
in the matter of: the Resource Management Act 1991

and

in the matter of: a number of applications to take and use water from
the Upper Waitaki catchment

Brief of evidence of **Simon Richard Harris** on individual applications

Dated: 26 November 2009

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BRIEF OF EVIDENCE OF SIMON RICHARD HARRIS ON INDIVIDUAL APPLICATIONS

INTRODUCTION

- 1 My full name is Simon Richard Harris.
- 2 My qualifications and experience are set out in my previous brief of evidence dated October 2009.
- 3 I have been engaged by Meridian Energy Limited (Meridian) to provide evidence in relation to the water permit application by Simons Pass Station Limited and Simons Hills Station Limited.
- 4 I confirm that I have read the Environment Court's Code of Conduct for expert witnesses and this evidence has been prepared in accordance with that code. I agree to comply with the code's terms. In that regard, I confirm that the statements made in this evidence are within my area of expertise (unless I state otherwise) and I also confirm that I have not omitted to consider material facts which might alter the opinions stated in this evidence.
- 5 In preparing this evidence I have reviewed:
 - 5.1 The evidence of **Mr Copeland** dated 11 November 2009.

SCOPE OF EVIDENCE

- 6 In this evidence I outline:
 - 6.1 My agreement with the general approach taken by **Mr Copeland**, but my express concern at the lack of wider cost-benefit analysis;
 - 6.2 Specific points of concern in relation to the estimates of capital cost, farm profitability, level of expenditure in region, and the attribution of benefit to rate expenditure.

MR COPELAND'S ANALYSIS

- 7 The approach that **Mr Copeland** has adopted is appropriate for the assessment of regional economic impacts.
- 8 As with the evidence from MWRL prepared by **Mr Butcher**, there is no evidence on the wider cost-benefit implications of granting the water permit. This was canvassed extensively in my evidence on the MWRL assessment, and the key issues can be summarised as lack of evidence on commercial viability, affordability, and efficiency. Of greatest concern is the lack of evidence on efficiency in a benefit-cost format or framework. This would line up all benefits and costs

that are possible as a result of a proposal. Some of these are able to be quantified (net change in farm profit, lost electricity generation, increased generation costs, lost recreation revenue etc) while others are only able to be qualitatively described (water quality, landscape values, community strengthening etc). Such an analysis would include a cashflow analysis that generated a net present value of the development at different discount rates, including the opportunity cost of water and any other impacts that were able to be quantified. The lack of evidence on the efficiency of the application is a significant deficiency.

9 **Mr Copeland's** evidence would benefit from some sensitivity testing of key parameters, particularly product prices and farm costs.

10 As with the other economic evidence presented, there is no information on the costs of proposed mitigations.

Specific points of concern

11 The evidence is hampered by lack of detail on the costs and returns, which are presumably described in the Ogle Report (2009) **Mr Copeland** refers to but which was not made available to me for reasons of confidentiality.

12 While two scenarios of development are referred to, only one level of capital costs is included. The capital costs presumably relate to the dairy oriented scenario because of the description of items included. While the split of items in relation to this scenario is perhaps not exactly as I would have allocated the items, the overall capital expenditure is approximately similar to other studies of which I am aware.

13 The estimated profit for the intensively farmed sheep and beef scenario is high at \$458/ha. I note that the MWRL evidence suggests profits of \$48/ha, an order of magnitude difference. Without any detail it is difficult to determine how this discrepancy arises. However, in contrast the profit for dairy in **Mr Copeland's** evidence is lower than that forecast by MWRL.

14 **Mr Copeland's** evidence includes a scenario where 4000 ha are converted to dairying. The relationship between this scenario and the MWRL evidence on economic impacts and water quality, where a total of 4500 ha of dairying is developed in the entire Mackenzie Basin, is not clear. The lack of clarity about which mix of land use is being used for the different economic impact assessments and water quality modelling makes commenting on the overall impacts difficult. It is difficult to see how the Commissioners are meant to draw conclusions about the overall efficiency (costs and benefits) and impacts of the proposals when it is not clear what will be done with the water.

- 15 In paragraph 4.14 of his evidence, **Mr Copeland** estimates that 90% of the additional expenditure will take place within the Mackenzie and Waitaki Districts. Given the lack of a large town and service centre (the study area definition excludes Fairlie), this proportion appears too high. **Mr Butcher** uses a general figure of 50% of expenditure with a higher proportion of 75% for freight and 80% for farm contracting.
- 16 In paragraph 4.17 of his evidence, **Mr Copeland** produces estimates of changes to household income and employment. The methodology appears appropriate, but **Mr Copeland's** figures appear lower than those produced by **Mr Butcher** for MWRL, probably because **Mr Copeland** does not include wages of management in his estimates of household income.
- 17 In paragraph 4.19 of his evidence, **Mr Copeland** notes that there will be an increase in rates associated with the additional irrigation. However it should be noted that in combination with the increased rates there will be increased costs for the Council in servicing the additional people and activity (such as increased roading costs from milk tanker traffic) associated with the irrigation. If the Council were setting its rates at a level where the additional rates equalled the costs of the additional services, there would be no net benefit to them. In reality there is likely to be some gains to the Council from economies of scale and concentration that arise from the increased rating base, but this is smaller than the total increase in rates.

SUMMARY

- 18 The evidence prepared by **Mr Copeland** is largely appropriate for determining economic impact. It produces impacts that are in the same order of magnitude as **Mr Butcher's**, although probably slightly more conservative. The Panel would benefit from:
- 18.1 Information on overall efficiency of the application through a cost-benefit framework, including opportunity cost of the water and externalities from its use for irrigation;
- 18.2 Greater detail on the individual farm budgets used as a basis for the analysis;
- 18.3 Some sensitivity testing of the assumptions;
- 18.4 Inclusion of costings and impacts from proposed mitigations to reduce nutrient leaching; and
- 18.5 An understanding of the relationship between the land use scenario proposed for this application and that proposed by MWRL for economic impacts and for water quality modelling.

Dated: 26 November 2009

Simon Richard Harris