Waipara River Minimum Flows Hearing, April.

Monday 4th April, 2011.

Presentation from Ross Little, former E-Can councillor,

In support of Waipara River Users group, Richard and Sally Forbes, Pegasus Bay Winery, and W.H. and R. Croft.

I believe it is important for the Hearing Panel to understand why the E-Can Council decided to retain the existing flow regime when it considered this matter last year, and is why I am appearing this morning. This decision was based on the rightful political weighing of the values contained in the very Purpose of the Resource Management Act, S. 5. I'm sure you're familiar with this section, but I will quote it for the benefit of observers.

S.5. (2)

"In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety while –

(a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

(b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

(c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment."

It is understandable, and quite appropriate in my view, that experts focussing solely on natural or cultural values, or recreational fishing, may come to conclusions based on their particular viewpoint, but the Councillors' duty was to weigh all the values stated above. It is important to recognise that this decision affects existing legally approved water use: there is no increase involved, nor has there been for some years.

I am going to present my speech as delivered to the E-Can Council in March 2010. If I recall the outcome correctly, in a Council which was often divided on water use decisions, the voting was 9 to 5 in favour of retaining the existing minimum flow regime.

WAIPARA RIVER – FORBES Notes for July, 2009.

I trust that councillors have not come with a pre-conceived decision in mind about the environmental flow in the Waipara River. If so, I ask you to be prepared to consider this matter with an honest and open mind.
You see, this small intermittently flowing river is complex. It is not a watertight tube delivering calculated volumes of water from A to B with certainty. For substantial stretches, for extended periods of time, the surface water flows intermittently, and much of the water flow seeps through layers of gravel and sand under the bed. There are long periods with very low flow. This has been the nature of the Waipara River for thousands of years, long before any irrigation started. For those who do not understand this river, or are distrustful of irrigation per se, or doubt the integrity of earlier decisions on water use, it may seem that we can change this river by raising the minimum flow to put more water in the river. The long term locals know this will achieve very little for any natural values, and some family businesses may be disastrously affected.
There are three families who have talked to me because they feel particularly threatened by current proposals, and what we Councillors may decide.

1. On the Upper Waipara, the Forbes family have farmed sheep on light drought-prone land on the north bank for many years. They have been innovators, developing a farming system based on irrigated lucerne, (or alfalfa). Lucerne has particularly deep roots which make it able to grow much longer during dry periods than normal pasture species. It provides good quality stockfood, both when grazed directly or made into hay or baleage,. It is also a legume, fixing its own nitrogen through nodules on its roots. This is not a heavily demanding crop for water, less than pasture, but it is of vital importance to be able to water lucerne often enough through the dry summer months.

The use of lucerne is now being propounded in farming circles as a way to counter climate change and provide sustainability. It provides a way to adapt to potentially more frequent and severe droughts on the east coast of Canterbury, Marlborough, and Hawkes Bay. Some of you may have read of field days held at Doug Avery's property, in Marlborough, which have excited interest in sustainable farming using lucerne. The Forbes family have been doing this for years, quietly adapting to the demands of their farm's climate and soils. They have been innovators in sustainability before their time! They do not use anywhere near their allocated volume of water, (less than half, perhaps down to 35% they tell me), but they need it to protect their reliability. In other words if other users had some of their allocation, or if the minimum flow is reduced, they would not be able to water as often at the critical times that they need to!

Storage has been suggested. Build a dam! This is very expensive and I suggest that the cost of this would not be recoverable from sheep farming on their property. My observation is that despite the current drop in dairy prices, it would make business sense to convert their property to several dairy units. They would be close to market, on free-draining soils, with a mild climate. It would also require the use of nitrogen fertiliser and a huge amount more water than at present! Need I say more.

For centuries, the Waipara River has been a river prone to drying up in stretches. The Mosley Report identifies this and comments on the way in which natural species, and introduced fish, have adapted to this pattern of retreating, dying off, and then re-establishing. This was happening long before any water was taken for irrigation.

The Mosley Report (2003), and Jowett (2006) are the studies of natural values and fish species in the Waipara which we have relied on for expert opinion.

Mosley, in his Executive Summary, concludes that current abstraction has had little effect on aquatic biota, periphyton, bird habitat, macroinvertebrate species, natural features and landscapes, braided river habitat, water temperature, or recreational values. On page 74-75, he concludes the river doesn't provide significant habitat for trout and there are no salmon. You may also recall the argument of biologist Paul Donaldson, who perceived an opportunity to provide a special river for native fish because the predations of trout were limited by the low flows and dry reaches!

Jowett's report, responding to E-Can's request in 2006 for comment on the minimum flow requirements for native fish, in response to question 4, states:
"In the upper Waipara River,a reduction in flow from 133 l/s to 50 l/s , (which is the current minimum flow), causes a 10-14% habitat loss for the three common species. Table 1 shows that flows of 10 l/s to 60 l/s provide 90% of optimum habitat. I would regard a habitat loss of 10% as insignificant."

The current minimum flow at White Gorge is 50 l/s and has been since it was set in 1988. Evidence of environmental damage from this regime is absent. Raising the minimum flow at White Gorge to 80 would have a horrendous impact on the Forbes farm. They have been through due process to gain their consents. They have rigorously adhered to the conditions. They have evidence to confirm their belief that their water use has little effect on the surface flow when they are operating. We are considering introducing a regime on the Upper Waipara which will destroy a sustainable lucerne based farming system which demonstrates adapting to climate change as well as any farm I know of in North Canterbury, to achieve almost no gain in environmental values.

WAIPARA RIVER. DONALDSONS PEGASUS BAY WINES. For July 2009

The Donaldson family have developed the internationally renowned Pegasus Bay Winery on the Lower Waipara River. *(* newspaper cutting)* As we heard a few months ago, Ivan Donaldson specifically chose this site for its viticultural attributes. Pegasus Bay employ up to 75 people, and this is a major contribution to the social and economic needs of the wider community. The current minimum flow applying to their water take is 110 litres per second measured downstream at the Teviotdale Bridge. We are considering a proposal to raise this to 200 l/s!

Pegasus Bay's operations manager, Paul Donaldson, and Mrs Croft, asked me to meet with them recently. To demonstrate how seriously this proposal would affect them, Mr Donaldson compared the two regimes. At the current minimum flow of 110, the Donaldsons lost 4 days water use in January and Feb 2008. If the minimum flow had been 200, they would have been without water for 42 days which would have resulted in the death of all their plants, and even replanting these (if the cost was not prohibitive) would mean three years until they produced fruit again, assuming water was available. They have invested a lot of their finance and effort in developing their vineyard. Older vines produce better wine, and cannot be replaced simply by replanting new ones. Their position was made very clear by both Paul and his father Ivan when they presented their case to us a few months ago.

Mr Donaldson made it clear that if the minimum flow was changed to 200, they would take it to Court, such was the severity of the effect, indeed it would put the very survival of their vines at risk, and from a business perspective they would have no other option. They feel very confident that the data would support their case. Their consent went to a Hearing in 2004 before a Commissioner, a qualified hydrologist, and they were granted their current allocation based on a minimum flow of 110 l/s for 35 years. Previously, this had been set at 80 l/s, which means that both the Donaldsons and the Crofts have already accepted a substantial cut in their water availability, and have made subsequent investment in the belief that their water was secure. It has been suggested that building a dam is an option. Paul estimates this would cost $1million to provide sufficiently, which is money not available in this time of economic crisis, and he seriously questions any benefit to the Lower Waipara from changing the current minimum flow.

Paul has an honours degree in zoology with a special interest in aquatic zoology. When he spoke to us earlier, he told us how the Waipara's state is determined by the natural flow pattern.It is not degraded due to abstraction. He explained how the indigenous fish population in the river thrive in the naturally occurring periods of low flow, while exotic species such as trout do not. Indeed, the native species thrive in the absence of competition and predation by trout. When considering environmental values, his paper presented us with a solid case for retaining the current regime.

The social and economic benefits we must consider far outweigh any environmental gains in the Lower Waipara which might be achieved by raising the minimum flow

from 110. I believe this is a matter of natural justice. Good innovative people have put their finances and efforts into building up a remarkable venture, based on their legally obtained use of water.

I cannot fly in the face of natural justice and agree to any change in this minimum flow. Finally, I implore you, colleagues, to think long and hard before you put E-Can in the public eye on this matter. A public example demonstrating a predetermined mindset in weighing the values would be disastrous for the credibility of this Council at this time.

WAIPARA RIVER. CROFTS. For July 2009.

The Crofts irrigation take is at the very bottom of the Waipara, and together with the Donaldsons, will be severely affected if the minimum flow as measured at the Teviotdale Recorder, is raised form 110 litre/sec to 200. Their consent was granted after two years of investigations which revealed no detrimental effects on instream values, the environment, or other users. Soon after, at the Hearing of the Pegasus Bay consent in 2004, held before a Commissioner who is a hydrologist, the minimum flow was raised from 80 to 110. The crofts had voluntarily accepted this raise with assurance from E-Can that 110 would protect all instream values in the river. They draw from a gallery 50 metres from the river, and have established a pipeline which pumps the water up a substantial terrace so they can irrigate their land on the south bank. This has cost a considerable sum. Irrigation has provided options for the Crofts to diversify from livestock to growing specialty crops, and between 2005 and 2008, grew 90 % of the early summer carrots for supermarkets in the South Island.

They have raised concerns that provision for a potential future Hurunui Council supply for Amberley below their site may be being clawed back through this proposal.

Naturally, the mouth of the Waipara is only opened several times a year when there is a sufficient flood to create an opening. Most of the time, the whole flow of the Waipara discharges by seeping from the lagoon at the mouth, through the gravels and sediment into the sea. This illustrates the physical nature of much of the river flow through the gravels and sediments under the surface.The Crofts take is just above a point at which the Waipara River surface flows largely disappear below the surface into the layers of gravel and sediment for a short stretch before the mouth.

To provide data to clarify these dynamics, E-Can contracted pump tests to be done on the lower river in Jan 2006. I have here Doug McMillan's test results. I believe they endorse the Croft's belief that their take has little effect on any natural values. Below their site, the flow disappears into the gravel bed. Above them, the water gradually works down through the riverbed layers and the drawdown effect form their gallery is constrained by the sheer physical barrier this provides. It is far removed from the concept of a tap drawing directly from a bathful of water.

Because the Croft's site is close to the mouth of the river, and the surface water subsides into the bed below them, there are virtually no environmental values which would benefit from an increase in the minimum flow affecting this stretch.
Their situation is unique and the economic and social benefits are clear. The Croft family have been granted a legal consent which they have operated responsibly. They have had the limitation increased in 2004, and have then invested considerable finance with certainty. I do not believe we have any justifiable reason to change the minimum flow on the Lower Waipara River as it applies to their water take.