

**SPECIAL TRIBUNAL ACTING UNDER DELEGATED AUTHORITY ON BEHALF OF THE MINISTER
FOR THE ENVIRONMENT**

Under the Resource Management Act 1991

In the matter of an application for a Water Conservation Order pursuant to s201 of
the Act

By **THE NEW ZEALAND & NORTH CANTERBURY FISH & GAME COUNCILS
AND THE NEW ZEALAND RECREATIONAL CANOE ASSOCIATION**

**STATEMENT OF EVIDENCE OF MARK ZINO ON BEHALF OF THE HURUNUI
WATER PROJECT**
23 MARCH 2009

Introduction

1. My name is Mark Zino and I am submitting today in opposition to the Water Conservation Order on the Hurunui River.
2. I am 38 years old and was born and bred in the Hawarden area. I have been happily married to Rachael for over 7 years, and we have two sons Ben (5.5years), and Angus (3.5 years). We all love the outdoors and the farming lifestyle we lead.
3. Rachael and I are heavily involved in the community, Rachael is President of the Hawarden-Waikari Plunket, Vice president of the Hawarden-Waikari Playcentre, and Chief Organiser of the Plunket Flower show. We both volunteer and help out whenever possible in the community, whether it be stewarding at the Hawarden A&P show or helping the Anglican Church run the Waipara wine and food festival. I have been Chairman of the Waitohi Partnership which is a farm machinery partnership. Currently I am Chairman of the Hurunui Irrigation and Power Trust Working Group.
4. I graduated from Lincoln University with a Bachelor of Commerce and Management with a focus on Agricultural Marketing in 1992. I've worked on farms all of my professional life and have spent 2.5 years traveling the globe visiting 36 countries.
5. I returned home to the family farm in 1997 to take over from our farm manager who was in place after the sudden death of my father in January 1994, and have been farming our properties since then.
6. My elder sister, Dr Sarah Zino, also lives in the Hawarden area with her husband Marco and three boys. They operate GVT which is a livestock transport business. Sarah too is heavily involved in the local community.
7. My younger brother Sam and his wife Keri have two boys and farm in partnership with Rachael and I. Keri is a reliever teacher at Hurunui College.
8. My mother Penny is a well known gardener and nursery woman. Flaxmere Gardens are part of the NZ Garden Trust and was recently awarded the honor of a Garden of National Significance. Mum has spent the last 43 years crafting her

garden from scratch, and she operates garden tours, and the 'Art in a Garden' show annually.

9. Our recreation interests include water and snow skiing, hunting, fishing, jet boating, mountain biking and a lot of these activities take place in the Hurunui Lakes area.

Our Business

10. Our business is farming, it is in our blood, it is our passion and it is our livelihood. Farming holds the key to our success in the future.
11. Farming for the Zino family started at Flaxmere in May 1966, when my parents John and Penny purchased 270ha. Since then we have bought and sold some land in order to buy the neighbouring 314ha to make the Home farm of Flaxmere 584ha, all of which is flat land. In 1999 Sam and I purchased Kanuka Downs a 313ha rolling to steep hill country property close by. Flaxmere has an annual rainfall of 660mm, and Kanuka Downs is 950mm.
12. In total we farm 897ha which includes 90ha of irrigation by a centre pivot and long lines.
13. We farm 8000 stock units, made up of 2500 ewes, 700 hoggets, 170 beef cows, 40 yearling heifers, 450 hinds, 70 yearling hinds. All lambs are finished on contract as are stags and hinds. Yearling steers are sold store and yearling heifers are sold in calf as 18 month old replacements. We also farm 30ha of cereal crops and grow maize on contract for a dairy farmer.
14. My father always wanted irrigation as he could see the benefits in this harsh environment. The 90ha irrigation we have is key to our business, we are very lucky to have it. Farming in this drought prone landscape has become increasingly marginal from an economic perspective for most farming in this area. With fixed expenses and huge fluctuations in income due to the environment and climate change, dry land farming will always be limited.
15. However, having irrigation has shown us the potential of this land. In 2005 when we installed a centre pivot to cover 52ha, we converted land that produced on average 5000kg Dry matter per hectare, per year. Now, with the use of

specialised crops and water, this land has the ability to produce in excess of 20,000kg of DM per hectare, per year. This is a huge improvement and gives us the ability to produce feed for our stock when the land around is in drought. The important fact for us is we can grow our young stock to their potential which in turn will not limit their future production.

16. 90ha is simply not enough irrigation for our business to succeed. We would like more irrigation but the Waitohi River is fully allocated already and is not very reliable. Our neighbours have tried to bore deep for water but there is none to be found, it seems we cannot get any more water. A huge light on the horizon is the Hurunui Water Project (HWP) of which we are big supporters. This project offers this community the same as the Opuha Water Project offered the residents of South Canterbury.
17. We can harvest and store water for irrigation and power generation, to improve our community by improving the river flow, which in turn will support greater biodiversity, better fishing, rafting, canoeing, jet boating etc. At the same time we can improve lagging dry land farmer returns.

Our Community

18. As I have already stated our harsh climate has been very hard on our community. Over the past 20 years our community has suffered and will continue to suffer without water. Our school roll has fallen, which in turn leads to less funding for the school and hence a restricted curriculum and less facilities for students. Our medical centre is struggling to attract a new GP and our sports clubs are on the decline. The United Rugby Club has gone from 9 teams to 2-3 in 20 years.
19. For the past 20 years farming has been hard work for little reward and the pressure has been put on farm profitability. Over this time farm workers have been laid off, stress levels have increased and farmers have stopped spending money. Economic activity has slowed and this has affected our schools, medical centre and sports clubs. The social fabric of our community is changing for the worse. Irrigation offers this community a lifeline. We only have to look north of the Hurunui River to the once quiet and windswept town of Culverden. Irrigation has turned the Culverden Basin into a prosperous community. The town now has cafes, two engineering shops, two petrol stations, bakeries, dairies, a CRT store,

and numerous contractors work the land around the town. Irrigation is at the heart of the town's future success.

20. In the Hurunui Water Project we have the ability to ensure the future prosperity of our community by ensuring our social and economic values are improved. This Water Conservation Order does nothing for the future of our community.

The Water Conservation Order

21. I have grave concerns that the WCO seeks to protect and preserve the Hurunui River in its current state for a select group of individuals. Under the WCO future water harvesting plans like the Hurunui Water Project will be scuttled.
22. The thing that concerns me the most is that NZ is not a mineral rich country like Australia. However, we do have lots of water which is a strength of our country compared to most of the world. This country survives on its export earnings and a large proportion of those come from agriculture. I do not need to tell you of the downstream effects on the economy of a productive and profitable primary sector.
23. The select few who are supporters of the WCO intend to preserve their recreational activities ahead of the greater good of our community and the nation of New Zealand. Can I ask whether the applicants of the WCO have full support from their members or is it just the political wing of these groups acting alone. I would suggest to the commissioners that not all fishermen and canoeists/kayakers agree with the stance of their governing bodies on this issue.
24. I would like to comment on the outstanding values of the Hurunui River listed in the application below the Mandamus. In my opinion the values listed are not outstanding and do not need protection. The lower reaches of the Hurunui River are braided like all Canterbury Rivers but they are not outstanding when compared to the braids of the Waimakariri, Rakaia and Rangitata Rivers. These three rivers have outstanding braids that move more regularly due to a much higher river flow. The banks of the lower reaches are lined with willow trees, gorse and broom which are noxious weeds. No-one takes responsibility for these weeds except the farmers next to the rivers who have to control the gorse and broom as it spreads onto their properties. These weeds also make a perfect breeding ground for rabbits and TB carrying pests like opossums and ferrets. TB

is a disease New Zealand farmers spend millions of dollars each year trying to eradicate.

25. The upper reaches of the Hurunui River do have some outstanding values in terms of scenery, like all of the New Zealand high country, but this is not wholly associated with the River which as I understand a Water Conservation Order relates to. Once again the edges of the riverbeds are lined with gorse and broom which needs controlling and in turn, harbour the pests mentioned above.
26. Will a storage dam like the one proposed by the HWP on the South Branch make the scenery unattractive? As you are aware the area around the proposed lake has a total of 5 other lakes which are picturesque. I would suggest that more water in this area will improve the habitat for fish and all wildlife as well as increasing recreational opportunities, rather than detract from it.
27. Both the upper and the lower reaches of the river will benefit from an 'on the river storage scheme'. We only need to look at the success story of the Opuha Water Project.
28. One of the applicants has stated that this project is an absolute environmental success story (The Press November 2008). The applicant went on to say that the salmon fishery below the Opuha Dam is now one of national significance. I struggle to see how a water storage scheme as proposed by the HWP will have a detrimental effect on the Brown Trout and Salmon fish when the flows of the Hurunui River will be enhanced over their breeding seasons, just as it has been at the Opuha Water Project.

Water Storage

29. For years now we as farmers seeking to produce more food for this starving world have seen the benefits of irrigation. We have been told by all sorts of lobby groups and councils both district and regional that water harvesting using storage facilities is the way of the future for irrigation.
30. There is already too much pressure on 'run of the river takes' which leads to lack of reliability through restrictions which in turn costs production.

31. The Canterbury Mayoral Forum has recommended that water storage in the upper reaches of our rivers is very important to the social and economic future of our communities, I have already mentioned the success of the Opuha Water Project. The HWP could have the same outcomes if it is given the opportunity, however this WCO seeks to prevent this from happening.
32. Stage II about deciding whether storage in upper reaches good or bad. Stage 3 looking at other horizons with other interest groups and stage 4 (on farm, on river, off river) which are being voted on by the public.
33. As with the Opuha Water Project it makes financial sense to build one large storage area rather than a whole raft of on farm storage ponds, lobby groups who support this WCO are telling farmers that on farm storage is the way to go. I have done some numbers on the cost of on farm storage.

33.1 Assumptions Irrigating 100ha at 5mm per day

Evaporation from ponds is not included, ranges from 1-3mm/day

130 days irrigation, ranges 100 – 180 days per year

5m deep pond, range on flat land is 2 – 9m

Construction costs of \$1.70 per cm^3 stored (Hensen Contracting)

Figures do not include Irrigation Hardware costs

33.2 $100\text{ha} \times 50\text{Litres/second} \times 24\text{hours per day} = 4,320\text{cumecs per day}$

33.3 $4,320 \text{ cumecs} \times 130 \text{ days} = 561,600 \text{ cumecs per year.}$

33.4 In a pond 5m deep = 11.23ha. Therefore 111.23 ha is required or 10% of the land is taken out of production.

33.5 Cost to construct would be approx $561,600 \text{ cumecs} \times \$1.70 = \$954,720$

33.6 This would vary depending on the quality of the soil where the dam is, which dictates whether a plastic liner is required. The range of

construction costs would be from \$1.10 to \$2.20 per cubic metre of water stored. Or \$617,760 to \$1,235,520. (Hensen Contracting)

- 33.7 This equates to \$8583/ha of the development.
- 33.8 On top of these construction costs are the costs of the canal/pipe system to get the water from the river to the pond. I can only estimate these numbers at \$2000 per hectare.
- 33.9 This gives us a total of \$10,583 per hectare. (including lake area)
- 33.10 There are pumping costs associated with getting the water from the pond to the Irrigators at approx \$150/ha.
34. The HWP is looking at this early stage to have water delivered to the farm gate for between \$4000 and \$6000 per hectare. There is also the opportunity to deliver the water under pressure and in a pipe to minimize pumping costs, water evaporation and wastage.
35. As you can see 'on farm storage' of all your irrigation water is financially unachievable. The delivery system of water to the farm gate is still required and the loss of approximately 10% of the land area is unacceptable. In the case of the HWP this would mean 4,400ha would be in storage lakes, and this would cost the farmers between \$11,000,000 and \$31,000,000 in gross farm income.
36. The loss of water through evaporation would be a lot greater from the 'on farm storage' ponds when compared to one or two big lakes.
37. Another point to consider is all the dry storage ponds at the end of the irrigation season, what an eyesore, let alone the issues with wildlife living in and around these ponds.
38. One more point regarding 'on farm storage' ponds are that they will have a detrimental effect on the river ecosystem as a lot of the flood water will be diverted off to the OFS ponds, which will mean the riverbed won't be cleaned out by as many freshes or floods during the year. The HWP has the ability to do controlled releases of water to simulate flooding if required.

Summary

39. In my opinion this WCO is a narrow minded application in the sense it will block all future attempts to get irrigation and water storage schemes up and running on the Hurunui River headwaters. The evidence is strongly in favour of water storage schemes as they harvest that all important resource that New Zealand has an abundance of, WATER. As with any business or sporting team the old saying is still true, 'we must play to our strengths'. Water is a resource we have an abundance of, surely we can all benefit from it.
40. According to Irrigation New Zealand, Canterbury irrigators use approximately 5% of all the water that falls on the mountains, east of the main divide. There is huge potential for the communities and the country to benefit from these schemes, but this WCO will stifle these schemes.
41. The Resource Management Act (RMA) and the Resource consent process are in place to ensure the correct planning of these schemes so the effect on environmental, social and economic outcomes are acceptable. Why do we need a WCO as well?
42. It grates me to think that people who visit our beautiful part of the world, most of whom are not residents, would want to restrict the lifeblood of our community which is farming and our river, for their own benefit. We all want to use and protect our river for the benefit of all of us, not just a select group of recreationalists.
43. The potential to build a water storage scheme as successful as the Opuha Water Project, on the Hurunui River is very realistic, given the opportunity. We can improve the fishing, kayaking and other recreational options at the same time.
44. Having irrigation in our farming business, I have seen the potential of this land under irrigation. As I've stated earlier, the potential to produce over four times the amount of feed off the same hectares is a huge opportunity for our community and our country.
45. Water is the key to everything on our farms, and water will secure this community's future. It will also secure my sons' farming futures, and for generations to come, by ensuring they will be able to produce whatever the

conditions. The customer who buys our exports is demanding their product be supplied on time and to specification, which is very hard to do in a dry land environment. Irrigation makes it possible to achieve what the customer demands. The confidence irrigation has given us in our operation is huge, and in farming as with all other business having the confidence to do something is half the battle.

46. As a resident of this community, this WCO if given the go ahead will be the worst thing for the river and the community. It must be declined.

47. Thank you for listening and I trust you will decline this WCO.

Dated 23 March 2009

Mark Zino