

C.P.W. CONSENT HEARINGS
R.H. & A.C. FRIEDMAN
IGNATZ FARM LTD
MALVERN HILLS ROAD

PRESENTER: RICHARD FRIEDMAN

My wife and I farm 370 ha. in the Waianiwaniwa Valley; 150 ha. of this area will be affected by the C.P.W. proposal. Up until six weeks ago we also owned a 100 ha. irrigated block on the plains. This is the first time in 27 years we have not been farming an irrigated property.

I am a member of the Dunsandel Groundwater Users' Group and the immediate past president of that organization. I am also on the committee of the Malvern Hills Water Supply Committee which is a community potable and stock water supply. I am a member and board member of the Ritso Society and was involved with formulating the sustainable code of practice for C.P.W.

When C.P.W. was proposed it was obvious to us that ground water availability was going to be limited and energy costs would continue to escalate. The C.P.W. proposal as we saw it provided water with high reliability which makes for good on-farm application practices, and the water being delivered at ground level, significantly lowering energy requirements. To further lessen energy costs and help make the scheme acceptable to the wider community our preference would be for the scheme to be piped below the head race canal.

The proposal as we saw it had enough merit for us to become seeding funders.

The C.P.W. proposal would entail the removal of our house, woolshed, shepyards, cattleyards and other support buildings. The flats in the valley which historically have been considered as summer safe would also be submerged, affecting the balance of the farm. We consider the Waianiwaniwa Valley a magnificent place to live but given a choice of farming on the plains with good soils and irrigation would be our preference for farming but the valley for residence.

Whilst there will be change for us if C.P.W. proceeds, we see this process as not being dissimilar to the hydro-electric development in the Waitaki and McKenzie country in that a few will be affected to provide opportunity for many.

We give our full support for the C.P.W. proposal.

**Evidence for the Central Plains Water Trust
Resource Consent Hearing
24 April 2008**

on behalf of

**G D Gillanders & Sons Ltd
in conjunction with
Almond Bank Holdings and Almond Bank Trust**

Background

My name is Andrew Gillanders. I farm with my brothers on 780 ha of adjoining land in the Darfield area. At present we have no irrigation but the property lends itself to irrigation except for 150 ha bordering the Darfield Township. (zoned residential)

The farm has been in my family since 1865. My family has always supported our community with many members having held positions on committees and clubs. We have made donations and lent resources for the betterment of the community.

I have lodged this submission to the Central Plains Water Trust on behalf of G D Gillanders & Sons Ltd in conjunction with Almond Bank Holdings and Almond Bank Trust, both land owning companies in the scheme.

Why do we want to irrigate?

- The irrigation on our farm is for the next generation.
- Previous generations have always left something for the next generation to focus on.
- We have increased production by using science and technology.
- My father's generation re-fenced because of the water race system and introduced machinery.
- My grandfather bought the property through wars and the depression.
- My great great grandfather fenced and formed the basics of what we have now from an environment which had a stream and one cabbage tree.

Why support this scheme and not sink a well?

- This scheme has the possibility to transform the community.
- It is a community scheme whereas a deep well is just for our family.
- If a storage lake is built it will mean a recreation lake.
- There will be a lot more green grass around so the climate will probably be cooler than the hard-baked ground that can be seen in some summers and autumns now.
- The Darfield community lacks processing factories.
- We have an ideal site for these to be developed.

- We have a great road network, a railway line running through the centre of the scheme, two deep water ports at Lyttelton and Timaru and an International Airport plus a city with a growing population.
- They need food and water.

Until water arrives at our gate we cannot tell you what we will be growing. But I can tell you what we will be doing if we sink a well – dairying on part of the property. Why? Because with dairying you harvest the grass daily, empty the silo daily, are paid monthly and someone markets the product. Where is the risk compared with cropping and sheep farming that we know today? You only get one chance to harvest.

The next generation can no longer budget as we have had the luxury to do. Our bankers know that one year we get 5 tonnes per ha and the next year we get 10. Bankers and processors are no longer interested in us. They do not like to have a 50% change in income and production. We can no longer source funds at a reasonable rate so you can try innovative new land use, let alone get a contract for some of these specialist and niche crops.

Water storage

The proposed water storage is the critical part of the scheme. It gives the reliability to the scheme which is a critical factor when producing food for a population and the world. It will also take pressure off the groundwater aquifers. There is a prime example of what can be done with water harvesting; the Opuha dam. This was built to maintain reliable water for Timaru city processors, generate electricity, irrigate and provide recreation for that area. The rest of the world will soon ask questions about NZ. Why are we allowing water to run to the sea in a flood? We will be seen as wasteful.

Pipes

Consultation on the location of the water distribution network has been extensive. The location of water races and the supporting infrastructure have been modified on the basis of community discussion. Indeed, if piping of the distribution network was proposed, then we would support this as long as it was economically viable and the ground conditions above the pipes returned to their precious state. Pipes also have the advantage of water all year around, this could include stock water. It makes available an emergency supply from designated outlets.

If the land above the pipes was returned to a satisfactory condition we would probably not seek compensation for the disturbance it would create, because we know the benefit that water could do to our land.

What does it mean to the community?

The community will grow with vibrant young families; irrigation is a young person's game. This will lead to a stable workforce for processing factories to move to this area. Retail outlets will also move to this area. Schools and sports clubs will grow giving our community more chance for Government grants. Social services will

grow and be able to be maintained at a higher level. Fire and Rescue services could be manned for 24 hours.

Of course there is a downside. Some landowners will lose land but they will be compensated by the Central Plains Water Trust.

The Environment

As I said my family has farmed in this environment since 1865. If I thought I was going to damage the environment and not enhance it, e.g. flood Leeston and drain the rivers, I would have walked away a long time ago. I went to the first meetings in Rolleston. Nothing stays the same. Remember when my great great grandfather arrived there was a stream and a cabbage tree (which is not protected). Only we know how long this tree has been here. The stream went dry in 1910. They went to the Waimakariri for water, not the Selwyn because that was running underground then. Remember about reliability. They had to collect the water in a horse and cart. They sank a well. That went dry in the late 1970's. There was no irrigation about then.

The potential for land use intensification through irrigation raises environmental issues. I consider that environmental standards can be maintained through pro-active management by way of an environmental management programme for irrigation, utilising best practice techniques. I would like to remind you about the Ritso submissions and the case I put forward there.

Water trading

Water trading only works if there is water available and can be transported to where it is wanted. This scheme must have a balance of different types of farming working side by side. If the farms were all one type they would require the water at the same time. To an extent this is happening now. Many different types of farming are carried out in this area because we have learned to work together as neighbours.

Relief sought

I am confident Central Plains Water has thoroughly examined the alternatives for this scheme. They have already adopted a pipe intake for part of the scheme in consultation with the community. Many other things will be adapted when science and technology change.

I would like the Commissioners to grant water and land use consents for the scheme. Should consent be granted, then I seek that any conditions imposed on the consent:

- Reflect those proposed by the applicant
- Do not unnecessarily constrain farming practices, including innovative land use and incorporation of new techniques, but are effective and enforceable to manage and minimise potential adverse effects.

- Certain, so that they are workable for the consent holder and for the water user.
- Practical and fair, so that water users are not unreasonably constrained in taking up the opportunities that highly reliable water from the scheme will provide.
- Clearly for the purpose of avoiding, remedying or mitigating any adverse environmental effects associated with the construction, use or maintenance of the water distribution network;
- Recognise environmental management plans for farms and allow public reporting of the overall environmental performance of the scheme.
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Central Plains Water Scheme will, and has so far addressed all environmental issues in regard to being an irrigation resource. We are already practising sustainability and addressing environment issues. I believe farmers are the biggest environmentalists out. If they misjudge their environment, it affects our families, neighbours and community which we have a huge investment in. Remember we have been here since 1865. You as commissioners have the chance to make Canterbury the food bowl for NZ and Asia. Remember by 2050 the World will require 50% more food and many countries have mismanaged or used all their resources. We have the chance to show the world how to harvest water and produce safe food sustainably for the NZ and world population to enjoy. Farmers are food producers.

World food prices

I said I would comment on the worldwide prices rise in food and why.

- Demand has exceed supply

What has lead to this?

- Farmers worldwide have only received the cost of production for too long
- World population growth and better wellbeing
- More frequent adverse events: floods, drought, insect and disease damage
- Science can no longer keep pace with the demand by increasing yield
- The mis-management of land and water in many countries
- Biofuel production where countries have stopped exporting as they are turning their excess production into fuel

You may say why this has anything to do with CPW and New Zealand?

Well, NZ already imports 75% of its wheat and 800 tons of pork a week. By 2050 the world population will need 70% more cereals, corn and rice and 50% more meat, plus more land to grow fruit and vegetables. Harvesting water from the Waimakariri and Rakaia will lead to food security for my children and grandchildren and yours too.

**Evidence for the Central Plains Water Trust
Resource Consent Hearing
24 April 2008**

by

Andrew Gillanders – Presentation on behalf of The Ritso Society Inc.

I am Andrew Gillanders, and I am a committee member of The Ritso Society Inc. You will hear some other presentations by Ritso Society members in May, including from the Chairman, who will explain more of the background to our group.

I have been involved with the Central Plains Water Enhancement Scheme since the first meeting held in Rolleston (2000). I was also one of the Foundation members of the Ritso Society in order to help promote the benefits that irrigation would bring to the area and how it would contribute to the NZ economy. I have heard the evidence that shows that we are not going to drain the rivers, damage the Christchurch drinking waters, flood Leeston and Southbridge, build a damn that bursts. If I had thought the investigations were not up to scratch I would have walked away from this scheme along time ago.

I have been asked to speak on the code of practices and best management programmes to you today. The reason for this is I am presently Federated Farmers Grain & Seeds Chairman and I am also on the Board of Fed Farmers as spokesperson for Grain & Seeds, Fertiliser, Transport, Rural Fires and liaise with Bees and the Ag Chemical spokesman. To get to this position you must have an understanding of all farming practices throughout NZ and especially how they use the resources and treat the environment. Recently I have been placed in charge of telling the wider public why cheap commodity food is history and likely to get dearer and in some cases demand will outstrip supply. I will comment on this after this submission and my family's submission for the benefits of the commissioners.

The farm plan for sustainable irrigated land use that the Ritso Society has developed has put all these codes of practices and best management programmes together while realising that not all farmers farm the same way or have the same conditions to farm under. Most farmers are already complying to the farm plan for sustainable irrigated land use whether they are irrigated or dryland farmers. They have nothing to fear in this document. All cropping farmers have a quality assured diary that gives a comprehensive summary of what records are to be kept when growing crops. They are audited every three years. The same can be said for meat producers. I'll leave you with copies of what is required.

Irrigation management – Industry Code of Practice

Irrigation NZ has developed this and has the full support of the Ritso Society. It is important that the water resources of NZ are managed, not like what we are seeing overseas at the moment in many countries e.g. Australia, China and India. The design of the scheme must be built to match the appropriate soil-crop conditions that are found on the farm but also have in mind the changes that may come about in the future.

Soil Management

Soil is most important to every farmer. That's where the growth starts. Being a cropping farmer, I know that there has been scientific research done on how we can best look after and improve our soil. The Foundation for Arable Research has presented many papers on different cultivation techniques, straw incorporation and the burning of straw. All these have disadvantages and advantages for farmers who practise these management tools. They do not suit certain soil types. Also machinery needs to be available to do the cultivation. I have an example of how once good practice has been proven bad practice. In the cropping industry the idea was that we plough in early autumn letting the frost do some of the cultivation in the winter. We saw the soil blown away in the spring with the first nor' wester. The answer: plant trees. But now Scientific research tells us we are losing considerable amounts of carbon but more important than this, we have leached the nitrate out of the bottom of the soil profile. It is no longer acceptable to have bare ground left for any length of time.

Nutrient Management

No farmer wants to lose nutrients that have been applied by artificial fertiliser or built up in the soil through organic matter. By following the code of practice for nutrient management using Fert-Mark quality fertiliser applied to Spread-Mark standards should assure that this does not happen. The farmer must first take regular soil and nitrogen tests as well as doing crop modelling which has been developed with a great deal of success. Future developments are digital imagery of fertiliser placement with the use of black polythene and a digital camera so farmers can calibrate their own fertiliser spreaders. A farmer friendly herbage test is being developed for major and minor trace elements.

Animal Effluent Management

The focus is on dairymshed effluent. But we also must add pig effluent and chicken manure. It must be combined with nutrient budgets as you need to know what is in the soil and what the plant will use.

Pesticides and Agricultural Management

I have been involved in the Canterbury Regional Council Air plan since 1998 and the introduction of the Hasno, Erma and Growsafe Regulations. I have no problems with what they are trying to achieve with the safe use of agrichemicals. The first rule is to thoroughly read the label and follow the instructions. Its just common sense.

Energy Management

This section will probably have the most change as the supply of energy becomes critical. One of the changes that will help in this is farmers investing in precision farming which is well underway in this area. NZ Federated Farmers are looking at some standardised standards that providers of this technology have to apply to so farmers can change from different providers as well as having access to what has taken place on their property on where and when water, fertiliser and agrichemicals have been applied and the yield that has come off a given area.

Precision farming is now affordable. It is just a matter of learning how to use and apply the technology.

Waterway and Riparian Management

Science has now proved that surface water that passes through vegetation is filtered by the vegetation so eliminating nitrates and soil before entering waterways. Why would I want to apply fertilisers and chemicals only to see them be carried away by surface water. It is just a straight out waste of these products.

Biodiversity and Eco system management

Farmer are already managing their biodiversity and eco systems. They have learned to live with what they have and to produce safe food. The challenge is if they change farming types, they need to change their biodiversity management. With different farming types side by side, we must be careful that all these types of farming are not excluded from one area so leading to a micro scheme e.g. Large scale cereals, dairying, grapes. They all have different biodiversifications and eco systems that need to be managed.

Summary

The farm plan for the sustainable irrigated land use developed by the Ritso Society for Central Plains Water should be adopted because on the land that the Central Plains propose to irrigates, many of the farmers are already using all the codes of practice and the best management programmes to conduct their business. The land is suitable because it is mostly flat and the paddocks are of a rectangle shape. There are no slopes to cause run-off to waterways. Waterways are few and already fenced off.

There are also many trees planted around farm buildings and boundaries as well as waste areas. The production coming off the area is already under quality assured schemes. These schemes are audited by Ag Quality. These schemes usually have a section on how the environment is being treated. This plan will be no trouble for a farmer to implement that is already irrigating or is about to irrigate under the proposed Central Plains scheme. I am one of those farmers who is keen to maintain sustainability and farmers have nothing to fear in this document that the Ritso Society has put together.

Evidence of Martin Bruce for the Central Plains Water Trust resource consent hearing

April 2008

Background

1. My name is Martin Bruce and I am a farmer and contractor in the Hororata area and have farmed here for 30 years. My property is 192 hectares and lease 200 hectares from other family members, of which 90 hectares of leased land is irrigated at present (Greendale area). The water for this irrigation comes from a well.
2. My farming operation is a support farm for dairy farms, I grow grass, barley and maize for silage and then grass and winter feed crops for grazing during the winter.
3. I have lodged a submission to the Central Plains Water Trust resource consent application. The submission was lodged because I see a need for better use of the water resources of this area. Over this past season the benefits of good irrigation have really showed. The block of land I lease from my father in law in Greendale with the 90 hectares irrigated has had 4 cuts of Silage this season. On my home block I have only been able to get one cut of silage. The difference of growing 3000 to 4000 kg/dm per hectare on dry land to 11000 to 13000 kg/dm per hectare on irrigated land. I also noticed this season the customers who watered their maize crops well had 3 to 4 tonne of dry matter per hectare more than those with average watering. I have enclosed some photos to show the difference watering makes on crops- Maize and kale where the irrigator doesn't reach and irrigated and non irrigated grass.

Central Plains Water Trust Scheme

4. If the Central Plains Water Scheme goes ahead, approximately another 275 hectares of my property could be irrigated. This would allow for a greater range of farming activities to be carried out, along with reducing my exposure to drought conditions. The main part of my business is silage contracting, which relies on the productivity of other farms. This is determined by the weather conditions, in particular rainfall and warmth at crucial times of the year. During my time as a contractor, I have noticed huge variations in crop yields and the areas of grass available to make silage. This impacts on the efficiency of farming as lower yields per hectare and less area reduce income as well as the efficiency of contracting.

5. This showed this year with the drought in Canterbury – 3 seasons ago my contracting operation mowed 12,000 hectares of grass – this year I mowed 6000 hectares and I did not need all the equipment I own plus I had too many staff at the start of the season. In November 04 I mowed 5000 hectares, compared to November 07 where I mowed 1400 hectares. A lot of farms that did not have irrigation did not make any silage at all this year.

6. If this scheme does not go ahead then my local business is exposed to the uncertainty of the weather and resulting farm incomes. Growth in agriculture is hindered by a perceived lack of water, for example ECan have identified that groundwater zones in the area which the CPW scheme will cover are over allocated and are informally known as the Red Zones. If we could harness some of the river water that is unrealised, then the need to extract groundwater will reduce. Furthermore, the scheme may also supplement groundwater inflows. The problem with governing authorities is they change the rules. I have customers who have had consent to drill wells and they have pumps and irrigators

ready to go and ECan declined consent to use the water because of the above mentioned supposed lack of water in the Red Zone, so they have been fighting legal battles for the last 3 seasons because ECan changed the rules. One customer who is in this position has been growing triticale and averaging 5000 to 8000 kgdm per hectare over the last few seasons, if he was allowed to use his irrigation he could be growing 12000 to 15000 kgdm per hectare with the only extra cost of some power and labour to shift his irrigator.

7. I was in the Denver area July 06 and the authorities there were shutting down farmers with consents to pump water with NO COMPENSATION because of the perceived lack of ground water so it could be used for the expanding city. They still had water, pumps and irrigators. The same thing is likely to happen in Canterbury in the future so we need to be able to store some of the water that is going out to sea in the two rivers we have beside us, which in turn will mean there is less ground water used as it will be cheaper to pump water from the surface than pump from 200 metres below the surface.
8. The benefits to the area socially and environmentally are huge. I grew up seeing the Te Pirita – Bankside areas looking like a desert in a dry summer (even the rabbits had to take a cut lunch). Now in a dry summer 90% of this country has lush green grass. I find it very hard to take the comments from opponents of irrigation and dairying that there has been environmental harm done to this area. From my point of view it has improved environmentally - the land is far better irrigated – it grows more, there is no wind erosion to speak of, no fire risk, stock welfare can be well managed - eg no starving animals in a drought, better crop and pasture establishment so there is less opportunity for weeds to grow (especially thistles), birds and other wildlife have a more stable environment to live in.

Relief sought

9. I would like the commissioners to grant consents to use water from the Rakaia and Waimakariri Rivers for storage and to irrigate land within the Central Plains area. Should consent be granted, then I seek that any conditions imposed on the consent should:

- Not constrain future farming activity and innovation; (farming has enough red tape and restrictions now- all the irrigated ground that I see in my business has improved since it has been irrigated);
- Be practical and fair;
- Incorporate a pro-active and positive sustainable management programme that results in the protection of the environment.

Conclusion

10. I support the Central Plains Water Scheme as being essential to provide reliable irrigation to the Central Plains area. There will be a need to impose conditions to ensure that any adverse effects can be managed, however these should not unduly restrict farming operations in the area.