

## Submission for Proposed Hurunui and Waiau River Regional Plan and proposed plan change 3

### Submission Number 41

My name is Mark Eastmond, I own a property in Waiau where we have a hazelnut orchard and operate a tree nursery for which we use irrigation, also a mechanical engineering business specializing in irrigation build and repairs. We have worked for the Amuri irrigation company for the past 18 years looking after the Waiau and Balmoral schemes and have been involved in several large storage projects.

I have an interest in the minimum flow debate around our local rivers as I have a 32 year background in jet boating and fishing in this region including operating a commercial jet boating business on the length of the Waiau river and recreational boating on both the Waiau and Hurunui for an estimated 11 000+ hours.

I have been on the rivers pre irrigation and over time seen them degrade from free flowing rivers with lots of wet land areas alongside, a large amount of fish and whitebait, water that you could drink and swim in safely in to what we are left with today. Now a toxic trickle of their former selves.

Sections of the rivers are no longer boatable, fish can't get passage due to low flows, the sensitive ecosystems are damaged and wetland areas drying out. Water quality is compromised and so, potentially is the health and lifestyle of the communities that live alongside the rivers.

Summer water temperature late afternoon can be as high as 27-28 degrees C due to the poor flows. This temperature kills fish and harbours large numbers of bacteria and pathogens such as Cryptosporidium, Giardia, algae and periphytons. The green matt grows so badly that our jet boat will only travel 2-3 km's before you have to empty the intake grill. It also makes fishing impossible due to every cast having to clean off your hook and can be toxic to pets and stock.

I believe that the report gained from the 2D modelling is flawed and unusable. On both the Hurunui and Waiau rivers on the day they did the test the testers selected the best part of the river they could find and the only section that was not multiply braided ie the entire river was in a single channel. The report they gave said it was a good representative of the whole river system and that could not be further from the truth. On that day you could not jet boat more than 1km above or below the Hurunui site. Within 700m upstream the river split into 9 very braided channels spread over a 2km, and within that 2km stretch in one area of 100m it split into 13! You couldn't kayak, jet boat or float and the fish wouldn't be able to have passage.

One of the big problems with managing the Waiau river at a 15cm flow at Marble Point is that by the time it reaches the braided areas it quite often runs at 10cm or below due to 5+ cm going under ground. So a low flow and high irrigation results in extended periods of extreme low flows, significant impact on the ecosystem and health of the waterways, significant economic impact on commercial users such as jet boat, yaks and rafting.

operations ,and negative impact on recreational users such as kayakers and fishers.This has a negative flow on effect to the whole economic stability of a region that is strongly reliant on both farming and tourism/visitors .There are thousands of people ,both locals and visitors to the region,who utilize the river in some way each year.

I have observed the river gauges and believe the recorder at marble point to be inherently incorrect due to its placement over an area of the river with a constantly adjusting shingle bottom.Your own records will show that when it gets re calibrated the reading is often higher than the water level actually is.The river level gauge at Twin Bridges is much more reliable as it is placed in a section of the river with a bedrock bottom allowing more consistent readings.

Overseas experience in USA,Canada and Australia has found them changing the way they use 2D modelling systems they realized the damage that had been inflicted on their own rivers.They used to measure the flows at the best part of the river now they select the most braided sections to give a better indication of the flow needed to sustain river life and allow fish passage.

In recent years millions of dollars have been spent trying to restore the damage done and ,in the process of this irrigation that had previously been approved based on a flawed system of modelling has had to be withdrawn at a devastating cost to many farmers.Surely it is better to establish farming systems that are sustainable and use the resources we have realistically and fairly to ensure a positive future for our region .

As an irrigator myself I do understand the financial benefit that comes with irrigation.However we risk creating for ourselves a situation whereby that benefit can not be sustained in the long term and the costs in terms of our rivers and environment with its associated implications to lifestyle ,health and wider economic wellbeing are just too high.

The CSWMS had gone through a vigorous and thorough process examining all the facts and involving extensive consultation resulting in a recommendation that the minimum flow on the Waiiau River be raised to 20 cms.The Commissioners didn` t agree and kept it as is ,a decision they came to based on limited information mainly from commercial farming irrigators rather using the data and conclusions that had already been made.

I believe that we should go back to the recommendations made by the CSWMS ,they made a sound decision based on a robust and transparent process and a compromise that allows for sustainable irrigation practice as well as preserving the wellbeing of our waterway for the future.