
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

REBUTTAL OF EVIDENCE OF JONATHAN WILLIAMSON
Block 2 Hearing Topics

Dated: 10 May 2019

REBUTTAL OF EVIDENCE OF JONATHAN WILLIAMSON

Block 2 Hearing Topics

- 1 My name is **Jonathan (Jon) Williamson**. I have the qualifications and experience recorded in my statement of 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 comment on the effects of farming activities on water quality raised by other expert witnesses:

Farming activities and water quality

- 4 I have read the Block 2 rebuttal evidence by Mr McKay for WPL and note that a number of experts for other submitters are concerned about the lack of any analysis for the PC1 permitted activity rules for farming in terms of the effects of farming activities on water quality after reasonable mixing.
- 5 From a groundwater science perspective, determining whether farming activities would have an effect on groundwater quality in terms of:
 - 5.1 The production of conspicuous oil or grease, films, scums of foams, or floating or suspended materials;
 - 5.2 Any conspicuous change in the colour or visual clarity;
 - 5.3 Any emissions of objectionable odour;
 - 5.4 The rendering of fresh water unsuitable for consumption by farm animals;
 - 5.5 Any significant effects on aquatic life;

Would in my view be difficult if not impossible to detect given the nature of the groundwater environment.

- 6 I therefore agree with Mr McKay that focusing on farming as a land use activity is appropriate to ensure that farming activities should not cause adverse effects on water quality. The use of appropriate models, such as the Ruahawai Decision Support Tool (**RDST**), described in my Block 2 evidence will assist in assessing the effects

of farming activities on water quality as part of the land use consent process.

Jonathan Williamson

Williamson Water & Land Advisory

10 May 2019