BEFORE THE MARLBOROUGH SALMON FARM RELOCATION ADVISORY PANEL

IN THE MATTER: SECTION 360A OF THE RESOURCE MANAGEMENT ACT 1991

AND

IN THE MATTER: A PROPOSAL TO AMEND THE MARLBOROUGH SOUNDS RESOURCE MANAGEMENT PLAN TO ENABLE THE RELOCATION OF UP TO SIX EXISTING SALMON FARMS

SUMMARY OF THE EVIDENCE OF DR MICHAEL LAWRENCE STEVEN

FOR

FRIENDS OF NELSON HAVEN AND TASMAN BAY & KENEPURU AND CENTRAL SOUNDS RESIDENTS ASSOCIATION

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- My name is Michael Lawrence Steven. I have the qualifications and experience set out in my evidence-in-chief. I have read the Code of Conduct for Expert Witnesses (Environment Court Consolidated Practice Note 2014) and I have prepared my evidence in compliance with this code of conduct.
- 2. This document identifies aspects of the landscape and natural character assessment undertaken by Mr John Hudson, for the Ministry for Primary Industries, that in my opinion render his assessment invalid or unreliable¹ for the purposes of considering the landscape and natural character aspects of the proposal before the panel. In particular, I refer to flaws in the the theoretical and methodological foundations of Mr Hudson's assessment, and the flaws in the work of other practitioners whose work Mr Hudson relies upon in reaching his conclusions.
- 3. As is the case with my primary evidence, I restrict my comments to landscape and natural character issues relating to the Waitata Reach of Pelorus Sound. Any failure to comment on any other aspect of Mr Hudson's evidence does not equate to my agreement.
- 4. I also respond to matters raised by Gascoigne Wicks in their submissions on behalf of NZ King Salmon.

Introduction: landscape assessment best practice

- 5. There is currently no comprehensive best practice code for landscape assessment in NZ. Such guidelines as do exist are outlined in the NZILA (2010) document; *NZILA Best Practice Note: Landscape Assessment and Sustainable Management (10.1)*. In my opinion, this is a rudimentary and inadequate set of guidelines. These guidelines were to be the subject of a major review and revision this year, in a project to be funded by the Ministry for the Environment. However, support for the project has been withdrawn by the Ministry, and the future of the project is uncertain.
- 6. In my opinion, statements (such as is made by Mr Hudson, and Ms Williams in her peer review) to the effect that Mr Hudson's assessment follows NZILA

best practice methodology, cannot be taken as giving Mr Hudson's assessment any endorsement as to the validity and reliability of his findings.

- 7. The inadequacy of the NZILA guidelines when applied to assessments that may assist in resolving the matter before the panel is compounded by Mr Hudson's failure to understand and apply them correctly in several key respects.
- 8. In the absence of adequate, professional best practice guidelines, I consider it critical for assessors to have recourse to:
 - 8.1. Relevant decisions of the Environment Court that address conceptual definitions and assessment practice. Mr Hudson has failed to do this, as I have identified in my evidence.
 - 8.2. Critical thinking and considered analysis, particularly with respect to:
 (1) understanding relevant statutory provisions, such as NZCPS Policies
 13 and 15, (2) the application of relevant assessment principles drawn from decisions of the Environment Court, and (3) the basic tests of validity and reliability as they apply to assessment methodology.
- 9. In my opinion Mr Hudson's assessment falls short with respect to each of these points, diminishing the trustworthiness of his assessment as the basis for decision making on landscape and natural character matters.

Scope of reported assessments

10. In the executive summary section of his report (p.4), Mr Hudson refers to the scope of his assessment as having considered 17 potential new salmon farm sites:

A total of seventeen potential new farm sites have been considered by Hudson Associates during a lengthy assessment process. Eight of those original sites have progressively been eliminated, leaving a total of nine remaining potential sites– being those considered for more detailed assessment of effects which has been carried out within this report.

11. Mr Hudson does not report on his assessment of the sites that were rejected.In the absence of this information there is no basis for understanding Mr

Hudson's criteria for rejecting potential sites, and how rejected sites compared with his preferred sites with respect to effects on landscape and natural character.

- 12. In the Hudson document *A Review of proposed marine farm sites: Preliminary Thoughts*, dated 4 December, 2015, Mr Hudson addresses an initial assessment of proposed 16 sites in a mere 3 pages of written analysis. It is unclear whether further analysis was undertaken. In the absence of this information, and the inability to compare his analysis of rejected and selected sites, I regard the reliability of Mr Hudson's assessment as compromised.
- 13. I note that Hudson's 4 December report recorded his "significant reservations" about Site 125 Mid-channel Waitata North, yet this site made it through to the final 9. How Mr Hudson's significant reservations were allayed is not discussed.

Benefits of salmon farm removal

- Mr Hudson refers to benefits (increases in natural character at the site scale) that will accrue through the removal of existing salmon farms at Crail Bay, Waihinau, and Ruakaka.
- 15. Setting aside Ruakaka (which I have not assessed); given the acknowledged low performance of the farms at Waihinau and Crail Bay, I do not regard the prospect of seven salmon farms in the Waitata Reach as a net beneficial outcome, overall. The removal of the Crail Bay and Waihinau sites results only in site specific beneficial effects in locations still subject to intensive marine farm development. The adverse effects arising from relocation impact upon the natural character and landscape value of the Waitata Reach generally.
- 16. I note that with respect to the sites to be removed, Mr Hudson rates the effects of removal on landscape value rather more highly than he assesses any of the landscape baseline value of the proposed sites. Four of the sites to be removed are given a post-proposal landscape value of High (3) or Very High (1). Only one of the nine proposed sites is evaluated as having a High pre-proposal landscape value rating. This is not credible, in my opinion.

Reliance on untested assessments conducted by other professionals

- 17. The operative Marlborough Sounds Resource Management Plan (MSRMP) does not address the identification of outstanding natural features and landscapes (ONFL). Rather, it identifies what are termed Areas of Outstanding Landscape Value (AOLV). As the Environment Court has determined², AOLV are not synonymous with ONFL as understood in the context of s6(b) of the RMA, and NZCPS Policy 15. Until such time as the proposed MEP is operative, resource management matters require further, original assessments to identify ONFL, as understood in current resource management practice.
- 18. Rather than conduct his own assessments of the ONFL of the Waitata Reach, Mr Hudson has instead relied upon the proposed Marlborough Environment Plan, that is in turn informed by landscape and natural character assessments undertaken by Boffa Miskell Ltd (BML)(2014, 2015)³.
- 19. However, Mr Hudson states in the executive summary to his report (p.4):

The categorisation of areas as ONF or ONL in the proposed Marlborough Environment Plan is subject to the submissions and hearing process. **Nothing** *in this document should be taken as endorsing that categorisation*. [emphasis added]

- 20. While, in principle, qualifying his reliance upon the BML (2014, 2015) studies, Mr Hudson appears to offer no original assessment of ONFL or natural character, other than at the scale of the site. At the broader, landscape scale, his reliance upon the BML findings and the proposed MEP appears complete, unqualified and uncritical.
- 21. In my opinion there are significant flaws in the assessments of landscape and natural character undertaken by Boffa Miskell Ltd (2014, 2015). Many of these flaws are addressed in a report I prepared to accompany client submissions on the MEP to Marlborough District Council. This report is appended to my primary evidence.
- 22. Significant among the issues I have identified with the BML (2014, 2015) studies are:

- 22.1. The failure of assessors to clearly define and differentiate the concepts of landscape and natural character. This failure is also evident in Mr Hudson's assessments, where baseline ratings of natural character and landscape appear to be drawn from the same sets of data, with little differentiation in the factors applied to assessing each concept.
- 22.2. The failure of assessors to understand the relationship between landscape and seascape in coastal environments, particular as this relationship informs the spatial definition of landscapes, as understood in the context of outstanding natural landscapes and seascapes.
- 22.3. The failure of assessors to differentiate between the two distinct concepts of natural features and natural landscapes.
- 23. I concur with the BML (21015) assessment in regarding the locality of both the Blowhole Point sites as being within an outstanding landscape/seascape, and as such, subject to NZCPS Policy 15. However, more generally I regard the BML (2014, 2015) studies of natural character and landscape significance to be unreliable sources for the purposes of Mr Hudson's assessment. While I agree with some of the BML findings, a careful, informed analysis reveals many aspects of the BML assessments to lack trustworthiness and credibility. The natural character and landscape provisions of the proposed MEP that derive from these studies are as yet untested through the process of public hearings and Environment Court decisions - an issue acknowledged by Mr Hudson. To the extent that the Boffa Miskell studies are significantly flawed, these flaws carry through into Mr Hudson's own work, and the consequent validity and reliability of his assessment.

Failure to adopt a landscape frame of reference

24. Mr Hudson has adopted what I regard as an inappropriate approach to the definition of the spatial contexts within which the proposal is to be considered. I consider Mr Hudson's spatial scales (as distinct from ratings scales - see next section) of analysis for both landscape and natural character to be invalid. With respect to landscape, Mr Hudson's approach is not supported by decisions of the Environment Court (see paragraph 37 of my primary evidence).

- 25. I have addressed the identification of an appropriate landscape frame of reference - the Waitata Reach - in paragraphs 27-44 of my evidence. All landscape experts appearing before the NZKS Board of Inquiry accepted the Waitata Reach as being the relevant landscape 'unit of analysis' (see Figures 1 and 2, my primary evidence).
- 26. Rather than adopting a landscape frame of reference, Mr Hudson has addressed the current issue solely at the scale of the site meaning individual salmon farm sites:

This study is concerned for the main part with assessment at the localised site scale. (Hudson, p.5)

27. Mr Hudson's assessment of Site 34, North Blowhole Point, provides an example of how his site-level scale of assessment is incorrectly applied:

The conclusion drawn from this assessment is that this particular bay and its adjacent hill-slopes, when assessed at the site scale (Level 4/5), do not meet the threshold for ONF. This is due to reduced natural science and reduced perceptual/sensory values (including visual amenity), at the site-scale. (Hudson, p.20)

- 28. The site scale of assessment and analysis is not an appropriate nor sufficient spatial frame of reference for considering the current matter with respect to either NZCPS Policy 13 (Preservation of natural character) or Policy 15 (Natural features and landscapes). This approach is also contrary to long established guidance provided by the Environment Court regarding appropriate spatial scales for landscape assessment. "Slice and dice" approaches, whereby small, unexceptional areas are excised from ONLs have generally been expressly rejected by the Court as inconsistent with the meaning of 'landscape' in s 6(b) RMA.
- 29. Policy 15 of the NZCPS requires that the adverse effects of inappropriate use and development are to be considered with respect to outstanding natural landscapes and outstanding natural features (15(a)), and to natural landscapes

and natural features of the coastal environment generally (15(b)) - not specific sites.

Invalid use of rating scales

- 30. Mr Hudson's use of a rating scale for the assessment of site specific effects on both landscape value and natural character is both confused and confusing, and reveals a fundamental misunderstanding of the use of, and limitations of ratings scales. While the use of scales can bring considerable utility to the reporting of assessments, it is necessary to design and apply scales according to the purpose to which they are expected to serve.
- 31. Mr Hudson's approach as to the use of a rating scale is outlined in his Methodology section (p.6), where he refers to the use of a 7 point 'scoring scale'.

This approach of separating out Landscape and Natural Character as discrete assessments is so that a distinction can be made between the RMA s6(a) and s6(b), along with the respective provisions of the New Zealand Coastal Policy Statement. The methodology used in this study uses a 7 point scoring system based on the NZ Institute of Landscape Architects Best Practice Guide for Landscape Assessment:

Very High/High/High-Moderate/Moderate/Moderate-Low/Low/Very Low.

The Landscape and Natural Character assessment sheets in the body of this report contain this 7 step ranking from Low to Very High, with ranking based on detailed written comments within each section of the assessments. The Effects assessment sheet has a similar written commentary.

32. The application of rating scales (and not necessarily a 7-point scale) has been misunderstood by Mr Hudson. The NZILA Guidelines state (p.8):

A project based assessment also determines the types of effects that are likely to arise from the project, including actual, potential and cumulative effects, and their relative magnitude and importance. The RMA recognises different types of effect, which need to be clarified when making assessments.

It is also important to use a robust and consistent rating scale for assessing the magnitude and importance of conditions, change or effects. The following seven point scale is a useful guide:

Extreme/very high/high/moderate/low/very low/negligible

- 33. These brief statements refer to the use of scales for assessing degrees of the significance of *effects*. The NZILA guidelines did not address the assessment of natural character, nor was the scale intended for the assessment of landscape value.
- 34. There is currently no NZILA endorsed best practice guide for the undertaking of landscape and visual effects assessments. In the absence of more comprehensive locally produced guidelines, NZ practitioners are increasingly drawing upon the UK publication, *Guidelines for landscape and visual impact assessment* (2013, 3rd edition) (GLVIA)⁴. The GLVIA Guidelines suggest 4 levels of significance, rather than 7: major/moderate/minor/negligible. In my opinion, 7 degrees of significance for landscape and effects cannot be differentiated, and the use of a 7 level scale implies a greater degree of accuracy than is possible.
- 35. Ms Williams, in her peer review of the Hudson assessment, questions how Mr Hudson's 7-point rating scale translates into RMA terminology concerning the level of adversity of effects (see Section 7, p.13). Ms William's attempt (Conclusions, Section 4, p.70) to elicit a clearer basis for assessing the significance of effects from Mr Hudson has been less than successful, in my opinion:

4.0 Evaluation - Additional information required includes:

Establish where effects can be considered 'minor' and 'more than minor' on the 7-point scoring system if and where this RMA terminology forms part of the evaluation. For example, given the 7 point scoring system of Very High/High/High-Moderate /Moderate/Moderate-Low/ Low/Very Low, it could be stated that a Low rating equates in RMA terms to 'minor' and very low as 'less than minor'.

Hudson Associates:

We have had a number of discussions with the planner on the project (Frances Lojkine, MWH) with regards to terminology

relating to effects. The report is guided in its terminology by those discussions.

There is no fixed correlation between a change in the 7 point scale and the RMA terminology of 'minor'. This is a professional judgement based on the site and situation.

- 36. Further confusion arises concerning the manner in which Mr Hudson applies scales to landscape evaluation, with respect to each of natural science, perceptual/sensory and associative factors (Hudson, p.4). It is not clear whether Mr Hudson is rating the value attributed to these aspects of the landscape, or the significance of adverse effects on these aspects. The purpose of the scale in this context should be to rate the significance of effects associated with the proposal, not the value associated with the baseline landscape.
- 37. It is not standard practice to rate landscape significance according to a 7-range scale. There are just two levels of landscape significance relevant to assessments undertaken with respect to NZCPS Policy 15: Outstanding/Not outstanding. Mr Hudson's approach appears to rate each of the 3 broad factor categories of landscape value - natural science, perceptual/sensory and associative - on the 7-point scale. In my experience, this is an unprecedented approach to landscape evaluation, and one that has no theoretical or methodological support that I am aware of.
- 38. Mr Hudson's assessment is unsupported by any analysis explaining his method, in particular how he is able to differentiate 7 degrees of natural science, perceptual/sensory (aesthetic) and associative value in his baseline assessments. In my opinion, it is not possible to do so, and any pretence that it can be done reveals a flawed understanding of assessment practice.
- 39. A 7-range scale (see Figure 3, p.29, my primary evidence) may be used for assessing levels of natural character in the coastal environment, but the technique applied by Mr Hudson in assessing natural character with reference to a scale is not explained, and some of his natural character assessments are

not credible. My approach to the assessment of natural character is set out in Appendix B to my main evidence.

40. In summary, I consider the manner in which Mr Hudson has applied rating scales to his assessment is flawed. Any sense of reliability in his assessment that may arise from what might appear to be a robust, technically sound analysis is not justified, in my opinion.

Invalid assessment of natural character, and effects of the proposal on natural character

- 41. Mr Hudson's understanding of natural character appears to follow the same flawed reasoning that I have identified in the BML (2014) study. The key issue is the failure to clearly differentiate between landscape and factors influencing landscape value on the one hand, and natural character and factors influencing the expression of natural character - essentially a descriptive (as distinct from evaluative) process on the other. This is evident in the frequent reference to 'values' when discussing natural character, including natural science values, and aesthetic value. Natural character assessment is not an evaluative exercise, and aesthetics play no part in the assessment of natural character.
- 42. Throughout Mr Hudson's assessment he refers to the notion that the Waitata Reach is a 'working landscape', as if the description had some basis in policy. There is no basis in policy for this description, and I consider it to be contrary to assessments of natural character, including assessments reported by Mr Hudson. I address this at paragraphs 111-117 of my evidence. All the evidence confirms my opinion that - with reference to my 7-range scale of natural character - the Waitata Reach landscape/seascape can be regarded as a natural landscape/seascape.
- 43. Mr Hudson has departed from evolving practice in the assessment of coastal natural character by attempting a combined terrestrial and marine rating of natural character. Mr Hudson's conclusions on the baseline level of natural character for each proposed relocation site is prefaced by the words;

Note: This study considers marine and terrestrial environments together for the assessment of natural character baseline.

- 44. This approach displays a flawed understanding of evolving methods for the assessment of natural character and the effects of the proposal on natural character. Combining terrestrial and marine rankings is methodologically difficult, if not an impossible task, in my opinion, and Mr Hudson does not explain how he achieves his combined rankings. The outcome is a meaningless 'average' rating that distorts the actual state of natural character when each context is considered separately.
- 45. Referring to the level of change in natural character at the site scale, Mr Hudson acknowledges (at p.4):

This report has found that the degree of change for the majority of sites would comprise a 1-point change on the rating scale (e.g. a change from Moderate to Low-Moderate), although there is a greater change for a small number of sites.

46. The Proposed MEP proposes a provision for assessing whether an adverse effect is a significant adverse effect in terms of NZCPS Policy 13:

Policy 6.2.3 – Where natural character is classified as high or very high, avoid any reduction in the degree of natural character of the coastal environment or freshwater bodies.

The degree of adverse effects on coastal natural character is an important consideration under Policy 13 of the NZCPS. This policy establishes a threshold for the extent of further change that can be made in coastal environments that have high or very high natural character. Any activity that would have the effect of reducing the natural character at or near the site to a classification below that which exists at the time of making a resource consent application or plan change request, will be considered a significant adverse effect in the context of Policy 13(1)(b) of the NZCPS and should therefore be avoided. ...

47. None of the sites assessed by Mr Hudson are given a High natural character rating, but the basis for Mr Hudson's natural character ratings are flawed and unreliable. The most obvious example of a location which should receive a High natural character rating is the Mid-Waitata Reach locality, that Mr Hudson gives a Moderate rating. This is implausible, and reflects the flawed approach adopted by Mr Hudson, as reflected in the following statement (Conclusion: Proposed Site 124 - Natural Character Assessment, p.34):

Although the perceptual/sensory values are notable, due to influence of the wider context (e.g. broad scale of the reach, expansiveness, irregular coastal edge and varied landforms/land cover) the natural science values at the site scale (Level4/5) bring down the overall natural character value.

Failure to consider scope of cumulative effects

- 48. I address Mr Hudson's assessment of cumulative effects at paragraphs 147-152 of my evidence. The following paragraphs summarise the main errors in his approach.
- 49. Reporting on the cumulative effects of five new salmon farms in the Waitata Reach on p.9, Mr Hudson states:

The cumulative effects of the five proposed salmon farms have been considered for potential effects on landscape, visual amenity and natural character values at the national, regional, Reach and localised scale.

- 50. The reference to assessments of affects having been conducted at a range of scales is misleading, if not in fact wrong. In my opinion, reference to the assessment of landscape, natural character and visual amenity effects at the national scale is an irrelevant matter, and one that Mr Hudson does not address with any critical, objective analysis. While it is appropriate to assess landscape significance at a regional (Marlborough) scale, adverse effects should then assessed with respect to the landscapes so identified. The Waitata Reach is a valid landscape/seascape, defined at the regional scale of analysis. Adverse effects on landscape value are assessed relative to this landscape not the entire region, and certainly not the entire nation.
- 51. Adverse effects on natural character are assessed relative to an appropriatelyscaled extent of the the coastal environment. Mr Hudson's site scale of analysis is not sufficient, as I discuss at paragraphs 97-107 of my evidence. It is not standard practice to assess cumulative effects on natural character at the scale of the region, and certainly not nationally.

- 52. Mr Hudson's approach to assessing cumulative effects is set out on pp. 10-11 of his report. The main flaw in his method is that he appears to assess cumulative effects solely with respect to visibility, and in particular whether individual farms are seen simultaneously, successively or sequentially. This approach demonstrates a failure to differentiate between the assessment of adverse effects on each of: (1) the biophysical landscape/seascape, (2) natural character, and (3) visual amenity. While there is a relationship between these areas of effect, they must be assessed separately, and different techniques applied.
- 53. Mr Hudson appears to conflate the concepts of landscape, natural character and visual effects, with the implication that the manner in which effects - such as effects on natural character - are seen by a viewer has a bearing on whether effects are adverse or otherwise. Effects on the biophysical landscape/ seascape, and natural character can be established as an objective fact irrespective of visibility.
- 54. I address the correct approach to the assessment of natural character effects at paragraph 161 of my evidence. Briefly, natural character effects derive from human induced changes to any or all of natural elements, natural patterns and natural processes. Such changes can be verified as a matter of fact and exist irrespective of whether they are observed, and if observed, from what distance.
- 55. Mr Hudson's focus upon visual effects is repeated in the MWH summary assessment of environmental effects document (paragraph 6.8.4, p.106):

6.8.4 Policy Issues

Policies relevant to landscape and natural character have been identified in sections 6.2 – 6.6 above. As outlined above, on the basis of the information currently available, **significant adverse effects on natural character are not anticipated from the cumulative effects of viewing multiple sites within Waitata Reach**, and effects on landscape will be no more than minor, although there is a difference in professional opinion in relation to this between the Landscape Report and the peer review. [emphasis added]

56. A further flaw in Mr Hudson's approach is his assessment of cumulative effects only with regard to the proposed salmon farm sites, individually and in relationship to each other. Existing modifications to landscape and natural character within the Waitata Reach - the effects of which will be compounded by the proposed farms - are not recognised or addressed as part of the wider issue of cumulative effects. This is a significant shortcoming in Mr Hudson's assessment.

57. There is an apparent focus upon whether the areas affected are identified as outstanding with respect to landscape value or natural character in the MEP. This may be an oblique reference to the implications of the Supreme Court's interpretation of NZCPS Policy 13(a), requiring the avoidance of ; "...adverse effects of activities on natural character in areas of the coastal environment with outstanding natural character". Nowhere in Mr Hudson's report does he acknowledge NZCPS Policy 13(b):

avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on natural character **in all other areas of the coastal environment**; [emphasis added]

- 58. For the purposes of the current matter, I consider all 5 proposed relocation sites are within the same landscape and same area of the coastal marine environment - the Waitata Reach - and not, as Mr Hudson suggests, within 5 discrete areas, each one subject to a narrowly focussed assessment at the scale of the site.
- 59. Ms Williams, in her peer review of the Hudson report, concludes that cumulative effects on natural character will be high. Discussing cumulative effects on the Waitata Reach, Ms Williams states (p.73):

...the addition[al] of five salmon farms to create a total of seven farms since the BOI, and including a farm sited in the middle of Waitata Reach will have High to Very High cumulative effects on natural character. Given the high experiential values and visual amenity of Waitata Reach, I would expect cumulative effects on landscape values to be High.

Matters raised in the submissions of Gascoigne Wicks for NZ King Salmon

60. At paragraph 51(a) Mr Davies states:

Dr Steven agrees that there will be no effect on relevant features in the Waitata Reach apparently due to Dr Steven's definition of a feature as excluding the landscape/seascape.

- 61. Understanding the distinction between a natural feature and a natural landscape is a significant issue in this matter. It is not entirely accurate to claim I define a feature as "excluding the landscape/seascape." A feature is a discrete, bounded and readily differentiated and recognisable element in a landscape - a distinctive part of a landscape⁵, generally of geomorphological origin.
- 62. Effects on features are less of an issue in this matter than effects on landscape/ seascapes. I am critical of the Boffa Miskell (2015) landscape study in failing to clearly differentiate features from landscapes. Most areas defined as ONF in the BML (2015) study do not qualify as features in the sense I define above. This has significant implications for the protection of valued landscapes/ seascapes in the Sounds. In the Sounds, seascapes are an integral part of landscapes, but natural features do not include adjacent seascapes, as features are defined by their geomorphology. In defining the Marlborough Sounds as a collection of features, rather than landscapes, the Boffa Miskell (2015) assessment has largely excluded areas of seascape from consideration as ONL. Apart from the Outer Sounds ONL, all outstanding areas are defined in the BML (2015) study - erroneously in my opinion - as natural features. This is not a credible approach in my opinion.
- 63. At paragraph 51(c) Mr Davies states:

...[Dr Steven] says that even insignificant effects need to be avoided, remedied or mitigated, and on the basis that form and colour is insufficient mitigation he states that the farms should be avoided;

- 64. Form and colour may be regarded as minor mitigation insofar as aesthetic considerations relating to landscape (aesthetic) value are concerned, but form and colour have no bearing upon adverse effects relating to natural character. Natural character is a function of the expression of natural elements, natural patterns and natural processes, and aesthetic considerations are not relevant. in mitigating adverse effects on natural character.
- 65. At paragraph 51(d) Mr Davies states:

Dr Steven does identify relevant values at [70]. The values which he describes however, are values which it states applies to all of the Marlborough Sounds,

with presumably the conclusion that none of the Marlborough Sounds is suitable for any form of "intrusion of structural elements";

66. I suspect Mr Davies is referring to my paragraph [79] and sub-paragraphs, although my evaluation of the landscape significance of the Waitata Reach is covered more completely in my paragraphs [76] - [86]. Mr Davies is correct in stating that I consider the qualities that make the Waitata Reach outstanding are found throughout the Marlborough Sounds. Mr Hudson acknowledges this too, when he states, with reference to proposed site 34 (Hudson, p.20)

The site is part of the wider Sounds, which is an Outstanding Natural Landscape at the National Scale.

- 67. At the regional scale, the outstanding qualities of the Sounds are not uniformly distributed some areas are less outstanding than others, and some areas are less than outstanding. However it is my opinion that the Waitata Reach is a natural landscape/seascape within which valued characteristics and qualities are evident at the level of outstanding.
- 68. At paragraph 51(f) I understand Mr Davies to question whether I have undertaken a regional assessment in reaching my conclusion that the Waitata Reach is an outstanding natural landscape/seascape. If he means a study such as that undertaken by BML (2015), the simple answer is no, but this issue identifies the relevance of landscape specific assessments in matters such as this. Specific assessments of landscape significance are often required in resolving matters before the Environment Court. Not every landscape architect offering an opinion on landscape significance has had the opportunity to undertake a comprehensive district or regional study. One-off, location specific evaluations have often been required, particularly in circumstances where the local authority has not identified ONFLs within the district/region.
- 69. It is my opinion that such assessments are necessary and valid, particularly when the assessor has a wide range of experience in assessing landscapes throughout New Zealand, and makes his/her assumptions, methods and analysis clear. Landscapes are dynamic, not static, and community values change over time. Even in circumstances where district/regional assessments

may have been undertaken, specific re-evaluations may be called for from time to time.

ML Steven 1 May 2017

Endnotes

¹ Validity is a test of whether a method measures the quality or attribute it claims to measure. Validity can be understood in terms of the concepts used, and of the resulting assessment. In terms of assessments of natural character, validity refers to (i) the validity of the definition of the concept itself, and (ii) whether the methods applied actually measure the phenomenon they purport to measure.

Reliability is a test of consistency, and is concerned with whether different methods will produce the same findings when measuring the same phenomena in different contexts, or when used by different assessors.

² [2014] NZEnvC 152, KPF Investments Limited v Marlborough District Council

³ Boffa Miskell et al (2014) Natural Character of the Marlborough Coast: Defining and Mapping the Marlborough Coastal Environment. Marlborough District Council

Boffa Miskell et all (2015) Marlborough Landscape Study: Landscape Characterisation and Evaluation. Marlborough District Council

⁴ Landscape Institute and Institute of Environmental Management and Assessment (2013) *Guidelines for landscape and visual impact assessment*, 3rd edition, Routledge.

⁵ The following excerpt is taken from [2014] NZEnvC 152, KPF Investments Ltd v Marlborough District Council.:

[49] Features - as the word is used in section 6(b) - are (usually) smaller components of landscape. As the court stated in Wakatipu Environment Society Inc v Queenstown Lakes District Council:

We consider the words "landscape" and "feature" are used deliberately in section 6(b) and that "feature " means:

... a distinctive or characteristic part of a [landscape]