

Tabled at Hearing on 18 November 2015

IN THE MATTER of the Resource Management Act 1991
AND
IN THE MATTER of the hearing of submissions on
Proposed Plan Change 3 to the Land and
Water Regional Plan

BY **OTAIO WATER USERS GROUP**
Submitters

TO **CANTERBURY REGIONAL COUNCIL**
Local Authority

BRIEF OF EVIDENCE OF BRUCE MURPHY

Dated: 17 November 2015

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INTRODUCTION

1. My name is Bruce Murphy. I'm a second generation farmer in our farming enterprise. I am married to Lesa and have 4 young children that I hope will have an opportunity in agriculture in the future. We also love fishing and hunting and have established several wetlands on our farmland.
2. Our family owns two properties in the Otaio/Maungati districts comprising of 820ha for our dry stock that supports our dairy farming operation which milks 5,500 cows based in the Glenavy and Waimate areas.
3. I am very committed to our community and am Past BOT chair of Glenavy School and chairman of Glenavy community pool trust. The pool trust recognised that water played a key part in our community and proceeded to fundraise \$270,000 to build a pool for our children to learn to swim in.

NARG and Nutrient Allocation

4. I have been involved with the environmental planning processes in our district since the start of the consultation stage. I am a member of NARG, which is a group of 25 community representatives who were used by the Zone committee as a conduit for further community engagement involving the allocation of nutrients to existing farmers and the prospective Hunter Downs and Waihao Downs irrigation schemes.
5. NARG gained consensus on a set of nutrient allocation figures and then presented them to the zone committee who agreed on our recommendations. Unfortunately, the agreed community outcome was not written into the plan as NARG had intended. The key components missing in the plan were the use of GMP nitrogen loss figures as well as the ability of the plan to continually update nitrogen loss figures when new versions of Overseer are released.

6. I have recently been elected to the Lower Waitaki and South Canterbury Coastal Streams zone committee and firmly believe we need to look to the future. In my view, this is using farm environment plans based on GMP farming practices to help get buy in from farmers. This has been difficult because we don't actually have a nitrogen loss figures for GMP but it was widely accepted that best industry standards were a good place to start. We also need to constantly measure actual water quality outcomes to shape our districts future.

The Proposed Otaio River Flow Regime

7. The Otaio River plays a significant role in our farming operation. It supplies stock water to our 366ha Dorset Downs property at Maungati. This property has no council stock water scheme or groundwater available to it. During the winter period 1,200 cows and 300 R1 calves rely on the Otaio for water to drink.
8. The Otaio River also runs through our Eskbank farm which is 450 ha located at Esk Valley Otaio. This property contains one of the main spring head feeds to the river and since we have owned this farm it has never gone completely dry. We have completely fenced off this tributary since purchasing the property.
9. Currently our Eskbank farm has 115 ha of irrigation on it using 2 deep wells producing 23 l/s and 1 shallow well producing 16 l/s. The shallow well has never run dry and has a water level of one metre below ground level.
10. To put a 90 l/s minimum flow on the Otaio River, according to the Aqualinc calculations would shift the efficiency of this well down to approximately 51% from 65%. My estimation is that if this water is not available to us on a pasture based system we will lose approximately 7 tonnes of dry matter equalling \$48,000 (valued at \$0.15 per kg of dry matter). We also take stock water out of the irrigation supply to service this property, and this could end up short meaning we would have to cart water in from outside sources.

Mitigation for the Loss of Water

11. To store off season water to give us 95% reliability of supply would mean adding a pond equivalent to 100,000 cubic metres of water to our system. Construction costs for storage are about \$5.00 per cubic metre of water stored to construct a lined water storage pond. This would require capital investment of at least \$500,000 merely to maintain the status quo.
12. For us this is cost prohibitive because we simply cannot guarantee sufficient river flows to enable B Block allocation to be taken to gain a return on the \$500,000 investment
13. We have considered growing more fodder beet crops to try and compensate. But this is more expensive than pasture and establishment costs are approximately \$2,500 per hectare. We would still have the risk of those crops failing without guaranteed reliable irrigation water.
14. There is no potential for extra deep water. We currently have two deep wells with a combined output of only 23 l/s. We used a water diviner to locate water and have unsuccessfully drilled two more wells down to 220 metres and found no water of substance. This process cost us approximately \$160,000 and we feel there simply is no more water available down there.
15. Hunter Downs Irrigation Scheme is available at this property and we have paid up shares. This prospective scheme will cost us approximately \$9,000 to \$10,000 per hectare upfront with an operating cost of \$800 per hectare per year. So it is very expensive compared to shallow ground water.

Summary

16. Water reliability on the irrigated area of this property is critical for the operation of this farm and to look after our stock. We have few alternative options available to us in a pasture based system if the Hunter Downs Irrigation Scheme is not built.

17. We had a current valuation by Paul Mills of Property Advisory Services carried out on this property. This valued the irrigated land at an average of \$31,000 per hectare and the dryland at \$21,000 per hectare. Therefore every hectare we cannot irrigate due to the minimum flow regime costs us an additional \$10,000 per hectare in land value on top of lost grass growth potential.
18. All of the changes to our farming systems that will need to be made to accommodate less water and/or less water from shallow ground water add cost to our farming business. In my eyes a flow sharing regime will help manage the water but putting irrigation on grass well after wilting point is not efficient use of water.

Bruce Murphy

17 November 2015

