

BEFORE THE INDEPENDENT COMMISSIONERS

IN THE MATTER of the Resource Management Act
1991

AND

IN THE MATTER of the Proposed Canterbury Land
and Water Plan

**REBUTTAL EVIDENCE OF NEIL ALASTAIR DEANS ON BEHALF OF
NORTH CANTERBURY, NELSON/MARLBOROUGH AND CENTRAL
SOUTH ISLAND FISH AND GAME COUNCILS**

13 FEBRUARY 2013

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QUALIFICATIONS AND EXPERIENCE

1. My name is Neil Alastair Deans. My qualifications and evidence were set out in my Evidence in Chief, dated 4 February 2013.
2. In preparing this rebuttal evidence I have reviewed:
 - a. The reports and statements of evidence of other experts giving evidence relevant to my area of expertise, including:
 - i. Gerard Willis for Fonterra and Dairy NZ.
3. I have again prepared this evidence in compliance with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2011.
4. The particular points that I consider it useful for me to rebut are set out below.

EVIDENCE OF GERARD WILLIS

5. Mr Willis considers at his paragraphs 3.10 – 3.11 that the protection provisions of the NPS in Objective A2 only apply to 'outstanding' water bodies or wetlands or to the improvement of degraded water bodies if the process of protecting outstanding water bodies and wetlands and improving degraded water bodies results in a cumulative maintenance of water quality in the "planning area". I do not agree with this interpretation. Clearly overall water quality must relate to all waters in a region. The qualifications are particular cases which need in particular to be provided for at the same time as ensuring overall water quality is maintained or improved.
6. One of the failures in his logic is in his paragraph 3.11(c). Water quality does not come in regional units, even though the 'overall water quality in a region' must be maintained or enhanced. Water quality can only be measured as to whether it is being maintained or

enhanced in water bodies; at the largest possible scale as catchments. To assess the 'overall' status of this at a regional scale requires adding the separate analysis of each water body. As no regional calculus can sum the overall status as a group, it relies on each separate water body's water quality being maintained or enhanced. This could mean degradation of water quality in one sub-catchment (with the important qualification that this is subject to the maintenance of limits set to protect identified values in that sub-catchment). It is not possible to add the Rakaia and Ashburton Rivers' water quality, for example, to come up with some averaging approach. I think, in practice, this means that **each** catchment must have its water quality at least maintained in order to maintain an overall quality.

7. Water quality is not an absolute phenomenon (Willis paragraph 3.13). Water quality can only be measured against a notion of fitness for purpose, following the establishment of uses, interests and values for each catchment. While it is possible to objectively measure say, temperature, it depends on whether you are interested in swimming in the water or providing for cool water adapted fish to say whether water temperatures of 25 °C are acceptable, or represents desired or degraded water quality. This might be acceptable for swimming, but would be potentially lethal for salmonid fisheries.

8. In paragraph 3.12 Mr Willis refers to "no net negative change", but this assumes both that water quality can be measured in an objective way and that the water quality of different and separate water bodies can be somehow equated. I regard this as unlikely in principle. Waters will have different values on different scales in different areas, and water quality can only be assessed in a particular water body given the particular values for which it is managed, not an average water quality of a number of water bodies. Especially as the actual consequence of this approach would likely be a conscious decision to allow water quality degradation in location A because there may be an improvement in location B. This would rely on an accounting system which is simply impractical.

9. In his paragraph 7.2 Mr Willis implies that the current Table 1a is not derived with any community input. That is not my understanding; it has been informed by information provided by individuals and groups including Fish and Game in a variety of public processes over a considerable period. That is not to say it could be further improved and refined with more comprehensive input from the community.

Neil Alastair Deans

13 February 2013