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EC229240 - EC115489

Environment Canterbury
Regional Council
Kaunihera Taiao ki Waitaha

Submission on Proposed Canterbury Land and Water Regional Plan

Form 5: Submissions on a Publicly Notified Proposed Policy Statement or Regional Plan under Clause 6 of Schedule 1 of the Resource Management Act 1991

EC187458 - EC115489

Return your signed submission by 5.00pm Friday 5 October 2012 to:

Freepost 1201 Proposed Canterbury Land and Water Regional Plan
Environment Canterbury
P O Box 345
Christchurch 8140

Full Name: ERIC + MAXINE WATSON **Phone (Hm):** 03 3023 799

Organisation*: RANGITATA HOLDINGS LTD **Phone (Wk):**

* the organisation that this submission is made on behalf of

Postal Address: WAKANUI No 7 R.D. **Phone (Cell):** 0274 375 486

ASHBURTON **Postcode:** 7777

Email: rangih@xtra.co.nz **Fax:** /

Contact name and postal address for service of person making submission (if different from above):

Trade Competition

Pursuant to Clause 6 of Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

a) adversely affects the environment; and
b) does not relate to trade competition or the effects of trade competition.

Please tick the sentence that applies to you:

☑ I could not gain an advantage in trade competition through this submission; or

☐ I could gain an advantage in trade competition through this submission.

If you have ticked this box please select one of the following:

☐ I am directly affected by an effect of the subject matter of the submission that adversely affects the environment and does not relate to trade competition or the effects of trade competition.

☐ I am not directly affected by an effect of the subject matter of the submission that adversely affects the environment and does not relate to trade competition or the effects of trade competition.

Signature: Maxine Watson **Date:** 01 October 2012

(Signature of person making submission or person authorised to sign on behalf of person making the submission)

Please note:
(1) all information contained in a submission under the Resource Management Act 1991, including names and addresses for service, becomes public information.

☐	I do not wish to be heard in support of my submission; or
☑	I do wish to be heard in support of my submission; and if so,
☑	If others make a similar submission, I will consider presenting a joint case with them at the hearing.

(1) The specific provisions of the Proposed Plan that my submission relates to are:		(2) My submission is that: *(include whether you support or oppose the specific provisions or wish to have them amended and the reasons for your views.)*		(3) I seek the following decisions from Environment Canterbury: *(Please give precise details for each provision. The more specific you can be the easier it will be for the Council to understand your concerns.)*
Section & Page Number	Sub-section/ Point	Oppose/support (in part or full)	Reasons	
5-13	5.46	OPPOSE	GRAVE CONCERNS RE REGULATION OF NITROGEN APPLICATIONS TO CROPS GROWN. QUERY THE ABILITY TO MEASURE NITROGEN LEACHING FROM SOME OF THE CROPS BY COMPUTER MODELLING.	

Add further pages as required – please initial any additional pages.

Rangitata Holdings Ltd is a 490 ha fully irrigated intensive arable operation at Wakanui, growing cereals, grass seed, vegetable and forage seed crops with a high level of inputs, achieving very high yields across the board. Decisions and practices are based on due consideration for environmental impact and economic/financial viability, for which we have received some recognition – 2010 Canterbury Supreme Winner in the Balance Farm Environment Awards (incl. ECAN Water Efficiency award, Hill Lab's Harvest award, Balance Nutrient Management award), 2006 Lincoln Farmer of the Year (Irrigation), Finalist LFY 2001 (Technology)

Implementing up-to-date knowledge and technology, we try to farm according to best practice measuring, monitoring and quantifying as much as possible.

Measures of nitrogen sustainability: All wheat and ryegrass paddocks (and some others) are tested for Deep Soil Nitrogen reserves. All subsequent nitrogen application is based on this. From proven research we know that wheat requires 25kg N per tonne of yield aimed for, and 185kg N for maximum yield in ryegrass and fescue. We aim for, and regularly achieve, over 15 tonne/ha of feed and 12 t/ha milling wheat and over 3000kg/ha ryegrass. We are also beginning to test for residual nitrogen after harvest.

We monitor soil moisture and crop water requirements to avoid over-watering which might cause leaching. For the same reason we employ Variable Rate Irrigation technology which ties water application to the soil's water-holding capacity, as well as avoiding areas of overlap. We have a lysimeter trial installed by Ecan and NIWA to measure what passes though the soil profile.

We use variable rate fertiliser application of phosphate and lime to even up soil variability in paddocks so that applied nutrients are used to maximum advantage and we are experimenting with it for nitrogen application and potentially other nutrients. This practice has the effect of using less fertiliser over all.

When harvesting seed crops there is often considerable dry matter residue which is returned to the soil. Also, instead of fallowing, winter cover crops are sometimes planted to soak up residual nitrogen, and these are mulched in the spring. How would the nitrogen content of these practices be reconciled with the computer model?

The proposed level of regulation regarding leaching limits of 20kg/ha may have serious implications on crop yield and thus farming profitability. It was the stated case of the Target Review Panel of the Canterbury Water Management Strategy (of which Eric was a member) that economic viability and economic enhancement was to be a condition of these targets.

If farming does not return sufficient profit to allow for some discretionary spending capability then existing and future technologies will not be implemented - as these almost always involve some capital outlay. If implemented these technologies have the potential to achieve greater sustainability than any restriction of nitrogen application.

The use of monitoring methods, the outcomes of research and new technologies mean that we farm to optimize nutrients within the whole farm system. The imposition of targets which are to be modelled retrospectively will not improve our farm's environmental or financial performance. A plan that actively encourages the best use practices will be most effectively implemented within our, and other, farm systems and will have the best financial and environmental outcomes. While we understand that under the National Policy Statement targets are required, the use of imprecise modelling practices should not be done in preference to, or at the expense of, improved farm practices.