

IN THE MATTER of the Resource Management Act 1991

A N D

IN THE MATTER of submissions and further submissions by Rangitata Diversion Race Management Limited (**RDRML**) on proposed Variation 2 to the proposed Canterbury Land & Water Regional Plan

STATEMENT OF REBUTTAL EVIDENCE OF NIGEL ROLAND BRYCE

1.0 Introduction

1.1 My full name is Nigel Bryce.

1.2 I provided a statement of evidence dated 15 May 2015 in connection with submissions by RDRML on Variation 2 to the proposed Canterbury Land & Water Regional Plan. My qualifications and experience are set out in that statement. Consequently, I do not repeat that detail here.

1.3 I have read the evidence of other submitters that has been made available, and wish to provide (via this statement), rebuttal to the evidence of the following witnesses:

- Mr Peter Wilson (Fish and Game);
- Ms Lynda Murchison (Te Runanga O Arowhenua Trust and Te Runanga O Ngai Tahu).

1.4 I confirm that this rebuttal evidence is also prepared in accordance with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014. When preparing this statement I have had regard to the rebuttal evidence of Mr Peter Callander, Mr Stuart Ford, and Dr Greg Ryder.

2.0 Evidence of Peter Wilson

Removal of Land Intensification

2.1 Mr Wilson in his evidence in chief ('EIC') (at paragraph 41) states that "*[g]iven this expert evidence and the possibility of an underestimate in leaching, it would be imprudent to allow for future expansion in the catchment within this Variation, and Fish and Game's relief seeks the removal and amendment of rules that provide for this expansion. Future expansion should not be provided for until such time as the catchment is on a clear trajectory of improvement as proven by water quality sampling.*"

- 2.2 In simple terms I take Mr Wilson's evidence to be that because the Hinds Catchment is over-allocated, there should be no further irrigation expansion. The contention seems to be that this is needed for Variation 2 to achieve the policy direction of the NPSFM 2014. I understand Mr Wilson's concerns (expressed at paragraph 40 of his EIC) relate to *"...the significant underestimate in the leaching and load calculations requires a reassessment of the future for future irrigation expansion in the catchment."*
- 2.3 As I have set out in section 7.0 of my EIC, the RDRML already holds a short term consent to irrigate within an increased command area. Mr Curry (at paragraph 6.1 of his statement) identifies that within the Hinds catchment currently two of the three RDR Irrigation Schemes have intensified approximately 4,000 ha under resource consent CRC121664, and developed plans to provide irrigation water via piping to a further 8,500 hectares in the Hinds catchment. This is compelling because it reinforces that irrigation expansion within the Hinds catchment is already authorised and already forms part of the 'new allocation' governed by Variation 2 (at least until such time as RDRML's existing short term consent is able to be renewed following its expiry in May 2019). Mr Wilson does not address this fact. As Mr Curry has reinforced in section 6.0 of his statement, this existing consent imposes strict nutrient management obligations on RDRML and its shareholders, which seek to limit the amount of nitrogen discharged over the RDRML command area to 211 tonnes per year. They also impose strict nutrient management regimes which are consistent with the broader policy outcomes of the L&WRP (including implementation of Farm Environment Plans developed in accordance with Schedule 7).
- 2.4 In addressing the relief sought by Mr Wilson, I consider it important to reinforce here that Variation 2 is a variation to the L&WRP. The L&WRP was in turn promulgated to give effect to parts of the National Policy Statement for Freshwater Management 2011 (which has since been replaced by the National Policy Statement for Freshwater Management 2014), along with other higher order documents, including the Canterbury Regional Policy Statement 2013.
- 2.5 I note the section 32 report¹ sets out that section 32 (1)(b) of the RMA requires that the proposed provisions (policies, rules and associated tables and appendices) in Variation 2 are the most appropriate way of achieving the L&WRP objectives (which the section 32 evaluation sets out in Appendix 8). I question whether Mr Wilson's relief would be efficient and effective when considering the benefits and costs of the economic and social effects that could be anticipated from the implementation of his proposed provisions. This is especially the case when considered in the context of Objective 3.5, 3.10, 3.11, which the Variation also seeks to give effect to (in conjunction with other relevant objectives that address environmental and instream values). While I appreciate that the relevant objectives must be read in their

¹ at page 40 of the section 32 evaluation.

entirety, it is evident that Mr Wilson has not considered the implications of his changes in a section 32 sense.

- 2.6 The removal of any further intensification, as I understand is being advanced by Mr Wilson, and introducing reduced load limits (as is advanced in the evidence of Dr Canning for Fish and Game) would have potentially significant socio-economic impacts on the rural productive economy of the Hinds catchment and the wider region. This is a matter that Mr Wilson has not addressed and is a failing, in my opinion.
- 2.7 While the evidence of Mr Ford for RDRML reached a similar conclusion that modelling used to support Variation 2 included an inaccurate estimation of the total amount of N leached, Mr Ford does not advance an outcome that supports the removal of all further intensification. Rather, his assessment acknowledges that an alternative (extended) timeframe is required in order to achieve the N catchment load (and in turn the removal of this over-allocation). I note, further, that Mr Ford and Mr Callander's rebuttal evidence calls into question the catchment load limits advanced by Dr Canning for Fish and Game and Dr Burrell for Ngai Tahu. Mr Ford highlights that setting a load limit below that already sought under Variation 2 would effectively stop farming in the catchment.² I, again, question whether the efficiency and effectiveness of the relief sought by Fish and Game witnesses has considered the socio-economic effects of the relief sought. In my opinion, it has not.
- 2.8 Mr Wilson's policy analysis is set out at paragraphs 41 to 50 and addresses his justification for removing any further intensification within the Hinds catchment. I do not support this policy analysis.
- 2.9 I agree with Mr Wilson that the NPS FM clearly directs Regional Councils, when addressing over-allocated catchments, to set out in regional plans a defined timeframe and method to phase out over-allocation (under Policy A2 and Policy B6). The approach advanced by Mr Wilson, however, has little regard to the underlying socio-economic benefits derived by irrigation expansion and the implications of removing this. There appears to be no consideration given to the implications for resource users, people and communities as a consequence of this alternative relief.
- 2.10 As I have set out paragraph 6.7 of my EIC, Objective C1 and Policy C1 of the NPS FM 2014 seek to promote the management of fresh water and the use and development of land in whole catchments, in an integrated manner. In addressing over-allocation in the Canterbury Region, the CRPS sets out that the Council may follow two pathways to address over-allocation (as set out under Policy 7.3.6(2)). One of the pathways is by providing further abstraction or discharge providing it is part of an integrated solution to addressing over-allocation. This is the approach I understand that is being advanced under Variation 2.

² at paragraph 27 of Mr Ford's rebuttal evidence and paragraph 6 of Mr Callander's rebuttal evidence

- 2.11 The principal reasons supporting Policy 7.3.6(2) of the CRPS states that this policy “provides for managing activities in catchments where water bodies do not meet the minimum water quality standard set. Two alternatives are offered. There is no further abstraction from or discharges of contaminants into that water body, if these activities may make the water quality worse. Alternatively, further abstraction or discharge can occur if it is part of an integrated solution to water management in the catchment, which is addressing the degraded water quality. This latter approach recognises that new development can be a catalyst for improvements in the status quo, whereas preventing new activities does not, in itself, provide an incentive to address issues resulting from the effects of existing activities. What is an appropriate timeframe for improving water quality will vary in each catchment, depending on the extent of water quality degradation and its effects, and the costs of remedial options. Therefore this matter needs to be addressed as part of a regional plan for that catchment.” [Emphasis added]
- 2.12 Mr Wilson at paragraph 45 states “...Variation 2 contains elements of an integrated solution to the catchment, but I will explain later in my evidence how it fails to provide for an improvement or even maintenance of water quality standards in its current form.”
- 2.13 Simply removing the ability for existing irrigation and farming activities to expand runs contrary, in my opinion, to the integrated catchment approach that is being advanced within the Hinds catchment.
- 2.14 Mr Wilson is recommending the deletion of a number of rules (Rules 13.5.21 and 15.5.22) relevant to irrigation schemes or principal water suppliers in his Appendix 1. I do not support Mr Wilson’s intended changes given that he ignores the fact that a number of existing principal water suppliers within this catchment already hold short term consents approved under the existing L&WRP provisions.³ In the case of RDRML’s short term consent, this expires in May 2019 at which point any expansion of irrigation command area would be governed by Rule 13.5.22. Any removal of Rule 13.5.22 (which links to the scheme load calculators under Table 13(i)) would mean that the schemes need to seek consent under the existing L&WRP rule framework under Rule 5.62. I note, for completeness, that Rule 5.62 is not a catchment specific rule and therefore may not necessarily achieve the outcomes for achieving nutrient reductions as would be achieved under the proposed rule framework. Mr Wilson does not address this issue or the implications of deleting this rule.
- 2.15 Mr Wilson (at paragraph 28(d)) highlights that the deletion of rules that provide for the use of land or discharges from that land (if it has already been consented by way of an irrigation company’s discharge consent) will be addressed in legal submissions. In my opinion, this is a matter that needs to be informed by planning evidence, and is not purely a legal consideration. For my part, I am of the opinion, that the rules are important for the future

³ In the case of the RDRML this relates to consent CRC121664 and BCIL consent CRC147697

re-consenting of RDRML's existing short term consent, and without this rule framework, there is no catchment specific rule framework to address this future consenting pathway.

Allocation and Equity

2.16 Mr Wilson raises concerns (at paragraphs 58 to 62 of his EIC) that it is only dairy and dairy support farms that have specific N loss reductions. As a consequence, Mr Wilson recommends changes to Policy 13.4.13 to require other farming activities to undertake N reductions. Without this change Mr Wilson argues that Variation 2 is inconsistent with Policy 4.7.

2.17 Mr Wilson recommends the following amendment to Policy 13.4.13(d):

“d) requiring from 1 January 2020, time framed further reductions in nitrogen leaching beyond those set out in (c) for other land uses that do not meet the requirements of (a) and (b) to assist in achieving of the target load of 3,400 tonnes per year by 2035 in accordance with Policy 4.7 of the parent plan.”

2.18 Clause a) and b) in Mr Wilson's amended Policy 13.4.13 essentially reflect good management outcomes for farming activities and require from 1st January 2017 further staged reductions in nitrogen leaching through techniques such as farm system modelling. Beyond 1 January 2020, Mr Wilson's amended Policy 13.4.13(d) seeks further reductions to achieve the target load of 3,400 tonnes of N per year by 2035.

2.19 I note Mr Wilson's alternative wording does not stipulate or specify what these further staged reductions will be and therefore, offers no real certainty for farm managers within this catchment. I see this as being an adverse outcome, and one that cuts across good planning and resource management practice.

2.20 Further, Mr Wilson refers to Policy 4.7 and the fact that Variation 2 policies and rules do not require consent conditions that contribute to phasing out of over-allocation. In my opinion, this is a matter that the Council can respond to by imposing appropriate conditions when issuing new consents (noting that the existing use consents held by existing principal water suppliers are of a short term duration).

2.21 As a consequence, I do not support Mr Wilson's alternative wording to Policy 13.4.13(d).

3.0 Evidence of Lynda Murchison

3.1 Ms Murchison addresses Ngai Tahu's preferred rule framework at paragraphs 61 to 70 of her EIC. I understand that Ngai Tahu's proposed system for managing nitrogen losses involves two thresholds:

- an 'A Band' (permitted) threshold of 15 kg N/ha/yr; and
 - a 'B Band' threshold of 27 kg N/ha/yr.
- 3.2 I understand that the central thrust of Ngai Tahu's proposed rule framework is that existing farms leaching over 27 kg N/ha/yr (Band C) will be required to follow a schedule of nitrogen loss reductions over time. Changes in land use (new irrigation after 27 Sept 2014) will be prohibited from leaching more than 27 kg N/ha/yr and capped at 214 tonnes N/year.
- 3.3 I note that this approach was opposed by RDRML under its further submission to Ngai Tahu's submission (Submission Point ID V2 pLWRP-206) on the basis that it relies on arbitrary limits, including the 27kgN/ha/yr.
- 3.4 I also note following detailed modelling work undertaken by Mr Ford for the RDRML, that his EIC casts doubt on 27 kg N / ha /yr (calculated by ECan) and prefers a minimum N leaching figure of approximately 39 kg N / ha to be more achievable.
- 3.5 While I am of the opinion that the approach being advanced by Ngai Tahu has merit, I note that the section 42 report includes a detailed appraisal of the Ngai Tahu relief, as set out in the Technical Memoranda attached as Appendix B to the 42a report. At page 278 of the section 42a report, the Technical Memoranda states "*[a] full assessment of the potential to meet targets and limits can only be conducted once the reasonable leaching rates for B Band farms and the schedule of N loss reductions for C Band farms under Ngāi Tahu's proposed management regime have been established.*"
- 3.6. The section 42a Officer (at paragraph 9.23, page 108) states "*that from a planning perspective I hold some concerns about the framework and its implementation.*" I agree that the approach advanced by Ngai Tahu offers some uncertainties, which are further compounded, in my opinion, by the fact that the 27 kg N / ha /yr has been called into question through the detailed modelling undertaken by Mr Ford.
- 3.7 Ms Murchison (at paragraph 90 and 91 of EIC) provides an overview of the work undertaken by Dr Dudley. I have reviewed this work and note that it centers on assessing nitrogen loads and concentrations based on the 27 kg N / ha /yr. Given the evidence of Mr Ford, which casts doubt on the 27 kg N / ha /yr, question if Ngai Tahu's alternative rule framework is based on good science and thus should be applied.

Nigel Bryce
29th May 2015