BEFORE THE	Canterbury Regional
	Council
	the Environment Conterbury
IN THE MATTER OF	the Environment Canterbury
	(Temporary Commissioners
	and Improved Water
	Management) Act 2010

AND

IN THE MATTER OF

Submission and Further Submission on Proposed Plan Change 7 to the Proposed Canterbury Land and Water Regional Plan

STATEMENT OF EVIDENCE OF LIONEL JOHN HUME AND JASON AARON GRANT ON BEHALF OF THE COMBINED CANTERBURY PROVINCES OF FEDERATED FARMERS OF NEW ZEALAND

Dated 14 October 2020

Introduction

Qualifications and experience

- My name is Lionel John Hume. I hold B.Ag.Sc and M.Sc. (First Class Hons) degrees from Massey University and a Ph.D. (Plant Science) from Lincoln University. I am employed as a Senior Policy Advisor, by Federated Farmers, based in Canterbury.
- I previously worked as a scientist for the Department of Scientific and Industrial Research (New Zealand Soil Bureau/DSIR Land Resources) in the areas of plant nutrition and soil fertility. Specific areas of scientific research experience include:
 - a. nutrient uptake and use by plants particular emphasis on nitrogen and phosphorus;
 - b. nutrient availability from soils;
 - c. effects of soil acidity (particularly aluminium toxicity) on nutrient uptake and symbiotic nitrogen fixation;
 - d. nutrient, water and management factors affecting the growth and competitiveness of major weed species;
 - e. effects of soil physical properties on plant growth; and
 - f. experimental design and data analysis.
- 3. I have been a board member of Irrigation New Zealand for over 10 years (2006 2018).
- 4. I am a member of the NZ Institute of Agricultural and Horticultural Science, the NZ Society of Soil Science and the Agronomy Society of NZ.
- 5. Currently I am a member of Federated Farmers' Regional Policy team and have ten years experience of working with regional planning processes, including the Canterbury Natural Resources Regional Plan (from submission through to resolution of High Court appeals); development of the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 and membership of the implementation taskforce for those regulations; the development of catchment-based flow and allocation plans for several Canterbury catchments; the development of the Canterbury Water Management Strategy; the Canterbury Regional Policy Statement and Land and Water Regional Plan processes, including several catchment based limit-setting processes culminating in the establishment of sub-regional plans.

- 6. With me is Jason Aaron Grant. Jason with his wife Anna live near Fairlie. With the help of their 10 staff operate a dairy and dairy support business with three farms located around South Canterbury.
- 7. They milk a total of 1750 cows from two dairies and one support farm.
- 8. McClelland Dairies situated at Rangitata is 200 hectares in area, milking 750 cows and is fully irrigated with water from the Rangitata South Irrigation scheme.
- 9. Leslie Downs situated in the Fairlie basin is a 1250 hectare hill country farm with a 300 hectare milking platform on the flats milking 1000 cows. The farm is not irrigated.
- 10. Kerry Downs, situated at Albury, is 290 hectares dry land used for grazing young stock and wintering cows.
- 11. Jason has been farming all his life, leaving school to work on the family farm then gaining experience working around the country. He has worked in most of the farming industries New Zealand has to offer, from growing vegetables to high country fine wool, dairying to beef and lamb finishing.
- 12. In more recent times Jason has taken on more off-farm roles. Below is a list of his qualifications and current governance roles:
 - Dip Farm Management, Lincoln University
 - Kellogg Rural Leadership Program
 - President, South Canterbury Province, Federated Farmers of NZ
 - Chair, Canterbury Regional Policy Committee, Federated Farmers of NZ
 - Co-opted board member, South Canterbury Chamber of Commerce
 - Director, Rangitata South Irrigation Ltd
 - Chair, Opuha Catchment Group
 - Deputy Chair, Board of Trustees, Timaru Boys High School

Part B of Plan Change 7: OTOP Zone

Allocation for the Enhancement of Mahinga Kai

- 13. Part c. of Policy 14.4.3 requires the reservation of an allocation of water from the Temuka Freshwater Management Unit (in accordance with Table 14(I)) for the enhancement of mahinga kai and associated tangata whenua values. This requirement is implemented by Rules 14.5.1, 14.5.2 and 14.5.3. Federated Farmers submitted that further discussion was needed about the allocation designated for mahinga kai enhancement, including what it is to be used for, how it is to be used and who can apply. It is crucial that other water users and the wider community understands this allocation and supports it. The reference to associated tangata whenua values needs to be clarified/defined so that users of the plan know what it means and how to give effect to it. Therefore, Federated Farmers requested that Part c. of Policy 14.4.3 be deleted until these concerns are addressed.
- 14. Federated Farmers appreciates and supports the recommendation by the s42A reporting officers to delete Policy 14.4.3 and Rules 14.5.1, 14.5.2 and 14.5.3. We also support the concern expressed by the reporting officers that these takes would exacerbate existing over-allocation.

Mataitai Protection Zone

Consideration of mataitai reserves in regional plans

- 15. Part d. of Policy 14.4.3 and Condition 6 of Rule 14.5 17 place constraints on all farming activities within the Mataitai Protection Zone, which include winter grazing or irrigation and adjoin a surface water body within that zone. Rule 14.5.25A requires inclusion of the Mataitai Protection Zone in stock exclusion Rule 5.71. This means that disturbance of the bed (including the banks) of a lake or river by any farmed cattle, farmed deer or farmed pigs and any associated discharge to water would be a prohibited activity within the Mataitai Protection Zone.
- 16. We recommend that stock exclusion rules should only apply to waterways wider than1 metre, to align with the recent section 360 stock exclusion regulations.

- 17. Federated Farmers submitted that further discussion is needed about the Mataitai Protection Zone, including what it is, its legal status and its purpose. In particular, consideration is needed about how this zone reflects the requirement under the RMA to have regard for mataitai reserves, but only *to the extent that their content has a bearing on the resource management issues of the region*. It is crucial that other water users and the wider community understands the nature and purpose of the zone, and supports it.
- 18. We understand and accept that under section 66(2) of the RMA regional councils must consider existing Mātaitai reserves in the context of the issues of the region. In addition, we note the Canterbury Regional Policy Statement does identify mātaitai reserves as an important part of Ngāi Tahu's customs associated with mahinga kai.
- 19. Mātaitai reserves are given primary recognition in the Fisheries Act. Their legal existence, and the management of the freshwater fisheries within them, are based on applications from the local Rūnanga under the Fisheries (South Island Customary Fishing) Regulations 1999. The Rūnanga nominates tangata kaitiaki who can recommend bylaws to restrict or ban the taking of certain fish from all or part of a particular reserve. In the Opihi and Waitarakoa Mātaitai Reserves there are bylaws to restrict the number of flatfish that may be taken for recreational purposes.
- 20. However, as far as we are aware, no other regional council has included policies or rules to manage the potential impact of land use around mātaitai reserves. We have not found any case law about how regional councils should apply section 66 of the RMA in relation to these reserves.
- 21. This raises the question: should Environment Canterbury introduce land use controls when it considers mataitai reserves in the context of the wider issues of the region? We consider the intention and direction of section 66(2 & 2A) is unclear in in this regard.
- 22. We also observe, since this plan change was notified, the Government has finalised its National Policy Statement for Freshwater Management (NPS-FM), the National Environmental Standards for Freshwater and the section 360 regulations for stock exclusion. In particular, the amended NPS-FM places the fundamental concept of *Te Mana o Te Wai* at the heart of freshwater management, and it establishes a hierarchy of obligations that ranks the health and well-being of waterbodies and freshwater

ecosystems first, followed by the health needs of people and, finally, the social, economic and cultural well-being of our communities.

- 23. The NPS-FM includes mahinga kai as a compulsory value which must be provided for in regional plans. Pending more detailed guidance from the Ministry for the Environment, it is unclear how regional councils should give effect to the objectives and policies of the revised NPS-FM.
- 24. However, we believe the following parts of the NPS-FM are relevant when a regional council considers Mātaitai Reserves:
 - Tangata Whenua are actively involved in freshwater management decision-making and Māori freshwater values are identified and provided for ¹
 - Freshwater is managed in an integrated way that considers the effects of use and development of land on a whole-of-catchment basis²
 - Freshwater is managed through a National Objectives Framework, which requires regional councils to identify Freshwater Management Units (FMUs) in the region, and identify any Māori freshwater values that apply to these FMUs³; and
 - Mahinga kai is a compulsory value in Appendix 1A of the NPS-FM, and the presence of culturally significant species is one of the other values identified in Appendix 1B.
- 25. Federated Farmers believes that the directions in the NPS-FM broadly supports our view that the values of Mātaitai Reserves should be integrated into the FMU framework for OTOP. We believe the wider changes to regulation of the OTOP water zone, with the introduction of FMU standards and restrictions to manage groundwater and surface water quantity and quality, are sufficient to protect mahinga kai values and, accordingly, deliver the Council's responsibilities under the NPS-FM and the RMA. The measures under the proposed OTOP FMU framework should protect the mataitai reserves without the need for added layers of regulation delivered specifically via the proposed Mātaitai Protection Zone.

Extent of the Mataitai Protection Zone

26. The s32 report proposes a '2 km zone' to protect the mataitai reserves. Federated Farmers ran a GIS analysis on the proposed Mataitai Protection Zone and found that

¹ NPS-FM: Policy 2 ; Subpart 1 - 3.4(2); and Subpart 2 - 3.7(1)

² NPS-FM Policies 3 and 5

 $^{^3}$ NPS-FM Policies 3 and 5; Subpart 1 – 3.4(2); and Subpart 2 – 3.7(2) and 3.8

the zone covers 15,737 ha. However, it will materially impact a greater area farmland because of the inclusion of farms that fall partly within the zone but extend beyond it. To see the area of land affected, please refer to the map at Appendix A.

- 27. We do not consider that Environment Canterbury has given a cogent reason for the magnitude of the proposed Mātaitai Protection Zone. As shown in Appendix A, the zone is so large that entire properties fall within it, even though a lot of the land is nowhere near the two mātaitai reserves. We find the extent of this zone excessive, even after taking into account the stronger directions that the NPS-FM has provided to protect mahinga kai values.
- 28. We note the s42 reporting officer concedes that the name of the zone may be a misnomer because the primary purpose of the zone is to *protect areas of springs that provide habitat for mahinga kai and are taonga…*⁴. If this is the case, the purpose and extent of the zone needs to be reviewed. We also note that the section 42 report acknowledges there is no definition of what is a permanent or an intermittently flowing spring in the LWRP.

<u>Cost</u>

29. Federated Farmers believes that there will be significant compliance costs associated with farming in the proposed Mataitai Protection Zone^{5&6}. For example, we consider it likely that a cultural impact assessment will be required for every consent application, and the cost to meet this requirement has not been properly quantified in the section 32 report.

Conclusions

30. We understand the hierarchy of obligations inherent in *Te Mana o Te Wai* under the NPS-FM and that the health and well-being of water bodies and freshwater ecosystems is the first of the three primary obligations in that hierarchy. However, we strongly

⁴ Page 259 of the section 42 report – Plan Change 7

⁵ Statement of Evidence by Brendan Caird, dated 17 July 2020.

⁶ Statement of Evidence by Peter Bonifacio, dated 17 July 2020.

believe that the ability of our community to provide for its social, economic and cultural well-being remains a vital consideration.

- 31. Accordingly, we support policies that expressly identify the existence of the two mātaitai reserves in the OTOP Water Management Zone, their connection with mahinga kai and associated customs, and the preservation of freshwater quality that underpins the sustainability of these reserves and their values.
- 32. However, we believe that the proposed FMU framework for OTOP, which includes rules to protect surface and groundwater quantity and quality in the catchment, will also protect the freshwater values of mātaitai reserves and springs. We believe that the proposed Mātaitai Protection Zone would impose additional compliance costs on farmers without providing significant environmental benefits over above what the FMU framework will achieve. The evidence statements from two farmers⁷⁸, who are impacted by the proposed Mātaitai Protection Zone, support this view. They accept the reserves need protection, but state that these proposed rules do not yield any material benefit above the other OTOP freshwater quality rules. They merely add another layer of complexity and cost.
- 33. We recommend that the OTOP FMU framework should include objectives and policies that identify the Mātaitai reserves. It should clearly articulate the intrinsic and cultural values of these reserves, to avoid uncertainty and to ensure a more accurate alignment between regulation and impacts on those values.
- 34. We urge Environment Canterbury to review the FMU framework for OTOP to assess where the proposed rules will protect the freshwater values of Mātaitai reserves, and to identify where additional measure may be required to protect these values.
- 35. If there are additional measures required, Environment Canterbury should consider non-regulatory options, in the first instance, including comprehensive education and communication with the affected landowners, and extra funding to encourage positive behaviour. We want to empower community ownership of, and responsibility for, supporting mahinga kai values. Land use regulation should be a last resort, especially

⁷ Statement of Evidence by Peter Bonifacio, dated 17 July 2020.

⁸ Statement of Evidence by Brendan Caird, dated 17 July 2020.

for mātaitai reserves, which the public would know little about and within which the fisheries are already managed by their tangata kaitiaki.

Out of Catchment Water

36. Policy 14.4.14 states constraints on the introduction of water *from outside the catchment*, particularly requiring consultation with and safeguarding the values of Te Runanga o Ngai Tahu and papatipu runanga. Federated Farmers and other submitters requested clarification that the policy was intended to refer to the introduction of water from outside the OTOP Zone. Federated Farmers requested an amendment of the wording, as follows:

"When introducing water from outside the catchmentOrari-Temuka-Opihi-Pareora <u>Zone</u>, protect the values, customs and culture of papatipu runanga by: ..."

- 37. The recommendation by the reporting officers was to reduce the purpose of the policy to merely emphasising the need to have particular regard to any views expressed by Te Runanga o Ngai Tahu and papatipu runanga, in addition to the requirements of region-wide Policy 4.55. The reason given was that *there was, and is currently still not, a reliable and certain proposal to bring out of catchment water into the OTOP sub-region*.
- 38. Federated Farmers opposes this recommendation. The introduction of water from outside the OTOP Zone, specifically from Lake Tekapo has long been discussed and is specifically referenced in the Canterbury Water Management Strategy⁹. Within the section entitled *Integrated Management* and under the heading *Investment in new infrastructure*, there is a list of *key shortlisted projects*. This list includes: *Lake Tekapo Water for South Canterbury*. The introduction of water into the OTOP Zone from Lake Tekapo is very much a possibility, and more so as the zone seeks to build resilience to climate change.
- 39. More recently (2016) a scheme to pipe water from Lake Tekapo (to irrigate 17,000 ha in South Canterbury) has been proposed by the Central South Canterbury Water Steering Group.

⁹ Canterbury Mayoral Forum November 2009: Canterbury Water Management Strategy – Strategic Framework.

40. Therefore, Federated Farmers requests a continued reference to the introduction of water from outside the OTOP Zone, and that Policy 14.4.14 be retained in amended form, as we requested.

High Runoff Risk Phosphorus Area

- 41. Policy 14.4.17 requires the achievement of water quality outcomes and limits. Item d. refers to farming activities within the High Runoff Risk Phosphorus Zone. In addition, Condition 7 of Rule 14.5.17 limits the area of winter grazing in the High Phosphorus Risk Runoff Zone to no more than 20 ha.
- 42. The s42A reporting officers have recommended that item d. of Policy 14.4.7 be deleted because it essentially replicates the requirement of region-wide Policies 4.36 and 4.38I.
- 43. Policy 4.38l requires that land users: Manage the loss of phosphorus to water from land used for farming activities by: (a) identifying on the Planning Maps High Runoff Risk Phosphorus Zones where the risk of phosphorus loss to surface water from overland flow is elevated; and (b) requiring any farming activity to identify within the Farm Environment Plan or the Management Plan any critical area for phosphorus loss; and (c) requiring actions to be implemented to minimise phosphorus and sediment loss.
- 44. Federated Farmers questions the value of identifying the High Phosphorus Risk Runoff Zone. It should be noted that phosphorus concentrations in surface water are typically low (in the NPS-FM Attribute State A band) and showing no increasing trend¹⁰.
- 45. In addition, the establishment of a High Runoff Risk Phosphorus Zone would be more appropriate for soils which are perpetually saturated (with greater likelihood of surface water flow, along with sediment and P) rather than the soils mapped in this Zone, which are mostly in water deficit.
- 46. Therefore, Federated Farmers agrees with the conclusion reached by Mr Ivon Hurst¹¹ believes that there is no justification for establishing a High Runoff Risk Phosphorus Zone. It appears that there is little risk of phosphorus loss to surface water from

¹⁰ Statement of Evidence by Ivon Walter Hurst, dated 17 July 2020.

¹¹ Statement of Evidence by Ivon Walter Hurst, dated 17 July 2020.

overland flow and, therefore, no need to identify High Runoff Risk Phosphorus Zones, according to Policy 4.38I(a), quoted above.

47. A far more effective approach to managing sediment and P loss would be to address the issue via Farm Management Plans (ideally in conjunction with catchment groups), and to require the identification of critical source areas along with plans for managing these, consistent with Policy 4.38l(b)&(c). Therefore, Federated Farmers recommends that Environment Canterbury supports the establishment of catchment groups, to focus on the identification of critical source areas and the effective management of these. This would include the appropriate siting and management of winter grazing to mitigate adverse effects in wet years.

Allocation Based on Reasonable Use

- 48. Policy 14.4.12 seeks to base the volume and rate of water allocated on past use in accordance of Method 1 of Schedule 10.
- 49. Federated Farmers submitted that the determination of allocation should not be constrained to methodology based on previous use because previous use does not necessarily indicate need in a dry year. We further requested that the full range of methodologies in Schedule 10 should be available, including the field validated model approach (effectively the Irricalc daily water balance model), which is probably the most reliable approach because it is not dependent on the weather experienced in the previous few years.
- 50. The reporting officers recommended rejection of our submission on the basis that restricting renewals to past use is an effective and efficient method to reduce overallocation in the sub-region, primarily through the removal of "paper allocations". The reporting officers then effectively counter their own argument by correctly stating that all of the methods in Schedule 10 constrain volumes to that required to meet demand in 9 out of 10 years.
- 51. With regard to effective and efficient use, the most efficient and effective approach is to allocate the amount of water that is actually needed for reasonable use. Underallocation can lead to inefficient use, as well as over-allocation, including by causing

sub-optimal plant growth or crop failure. Allocation according to any of the methods in Schedule 10 will facilitate reasonable and efficient use and remove *"paper allocations"*.

- 52. Allocation in Canterbury is designed to provide 90% reliability i.e. to be fully used only in a one in ten dry year. The full range of methodologies in Schedule 10 should be available, including the field validated model approach (effectively the Irricalc daily water balance model), which is probably the most reliable approach because it is not dependent on the weather experienced in the previous few years. This discussion was held during the initial Canterbury LWRP hearing process as well as later sub-regional plan hearing processes. The decisions have been to allow the full range of options in Schedule 10. It is not helpful to attempt to use sub-regional plan processes to constrain allocation assessment methodologies which are technically sound and have been through rigorous hearing processes.
- 53. Policy 14.4.13 concerns the transfer of consented water and states conditions under which transfer will be considered. Condition a. states that the permit must have been previously exercised and that the maximum rate/volume to be transferred will be based on efficient use as indicated by previous use. As discussed above (Policy 14.4.12) reasonable and efficient use should be determined using the methods in Schedule 10.
- 54. Again, Condition 3 of Rule 14.5.12 states that the calculation of volumes of water to be transferred should be limited to Method 1 of Schedule 10. For the reasons given above, Federated Farmers asked that Condition 3 be amended to allow the use of any of the three methodologies in Schedule 10, consistent with our submission on Policy 14.4.13.
- 55. The reporting officers recommended that Condition 3 remain unchanged. One of the reasons given was that Method 1 of Schedule 10 is *the most consistent with the vision of 14.5.13* (presumably this should read 14.4.13) as *it results in the effective surrender of allocation that has not been previously utilised.* In addition to the arguments presented above, it should be re-stated that all of the methodologies in Schedule 10 are designed to provide for reasonable and efficient use and eliminate over-allocation. The method most likely to be flawed is method 1 because it depends on records of previous use which may or may not represent need (based on 90% reliability). Therefore, Federated Farmers continues to request that all 3 methods in Schedule 10 be available to determine volume for reasonable and efficient use, or in this specific case, the volume which is able to be transferred.

Transfer of Water Permits

- 56. Policy 14.4.13 concerns the transfer of consented water and states conditions under which transfer will be considered. Condition b. requires the surrender of a proportion of the consented volume where the catchment is over-allocated. Condition c. prevents transfers within the Temuka Freshwater Management Unit.
- 57. In an overall sense, when considering the effectiveness of the policy, there are two important points to consider. Firstly, preventing or providing a disincentive for transfer will lead to less efficient allocation by preventing the 'flow' of water to its greatest value use. Secondly, if the water is not transferred, it is likely to continue to be used for its current use. Consented water is unlikely to be surrendered, or not used, merely because it cannot be transferred. Therefore, Federated Farmers requested the deletion of Policy 14.4.13.
- 58. Federated Farmers supports the recommendation to delete Condition c. of policy 14.4.13, but also continues to recommend deletion of the entire policy.
- 59. For similar reasons to those given for Policy 14.4.13, above, Federated Farmers requested the deletion of Policy 14.4.32. Therefore, we support the recommendation to delete this policy.

Flow and allocation Regimes – Tables 14(h) – 14(za)

60. With regard to proposed flow and allocation regimes, Federated Farmers supported the work and recommendations of the Flow and Allocation Committee of the OTOP Zone Committee, Opuha Water Limited (OWL) and the Temuka Catchment Working Party (TCWP). With regard to the flow and allocation regime for the Orari River, the reporting officers pointed out that OWL and TCWP had not submitted/sought changes to Table 14(h). However, we did support submissions of the Orari Water Users Group (which did submit on Table 14(h)) in our further submissions dated 6 December 2019.

Augmentation

61. Rules 14.5.29 and 14.5 30 are proposed to provide for augmentation of the Opuha and Opihi mainstems through discharges of water from the Opuha dam. Federated Farmers supported submissions by OWL (381.140–146) seeking to ease the consenting path for augmentation of the two rivers, with reasonable constraints attached, including the use of an operation management plan. Changes of activity status (from discretionary to controlled for Rule 14.5.29 and from prohibited to non-complying for Rule 14.5.30) were requested. The amendments sought would potentially assist with managing augmentation of the two rivers in a more responsive manner than would otherwise be possible. The reporting officers recommended rejection of the submissions. However, Federated Farmers continues to support the submissions of Opuha Water limited.

Nutrient Management

- 62. In their summary of submissions on Policy 14.5.14, the reporting officers stated that Federated Farmers' support for the policy was subject to our submissions on Table 14(zc) being granted. This is incorrect. This qualification actually applied to the following Policy 14.5.15, which was accurately summarised.
- 63. Policies 14.4.18 and 14.4.19 (now recommended to be consolidated into Policy 14.4.18) require additional nitrate loss reductions in the Rangitata Orton, Fairlie Basin and Levels Plain High Nitrogen Concentration Areas. Federated Farmers submitted that the limited consent duration for such areas (proposed maximum of 10 years) creates uncertainty at a time when considerable investment is required from farmers. We requested that this requirement should only be in place until the nitrate nitrogen targets in Table 14(g) are met. This request has not so far been granted. We believe strongly that consent durations longer than 10 years are conducive to better land management, both environmental and commercial. Therefore, we continue to ask that our submission on Policy 14.4.19 (now applying to the amended Policy 14.4.18) be granted.
- 64. Table 14(zc) establishes reductions in estimated nitrogen loss beyond the GMP nitrogen loss rate for farming activities within the High Nitrogen Concentration Areas. Federated Farmers submitted that considerable cost will be incurred by some farms

getting to GMP, while reducing beyond GMP will have significant adverse effects on profitability for most farms (based on Dairy NZ case studies). Therefore, Federated Farmers accepted the need for the first round of reductions (5 or 10%, depending on land use) by 2030, but requested that the projected second round of reductions (scheduled for 2035) be deleted and replaced by an adaptive management approach based on rigorous environmental monitoring. These amendments were not recommended by the reporting officers. However, we continue to believe that this is a sound and reasonable way forward (from both environmental and commercial standpoints) and request that our submissions on Table 14(zc) be accepted.

Conclusion

Federated Farmers thanks the Hearing Panel for the opportunity to present this evidence statement, in conjunction with those of Mr Ivon Hurst, Mr Peter Bonifacio and Mr Brendan Caird.

W[...]

Jason Grant President, South Canterbury Province Chair, Canterbury Regional Policy Committee Federated Farmers of NZ

h. f. Anne

Dr Lionel Hume Senior Policy Advisor Federated Farmers of NZ

Appendix1

Mataitai Protection Zone

