

David Bishop

From: Sally Gepp [S.Gepp@forestandbird.org.nz]
Sent: Friday, 19 June 2015 2:40 p.m.
To: David Bishop
Subject: Ruahine Conservation Park - feedback on additional ecological assessment
Attachments: 20140619 Submission on additional ecological assessment.pdf

Dear David,

I attach Forest & Bird's feedback on the report titled *Assessment of proposed land exchange between Ruahine Forest Park revocation land and proposed Smedley Exchange Block in relation to Ruataniwha Water Storage Scheme*.

Regards

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Solicitor

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SUBMISSION

From: Royal Forest and Bird Protection Society of New Zealand Inc
Royal Forest and Bird Protection Society of New Zealand (Hastings/Havelock North branch)
Royal Forest and Bird Protection Society of New Zealand (Central Hawke's Bay branch)

Date: 19 June 2015

Re: RUAHINE FOREST PARK – LAND EXCHANGE

1. Thank you for the opportunity to provide feedback on the Assessment of proposed land exchange between Ruahine Forest Park revocation land and proposed Smedley Exchange Block in relation to Ruataniwha Water Storage Scheme¹ ("Assessment report").
2. This feedback should be considered together with our previous submission dated 3 March 2015.

Relevance of Assessment report to proposed revocation and proposed land exchange

3. We note that there continues to be a lack of clarity as to what aspect of the statutory processes under the Conservation Act is being consulted on. The Assessment report is clearly an assessment of the proposed land exchange, and in particular whether the proposed land exchange would enhance the conservation values of land managed by the Department. However, the covering letter inviting feedback on the Assessment report is titled "Subject: Ruahine Conservation Park Change of Status Hearing." Our position on the need to treat the proposed revocation and proposed land exchange separately is set out in our previous submission.
4. While the Assessment report is not an assessment of whether the specially protected status of the conservation land should be revoked, it nonetheless confirms that the conservation land has high values (in fact, nationally significant values), such that revocation of its specially protected status would be for an improper purpose.

Feedback on the Assessment report

Approach to comparison of values

5. The Parliamentary Commissioner for the Environment has commented previously that the comparison under section 16A will always be difficult unless one area of land has obviously low conservation value and the other has obviously high conservation value, and that while this does not make it impossible to assess net conservation benefit where there is not clear inequality of value, the assessment should be done in accordance with a clearly articulated set of principles.²
6. It is apparent that the Assessment report has not assessed the proposed exchange in accordance with a clearly articulated set of principles. This has enabled the authors to:

¹ La Cock et al, 27 May 2015

² Parliamentary Commissioner for the Environment, *Investigating the Future of Conservation: the case of stewardship land*, August 2013.

- a. Selectively highlight particular attributes of each parcel of land and minimise or ignore other attributes,
- b. selectively use local/regional/national context; and
- c. selectively address future values (effects of the RWSS and potential for enhancement/mitigation);

in order to present a set of considerations that best supports the authors' conclusion that the proposed exchange would enhance the conservation values of land managed by the Department.

7. These shortcomings in the analysis are addressed in more detail below.

Selective highlighting of particular attributes, other attributes minimised or ignored

8. Attributes where the Conservation land ranks more highly than the Smedley Block tend to be minimised or ignored in the report. For example, the authors place a great deal of reliance on the degraded state of the Makaroro River parcel. This degraded state is used to minimise the importance of the Makaroro River parcel containing an Acutely Threatened alluvial land environment. While the quality of the vegetation on an area of land is no doubt relevant to its value, it is not relevant to its status as indigenous vegetation in an Acutely Threatened land environment. In fact, the designers of the Threatened Environments classification state that:

...areas of indigenous vegetation that remain in the coastal, lowland and montane zones today are typically highly modified and degraded from their original states, and are poorly represented in the national network of private and public protected areas. Despite this they support a high proportion of New Zealand's most threatened species, habitats and ecosystems, most (if not all) of which only exist today in less than pristine condition.

To maintain the full range of biodiversity that remains in New Zealand today, and sustain it into the future, we need to protect these remaining areas of indigenous vegetation as a matter of urgent priority.

(Walker et al (2007))

9. A second example is that the potential for Smedley Block to be habitat for species that were not found there (eg fernbird) tends to be highlighted, where-as the actual presence of threatened species in the Conservation land is treated as "not significant" because of the potential for it to be translocated (red mistletoe). An objective, principled assessment would take a consistent approach to actual and potential habitat value, and would not discount high ecological values within the Conservation land on the basis of the potential to mitigate their loss. The approach that has been taken in the Assessment report has the appearance of having started with the premise that there will be a land exchange, and having worked backwards from that premise to find ways to justify it.
10. Reframing the attributes described in the Report and Appendices and/or prioritising different attributes, as set out below, could just as readily lead to the conclusion that the exchange does not enhance the conservation values of land managed by the Department:

- a. The Conservation land includes indigenous vegetation on an Acutely Threatened land environment (a National Priority for Protection); the Smedley Block does not.
- b. The two land parcels are similar in terms of fauna values, except that the Conservation land is known habitat for fernbird (an At Risk species); the Smedley block is not. Scrimgeour did not see obvious fernbird habitat on the Smedley Block.
- c. The Dutch Creek parcel of Conservation land is in better condition than the portion of Smedley Block explored by Scrimgeour and has the potential to support more productive populations.
- d. The Conservation Land is known to contain a threatened plant species (red mistletoe); the Smedley Block is not known to contain any threatened plant species.
- e. Skinks and geckos were not found in the Conservation land or the Smedley Block.
- f. The Makaroro River parcel of Conservation land is currently degraded by weeds (but as deemed conservation park is required to be managed so that its conservation values are protected), but the Smedley Block is also in a degraded state with much of the land cleared for pasture; and a degraded or non-existent understorey where grazing has been allowed to occur. Currently the Smedley Block is more degraded in parts than the public conservation land.
- g. There is 0.42 ha of braided riverbed (a naturally rare ecosystem) in the conservation land; there is no braided riverbed in the Smedley Block.
- h. Streams in the Smedley Block are first order streams of lesser value than the streams within the conservation land.
- i. Due to grazing, the riparian margins of the Smedley Block streams are of less integrity and significance than streams in the Conservation land, contributing to degradation of habitat quality in the Smedley Block.
- j. Freshwater species values within the Smedley Block are likely to be of lesser value than freshwater species values in the conservation land streams.
- k. Both sites have wetland values. Protection of all wetlands is a matter of national priority. The Conservation land oxbow wetland meets more significance criteria than the wetlands on the Smedley Block.

Selective use of local/regional/national context

11. The report notes that the Smedley Block is underpinned by a different geology from that in the Ruahine Forest Park and thereby supports different ecosystems not currently present in the Park. The authors conclude that, as a result, the Smedley Block complements the current values of, and would be a worthy addition to, Ruahine Forest Park. The more relevant question would be whether the land environments (or, more narrowly, the geology and ecosystems), present within the Smedley Block are represented in land managed by the Department. This could have been assessed by comparing the LENZ environments within the Smedley Block with those in the conservation estate, but this exercise has not occurred (or if it has, it is not referred to in the Assessment report).

12. Forest & Bird is surprised and disappointed with the approach taken in the Assessment report to the areas of Acutely Threatened land environment within the Conservation land. The approach taken appears to demonstrate a fundamental lack of understanding of the meaning and importance of the Threatened Environments classification.
13. The Threatened Environment Classification is a combination of three national databases: Land Environments New Zealand (LENZ), the Land Cover Database (LCDB) and the protected areas network (reflecting areas legally protected for the purpose of natural heritage protection).
14. LENZ classifies New Zealand's terrestrial environments on the basis of abiotic variables (climate, soil and landform) not vegetation. Those abiotic variables are major drivers of spatial patterns in most living organisms, such that it can be expected that different environments potentially supported an assemblage of ecosystems, habitats and species in the past that differed in some respects from those in other environments.³
15. The Assessment report authors say that they were to "pick obvious differences that would have distinguished LENZ B2.1d from a neighbouring LENZ on Ruahine Forest Park revocation land". There is no reason why important ecological differences would be "obvious" in the field. First, LENZ boundaries are derived from a classification of continuous environmental variation, and they work in the same way as contour lines divide up continuous elevation gradients. No-one expects to see an "obvious" step on a gradual slope where a contour line is drawn on a map. Second, many important factors that vary with environment would not be "obvious" in an observational field survey. These may be important for the long term persistence of biodiversity. For example, ecotypic variation in the traits of a particular species, such as greater drought tolerance in drier environments, would not be obvious to the eye. However, this variation is likely to be important to enable the species to persist over time under fluctuating environmental conditions, including under climate change.
16. Acutely threatened environments are those LENZ environments with less than 10% nationally remaining in indigenous cover. Vegetation on Acutely and Chronically threatened land environments are a priority for protection because so much of the vegetation on these land environments has been so lost nationally, and because it is so poorly protected nationally. As a result, protection of vegetation on Acutely and Chronically threatened land environments is:
 - a. A national priority for protection as determined by DOC and MfE (2007).
 - b. Specified as significant under Policy 2(d) of the proposed National Policy Statement on Indigenous Biodiversity.
17. The New Zealand Biodiversity Strategy (while pre-dating and not referring specifically to Threatened Environments) also specifies that the first priority action for biodiversity includes protecting those habitats and ecosystems that are at **significant risk** of irreversible loss or decline.
18. The Assessment report authors' statement that the designers of the Threatened Environments classification did not consider an assessment of LENZ class to be a substitute

³ Cieraad, E, Walker S, Price R, Barringer J 2015 An updated assessment of indigenous cover remaining and legal protection in New Zealand's land environments. New Zealand Journal of Ecology 39 (2).

for field survey is correct as far as it goes, but it has been taken out of context. LENZ (and hence the Threatened Environments classification) does not distinguish many small scale ecosystem types and the land cover database has low thematic resolution. This makes it unsafe to rely on the Threatened Environment classification (alone or in combination with the land cover database) to determine, for example, whether there is vegetation at a site that is indigenous, or whether the site supports threatened or at risk species.

19. However, the fact that the Threatened Environments classification is not a standalone assessment tool does not mean that it does not provide important context. The designers of the Threatened Environments classification system explained that:

National-scale information on loss and protection is notoriously difficult to assess. The Threatened Environments Classification provides this information in a way that is consistent across New Zealand, because it treats all areas (or land environments, as they are called) on the same basis. It is objective, in that it is based on data rather than opinion. (Walker et al (2007))

20. In a recent update to the Threatened Environments Classification, the designers explain that:

The threatened environment classification is most appropriately used to provide information on the **context** of loss and protection of indigenous biodiversity components identified on the ground. In conjunction with site surveys, it enables resource managers to identify places that are priorities for formal protection against clearance and/or incompatible land uses, and for ecological restoration to restore linkages, buffers and lost species. The classification also provides a standardised national framework for assessment of biodiversity representativeness and protection. (Cieraad et al (2015))

(emphasis added)

21. The Acutely Threatened classification makes those parts of the Makaroro River and Dutch creek parcels a National Priority for Protection. This is the case even if the Makaroro River parcel is currently degraded. The approach taken by the Assessment report authors of conflating Threatened Environment status and the condition of the vegetation on the site is contrary to the approach endorsed by DOC and MfE in the National Priorities for Protection, and the draft National Policy Statement on Indigenous Biodiversity. Is DOC moving away from supporting the National Priorities for Protection?
22. The authors' approach is also contrary to a report that the Department of Conservation has commissioned (Davis (in press)⁴), which the Assessment report authors rely on to assess significance. Davis (in press) specifically addresses the importance of remaining vegetation and even undeveloped soils on acutely threatened land environments:

The great majority of acutely threatened (< 10% indigenous cover) or chronically threatened (10–20% indigenous cover) land environments are located in lowland and coastal areas, although not exclusively. **Indigenous vegetation and fauna habitat that is**

⁴ Davis, M Department of Conservation guidelines for assessing and identifying significant ecological values, 19 September 2014 (in press)

present is likely to be significantly modified or degraded, and sometimes severely so. This does not detract from their importance, as they may constitute all that remains of indigenous cover in some areas and that is the very reason why it is a national priority to protect them. Any undeveloped soils associated with these land environments should also be regarded as important. (emphasis added)

23. The report notes that approximately 92.3 hectares of this land environment is on public conservation land elsewhere in the district. The implication is that the loss of 3.65 hectares from the conservation estate is of no moment. The contrary is true. This land environment has already been so reduced nationally that any further loss significantly increases the risk of biodiversity loss.

Selective approach to future values (effects of the RWSS and potential for enhancement/mitigation)

24. The inconsistent approach to future values that we noted in our original submission continues to be present in this Assessment report.
25. The authors have assessed the Makaroro River parcel as degraded by weeds, and this appears to weigh heavily in their assessment. Management of the conservation land is a requirement of the Conservation Act. Conservation parks are required to be managed so that their natural and historic resources are protected. The degraded status of the Makaroro River parcel is a reflection of the Department failing to fulfil that statutory function, and should not provide a basis for downgrading its value in the land exchange assessment. This approach provides a perverse incentive for the Department not to manage any area that it may subsequently wish to exchange.
26. No consideration is given to the value that the Makaroro River parcel would have if it were actively managed. Conversely, the current degraded state of the Smedley Block (which is described as “more degraded in parts than the public conservation land”⁵) has been treated as a positive by the authors, with significant weight placed on the potential for the Smedley Block to be enhanced by the removal of grazing.
27. The Assessment report relies on considerations that are irrelevant to the conservation values of land managed by the Department (currently, or as proposed under the land exchange) as “main reasons” for reaching the conclusion that the exchange would enhance the conservation values of land managed by the Department. The statements that:
- a. “the loss of the upper Makaroro River catchment populations of [seven migratory fish species] is not expected to result in a significant increase to their threat of extinction from elsewhere in the catchment”
 - b. “trap and transfer has been recognised by the fish experts as the best mitigation method for moving migratory fish above and below the dam”
 - c. “the loss of kowhai as a food source for birds is not considered a potential problem because there is a large amount of kowhai in the district that will not be inundated should the Ruataniwha Water Storage Scheme go ahead”;

⁵ Scrimgeour, page 55.

are referring to the effects of the RWSS and are not reasons supporting the conclusion that the exchange would enhance to the conservation values of the conservation land and the Smedley Block. The only part of this information that is actually relevant to the net conservation value assessment is the fact that Dutch Creek has more suitable habitat for these migratory fish species than the Smedley Block.

Freshwater values

28. Freshwater values were not assessed at all in the original assessment report and it is good to see that this has now been addressed, however the information and opinions provided by Dr reaches are generally not reflected in the main body of the assessment.
29. The appended report by Dr Gerbeaux concludes that:
 - a. There is no braided riverbed in the Smedley Block, where-as there is 0.42 ha of braided riverbed in the conservation land.
 - b. Streams in the Smedley Block are first order streams of lesser value than the streams within the conservation land.
 - c. Due to grazing, the riparian margins of the Smedley Block streams are of less integrity and significance, contributing to degradation of habitat quality.
 - d. Freshwater species values within the Smedley Block are likely to be of lesser value than freshwater species values in the conservation land streams.
30. Dr Gerbeaux describes the wetland values of each of the sites but does not state a conclusion as to the relative value of the wetlands on each site.
31. Based on Dr Gerbeaux's report, freshwater values are higher in the conservation land than in the Smedley Block.
32. Dr Gerbeaux observes that Hawke's Bay retains only 3% of the historical extent of wetlands, such that all wetlands are significant due to their rarity. He says that "many wetlands in New Zealand, including in Hawke's Bay, have often disappeared through an insidious nibbling away process, giving way cumulatively to large losses of extent". The Department is proposing to perpetuate that loss by disposing of an intact, functioning wetland on conservation land in return for legal ownership of wetlands on private land which are already protected by Regional Plan provisions.
33. Braided riverbed is a naturally rare ecosystem type that is recognised as significant in the proposed National Policy Statement on Indigenous Biodiversity and the National Priorities for Protection (Priority 3). The Assessment report does not identify this. The Assessment report's consideration of the Conservation land braided riverbed focuses on the extent of braided riverbed that will remain upstream of the RWSS reservoir, and the Kessels et al opinion that the braided river is not a significant area for indigenous fauna. Those factors are irrelevant to the value of the braided riverbed as a naturally rare ecosystem type.

Assessment of significance

34. Both the Conservation land and the Smedley Block qualify as significant indigenous vegetation and significant habitat of indigenous fauna under the Hawke's Bay Regional Resource Plan criteria.
35. The Assessment report authors use criteria from Davis (in press) to assess significance. Davis (in press) states that for a site or area to be significant, it **must receive a medium rating for one criterion or more**. Based on Table 1 of the Assessment Report, both parcels of Conservation land are significant under the Davis criteria, as is the Smedley Block. The Davis report also make clear that rankings under each criterion should not be "summed" to achieve an overall result (which is what the Assessment report does, albeit without using numbers).
36. The Davis criteria include five ecological criteria and two management criteria. While the Assessment report states that the management related criteria are not used to assess significance⁶, they are later applied in the same way as significance criteria. In particular, Table 1 on page 26 which is titled "Comparison of significance criteria for Ruahine Forest Parke revocation land and Smedley Exchange Block" includes the management criteria within it. This is inconsistent with Davis (in press) which states "it is important to recognise that assessments for significance and management requirements are separate concepts, and that management requirements should not influence whether an area is identified as being significant or not."

Representativeness

37. The Assessment report authors do not appear to understand what the representativeness criterion means.
38. Davis (in press) states that representativeness is "the extent to which indigenous biodiversity is typical of the natural diversity of the relevant ED [Ecological District]." Davis goes on to explain what is meant by "natural" diversity:

...the focus of representativeness is on identifying what is typical of each ED now. Original ecosystems remain highly valued, but the reality is that they often occur only as remnants in coastal, lowland and montane environments.

Because of this reality, the importance of secondary or successional plant communities must be fully recognised, as the assessment is not restricted to primary vegetation and should no longer be based on an 1840 datum. Secondary or successional plant communities were widespread prior to 1840 due to burning by New Zealand's first (Polynesian) settlers and, to a lesser extent, because of natural disturbances such as wildfire, wind damage, flooding, slips and landslides. However, secondary communities became more extensive post 1840 due to widespread burning, logging and the clearance of indigenous vegetation after Europeans arrived. Secondary communities take on increased significance and importance in areas that are heavily modified (e.g. the Canterbury Plains). In such situations, secondary communities may be virtually all

that remains and their protection is a high priority as a contribution to maintaining indigenous biodiversity.

39. Davis also stresses that representativeness does not relate to the extent to which an ecosystem is protected:

It is important not to confuse representativeness with how well an ecosystem or habitat type is protected or represented in the protected natural area system. The latter is irrelevant to assessing the significance of a site (e.g. many areas of beech forest are protected in the South Island, but this does not infer that unprotected sites are not significant). The interpretation that a site is not significant if the ecosystem type is well-protected is incorrect, as it confuses significance with importance (in the priority sense).

40. The Assessment report authors appear to treat representativeness as being related to protection, stating in their assessment of the “representativeness” of Smedley Block:

Smedley Exchange Block therefore represents an area of beech forest with emergent podocarps that extends the altitudinal range of Gwavas Conservation Area, and includes some dry west facing slopes that are not represented elsewhere in Gwavas Conservation Area.

And in their Discussion on page 25:

Smedley Exchange Block has scored the same or higher than the two parcels of Ruahine Forest Park revocation land for every ecological significance assessment criterion (Table 1)). This is attributed to the diversity of habitats offered by its size and altitudinal range, habitats in this altitude range being poorly represented on the Wakarara Range, which has a different geology from the neighbouring Ruahine Forest Park, and the way that the Smedley Exchange Block complements the Gwavas Conservation Area.
(emphasis added)

41. This error makes the rankings attributed to each land parcel’s representativeness in Table 1 (in which Smedley Block is ranked Medium/High and the Conservation land parcels Medium and Medium/Low) unsound.

Rarity

42. It is entirely unclear how the Table 1 rankings for rarity have been arrived at. Rarity relates to “ the natural or induced scarcity of biological, physical and ecological features within an area; special features identify unusual or distinctive features of an area”. In terms of rarity, the Conservation land appears to rank much more highly than the Smedley Block, but is given a lower ranking:

- a. Despite the Makaroro River parcel containing an Acutely Threatened land environment, rare alluvial plan, naturally rare braided river, habitat for threatened bat and fish species, a wetland⁷ and seepages it is given a Medium ranking.
- b. Despite the Dutch Creek parcel containing an Acutely Threatened land environment, an oxbow wetland, a Threatened plant species (red mistletoe), an At Risk bird

⁷ Discussed in the submission by Te Taiao Hawke’s Bay Environment Forum submission and in Dr Lloyd’s Board of Inquiry evidence but not assessed or referred to in the Assessment report.

species (fernbird), habitat for Threatened bats and Threatened fish, it was also ranked Medium for rarity.

- c. No threatened species were found on the Smedley Block, and it contains no Acutely Threatened land environments and no braided river. It contains wetlands (assessed as equal in value to the Conservation land wetlands) may provide habitat for bats and falcon, and its streams may provide habitat for At Risk fish (but are assessed as likely to be of lesser importance” than in Dutch Creek). Its beech forest has some emergent podocarps. It is given a ranking of Medium/High.

43. It is irrelevant under the rarity criterion that braided river in the Makaroro River parcel “appeared to be typical of the Makaroro River for several kilometres above the proposed reservoir.”. That does not make it any less rare nationally. While it is important to assess rarity at the Ecological District level to ensure that species or ecosystems that are locally rare (but not nationally rare) are recognised, the converse is not true. Nationally rare ecosystems are rare regardless of their local abundance.⁸

Naturalness

44. Naturalness is “the relative absence of human disturbance or modification within an ED.” The Makaroro River parcel is ranked Low for naturalness, where-as Smedley Block is ranked Low/Medium for naturalness. This assessment takes into account the potential for the Smedley Block to recover once grazing is removed.⁹ That is irrelevant to the assessment of naturalness, and is actually an assessment of long term viability – a management criterion rather than a significance criterion. As a result, the ranking is unsound.

Size, shape and buffering

45. The assessment of the Makaroro River parcel should take into account the connectivity provided by the adjacent pine forest.
46. The assessment of the Dutch Creek parcel states that “the site is small, long and narrow, and adjoins the main body of Ruahine Forest Park”. Its shape is determined by the area of conservation land that will be inundated by the proposed reservoir; in reality it is simply part of the Ruahine Forest Park with no boundary between the two. Its position adjoining the Ruahine Forest Park should give it a high ranking under this criterion, yet it is inexplicably ranked Low/Medium.

Connectivity

47. Each site is given a ranking for connectivity despite this not appearing to be a criterion, and there being no discussion on connectivity as a separate criterion in the assessment.

Discussion

48. The section titled Discussion on pages 25-26 contains the authors’ summary of the sites relative value in terms of the significance criteria. The problematic treatment of the

⁸ Davis (in press) states that “It is important to apply this criterion within a local context (i.e. EDs and ERs), as some biota or ecological features can be uncommon locally, even though they may be common elsewhere in the country.”

⁹ Page 25.

Smedley Block (where lack of representation within current protected areas is prioritised, and naturalness is assessed in terms of future state after removal of grazing, and with predator control) is discussed above.

49. The discussion of the Conservation land states that:

...the Ruahine Forest Park revocation lands make a disproportionately much smaller contribution to the present values of Ruahine Conservation Park. Both sites contain significant wetlands, and, other than long-tailed bats, do not support viable populations of threatened birds or plants.

50. The first sentence is difficult to understand, but appears to again be taking an approach of comparing the value of the land parcels with protected land more broadly, which is irrelevant to its significance.

51. The statement that the sites do not support viable populations of threatened birds or plants is not supported by evidence. There is no evidence that fernbirds, red mistletoe and falcon that use the Conservation land are not part of a viable population. At Risk fish species, naturally uncommon braided river and Acutely threatened land environments are again ignored in this assessment despite being National Priorities for Protection. The same cherry-picking of attributes is evident as occurs in the introduction and conclusion to the Assessment report.

