

## **A Past and Future view on Irrigating from the Hurunui River**

### **Dougal Norrie, HIPT Trustee and Hurunui farmer**

As a North Canterbury farmer it is very disappointing to read in the Press many times lately negatives and sometimes untruths about farmers with irrigation and the future use of a portion of this precious water resource. Reading many submissions in favour of the conservation order on the Hurunui river, submitters have many comments such as: 'we think this happens', or 'it may be so', or 'this is a possibility'. In some cases people with qualifications trying to lead a story that is misleading and confusing with the effect of hindering future progress of agriculture in New Zealand.

My farming life has been within the Amuri district, farming dry land for 27 years and the same farm with irrigation for 23 years. My sport has been fishing and game bird shooting and holding both licences continually for 56 years. I have travelled into the Lake Sumner Conservation Area over 100 times and was also a committee member of the Lake Sumner Forest-Park advisory group for 9 years representing the Amuri County Council. As a dry land, mixed crop and sheep farmer there have only been four occasions in the last twenty years that wheat crops were profitable, averaging 60 bushells per acre or approximately 4 tonnes per hectare. Sheep numbers at a maximum were 6.5 sheep to the hectare. The land had the potential to produce but was cut short because of a lack of moisture at critical times. It was frustrating, expensive and disappointing to see crops fail and the stock still have to be fed properly. When the pressure of drought is on, important decisions have to be made. Prices are always low to sell and high to purchase stock feed if available. One year eighty hectares of wheat came to nothing and the residue was fed off to the stock to virtually keep them alive. Travellers going through to Hamner Springs at the weekends from Christchurch used to comment on how miserable and dry looking the farms were around Culverden and Rotherham. 1970 was an average dry year followed by a critical and serious dry year in 1971, with the Hurunui River average mean flow at 9.6 cumecs over three months and effectively shutting the river off at the entrance to the sea during February and March. During drought conditions there would be serious wind storm damage. Many times, newly sown pasture would strike and die and pastures top dressed without further rain for three weeks. The fertilizer would end up out to sea with the next north-west gale. Cash crops also suffered from wind and frost damage. The risks were very high. There are hundreds of farmers in North Canterbury south of the Hurunui River still with these kinds of conditions. It is even worse now because of the much higher costs of input and a comparable lower return for meat and wool production. They are suffering unnecessarily and so is the nation.

In Amuri a farmers committee was formed including members of the Amuri County Council to investigate the possibility of water available from the Waiau and Hurunui rivers for future irrigation. After many meetings it was acknowledged by the then Government that an irrigation scheme could be developed. Farmers were still very unsure but continued on with pressure and perseverance having many meetings with the Ministry of Works and government departments and consulting engineers. It was of great credit to those of the first farmers committee of which there are three left. It is wonderful to experience the results of what we have today. A good example of the impact of water is the Amuri Plains Scheme, where the development of irrigation extracting water from the Waiau and Hurunui Rivers has transformed the landscape from a virtual desert to a productive oasis. It was evident right from the beginning that this irrigation scheme was going to be successful. It was great to see farmers accepting this new challenge and understanding what irrigation on their

properties really meant and it can now be seen that the scheme has provided the benefit that was expected. This area now leads the country in terms of kilograms of milk solids produced per hectare.

The design of the scheme originally was for border dyke irrigation for mainly meat and wool production. However, it didn't rule out other forms of diversification. Dairying became established with approximately two thirds now dairy farms and one third dairy support, sheep and beef and cash cropping. We soon found with dairy farming many of the drainage areas from the border dyke irrigation were not sufficient and the water in the lower Pahau River became of lower quantity. Water testing by Environment Canterbury began and a farmers committee was formed with ECan and decisions were made for higher water quality standards. Fencing of all creeks and drains entering the Pahau, and the Pahau River itself fenced off from all stock. On some farms ponds had to be developed and the drainage water sprayed back onto the property, preventing it from entering the river. Natives and shrubs were planted within the fenced areas and further testing for water quality continued by ECan. Water quality has greatly improved and in 2008 the Pahau Enhancement Group won Environment Canterbury's Environmental Award. Some dairy farmers have been unnecessarily blamed for poor water quality. Two farms well upstream from dairy farms at the time put bores at 48 and 78 metres and both contained poor quality water and it was necessary for UV purification. Also a stream well away from any dairy farms was also contaminated.

Our home was built on the farm in 1962, and being unable to rely on rainfall for house and drinking water it had to find an alternative source. There were no well boring machines in those days. My mother was a very good water diviner and I had great confidence where she would pull the peg it would be the right place. So after cutting the shovel and pick down to the right size I started digging. Down to 40 feet then to 50 feet I started to doubt her ability. Duggy she said, just keep digging. Then wonderful news, just over 60 feet down, water came gushing up from the bottom. The well turned out to be very successful and tested very high quality water. It is now the water supply to four houses and the back up for the farm stock water supply. We have been milking cows in all paddocks surrounding the well for 25 years and the water test is still very good.

Water purity testing of streams does not go back enough years to prove dairy farming is to blame, and maybe in the future some high country streams should be tested also. Now the Amuri Basin is classified as one of the highest producing dairy areas per hectare in New Zealand and is also notable for the healthy state of the cows and the quality of the milk being produced. It is much more pleasant driving through our community now than before irrigation. The Amuri Irrigation Scheme farmers are very satisfied and proud of their scheme also helping to increase fish and bird life, enhancing the environment and adding beauty to the district. I am familiar with the Hurunui Water Project and what it is planning to develop in the upper reaches of the North and South branches of the Hurunui River, and in my opinion the proposal will have an enhancing effect on the amenity and intrinsic values of the area. Lake Sumner would be more stable for longer periods at the higher natural level, and the controlled weir would contain the water at between its high and low level as it is now at slightly under 2 metres. The weir modification at the outlet is not a large scale structure and would be electronically controlled and have the ability to be adjusted. With extreme floods when the lake would be at its highest level, the water pressure would cause it to adjust, releasing more water down the river rather than letting the lake rise above its natural level. The river would have a higher even average flow, helping to control didymo. Observation shows didymo is much more prevalent during the summer when the river is warmer and at a lower flow. Lake Sumner

would have more cruising fish at the top of the lake, especially for fly fisherman, better and healthier native flora and fauna around the lake edges and allow boats to travel easier between Loch Katrine and Lake Sumner. Because of the controlled weir, Lake Sumner is not going to change and would be further enhanced.

The South Branch lake as a comparable size would be about one hundredth of the neighbouring Lake Sumner Forest Park. While the length of the lake is seven kilometres, there is still another twelve kilometres of similar braided river bed for the acclimatised birds to breed and survive. At the lowest level the lake will still contain fifty million cubic metres of water.

Fish and Game have been saying for years now, as explained in their Conservation Document and other arranged meetings with salmon fishermen, that the major salmon spawning areas are above the North Peak river of the South Branch, and if a dam goes ahead above Peak River the salmon numbers will greatly decline with very few left in the Hurunui system. That is far from correct as the true salmon aerial count agrees that more salmon spawn in the North Branch and with the salmon numbers in Lake Sumner not counted. Since the jury's decision on the Conservation Order, Fish and Game are now saying on their website that more salmon spawn in the main stem of the Hurunui River, which is the north branch and beyond Lake Sumner. Worst of all, Fish and Game have been for years, and still are allowing salmon to be caught in Lake Sumner during March, April and May. The fish are dark in colour and mostly ripe ready for spawning and should be left to spawn naturally. It should not be allowed and is poor sportsmanship. The Salmon Anglers Club member are placing many thousands of fertilized eggs and young fish into tributaries each year and they deserve to be congratulated by all salmon fishermen for their good work.

During the 1960's, it was easy to spot dozens of healthy trout from the bridges over the Avon River. I think the Dambusters could do well to tidy up their own river; the very river they walked beside in late 2009. It is not good to see it in such a state where the fish life have disappeared.

During the irrigation development my vision would be to provide water into a formed recreational reserve of about 35 hectares properly landscaped with a boat-ramp and a rowing course somewhere near the Waitohi River. It would also contain fish and bird life. Included on the outflow of water could be a salmon and trout spawning race which would run back into the lower Waitohi River and into the Hurunui River system. Controlled by the Waitohi Rod and Gun club and overseen by Fish and Game.

With the consent applications and proposal that has been put forward, the Hurunui Water Project Group has the potential to significantly strengthen farming operations and allow farming communities benefiting from water from the scheme to prosper. The Hurunui Water Project also has the ability to ensure the best outcome for all stakeholders. The Hurunui River will be maintained at a professionally measured standard that will withstand the foreseeable effects of climate change. We believe the H.W.P can deliver a world beating experience for all those who enjoy the recreational purposes offered by our river. We will have high water quality standards; we will have energy security and water use efficiency and keep the natural character of braided rivers. It will have wonderful recreational opportunities and tremendous contributions to regional and national economies with well skilled irrigated land users by using a minimum proportion of this very precious water resource.

After the nationwide drought in 2008, the NZ economy would be much worse off if it had not been for irrigation. There are many millions of dollars each year spent to train young farmers at both Massey and Lincoln Universities, supporting the next generation. May they have a sensible opportunity to go home to their family farm or obtain other land to expand and develop for the benefit of all New Zealanders. This is very encouraging and positive for all of us. Let us all work together in helping the environment, the fishery, the bird life and the excellent extra farm production. May it continue sooner rather than later. Let us all be positive not negative as the advantages far outweigh any minor disadvantages.