
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

Memorandum of counsel in regard to modelling scenario

Dated: 11 November 2009

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MEMORANDUM OF COUNSEL IN REGARD TO MODELLING SCENARIO

May it please the Commissioners:

- 1 In rebuttal evidence given by Valerie Snow yesterday it was stated:
 - "46. In Paragraph 20 it would seem that Dr Ryan has not understood which scenarios were used in the water quality assessment. He will read in the GHD summary report⁹ that environmentally-conservative assumptions were made by taking the developed case for assessment of the current nutrient losses, Scenario 1, and the highly developed case for the irrigated nutrient losses, Scenario 4. Much of Dr Ryan's evidence is flavoured, at least to some extent, on his assumption that the developed irrigated case, Scenario 2, was used for the future case."
- 2 In the Cumulative Water Quality Effects of Nutrients from Agricultural Intensification in the Upper Waitaki Catchment Summary Report dated August 2009 on page 58 GHD states:
 - "The nutrient load used to calculate the assimilative capacity is derived from the proposed scenario at developed status (Scenario 2). The thresholds reflect the ability of the receiving environment to assimilate nutrients with no significant adverse effects, and are set irrespective of their development.
 - Estimated nutrient losses have been supplied to landowners for their proposed farming systems for developed status. These are the appropriate figures to use until the irrigated soils reach a steady state in terms of nitrogen storage."
- 3 We attempted to resolve this apparent conflict with Dr Snow yesterday but she has suggested that the question be directed to Dr Robson.
- 4 We would be grateful if this question could be clarified with Dr Robson by the Commissioners when she presents her rebuttal evidence (at this stage we understand today or tomorrow).

⁹ GHD (2009) Cumulative Water Quality Effects of Nutrients from Agricultural Intensification in the Upper Waitaki Basin. Summary Report. Prepared for Mackenzie Water Research Ltd. August 2009. GHD.

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A handwritten signature in blue ink, appearing to read 'JM Appleyard', with a long horizontal flourish extending to the right.

JM Appleyard/BG Williams
Counsel for Meridian Energy Limited