
In the matter of: Clauses 6 and 8 of Schedule 1 – Resource
Management Act 1991 – Submissions on publicly
notified plan change and variation – Proposed Plan
Change 1 and Variation 1 to Waikato Regional Plan –
Waikato and Waipa River Catchments

And: **Wairakei Pastoral Ltd**

Submitter

And: **Waikato Regional Council**

Local Authority

FURTHER REBUTTAL EVIDENCE OF NICHOLAS ASHLEY CONLAND
Block 2 Hearing Topics

Dated: 17 May 2019

REBUTTAL

Block 2 Hearing Topics

- 1 My name is **Nicholas (Nic) Ashley Conland**. I have the qualifications and experience recorded in my statement of supplementary evidence filed in relation to the Block 1 Hearing Topics.
- 2 My rebuttal evidence has been prepared in accordance with the Code of Conduct for expert witnesses as set out in Section 7 of the Environment Court of New Zealand Practice Note 2014.
- 3 Relevant to my expertise, I wish to rebut the evidence of the following expert witnesses:

Name	Submitter
Alison Dewes	Beef + Lamb New Zealand Limited
Dr Debbie Care	TheLand Farm Group Limited (Theland); Ata Rangi (2015) Limited Partnership (Ata Rangi) and Southern Pastures Limited Partnership (Southern Pastures)
Dr Edmeades	Mr Michael Joseph Peters

Ms Dewes on behalf of Beef and Lamb

OVERALL CHANGES IN RIVER HEALTH RESULTING FROM AGRICULTURE OVER THE LAST TWO DECADES

- 4 In para's 41 to 136 of her evidence Ms Dewes examines the changes in the pastoral sector practices and consequential effects on the environment over the previous 20 years. I share many of the concerns she raises regarding the inappropriate use of Vulnerable Land for intensive land uses (as I defined in my evidence in para. 78) and in particular the poor data used to paramertise the Healthy Rivers Waiora Decision Support Tool (**DST**).
- 5 In para 123, Ms Dewes considers a supporting statement from Bill Vant (Vant 2006) and his report in 2005 to the Environment Committee where Mr Vant concludes that 'planned changes and increases in the scale and intensity of land use in the catchment of

the Waikato River hydrolakes during the next 25 years... are likely to result in breaches of RMA section 70 unless substantial changes are made to the management of nutrient loads from these landuses, in particular to the loads from dairying”

5.1 The statement quoted from Mr Vant raises two important issues; one the need to manage loads to constrain catchment effects which is consistent with my Block 2 evidence; and secondly whether there is likely to be section 70 breaches (in relation to permitted activities) as a result of diffuse discharges from land use activities.

5.2 A further issue is whether a permitted activity rule could be allowed for any discharge which gave rise to such effects. While this is considered in the evidence of Mr Connel-McKay I do note that the recent report from Mr Vant (Trends in river water quality in the Waikato Region 1993-2017) illustrates:

- (a) In Table 4 (page 9) that all nine mainstem sites on the Waikato River have reducing Chlorophyll α trends (Change in colour);
- (b) Similarly that the majority (8/9) of Visual Clarity sites also improved over the monitoring period from 1993 to 2017; and
- (c) The Total Nitrogen however has increased at all sites, again suggesting the need to managed to a load rather than to concentrations.

Good Management Practices

6 I agree with Ms Dewes evidence in para 191 to 204 that Good Management Practices (**GMP**) are assumed implicitly to be in place when OVERSEER numbers are produced. I also agree that there is unlikely to be significant compliance with GMP (or Good Farm Practice (**GFP**)).

7 In my Block 2 evidence I analysed in my scenarios 2 to 4 the likely benefit(s) in terms of environmental effects on the river from the proposed Plan Change 1 (**PC1**) provisions. While GFP and a FEP do provide some improvement in Freshwater Objectives. On their own they are not effective compared to shifting intensive farming activities away from Vulnerable Land.

Adaptive Management

8 Ms Dewes in para's 24, 37, 108 and 176 of her evidence discusses the value and importance of Adaptive Management when managing

freshwater. I agree with Ms Dewe's interpretation and proposed function for Adaptive Management and its relevance to PC1.

- 9 I also support and agree with the quote (in Ms Dewes' evidence) from the Tukituki PC6 hearings from Dr Rutherford, who states "Faced with uncertainty, the best strategy in my view is to put in place effective monitoring and make provision for adaptive management".

Dr Care on behalf of Southern Pastures, Ata Rangī and Theland

75th Percentile and NRP

- 10 In paras 20-30 of her evidence Dr Care considers the use of the NRP and the provisions relating to the 75th percentile. I agree with her examples of the poor correlation between farm practice and a NRP calculated from OVERSEER.

Land Use Change rule

- 11 I support the evidence of Dr Care in para 47 to 50 where she considers the area based trigger in the proposed provisions. In my experience an area trigger of 4.1ha is approximately 2 paddocks which in most production systems will be cycled through several land use types in the course of a normal farm cycle as soil productivity and development provides for changes in land use. It is also possible as Dr Care suggests that changes to improve on farm environmental efficiency could also result in breaches of the area based trigger. For this reason I consider that non-complying activity status for land use change is generally inappropriate.

Dr Edmeades on behalf of Mr Michael Joseph Peters.

OVERSEER

- 12 In para 22 Dr Edmeades records his suggestions for the use of OVERSEER in PC1. I support his six suggestions as proposed in principle as they are consistent with my expert opinion and experience with OVERSEER for farm activity analysis and as a DST.

Sub-catchment management

- 13 In para's 23 to 35 Dr Edmeades discusses sub-catchment management issues in implementing PC1, specifically when determining the focus of mitigation actions to achieve the Freshwater Objectives. I particularly support his reference to the Land and Water Forum 3rd Report (LAWF 2012). In my opinion the

steps in para 26 are a useful reminder of a framework for catchment management.

- 14 In the preparation of my evidence, based on 4 years of science and investigation in the Ruahuwai catchment I have followed these steps to determine an objective approach which does not distinguish between any particular to land use and does not require an allocation framework to achieve the proposed Freshwater Objectives.
- 15 As set out in my evidence this requires all farming activities (regardless of whether they are dairy or ostrich farming activities) to operate at GFP, prepare a FEP and avoid or mitigate farming activities on Vulnerable Land.
- 16 I further agree with Dr Edmeades in his assessment at para 61, that the focus for sub-catchment (or FEP) plans should be on the actual Freshwater Objectives of concern for the sub-catchment which is the focus of the FEP or sub-catchment plan.
- 17 This is consistent with my evidence where I recommend that the provisions for FEP's are explicitly linked to Table 3.11-1.

Nicholas Conland

Director- Taiao Natural Resource Management Limited

17 May 2019