

BEFORE THE

Canterbury Regional
Council independent
hearing panel: Gordon
Whiting (Chair), Andrew
Fenemor

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

Plan change 6 (Wairewa) of
the Canterbury Land and
Water Regional Plan

**STATEMENT OF REBUTTAL EVIDENCE OF FIONA MACKENZIE (LAY WITNESS) FOR
COMBINED CANTERBURY PROVINCES, FEDERATED FARMERS OF NEW ZEALAND**

Dated 24 March 2016

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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. Federated Farmers submitted on proposed Plan Change 6 and provided a statement of evidence dated 4 March 2016. Two farmer lay witnesses will attend the hearing to provide context to matters raised in our submissions.
3. In this rebuttal I will be replying to, and largely supporting, matters raised in Mr McGillan's evidence for Ngai Tahu and Wairewa runanga.
4. Federated Farmers supports Mr McGillan's suggestion of farm plans as a way of managing on-farm erosion that contributes to sediment/phosphorus in the lake. One of the main benefits of farm plans is the farmer engagement and awareness they generate, and the increased opportunities for engagement with landowners.

A catchment problem

5. We believe that keeping stock out of riparian margins (which is best practice already) is not going to solve the problem of sediment entering the lake from the wider catchment, particularly during flood events. (See par 9 below)
6. Ideally, a catchment-wide erosion plan would target and remedy erosion hot spots, but in the absence of a coordinated response from Ecan, CCC and other interested parties, individual farm plans are a practical and realistic alternate.
7. We are concerned that the present proposal targets farmers unfairly, and with little thought for farmer engagement going forward. We agree with Mr McGillan's evidence at his par 19, that the costs of compliance should reflect the nature and degree of potential effects of the activity.
8. Farmer witnesses will be able to update the Panel at the hearing as to costs and practicalities of compliance under a range of scenarios. For example, existing fences have likely been built where terrain allows, and with regard to flooding, amongst other considerations.
9. According to the Waters report (Phosphorus loading to Lake Forsyth/Te Roto o Wairewa, WCFM report 2014-006) at page iii:
 - *Direct runoff, ground water and ephemeral streams in the catchment contributed less than 5% of the P load transported to the lake*
 - *Of P inflows (in the research period) 96% was via the Okana and Okuti rivers, with 70% of the total from the Okana river alone*
 - *More than 70% of the total load was transported during one flood event, and approximately 80% of the Okana P load was delivered during this flood event alone*
10. What this tells us is that events which farmers cannot control (flooding) are responsible for the largest P inflows to the lake. We share Ngai Tahu's view that an

integrated approach is required, and we agree with the concept of Ki uta ki tai (source to the sea.[Screen 14, Wairewa Zip Addendum])

11. Federated Farmers has a slightly different view of the first key issue [(i) below] identified by Mr McGillan in his par 23.

In my opinion the key issues for managing freshwater in this catchment today include:

- (i) Water quality and the impact of current farming practices resulting in bank instability, removal of riparian planting and the impact of this on nutrient inputs, sediment and faecal matter.*
- (ii) Water quantity with low flows impacting on ecosystem and ecological biodiversity particularly the Ōkana, Ōkuti and Tākiritawai Rivers*
- (iii) The cumulative effects of these issues on Te Roto o Wairewa and the Ngāi Tahu Manawhenua cultural values. In particular Mahinga kai and the exercise of kaitiakitanga*

12. Federated Farmers sees the key issue as being how to manage water-borne sediment being washed into the lake from the surrounding catchment, particularly during flood events. Current farming practice already includes fencing off riparian margins, however excluding stock from waterways— which is already being done— is not going to prevent phosphorus from washing into the lake during flood events, including from sources higher up and all over the catchment.
13. Federated Farmers is concerned that proposed rules enable building of sediment basins or wetlands to intercept sediment, as a discretionary activity, but there is little visibility about when this may occur and who will be involved in these projects. There is no discussion of timelines or funding. On the other hand, the rules around stock exclusion are the strictest available and allow no flexibility for landowners to manage stock in accordance with an approved farm plan.
14. This sub-regional plan is supposed to provide a specific way forward for the Wairewa Valley Floor Area, and we will be disappointed if the end result is a cookie-cut version of a sub-regional plan from elsewhere, which imposes substantial costs on landowners for effects which are largely beyond their control.
15. The science reports are clear that the most phosphorus entering the lake occurs in flood events, and in earlier times, a Catchment Board model would have had soil conservators on the ground with practical solutions to manage and contain slips.
16. Ideally we need a catchment-wide sediment plan, a partnership with Ecan (similar to the old Catchment Board, or like the current Rating Schemes, but for sediment, rather than flood control) in consultation with nga runanga and farmers. This could identify critical sediment sources on individual properties and undertake specific actions to address them. (See below: Little river Rating Scheme)
17. In the absence of a catchment-wide erosion plan, we support individual farm plans which will provide consent to manage farm-wide erosion issues, including stock exclusion, in the context of practical farm management.

18. We support Mr McGillan's suggestion, in principle, at his par 84-86 :

New Rule – Farm Plans

84. The submission by Te Rūnanga o Ngāi Tahu and Wairewa Rūnanga seeks to add a new rule that farming is a permitted activity in the Valley Floor Area provided that a farm environment plan is prepared and implemented by 01 January 2020. The farm environment plan shall:

- (i) Identify any potential critical sources of sediment and P loss or erosion on the farm and actions to minimize sediment and P losses; and*
- (ii) Address the management of livestock grazing in proximity to waterways and when crossing waterways to avoid causing or exacerbating bank erosion or the direct discharge of animal effluent into water*

85. Sediment and P control are the major issues in this catchment and the ZIP addendum recommended action 5.2 is for all landowners to prepare environment plans to manage erosion and stormwater hotspots. However there is no method to implement this in the plan change. Our understanding is that most farms in the catchment have N losses substantially below 20kg/ha/yr so will not be required to prepare farm environment plans under the region-wide rules. Land areas under 5ha are not required to prepare farm plans either. While N loss isn't an issue in this catchment, sediment and P loss is.

86. Ngai Tahu would prefer landholders spent time and resources preparing and implementing environment plans than obtaining resource consents, so would like to see a rule that allows farming as a permitted activity in the Valley Floor Area provided a sediment and erosion plan is developed and implemented.

19. However, since farming is already a permitted activity, we think it more logical to reduce the activity status in rule 10.5.5, to Controlled (non-notified, no affected parties) provided a farm plan is completed by 1 January 2020. The plan would address the issues identified in Mr McGillan's par 84, above, including stock exclusion.

20. This is in line with our earlier evidence (4 March 2016) that Prohibited status is unhelpful. We believe that landowners will be encouraged to use farm plans if rule 10.5.5 (which would become 10.5.6) is amended to apply only to those who do not have a farm plan.

21. The Banks Peninsula Zone Committee recommends farm plans (at screen 21, Wairewa Zip Addendum).

22. 5.2 Environment Plans - Sediment and Phosphorus

The Banks Peninsula Zone Committee recommends that:

Land managers with erosion and storm water hot spots and, land with waterway boundaries and/or with waterways running through properties be encouraged to prepare environment plans to focus attention on the reduction and management of:

- *Sediment (and phosphorus) entering waterways*
- *Stream bank collapse*

- Storm water from properties and roading infrastructure
- Stock exclusion and access across waterways
- Debris and willows impeding water flowing in waterways.

Environment plans are written to foster good management and may include but not be limited to:

- Identification of high risk sites where sediment is likely to be discharged
- Actions to reduce sediment discharges (e.g. sediment traps, planting, diverting water away from erosion prone areas)
- Regular clearance of drains and small waterways
- Stock exclusion
- Stock crossings (i.e. culverts and bridges) and drinking bays
- Fencing and planting of waterways where it will not impede drainage.

Commentary

Refer to recommendations 5.3, 5.6 and 6.4

Soils in the Wairewa catchment are rich in phosphorus and prone to erosion. When sediment is discharged into the waterways and the lake in the catchment, phosphorus is also discharged. Phosphorus has been identified as a likely limiting factor contributing to the poor water quality in the lake and the occurrence of cyanobacteria blooms.

The zone committee believes that it is important to reduce the amount of sediment finding its way into the waterways and the lake. To do this many small actions will need to be taken by landowners. The first is to identify the source of sediment and then devise individual solutions to reduce the discharge. Experts suggest there are three main types of erosion “hot spots” in the catchment – riverbanks, hill country slips that connect with surface water, and tunnel gully erosion on the lake edge.

The zone committee believes that environment plans are a good way for land owners, large and small, to identify “hot spots” of soil erosion and to focus attention on the development of site specific actions.

Little River rating district

23. Our members tell us that the Little river rating district is now actively working on flood control in the Okana River, and Ecan has confirmed that work in all three rivers will take place over the next 10 years, to trim back willows on the outside of river bends and remove altogether on inside bends, where they are hanging into the channel.
24. We understand that all landowners who benefit from the flood control work pay a targeted rate, with the aim of reducing the effects of flooding, including around the township of Little River.

25. We understand that the Little River Rating Scheme, which started about a year ago, is one of about 65 similar schemes in Canterbury, and is the only one in the Wairewa catchment.
26. The Little River Rating Scheme does not operate outside of the Valley Floor Area, and it is concerned with flood prevention, **not** with the separate but related issue of sediment entering the lake. We understand that Ecan is not engaged in any other land stabilization work elsewhere in the catchment.

Other issues

27. There is clearly a tension between keeping water ways clear in the event of floods, while also needing to re-vegetate riparian margins to stabilize banks in vulnerable areas. There is little mention in the proposal of other tools such as re-vegetation/forestry, which could be addressed in farm plans, to provide additional benefits, where practical.
28. It is not clear to us why Mr McGillan suggests excluding 10.4.1(d), at his par 52, as the science reports all suggest that a wetland or sediment basin would remove phosphorus and sediment before water enters the lake, as identified in the Wairewa Zip addendum.
29. And we have reservations about Mr McGillan's suggested amendment to 10.4.4 at par 57 as the rider, '*In ways that do not adversely affect cultural values and customary uses*' may limit the ability to carry out necessary scientific work to reduce sediment and phosphorus load entering the lake. We understood that reducing sediment and phosphorous load would also address Ngāi Tahu cultural values.

Ends