at the national and relevant land environments scales. The reason for this is that often there is insufficient information available to assess reductions at regional or ecological district scales. Further, if an ecological feature has been reduced to less than 20% of its former extent nationally, but not at finer scales, such as the Otago Region, in my opinion, a higher level of protection is still warranted.
18. In my opinion the Distinctiveness criterion (f)(i) should be retained because where a species is at its national distributional limit it is on the margin of its natural range

³ Wildland Consultants (2013). *Guidelines for the Application of Ecological Significance Criteria for Indigenous Vegetation and Habitats of Indigenous Fauna in Canterbury Region*. Report No. 2289i. Prepared for Environment Canterbury, June 2013.

and likely to be genetically distinct from individuals or populations in the core part of its range, and particularly if it has a disjunct distribution. As I discussed in my evidence, distributional limits can be difficult to assess as distributional data on species distributions is often poor and information on the actual distributional limits of species can be difficult to verify. Clear guidance should be provided to assist interpretation of this sub-criterion.

BIODIVERSITY OFFSETTING AND COMPENSATION

19. I will now briefly summarise the key points from my evidence in relation to APP3 and APP4.
20. APP3 and APP4 provide 'criteria' for offsetting and compensation, respectively. Mr Christensen discussed the development of the principles of biodiversity offsetting and compensation in detail in his evidence and concluded that APP3 and APP4 are inconsistent with the way the principles have been developed because they refer to them as 'criteria' that 'must be met' in order to 'qualify' as an offset or compensation. I agree with Mr Christensen that the use of 'principles' are more appropriate as they allow for offsetting and / or compensation proposals to be considered on their merits at the consenting stage.
21. Clauses 1 (a) – (e) of APP3 and APP4 set out a list of five situations where offsetting and compensation, respectively, will not be available. Because these clauses are 'criteria' that must be met for offsetting and compensation to be available, and in my view, some of these clauses are stringent, this will mean that offsetting and compensation will not be available in many circumstances that could result in better outcomes for indigenous biodiversity.
22. For example, under Clause 1 (a) of APP3, offsetting would not be available if a proposed activity resulted in "*the loss from an ecological district of any individuals of Threatened taxa*". This clause would mean that biodiversity offsetting would not

be available if a proposal resulted in the death of even one individual of a Threatened taxon. Because this clause is a 'criterion' that must be met, it precludes the ability to implement an offset proposal that could result in a better outcome for threatened taxa, including indigenous plants through several methods including translocation, propagation, and herbivore control, and for indigenous fauna through offsetting actions such as habitat creation, translocation, and predator control.

23. Clause 1 (d) refers to "*the removal or loss of viability of a naturally uncommon ecosystem type that is associated with indigenous vegetation or habitat of indigenous fauna;...*". The scale at which '*the removal or loss of viability*' is to be assessed is not stated. It could be interpreted to mean removal or loss of a naturally uncommon ecosystem type at the scale of an individual feature, rather than, for example, at the scale of the ecological district. Some naturally uncommon ecosystems, for example seepages and flushes can cover only tens of metres and can be highly modified. Not allowing offsetting to be available because of the removal or loss of viability of one these features, particularly if it is highly modified, is in my view overly stringent, particularly when there may be viable methods for offsetting the loss or reduction in viability.

24. APP3 and APP4 also contain several criteria that are either unclear or will require subjective evaluation. This will likely result in disagreement between ecologists as to both what the criteria mean and whether they are met. Examples include:

- a. Clause 1 (b) of APP3, where offsetting would not be available if the activity resulted in "*measurable loss within an ecological district to an At Risk-Declining taxon*". The words "*measurable loss*" are problematic because the meaning of 'measurable loss' is unclear. Arguably, the loss of one individual At Risk-Declining taxa is measurable.
- b. Clause (1)(b) of APP4 where biodiversity compensation would not be available for an activity that will result in "*removal or loss of viability of the*

habitat of a Threatened indigenous species of fauna or flora...". This clause requires an ecologist make a determination on whether an activity will result in a "*loss of viability*" of the habitat. Determining the threshold at which the viability of the habitat of a Threatened indigenous species has been lost, and when compensation is therefore unavailable, is subjective and highly variable depending on the Threatened taxon and the type of habitat.

- c. Clause (1)(c) of APP4 where an ecologist would be required to make a determination on whether an activity will result in the "*loss of health and resilience*" of a naturally uncommon ecosystem type. Again, determining the threshold at which "*health and resilience*" has been lost, and when compensation is therefore unavailable, is subjective and likely to result in disagreement.

25. Clauses (2)(h) of APP3 and (2)(f) of APP4 require that the outcome of an offset or compensation is achieved within the duration of the resource consent. In my view this clause is unrealistic for some activities, and particularly activities of short duration where an applicant may be willing to commit to a longer-term offset to achieve better biodiversity outcomes. This clause is also likely to preclude offsetting as an option for habitats or ecosystems such as mature podocarp forest where long timeframes are required to achieve the end outcome. It is also likely to preclude long-term projects that have the potential to result in greater biodiversity gains.

26. I agree with Mr Christensen that it would be appropriate to amend APP3 and APP4 so that they set out the principles against which offsetting and / or compensation must be considered. I have reviewed the amended version of APP3 and APP4 attached as Appendix A to Ms Hunter's summary of evidence and consider this approach to better reflect best practice and the approach taken by the Business and Biodiversity Offsets Programme and higher order national planning documents such as the NPS-FM and the Exposure Draft of the NPS-IB.

Scott Hooson

17 April 2023

APPENDIX A: PREFERRED WORDING FOR APP2 SIGNIFICANCE CRITERIA

pORPS text	My Preferred Wording	Rationale
<p>Representativeness</p> <p>(a) An area that is an example of an indigenous vegetation type or habitat that is typical or characteristic of the original natural diversity of the relevant ecological district or coastal marine biogeographic region. This may include degraded-degraded examples of their type or represent all that remains of indigenous vegetation and habitats of indigenous fauna in some areas.</p> <p>(b) An indigenous marine ecosystem (including both intertidal and sub-tidal habitats, and including both faunal and floral assemblages) that makes up part of at least 10% of the natural extent of each of Otago’s original marine ecosystem types and reflecting the environmental gradients of the region.</p> <p>(c) An indigenous marine ecosystem, or habitat of indigenous marine fauna (including both intertidal and sub-tidal habitats, and including both faunal and floral components), that is characteristic or typical of the natural marine ecosystem diversity of Otago.</p>	<p>Representativeness</p> <p>(a) An area that is an example of an indigenous vegetation type or habitat that is typical or characteristic of the original pre-human natural diversity of the relevant ecological district or coastal marine biogeographic region. This may include degraded-degraded examples of their type or represent all that remains of indigenous vegetation and habitats of indigenous fauna in some areas. This can include degraded examples where they are some of the best remaining examples of their type.</p> <p>(b) An indigenous marine ecosystem (including both intertidal and sub-tidal habitats, and including both faunal and floral assemblages) that makes up part of at least 10% of the natural extent of each of Otago’s original marine ecosystem types and reflecting the environmental gradients of the region.</p> <p>(c) An indigenous marine ecosystem, or habitat of indigenous marine fauna (including both intertidal and sub-tidal habitats, and including both faunal and floral components), that is characteristic or</p>	<p>a) “Pre-human” is more specific than “original” which could apply to many historic timeframes, this sets a clear baseline for assessment.</p> <p>As worded referring generally to degraded examples would have captured too much.</p> <p>The wording “<i>all that remains</i>” is a consideration under the rarity criterion.</p> <p>b) Deleted because impractical and immeasurable – not formulated in a way that could be evaluated sensibly.</p>

	typical of the natural marine ecosystem diversity of Otago.	
<p>Rarity</p> <p>(d) An area that supports:</p> <p>(i) An indigenous species that is threatened, <u>or uncommon, or an important population of species that is at risk risk, or uncommon</u>, nationally or within an ecological district or coastal marine biogeographic region, or</p> <p>(ii) Indigenous vegetation or habitat of indigenous fauna that has been reduced to less than 20% of its former extent nationally, regionally or within a relevant <i>land environment</i>, ecological district, coastal marine biogeographic region or <i>freshwater environment</i> including <i>wetlands</i>, or</p> <p>(iii) Indigenous vegetation and habitats within originally rare ecosystems, or</p> <p>(iv) The site contains indigenous vegetation or an indigenous species that is endemic to Otago or that are at distributional limits within Otago.</p>	<p>Rarity</p> <p>(d) An area that supports:</p> <p>(i) An indigenous species that is Threatened*, or uncommon, or an important population of species that is At risk Risk, or uncommon, nationally or within an ecological district or coastal marine biogeographic region, or</p> <p>(ii) Indigenous vegetation or habitat of indigenous fauna that has been reduced to less than 20% of its former pre-human extent nationally, regionally or within a relevant <i>land environment</i>, ecological district, coastal marine biogeographic region or <i>freshwater environment</i> including <i>wetlands</i>, or</p> <p>(iii) Indigenous vegetation and habitats within originally rare ecosystems, or</p> <p>(iv) The site contains indigenous vegetation or an indigenous species that is endemic to Otago or that are at distributional limits within Otago.</p> <p>* add footnote as defined in the NZTCS</p> <p>** as defined in Williams et al. 2007.</p>	<p>(i) Agree with revised wording of (i) but emphasise the need for clear guidance when a population is 'important' enough to meet the threshold for significance as agreed in the JWS (this also applies to other criteria where the term important is used).</p> <p>(ii) Satisfied with the wording as drafted, except agree to change from 'former' to 'pre-human' as per wording in middle column because:</p> <ol style="list-style-type: none"> this sets a clear baseline for assessment; is consistent with the baseline agreed for Representativeness (a); and sets a higher threshold for significance than alternatives (such as 1840); <p>Other alternative versions of (ii) are proposed in the JWS. My preference is to retain the assessment scales as worded including assessment at the national and relevant land environment scales. There is often insufficient information available to</p>

		<p>assess reductions at regional or ecological district scales. Further, if an ecological feature has been reduced to less than 20% of its former extent nationally, but not at finer scales, such as the Otago Region, in my opinion, a higher level of protection is still warranted</p>
<p>Diversity</p> <p>(e) An area that supports a high diversity of indigenous ecosystem types, indigenous <i>taxa</i> or has changes in species composition reflecting the existence of diverse natural features or gradients.</p>	<p>Diversity</p> <p>(e) An area that supports a high diversity of indigenous ecosystem types, or indigenous <i>taxa</i> in the context of similar areas and similar ecosystem types or has changes in species composition reflecting the existence of diverse natural features or gradients.</p>	<p>e) Amended wording ensures the diversity of ecosystem types or indigenous taxa are compared with similar habitats (at the scale of the ecological district). This is important because diversity differs markedly between different ecosystem types and habitats.</p> <p>Important to keep reference to gradients.</p>
<p>Distinctiveness</p> <p>(f) An area that supports or provides habitat for:</p> <p>(i) Indigenous species at their distributional limit within Otago or nationally, or</p> <p>(ii) Indigenous species that are endemic to the Otago region, or</p> <p>(iii) Indigenous vegetation or an association of indigenous species that is distinctive, of</p>	<p>Distinctiveness</p> <p>(f) An area that supports or provides habitat for:</p> <p>(i) Indigenous species at their distributional limit within Otago or nationally, or</p> <p>(ii) A population of indigenous species that are endemic to the Otago region, or</p>	<p>(i) Retain (i) because where a species is at its national distributional limit it is on the margin of its natural range and likely to be genetically distinct from individuals or populations in the core part of its range, particularly if it has a disjunct distribution. However I note that it can be difficult to assess distributional limits as distributional</p>

<p>restricted occurrence, or has developed as a result of an unusual environmental factor or combinations of factors.</p>	<p>(iii) Indigenous vegetation or an association of indigenous species that is distinctive, of restricted occurrence, or has developed as a result of an unusual environmental factor or combinations of factors.</p>	<p>data is often poor and can be difficult to verify.</p> <p>Remove words “<i>within Otago or</i>” because whether a species is at its distributional limit within Otago is typically not ecologically important, i.e. a species is likely to occur in an adjoining region. This sub-criterion could also lead to perverse outcomes, for example, all species will be at their southern distributional limit within Otago at or near the southern boundary of the region.</p> <p>(iii) "distinctive" is a tautology.</p>
<p>Ecological context</p> <p>(g) The relationship of the area with its surroundings (both within Otago and between Otago and the adjoining regions), including:</p> <ul style="list-style-type: none"> (i) An area that has important connectivity value allowing dispersal of indigenous flora and fauna between different areas, or (ii) An area that has an important buffering function that helps to protect the values of an adjacent area or feature, or (iii) An area that is important for indigenous fauna during some part of their life cycle, either regularly or on an irregular basis, e.g. for feeding, resting, nesting, 	<p>Ecological context</p> <p>(g) The relationship of the area with its surroundings (both within Otago and between Otago and the adjoining regions), including:</p> <ul style="list-style-type: none"> (i) An area that has important connectivity value allowing dispersal of indigenous flora and fauna between different areas, or (ii) An area that has an important buffering function that helps to protect the values of an adjacent area or feature of significant indigenous vegetation or significant habitat of indigenous fauna, or 	<p>(g) Already requires consideration of an areas surroundings (including between Otago and adjoining regions).</p> <p>(iii) The wording “<i>on an irregular basis</i>” is problematic because it could be interpreted to include a range of highly modified or exotic habitats such as improved pasture used irregularly by highly mobile indigenous species.</p>

<p>breeding, spawning or refuges from predation, or</p> <p>(iv) A wetland which plays an important hydrological, biological or ecological role in the natural functioning of a river or coastal ecosystem.</p>	<p>(iii) An area that is important for <u>a population of</u> indigenous fauna during <u>some a critical</u> part of their life cycle, either <u>seasonally or permanently regularly or on an irregular basis</u>, e.g. for feeding, resting, nesting, breeding, spawning or refuges from predation, or</p> <p>(iv) A wetland which plays an important hydrological, biological or ecological role in the natural functioning of a river or coastal ecosystem.</p>	
<p><u>Vulnerable and sensitive species</u></p> <p>(h) <u>An area that contains sensitive habitats or species that are fragile to anthropogenic effects or have slow recovery from anthropogenic effects.</u></p>	<p><u>Vulnerable and sensitive species</u></p> <p>(h) An area that contains sensitive habitats or species that are fragile to anthropogenic effects or have slow recovery from anthropogenic effects.</p>	<p>h) Delete because the clause (in particular references to 'fragile and slow recovery to anthropogenic effects') relates to managing effects instead of identification of significance; effects should be managed by the policy framework.</p>