

**IN THE MATTER** of the Resource Management Act 1991  
**AND**  
**IN THE MATTER** of the hearing of submissions on Proposed  
Plan Change 4 (Omnibus) to the partly  
operative Canterbury Land and Water Regional  
Plan

**BY** **THE WAITAKI IRRIGATORS COLLECTIVE  
LIMITED**  
Submitter

**TO** **CANTERBURY REGIONAL COUNCIL**  
Local authority

---

**STATEMENT OF EVIDENCE OF GEOFFREY FRANCIS KEELING ON BEHALF OF THE  
WAITAKI IRRIGATORS COLLECTIVE LIMITED**

Dated: 28 January 2016

---

---

Waitaki Irrigators Collective Limited  
PO Box 159  
Oamaru 9444  
Telephone: (03) 434 6721  
Email: info@waitakiirrigators.co.nz

## **INTRODUCTION**

### **Qualifications and experience**

1. My name is Geoff Keeling. I am a dairy farmer living near Duntroon in North Otago.
2. I hold the qualification of a Bachelor of Commerce, majoring in Farm Management from Lincoln University. I am a Director of the Waitaki Irrigators Collective Limited and the Chairman of the Kurow-Duntroon Irrigation Company Limited.

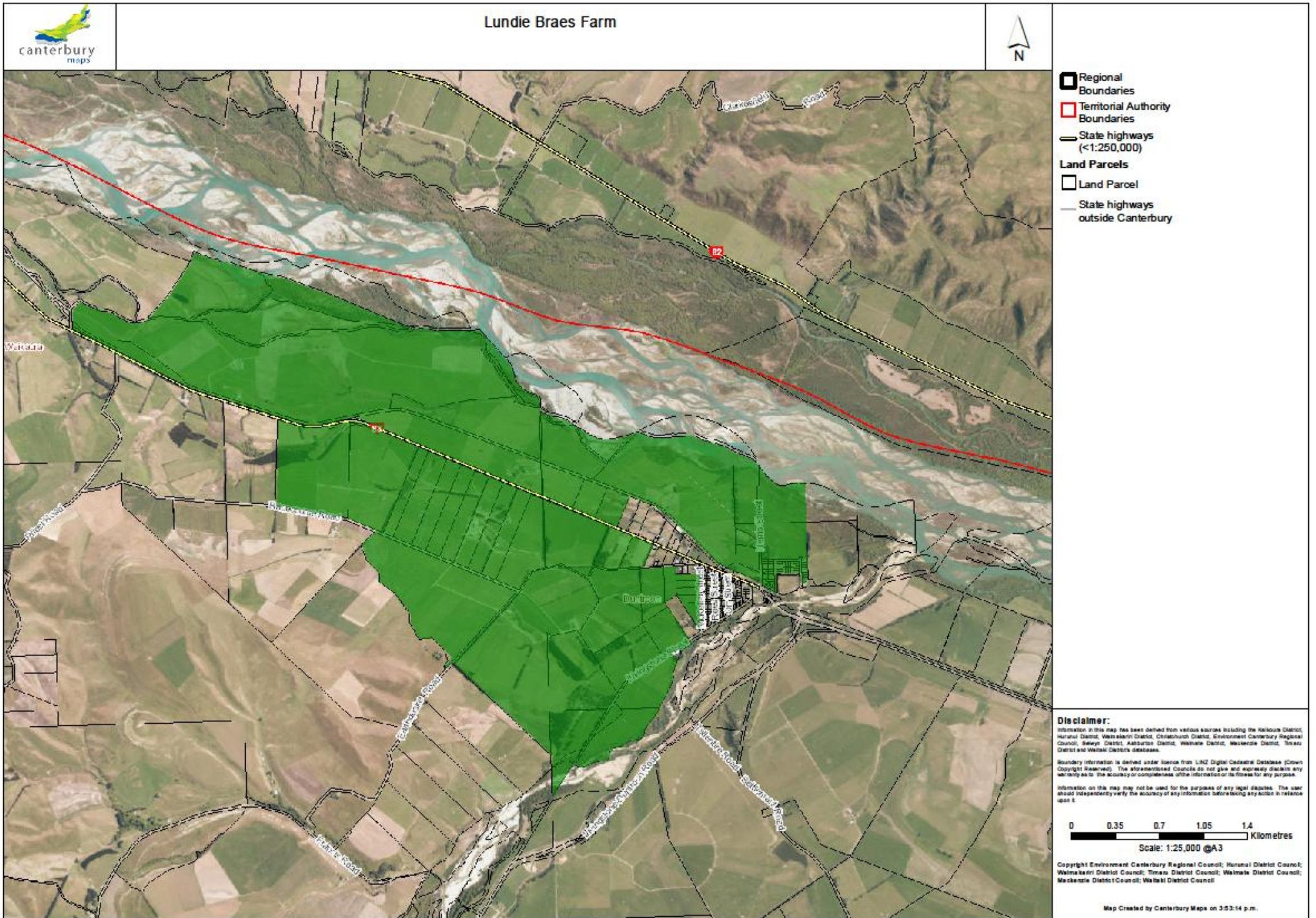
### **SCOPE OF EVIDENCE**

3. My evidence will address the following points:
  - a) providing some information about my farm, its location and the challenges of farming next to a braided river;
  - b) a discussion of the implications of the definition of a braided river bed and consequential rules for my farming operation;
  - c) workable amendments sought to these rules.

### **FARMING ON THE WAITAKI RIVER**

4. Along with my wife Jan, I own Lundie Braes farm, on the South bank of the Lower Waitaki River, near the small town of Duntroon. It is an 850 hectare irrigated dairy farm including an attached support unit (670 hectares effective irrigated), and the home farm has been farmed by my wife's family since 1906. I have been farming in the Lower Waitaki for 15 years, so am well-acquainted with the challenges presented by a braided river. The map below shows the location and extent of our farm.

Figure 1: Lundie Braes Farm





## DEFINITION OF A BRAIDED RIVER BED

5. Plan Change 4 to the Land and Water Regional Plan changes the definition of what is the bed of a braided river for stock exclusion purposes and now, in places, extends the bed of the Waitaki much further than the previous definition. This is particularly important in the Lower Waitaki, due to approximately 90 kilometres of River frontage being deemed to be "sensitive" due to salmon spawning.
6. This change makes management of river frontage land quite challenging, particularly given that it can change (literally) day-to-day - meaning an activity such as grazing can go from permitted to prohibited overnight.
7. As an example, in February and March of 2011, our farm lost several hectares of land to the River. Figures 2, 3, and 4 (below) illustrate where the river margin had been (the red line). It should be noted that the erosion continued after these photos were taken, and that our legal title now extends well into the river bed proper.

Figure 2: South bank of the Waitaki River at Lundie Braes Farm, looking north, 10 March 2011



Figure 3: South bank of the Waitaki River at Lundie Braes Farm, looking north-west, 10 March 2011



Figure 4: South Bank of the Waitaki River at Lundie Braes Farm, looking north-east, 10 March 2011



8. This erosion didn't occur during a single, relatively brief, very high flood event, which tend to occur in braided rivers with natural flows. However, the flow in the Waitaki is controlled by the upstream hydroelectricity infrastructure. During periods of high catchment inflows, this artificial flow-control results in medium to high flows of longer duration. The land loss illustrated above occurred during a such a time of sustained medium- to-high flows. At the end of December 2010, the Waitaki River flowed at levels of around a twenty-year flood for approximately two weeks, followed by weeks of above-average flows (at around a five-year flood level). The swiftness of the Waitaki, coupled with the sustained flow rate, worked to completely undermine the river bank and carve away a section of around 3 hectares of land.
9. This section of my farm had been purchased not long before the erosion started. Although flood protection vegetation had been planted, it could not prevent the erosion. Not only did I lose valuable hectares of productive land at a pace of several metres an hour, but (had the provisions under Plan Change 4 been in place at the time), the area which I could graze, cultivate, clear pest vegetation, or undertake works as permitted activities changed at a significant rate. This is particularly significant in relation to the grazing of cattle, which, due to the Rule 5.68A, is a prohibited activity in the "bed" of the River. This new definition means that the area where grazing cattle becomes prohibited can change on a daily basis. At the least, having the ability to obtain a resource consent for this activity would provide me with some certainty in the event of future River movement.
10. Lundie Braes Farm has approximately 6 kilometres of river frontage. Although some flood control vegetation has been reinstated, this does not cover the whole area of river frontage, and could be lost to the River again if we were to experience another period of sustained moderate to high flows. The 50 metre exclusion zone for grazing cattle means that I could have up to 30 hectares of pasture which potentially must be cut and carried rather than grazed.
11. This 50 metre strip is extremely awkward to manage. The cost of harvesting this feed rather than grazing will cost me approximately \$30,000 extra per annum. On top of this, I will need to move my fencing from its current location to be further back from the River, at a cost of \$10,000. If we were to experience another period of medium to high flows, the fencing would have to be shifted again (potentially repeatedly). Irrigation infrastructure will also need to be changed to account for the new paddock layout required for the 50m buffer. This will also cost in the tens of thousands of dollars.
12. The change in definition will also mean that the 30 hectares is also likely to be significantly devalued. This is due to the limited operations now able to be carried out on the affected land.

13. It is unclear to me why the definition of a braided river bed includes the outer edge of any flood protection vegetation owned or controlled *only* by Environment Canterbury (ECan) but is otherwise to be 50 metres from the outer gravel margin.
14. Engineering and flood protection works relating to the Waitaki River are jointly managed and funded by ECan and the Otago Regional Council (as approximately half the land on south bank of the River is within Otago). Some funding for these works is provided through the general rate, with the balance coming directly from affected landowners, as well as Meridian Energy.
15. The information provided by the Councils to the River Management Liaison Committee (which represents landowners with river frontage), indicates that the amount of funding available for managing the riparian area is less than optimum. The Councils must allocate funding for river management between fairway spraying, anchored bank protection, fairway channel realignment/improvement, berm planting, general management, fairway layering, and groyne maintenance.<sup>1</sup> The limited budgets which the Councils have does not go far in managing a very large and dynamic river like the Waitaki.
16. Given these budgetary constraints associated with the management of the River, it seems to me that the councils would want to encourage landowners to establish and manage their own flood protection vegetation. Amending the current definition to include privately owned and managed flood protection vegetation would do this.
17. Our business has spent considerable sums in contributing to ECan-funded protection works along our property's river frontage. In early 2011, in conjunction with the local irrigation company, we spent \$15,000 trying to protect land and infrastructure. Subsequently, we contributed \$10,000 directly to ECan to help fund the necessary tree-layering work. Later that winter, we also spent \$35,000 on in-stream works (under the guidance of river engineers) to open up a new channel through an overgrown mid-stream island to move the main flow of the River from our boundary.
18. It should be noted that on the registered titles of land adjoining the River, we own a total of 326 hectares. Washed-away area on these titles equates to 56 hectares, meaning only 270 hectares is now actually farmed.

---

<sup>1</sup> Environment Canterbury, *Lower Waitaki River Control Scheme Review*, March 2015  
<http://ecan.govt.nz/publications/Reports/lower-waitaki-river-control-scheme.pdf>

## **POSSIBLE RULE AMENDMENTS**

19. Although I understand the reasoning for a stock exclusion zone, 50 metres is a very large area. A number of options would be more acceptable than the current situation. These would be:

- a reduction in size of the stock exclusion zone;
- the ability to gain a resource consent to graze within the exclusion zone if suitable protection measures are in place;
- a change to the definition of the river bed by including non-ECan owned or controlled flood protection vegetation as the outer measuring point; and
- a re-assessment of the lower Waitaki River to determine whether it is appropriate for (essentially) the entire Lower Waitaki River to be deemed a salmon spawning site.

A combination of all of these would seem to me to be the most pragmatic.

## **CONCLUSION**

20. I fully support - what I consider to be - the intent of these rules. That is, to provide a buffer zone for water and habitat quality, to protect river protection works, and established (largely willow) riparian vegetation areas from further development.

21. Those of us who farm beside the Waitaki River and derive our water from irrigation companies already farm under Farm Environmental Management Plans. These include nutrient budgets, waterway fencing, and stock exclusion rules. Dairy farmers such as Reuben Allan and myself also have further environmental compliance requirements through our dairy company supply agreements.

22. Over our years of farming beside the River, we have had three instances where river protection and land has been lost. In all these instances, the River has taken out reasonably established trees. We have never removed any trees against the river. We say the 'River has come to us' rather than we have gone to the River.

23. I would request that you seriously consider the implications of classing as 'prohibited' the grazing of stock within 50 metres of the river. The idea is good in theory but extremely difficult to comply with and farm around in practice.

24. I definitely support the protection of existing plantings (even if 'wild') and the buffer/protection they provide.



25. Our number-one risk when farming beside the River is loss of land and infrastructure to the River. ECan needs to encourage and support landowners to enhance any protection measures, whilst also maintaining some control.
26. I feel those who have already developed land and infrastructure should be allowed, even if it is through a consent, to continue to farm that land provided they do so in a responsible manner.

**GEOFF KEELING**

28 January 2016