

BEFORE THE

Canterbury Regional
Council independent
hearing panel: David
Sheppard (Chair), Raewyn
Solomon and Rob van
Voorthuysen

IN THE MATTER OF

The Resource Management
Act 1991 and the
Environment Canterbury
(Temporary Commissioners
and Improved Water
Management) Act 2010

AND

IN THE MATTER OF

Variation 2 (Section 13
(Ashburton) of the proposed
Canterbury Land and Water
Regional Plan

**EVIDENCE OF FIONA MACKENZIE FOR COMBINED CANTERBURY
PROVINCES, FEDERATED FARMERS OF NEW ZEALAND**

Dated 15 May 2015

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Introduction

1. My name is Fiona Katrine Mackenzie. I am a Senior Policy Advisor, employed by Federated Farmers, based in Christchurch.
2. I hold an LLB from Otago University and a Post-Grad Diploma in Business & Administration from Massey University. I have previously worked as a resource management lawyer and currently I am a member of Federated Farmers' Regional Policy team.
3. With me is Dr Samuel Dennis, who will provide expert evidence, jointly prepared by Beef + Lamb New Zealand, on the use of Overseer (V6.2) to establish nitrogen baseline. Examples are presented from farms in the Hinds catchment. Dr Dennis will show that requiring farms to stay below the mean loss in the baseline years will, in reality, require nutrient loss to be reduced by around 10%.
4. Such reductions will not be achievable on many low-loss farms and there is wide primary sector agreement that small flexibility for low-loss farms needs to be built into the Plan in order to maintain current farming practices.
5. Three short statements are attached to the evidence, from the farmers who are the subjects of Dr Dennis's evidence: Mr Michael Salvesen, Mr Ian Mackenzie and Mr Michael Read. Their statements explain how farming relies on flexibility to remain viable, and the implications of being locked down to a fixed nitrogen baseline.
6. Mr Rob Brawley, Chief Executive of Grow Mid Canterbury Limited, will provide economic evidence about local flow-on effects from the proposed restrictions on farming practice. Mr Brawley's evidence is supported by written statements from six Ashburton businesses.
7. Further economic evidence is provided by Mr George Lumsden, from Rabobank.
8. Dr Lionel Hume will provide expert evidence on nitrogen discharge into soils and matters raised since his earlier submissions and further submissions.
9. Evidence on the drains in the Hinds catchment is separately provided by the Eiffelton Community Group Irrigation Scheme.

Scope of this evidence

10. This evidence covers the following matters:

- overview of Overseer uncertainty and its implications for catchment modelling and derived nitrogen loads used in Variation 2
- a proposed flexibility cap for low N loss farms, as widely discussed by primary industry stakeholders
- the case for the Upper Hinds catchment
- equal allocation of nitrogen discharge reductions
- suggested amendments to policies and rules
- effect of boundary changes in the Hinds catchment
- the Zone Committee process and engagement with farmers
- catchment solutions and the Hinds drains

Overseer uncertainty and implications

11. ECan's proposed Var 2 rules are reliant on Overseer to measure nitrogen baselines (such as in rules 13.5.9 and 13.5.15),
12. Federated Farmers evidence (Dr Samuel Dennis) directly highlights the difficulties in using Overseer to develop baseline Nitrogen losses for use in compliance with allocated nitrogen discharge units.
13. The Overseer case studies carried out for this hearing are early examples of what is to come, across the catchment. Our expert had considerable difficulty carrying out his work, despite having full cooperation from the farmers involved. Many farmers will have much less information available, not realising back in 2009 that they would be required to have the 2009—2013 data available.

Derived catchment N loads and load limits

14. Federated Farmers has serious reservations about the target load of 3400 tonnes being used as the cornerstone of Policy 13.4.13, because we have seen too many different estimates for this number in numerous other modelled scenarios. Other estimates differ by as much as several thousand tonnes.
15. Even if this number were credible, nobody seems to be sure how much of this target limit has already been used in existing consents, including granted but as-yet unused allocations to RDR and BCI. We acknowledge the difficulty in drafting a provision which is solid enough to work with, but sufficiently malleable to be easily updated as new data becomes available.
16. Since we are unable to suggest an improvement which will not upset other calculations which are dependent on this 3400 tonne figure, we believe that DairyNZ's more descriptive policy 13.4.13 is a better solution.
17. We agree with the evidence of Dairy NZ and Fonterra (Planning evidence, Mr Gerard Willis) that reference to a target load of 3400 tonnes in policies 13.4.12 and 13.4.13 and

in Table 13(g), which is linked to rules, is not appropriate, and that due to uncertainties, the target load should be expressed as a proportion (70%) of the existing load.

18. This is a more resilient provision and will provide a more accurate target load as our understanding of catchment load improves. We support the removal of the 'historic snapshot' target load (3400 tonnes) in policies 13.4.12 and 13.4.13.
19. Federated Farmers also seeks the removal of reference to the target load of 114 tonnes in Policy 13.4.11, for Upper Hinds. Due to the very small amount of N loss contributed to the catchment by the Upper Hinds area, we suggest the 114 tonne load target should be removed altogether. You will hear evidence from the Upper Hinds Plains Land User Group and others on this.
20. Simply put, this number (114 tonnes) does not provide enough connection for individual farmers to undertake activities on their farms that might enable them to improve the management of nutrients affecting the potential N load from the Upper hinds.
21. Nitrogen loss will be more accurately monitored by applying nitrogen baseline and flexibility cap provisions consistently across the whole Hinds catchment, including in the Upper Hinds, for the reasons described above. See the Upper Hinds section below and our suggested replacement policy 13.4.11 and rule 13.5.9.

Flexibility cap

22. If Overseer is to be used for the purpose of establishing a nitrogen baseline for individual farms—which in turn is the determinant for ECan's rules and restrictions—it is important to build some small but realistic flexibility into the Plan. The evidence of Dr Dennis speaks directly to this. Dr Dennis also suggests that the nitrogen baseline should be set at the maximum year in the baseline period, rather than the mean, and determined over a rolling four year average, and we strongly support his findings.
23. A flexibility cap as has been included in the recently notified Selwyn sub-regional plan (Variation 1, Canterbury Land and Water Plan) at Rule 11.5.7 and this pragmatic approach, if adopted by Hinds, will avoid serious implementation difficulties, and with little or no effect on environmental outcomes. (Dairy NZ evidence, Shirley Hayward.) See our suggested amendments based on the Selwyn decision below.
24. We support the planning evidence of Gerard Matthew Willis for Fonterra and Dairy NZ, which amends Policy 13.4.13, especially at 13.4.13(b). This provides for a flexibility cap for lower emitters (farming permitted at 15kg N loss and below, and up to 20 kg with consent),
25. The primary sector (including Federated Farmers, Dairy NZ, Fonterra, Irrigation NZ, Beef + Lamb NZ and others) has had extensive discussions to find a pragmatic solution (the flexibility cap proposal) that provides flexibility for farmers within the current Plan.
26. Federated Farmers adopts the evidence presented by expert witness Ms Shirley Hayward, which explains the modelling of nitrogen load within the Hinds catchment and how the flexibility cap is provided for within this load.

27. We suggest amending Rule 13.5.9 (Upper Hinds) and Rule 13.5.15 (Lower Hinds) to be the same as Rule 11.5.7 in the recently released Selwyn Te Waihora Plan (Variation 1). This can easily be done without affecting the integrity of the Plan, or compromising environmental outcomes.

Minor changes within normal farming practice

28. A flexibility cap of 15kg, and up to 20 kg with consent, will allow farms in the hill country (Upper Hinds), and those on heavier and poorly drained soils in the Lower Hinds, to respond to markets, manage reasonably within their current practice and continue to undertake development in a way that does not make any significant difference to managing the total N load in the catchment..

29. Federated Farmers emphasises that providing for a flexibility cap does not provide for significant changes in the farming system (unless that has a lower N emission profile) such as to dairy farming, but rather managing the farm in response to climate and markets, as described in the evidence of Mr Salvesen, Mr Read and Mr Mackenzie.

30. Responsive farm practice has been a strength of the Canterbury farming economy for generations. Being restricted to a baseline Overseer number for low N-loss farming systems makes even managing existing farm enterprises difficult, let alone allowing for adopting new technology and responding to changing market needs through animal or crop selection.

31. Federated Farmers notes that neither Ms Shirley Hayward nor Mr Gerard Willis (for DairyNZ/Fonterra) include the Upper Hinds area in their evidence, which is not surprising as hilly terrain, colder climate and unsuitable soil precludes dairying, and is outside their sphere of interest.

32. However Federated Farmers understands that primary sector parties including Dairy NZ and Fonterra have agreed that the flexibility cap should apply across the whole catchment, including the small and low emitting Upper Hinds area, since the N loss contributed to the catchment from the Upper Hinds is negligible in any case.

33. ECan's estimated 114 tonnes for the Upper Hinds load limit is only around 3% of ECan's suggested whole catchment load limit of 3400 tonnes. Dr Lionel Hume has also indicated in earlier submissions that the emphasis in the Upper Hinds area should be on phosphorus and related run-off and sediment issues, rather than nitrogen.

Upper Hinds 'lock-down' Rule 13.5.9

34. We do not support the proposed immediate-effect 'lock-down' to a 2009-2013 N-loss baseline for the group of low emitting (non-dairy) farmers in Upper Hinds (Rule 13.5.9). This will create an inequity similar to that created by the 10% cap on N increases in the Hurunui, punishing already-low dischargers while allowing larger N- loss contributors to benefit from larger baselines. We support the evidence of the Upper Hinds Plains Land User Group (UHPLUG).

35. We support the inclusion of a flexibility cap across both Upper and Lower Hinds, to address what will be a permanent unfairness in the Upper Hinds, due to proposed Rule

13.5.9, and a similar situation for a larger group of Lower Hinds farmers due to Rule 13.5.15 and from 1 January 2017, Rule 13.5.16.

Sharing nitrogen discharge reductions

36. Federated Farmers believes that all high N-loss land use combinations — not only Dairy and Dairy Support (whatever this undefined latter category means) — should be required to share in nitrogen reduction allocations. Discussions with other primary sector stakeholders has led to general agreement to a fairer, across-the-board N loss percentage reduction for all those above a 20kg threshold, irrespective of land use, as set out in the suggested changes to Policy 13.4.13 above. Federated Farmers supports this, so long as equal allocation of reductions is part of a package, which includes an across-the-board flexibility cap for those under 15kg N per hectare per annum, regardless of land use..

Suggested amendments

Rule 13.5.9 Upper Hinds: amend as follows to include the 15kg flexibility cap, [as per Rule 11.5.7 in the recently notified Selwyn sub-regional plan decision.]

37. 13.5.9 The use of land for a farming activity in the Upper Hinds /Hekeao Plains Area is a permitted activity provided the following conditions are met:

- a. (a) *The nitrogen loss calculation for the property does not exceed 15kg per hectare per annum; or*

(b)The nitrogen loss calculation for the property does not exceed the nitrogen baseline; and in either case
- b. *The practices in Schedule 24a are being implemented and the information required is recorded in accordance with Schedule 24a, and supplied to the Canterbury Regional Council on request; or*
- c. *A Farm Environment Plan has been prepared and is being implemented in accordance with Schedule 7 Part A, and supplied to the Canterbury Regional Council on request.*

Rule 13.5.15 Lower Hinds: amend as follows to include the 15kg flexibility cap, as per Rule 11.5.7 in the recently notified Selwyn sub-regional plan decision.

38. 13.5.15 Until 1 January 2017, the use of land for a farming activity in the Lower Hinds/Hekeao Plains Area is a permitted activity , provided the following conditions are met:

- a. (a)*The nitrogen loss calculation for the property does not exceed 15kg per hectare per annum; or*

(b)The nitrogen loss calculation for the property does not exceed the nitrogen baseline; and in either case

- b. *The practices in Schedule 24a are being implemented and the information required is recorded in accordance with Schedule 24a, and supplied to the Canterbury Regional Council on request; or*
- c. *.A Farm Environment Plan has been prepared and is being implemented in accordance with Schedule 7 Part A, and supplied to the Canterbury Regional Council on request.*

Rule 13.5.16 Lower Hinds: amend as follows to include the 15kg flexibility cap, and up to 20kg going forward

39. *From 1 January 2017, the use of land for a farming activity in the Lower Hinds/Hekeao Plains Area is a permitted activity, provided the following conditions are met:*

- a. *The nitrogen loss calculation for the property does not exceed 15kg of nitrogen per hectare per annum; or*
- b. *The nitrogen loss calculation for the property does not exceed 20kg per hectare per annum; and*
- c. *The nitrogen loss calculation for the property does not increase above the nitrogen baseline; and either*
- d. *The practices in Schedule 24a are being implemented and the information required is recorded in accordance with Schedule 24a, and supplied to Canterbury Regional Council on request; or*
- e. *A Farm Environment Plan has been prepared and is being implemented in accordance with Schedule 7 Part A, and supplied to the Canterbury Regional Council on request.*

40. Federated Farmers agrees with the amended Rules 3.5.17 and 3.5.18 provided in an early draft by Mr Gerard Willis for Fonterra and DairyNZ, subject to any changes made since then.

Policy 13.4.13: amend as follows

41. We would not include the reference to 25 tonnes in Dairy NZ's suggested new 13.4.13(b) flexibility cap provision but we nonetheless endorse Dairy NZ's 13.4.13(b) in the main. We object to this fixed (and possibly inaccurate) number for reasons already explained above with respect to the load limit in Policy 13.4.13. We suggest the following:

Farming activities and farming enterprises in the Lower Hinds/Hekeao Plains area, whether or not they are supplied with water by an irrigation scheme or a principal water supplier, achieve a target load calculated as 70% of catchment load contributed by farming activities as at 1 October 2014 by:

- a. *Requiring from 1 January 2017 all existing farming activities to discharge no more nitrogen than the loss rate that could reasonably be expected from the implementation of good management practices from 1 January 2017.*

- b. *Enabling, from 1 January 2017, only minor increases in nitrogen discharge from farming activities so that existing farming activities with a nitrogen loss rate, after adoption of good management practices:*
- c. *of less than 15kg of nitrogen per hectare per annum can increase nitrogen loss to a maximum of 15kg of nitrogen per hectare per annum; and*
- d. *of between 15kg of nitrogen per hectare per annum and 20kg of nitrogen per hectare per annum, can increase the discharge of nitrogen to a maximum of 20kgs of nitrogen per hectare per annum, provided the aggregate increase in nitrogen from these b)ii farming activities does not exceed the balance available for this purpose in the catchment.*
- e. *Requiring from 1 January 2020, time framed further reductions from those properties with a nitrogen loss calculation exceeding 20kg per hectare per annum, beyond those set out in (a), of:*
 - i. *From 1 January 2020, 10% reductions*
 - ii. *From 1 January 2025, 15% reductions*
 - iii. *From 1 January 2030, 25% reductions*
 - iv. *From 1 January 2035, 36% reductions*
- f. *Enabling by way of resource consent process, land use intensification or change in land use, increases in nitrogen losses, beyond that for the baseline land use, on a maximum of 30,000 hectares of land, including land within the command area of irrigation schemes already consented at 1 October 2014, provided the nitrogen loss calculation is limited to no more than 27 kg per hectare per year.*

42. There has been considerable debate about proposed 13.4.13(c), which is (d) in the amendment above. It seems to reflect that the ZIP wants to provide for additional economic development, albeit in an over allocated catchment, presumably in the hope that there are N loss savings to be made from 20 years of enforced reductions.

43. However if 27 kg is the number expected to be required by the dairy sector— after 45% reductions from good management practice are applied— (Section 42A report at screen 157), it is clear that big advances are expected from scientists in the next few years.

Boundary change amendment supported

44. In the period before Variation 2 was notified, a boundary amendment was made to the sub-regional boundary between the Ashburton sub-regional chapter and the Central Canterbury Alpine Rivers sub-regional chapter, so that the sub-region boundary aligns with the western boundary of the Mayfield Hinds Groundwater Allocation Zone. This brought into the Ashburton sub-region some land that was previously 'Green' for nutrient management by the CLWP.

45. Until Variation 2 was notified, these Green areas were able to increase their N discharge by 5kg/ha/year and some have probably done so. We agree with the planning evidence

of Mr Gerard Willis that these farms should be treated as restricted discretionary under Rule 13.5.17, and covered by a new part (4) as follows:

13.5.17(4) The property is within that are shown as Green on the LWRP planning maps and the nitrogen loss calculation for the property does not exceed the nitrogen baseline plus 5kg per hectare per annum, whichever is greater; and

- a. *(5) a Farm environment Plan has been prepared in accordance with Schedule 7 Part A.*

Hinds Zone Committee process and engagement with farmers

46. Our members have told us that the Hinds Plains Zone Committee has not always reflected a community view, with initially only one member from Hinds Plains and more than half from outside the Ashburton district.
47. Others have said that there was 'consultation' but no real engagement with those most affected by the Plan change.
48. We note that we have received similar complaints from other members in other districts going through similar plan changes.
49. Awareness is increasing as more sub-regional Plan changes occur as part of the CWLP process, and it is becoming clear to us that early engagement with the Zone Committee is key to avoiding disgruntlement among our members.
50. ECan is in charge of this process and we suggest that as much effort as possible is put into encouraging selection of truly representative Zone Committee members, and into initiating and continuing engagement with affected farmers. Otherwise there is a perception that the ZIP is set in stone, and further input futile, leading to resentment and pushback, at a much later stage.

Catchment solutions and the Hinds drains

51. Evidence on the drains in the Hinds catchment is separately provided by the Eiffelton Community Group Irrigation Scheme. This presents the Hinds Drains Working Party recommendations, made to the Zone Committee, and adopted at the ZC meeting in February 2015. These recommendations are the product of a fully collaborative process involving Fish & Game, Forest & Bird, Iwi, DOC and three representatives from the Zone Committee. After further consultation with Iwi, the HDWP recommendation was unequivocally endorsed at the March 2015 Zone Committee meeting.
52. Federated Farmers supports the HDWP recommendations and adopts the Eiffelton Community Group Irrigation Scheme evidence as a crucial part of Hinds Plains hearing evidence. It is a matter of concern to Federated Farmers that despite assurances given from Ecan, the solutions package from the ZIP, which is now embedded in proposed Variation 2, does not enable the use of deep groundwater to supplement flows in the Hinds drains.
53. Variation 2 is focussed on using alpine water for use in managed aquifer recharge (MAR) and targeted stream augmentation (TSA) but has made it very difficult to use

other water for TSA, as has been successfully done by the Eiffelton irrigation scheme for over thirty years.

54. Federated Farmers is aware that nitrogen reduction cuts in the Hinds Plains may have to be some of the most substantial yet seen in New Zealand. The community of Ashburton is aware of the likely economic implications and is fully supportive of enabling other solutions to achieve the water quality aspirations, such as has been put forward by the HDWP.
55. The recommendation of the HDWP has been endorsed by both the Zone Committee and all major environmental stakeholders, and offers a complimentary solution to water quality issues, and with huge community buy-in. The fact that Variation 2 was largely written before the HDWP recommendation was adopted by the Zone Committee should not exclude it from consideration, and we will be looking for reassurance that the HDWP recommendations have been understood and carefully considered in the Hinds hearing process.
56. Federated Farmers appreciates the opportunity to take part in the Hearing process.

Fiona Mackenzie

15 May 2015