

**BEFORE THE ENVIRONMENT COURT  
AT AUCKLAND**

**IN THE MATTER:** of the Resource Management Act 1991

**AND**

**IN THE MATTER:** of appeals pursuant to clause 14 of the  
First Schedule to the Act

**BETWEEN**

**MOTITI ROHE MOANA TRUST**

(ENV-2015-AKL-000134)

**NGATI MAKINO HERITAGE TRUST**

(ENV-2015-AKL-000140)

**NGATI RANGINUI IWI INCORPORATED  
SOCIETY**

(ENV-2015-AKL-000141)

**Appellants**

**AND**

**BAY OF PLENTY REGIONAL COUNCIL**

**Respondent**

**AND**

**VARIOUS**

**Section 274 Parties**

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**STATEMENT OF EVIDENCE OF SANDRA ALISON BARNES**

**26 November 2017**

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**CooneyLeesMorgan**  
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247 Cameron Road  
P O Box 143  
TAURANGA  
Telephone: (07) 927 0590  
Facsimile: (07) 578 1433  
Lawyer Acting: M H Hill  
Email: mhill@clmlaw.co.nz

## Qualifications and Experience

1. My full name is **SANDRA ALISON BARNES**. I am employed by Bay of Plenty Regional Council as an economist, a position I have held for four years in March 2018.
2. Prior to this I was employed by the Waikato Regional Council (WRC) for nine years, including one year leave of absence (2008-09) working at the University of East Anglia, Norwich, as a recipient of a Marie Curie Fellowship. While in the UK I was part of a project team researching farmer response policy, and in particular to policies required by the EU Water Framework Directive. At Waikato Regional Council I was involved in policy areas including air quality and geothermal. While at Waikato Regional Council I was part of a team working on the (second generation) Regional Policy Statement which was made operative in May 2016. My role was focused on the section 32 evaluation, and included organising input, providing material, and co-writing the report.
3. I hold a Bachelor of Management Studies (Honours), majoring in Economics and Finance and a Masters in Management Studies (Honours), majoring in Economics, from University of Waikato, Hamilton, New Zealand. I am a member of the New Zealand Agricultural and Resource Economics Society (NZARES).
4. The key areas of my work at the Bay of Plenty Regional Council have been in Plan Change 10 (Lake Rotorua), Plan Change 9 (the regional water quantity plan change) and Plan Change 13 (the regional air plan). In each of these plan changes a key part of my work has been in preparing the section 32 evaluation reports and ensuring they are consistent with the guidelines provided by the Ministry for the Environment.
5. I am a sailor, and am reasonably familiar with the islands in the ocean side of Tauranga and Mount Maunganui, including Motiti Island. I provide this for completeness although it does not have a direct bearing on the expert evidence I am providing.
6. I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2014 and I agree to comply with it. I confirm that the issues addressed in this statement of evidence are within my area of expertise, except where I state I am relying on the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from my expressed opinion.

### **Scope of Evidence**

7. I have reviewed the expert (rebuttal) evidence of Professor Martin Paul O'Connor on behalf of Motiti Rohe Moana Trust, and am responding to that evidence.

### **Reply to Evidence of Professor Martin Paul O'Connor**

8. Professor O'Connor supports the proposal of the Motiti Rohe Moana Trust (MRMT) to refine boundaries of the Motiti Natural Environment Management Area (MNEMA) for better geographical and biological coherence, and then, in the proposed Bay of Plenty Coastal Environment Plan (PRCEP), have this recognised as a management area incorporating waahi tapu and waahi taonga with associated rules prohibiting certain activities within the MNEMA including fishing.
9. I understand the proposal Professor O'Connor refers to (described in Para 8 above) was not an option contained in the notified or decisions version of the PRCEP and therefore was not assessed in the s.32 or s.32AA evaluation. The parties are now considering s.32 issues in their evidence to assist the Court in carrying out this evaluation of the new proposal.
10. In his evidence Professor O'Connor:
- 10.1 Suggests that section 32 evaluation of costs and benefits as required by the RMA is not an appropriate way of evaluating this type of proposal; and
- 10.2 Provides his own view as to the economic value of the option put forward by the MRMT.

I will address these two points.

### **Section 32 evaluation and CBA**

11. In para 4.4 Professor O'Connor asserts that a cost-benefit analysis (CBA) is not an adequate method for evaluating a proposal for *stewardship of marine ecosystems and fisheries to maintain indigenous biodiversity and protect tāngata whenua values*. I would agree that a traditional CBA is not a suitable means of understanding the benefits and costs of projects that have environmental, social, and cultural values.
12. Economists have a particular understanding of a CBA as the monetary quantification of costs and benefits (which may be applied to economic, environmental, social and cultural outcomes). In a CBA the costs and benefits are analysed to provide a net benefit ratio. The best project (or policy) is that with the highest net benefit.

13. However, a s.32 evaluation under the RMA is not a CBA. Section 32 (RMA) requires that economic, environmental, social and cultural benefits and costs are identified and assessed, and quantified if practicable. Quantification is not monetisation. Some effects are able to be monetised. Other quantification might include the population size affected by a proposal, the number of hectares in a proposal, the number of jobs created or lost, or number of fishers affected. Providing information on the distribution of costs and benefits would also be part of the s32 evaluation.<sup>1</sup>
14. Professor O'Connor states that 'where "sustainability" and fairness in partnership are concerns, "Pareto efficiency" is not decisive as a decision criterion' (para 4.4). Pareto efficiency is the situation where no further allocation can be made that will make someone better off without making someone else worse off. In this Professor O'Connor is again pointing out that a CBA does not account for issues of sustainability and fairness.
15. However, the s.32 evaluation does require assessment of long and short term effects, and so consideration of sustainability is part of the policy process.
16. The s.32 evaluation required under the RMA very clearly requires information to inform judgements about fairness and equity.<sup>2</sup> With regard to this, I believe the role of an economist is to provide analysis which informs judgement about fairness and equity, such as a range of measures showing distribution of costs and benefits. These measures provide a check on the claims of interested parties and can help improve the quality of information before decision makers.

#### **Professor O'Connor's assessment of the value of the MRMT proposal**

17. Section 7 of Professor O'Connor's evidence refers to a 'halo' effect of MPAs that would support the MRMT proposal, referring to research by Le Port et al. (2017), which provides positive results from a marine protected area (MPA) in northern New Zealand. Professor O'Connor footnotes that this is one research example '*among many others*' that supports the 'halo' benefit of MPAs.
18. The research by Le Port et al. (2017) does identify such an effect, but the authors also refer to a lack of empirical evidence and mixed results from research:

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<sup>1</sup> Ministry for the Environment (2014, p 62).

<sup>2</sup> Refer s32 guidance from the Ministry for the Environment (2014, pp 61-62).

*The study provides the first empirical evidence for RCS<sup>3</sup> from a temperate MPA to an adjacent fishery (2017, p.6).*

And

*...the potential contribution of MPAs to fished populations beyond their boundaries is still highly controversial; empirical measures are scarce and modelling studies have produced a range of predictions, including both positive and negative effects (2017, p.1).*

19. The lack of empirical evidence of the benefits of MPAs, as referred to in the Le Port et al. (2017) paper, suggests that if a s32 evaluation were undertaken for this particular proposal, then it would be appropriate to consider this as part of the risk of acting with uncertain or insufficient information (s32(2)(c)) to the extent this study is found to be relevant to the proposal.
20. Professor O'Connor suggests that seeking tangible and operational ways to implement the MNEMA is a major net benefit of the approach proposed by MRMT (para 8.6 and 8.9).
21. The purpose of the s32 evaluation is to provide robust and transparent decision making. The Council has a responsibility to the community to develop objectives to address recognised environmental issues, and to effectively achieve those objectives, having taken into account the costs and benefits, and the distribution of costs and benefits. Real uncertainties and lack of information are challenges within this process, and must be taken into account by the Council when deciding how and whether to act.
22. It is not clear to me from Professor O'Connor's evidence as an economist how he has come to support the MRMT proposal.

**Sandra Alison Barns**

26 November 2017

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<sup>3</sup> Recruitment Cross Subsidy.

Le Port, A., Montgomery, J.C., Smith, A.N.H., Croucher, A.E., McLeod, I.N., & Lavery, S.D. (2017). Temperate marine protected area provides recruitment subsidies to local fisheries. *Proc. R. Soc. B* 284: 20171300 [Http://dx.doi.org/10.1098/rspb.2017.1300](http://dx.doi.org/10.1098/rspb.2017.1300).

Ministry for the Environment (2013). *A guide to section 32 of the Resource Management Act 1991. Incorporating changes as a result of the Resource Management Amendment Act 2013*. Interim Guidance. Wellington: Ministry for the Environment.

Ministry for the Environment. 2014. *A guide to section 32 of the Resource Management Act: Incorporating changes as a result of the Resource Management Amendment Act 2013*. Wellington: Ministry for the Environment.