**IN THE MATTER** of the Resource Management Act 1991

**AND**

**IN THE MATTER** of The Proposed Hurunui and Waiau River Regional Plan

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**STATEMENT OF EVIDENCE OF IAN FOX**
**ON BEHALF OF WHITE WATER NEW ZEALAND (INC)**
**AND WHITEWATER CANOE CLUB (INC)**
**October 2012**

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## 1 INTRODUCTION

1.1 My name is Ian Malcolm Gill Fox.

### Qualifications and Experience

1.2 I have been kayaking white water rivers since 1984. I started while still at school on the Hutt, Otaki and Manawatu rivers and became serious in 1986 after attending Outward Bound. I entered the white water scene just as plastic kayaks were starting to appear in NZ and when more remote runs on the West Coast of the South Island were starting to be explored by people like Hugh Canard. This provided considerable inspiration to me and I progressed quickly, relative to my peers at the time, to paddling Grade 4 and 5 rivers in the North Island by early 1989. In spite of spending a considerable amount of my time out of NZ due to my work I managed to paddle widely throughout NZ, as well as a bit in Victoria (Australia), the USA and Canada. I have surf kayaked, sea kayaked, competed in slalom and down-river races, and completed 4 Coast to Coast races (as well as leading one of that event's river safety teams for the last 10 years). These days I concentrate my paddling time on teaching beginners through my club (Whitewater Canoe Club (WWCC)), helping out friends with multisport kayaking (and racing a bit myself) and paddling mostly Grade 2-4 rivers for my own pleasure. I have previously held the positions of Instruction Officer, Safety Officer and Vice-President in WWCC and am presently in my second year as President. I have been instructing kayaking as my time has allowed since 1990. I have been around rivers and/or boats of one kind or another since I was very young. I own 8 different kayaks at the moment, ranging from a 1.8m modern play boat through slalom and creek boats to a 5.2m K1-hulled multisport boat. They range in age from 26 to 3 years old. I paddle about 5 of my boats on a regular basis at different times of the year depending on whether I'm training/racing, recreating or instructing, and the rest I dust off occasionally to scare my friends with an oddity. I categorise myself as a broadly experienced and highly skilled (if slightly rusty on harder water) kayaker.

1.3 My professional training is as a Deck Officer (navigator) on merchant ships. I started my sea-going career in April 1986 as an apprentice with Union Shipping NZ, attained my first professional qualification (Second Mate

Foreign Going, passing top of my class) in 1990 and left the sea in August 2000 so, amongst other things, I could spend more time kayaking. The 50% drop in pay I took was well worth it. I hold a Master Foreign Going Certificate which was the highest available qualification in my profession in NZ when I passed it in 1997 and qualified me to take command of most vessels at sea. While I am not a specifically trained expert in hull design or hydrodynamics, my formal studies did include both theoretical and practical aspects of vessel design and handling. This, combined with 28 years of white water kayaking, literally immersed in my recreational venue of choice, and paying close attention to boat design and changing river features the whole time, has given me a good understanding of the practical physics of rivers as they relate to kayaks, and of river morphology. I presently work as a supervisor at the distribution centre of an outdoor equipment manufacturer, a position that allows me considerable flexibility to enjoy my avocation. I am also deeply engaged in the Canterbury Water Management Strategy as Chairperson of the Christchurch-West Melton Zone Committee as well as being a frequent attendee at meetings of the Hurunui-Waiau Zone Committee and the Regional Committee.

1.4 But, I define myself as a kayaker more than anything else. If I am asked “what are you” I’ll usually answer “a kayaker, but I have a job to fund my habit”. This is not a throwaway line as I really do mean it. Kayaking is what I enjoy more than anything else, where I have met nearly all my friends, where I am closer to life (and sometimes death) than at any other time, and what I would devote pretty much all my time to if I had the money or the will to do without any. Being on a river moves my heart and soul like nothing else does. It’s where I’ve found what defines for me true friendship, as genuinely risking your life for each other is no small thing and something I’d willingly do for my friends.

1.5 I enjoy all sorts of rivers, have run a wide variety in the past and continue to seek new experiences. I’ve paddled tiny rural streams in Auckland, Northland, and Canterbury (some of them probably first descents), through to some large volume rivers in British Columbia and all sorts of rivers in between. I like all of them. What I like the most is being able to get a variety of kayaking experiences not just over different rivers, but on the same

river on different sections and at different flows. A full range of natural flows in a natural setting is my ideal.

1.6 I confirm that I have read and agree to comply with the Code of Conduct for Expert Witnesses. This evidence is within my area of expertise, except where I state that I am relying on facts or information provided by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

### Scope of evidence

1.7 My evidence will outline my experience of the Hurunui River, its white water characteristics on the sections with which I'm familiar, and flow variability and why this is so important. I will also briefly outline my knowledge and experience of rivers in the Waiau Catchment.

## 2 EXPERIENCE ON THE HURUNUI RIVER

2.1 I first kayaked the Hurunui in 1989. At that time I was beginning to paddle much harder rivers so the Hurunui was well within my ability. It was nonetheless a river with great variety and many challenging features. I still find this to be the case, even after so many trips on it I've lost count. Maori Gully is the hardest section (Grade 3 at low flows up to about 100 cumecs and Grade 4 above that flow) and I stopped counting "Gully" runs at 300. I estimate I'm well over the 500 mark now and I still haven't got sick of it, quite the contrary actually. I have had years when I've paddled the Gully 100+ times, sometimes 3 or 4 in a day on several days a season. I've also had seasons when I've hardly paddled it at all because I haven't been in Canterbury or was temporarily devoted to multisport racing – but the Hurunui was always my first and most thought of river. Even during the 2008-2009 season when I clocked up around 120 trips on the lower Waimakariri river as opposed to about 15 on the Hurunui, the Hurunui remained in my mind the quintessential river experience and it still is. I've paddled the Hurunui over its middle reaches mostly, from the confluence with Sisters Stream through to below The Peaks. My trip numbers are, roughly, 125 from Sisters Stream to

Jollie Brook, 250 from Jollie Brook to Seaward Stream confluence (the start of Maori Gully), 500 through Maori Gully, a dozen down the "Hawarden Gap" section from the end of Maori Gully to just below The Peaks. I've also made 3 trips from Cathill Station to the SH1 bridge. I have paddled part of the Waitohi (from Jack's Stream confluence to the domain) and it's tributary, Jack's Stream, once each. I have paddled the very lower reaches of the South Branch a couple of times, and in spring 2009 was privileged to to be on the first recorded kayak descent of its entire gorge system from the upper valley (above the North Esk confluence) down to its confluence with the main stem. I have paddled the Hurunui at flows ranging from 10 to 240 cumecs and know of trips that have been made at 400-600 cumecs.

2.2 Which sections I paddle, and how many times I might paddle each one in a visit to the river, will vary a lot with flow, weather, and who I am with. A trip with beginners may not go much beyond short hops from Jollie Brook to the South Branch, or maybe to Seaward Stream. A trip through Maori Gully at the end of such a day by the more experienced paddlers is likely though. Many times I've gone to the Hurunui with a small group of friends and spent all weekend and 6 or 8 trips on Maori Gully paddling as hard as I can and taking as many different routes as possible. Trips like this are great training for harder rivers as they serve to hone skills by allowing repeatability and variety on the same section of water with a very short shuttle drive between trips. Trips going from Sisters Stream right down through Maori Gully are fairly common, starting from Jollie Brook more so. Heading back up for a second quick run down just Maori Gully after one of these longer trips is not unusual.

## 3 WHITEWATER CHARACTERISTICS OF THE HURUNUI

3.1 Sisters Stream to Jollie Brook (the Top Gorge run) begins immediately above a short narrow rocky gorge known as Top Gorge or sometimes Fish Gorge due to the proximity of the old salmon hatchery on Sisters Stream. At all but low flows the rapids within this gorge tend to run into one another, creating one longer rapid a few hundred metres long. Individual features within the gorge provide a variety of challenges and places to play and

practice skills. Below this gorge the river opens out into a series of open boulder rapids with some bouncy wave trains. The rapid at the Jollie Brook campsite is quite long and a little harder than the previous open rapids as it is a bit steeper and is fairly continuous. This rapid has often been used to hold kayak slaloms and even without gates hung, it is a very good place to practice skills due its large number of eddies waves and other features, and easy repeatability (walking back up to do it again is simple).

3.2 Jollie Brook to South Branch confluence starts with a good practice area below the Jollie Brook rapid that is frequently used for teaching, then runs down through some open boulder gardens similar to those above, before entering a high-walled, rocky gorge that ends at the South Branch Confluence. This section has rapids and river features of almost every type, but none much harder than Grade 2. Most of the rapids have good pools at the bottom making it a relatively safe section for learners and it is used by pretty much every white water instruction operation in Christchurch (and sometimes some from further afield) from clubs, schools, the NZ Defence Force, and private operators. The variety it provides and its great scenery make it, in my opinion, one of the premier instructional sections in NZ. It is used for teaching in all but very high flows.

3.3 South Branch confluence to Seaward river section now starts with a fairly new rapid. Until a few years ago the river here ran against the right bank but a large flood out of South Branch altered the river so that it now runs through a new rapid against the left bank, known rather prosaically as “that new one below South Branch”, clearly showing the effect of the more sudden South Branch floods on modifying the bed (relative to main stem floods which rise more slowly due to the capacitor effect of Lake Sumner. My observation over the years has been that these South branch floods have a far more dramatic effect on the mobile areas of the river bed than the main stem floods do). From here the river flows through more open conditions over shingle and rocky shoals with occasional bedrock and boulder features until near Dozy Stream where it reaches The Eddy of Doom (named because it used to be hard to get out of at certain flows) just above a new rapid now named Devils Fang Falls (after a mythical rapid that was always “just around the corner”, in order to stop beginners straying ahead). This new rapid was created in the

same flood mentioned above. There had previously been a long wave train there that ran into a bluff and large pool. Now there is a short wave train running into a single drop of 1-2m (depending on flow) that is worthy of a great deal of respect due to its tight rocky nature and tricky lead-in at low to moderate flows, while at higher flows it produces a large “haystack” wave. From this point the rapids are mostly open boulder gardens again, with bedrock features near the numerous bluffs. The largest of these is named The Bluff Of Death, not because anyone ever died there but because the guy who named it almost never got past it without capsizing. This section, from Dozy Stream down to Seaward River, is a frequent warm-up for Maori Gully when trips visiting the Hurunui don’t want a longer run but also don’t want to head straight into the Gully.

3.4 Maori Gully runs from Seaward river for about 3km. The run includes the rapid immediately above the confluence with Seaward River (and known, oddly enough, as Seaward rapid). The Maori Gully run is, in my opinion, the best Grade 3 run in NZ. It presents a challenge at any flow, varies in character with changing flow more than any river I know of and is always great to paddle. This section is a rocky gorge in a deep bush-clad valley with some rapids contained within high-walled mini-gorges. It is an ideal first Grade 3 run for advancing paddlers as all its rapids can easily be inspected from the bank and portaged if required and it generally has safe run-outs at the end of the rapids – I have personal experience of most of these when swimming out after capsizes having missed an eskimo roll.

3.4.1 Maori Gully has, like many rivers both in NZ and overseas many named rapids and features. Unlike other parts of the river, all the rapids in the Gully are named. From top to bottom these rapids and features are:

3.4.2 Seaward, a short steep wave train at the start of the run with good play waves at the bottom that are surfable only at low flows;

3.4.3 Magic Roundabout, a short rapid containing two large boulders and a large fast-moving roughly circular eddy (hence the name) that provides one of the best slalom-type training spots in NZ. At low flows it is great to take more advanced beginners down to as it has a good degree of challenge for them, a fairly safe run-out, and it’s easy to

walk back to Seaward River without having to take them down Maori Gully. At higher flows it's not feasible to walk back up;

3.4.4 Simon's Hole, so named because someone named Simon took a thrashing in it many years ago (no-one I know knows who this Simon was but the story is that he walked away from his experience);

3.4.5 Big Bend (because the rapid is on one), a steepish boulder garden with many play waves eddies and holes that change dramatically with changing flow;

3.4.6 The Long Rapid (because it is), a continuous section of nearly 1km of boulders, small drops, waves and holes that includes Bum Rock (you'll know why if you see it) and ends at Middle Pool. There is always somewhere to play at any flow in this rapid, but the best spot depends a lot on flow. Some features have a very narrow useable flow range so naturally variable flow allows paddlers the chance to catch these features when they are lucky enough to strike the right flow for them ;

3.4.7 Below Middle Pool is Elevator, a pushy boily single drop that has two eddies, one slightly lower than the other, and a hydraulic that makes it possible to ride the flow back "uphill" to the higher eddy. It becomes a nice surf wave at higher flows;

3.4.8 The Boily Narrows comes next and are just as named. Not a spot to relax too much as the currents have a nasty habit of seeming to reach out and swallow your boat;

3.4.9 The next rapid is a single drop called Cheesegrater, named because it used to have a lot of very sharp rocky protrusions from the tilted slab that forms it. It had changed a bit due to bed movement during floods in the few years up to February 2012 and had mellowed from what it had been, even to the point of being a good spot to play in at some flows. The earthquake shifted rocks in the rapid enough to remove the easy line through it and made the hole more uniform and thus harder to escape than it had been. At low flows it's a steepish hole that is usually easy to paddle over the edge of. It gradually builds in size with increasing flow before becoming a wave at about 80 cumecs (the exact flow that this occurs at has changed over the years as the rapid has altered and this would be unlikely to have happened to the degree it has if the flow had been constant. The same could be said of any of the Hurunui rapids, or any naturally flowing river for that matter.

Variety promotes change, constancy promotes stagnation). At very high flows a large hole forms on river left where at lower flows there are only rocks. At the top of this rapid is Grandstand Eddy, from which one has a good view down into Cheesegrater;

3.4.10 The Weir, a line of boulders across the river forming a natural weir of sorts. It has several different lines to run and at high flows provides one of the best surf waves I've seen on a river. It's tricky to catch, difficult to return to when you flush off it, but well worth the effort even if returning to it involves running the entire length of Maori Gully again;

3.4.11 OTO, named because it's the Old Take Out, is a steep rapid flowing through large waves and holes. It has changed many times over the years but always has a playwave at the bottom – and a river-wide hole in the middle at about 45 cumecs;

3.4.12 Pop-up is some way below OTO and is a spot where kayakers can, by paddling into a small narrow chute, get their boats to stand vertically with ease. On river right just below Pop-up is one of only 3 places east of the main divide in Canterbury where I know of rata growing and it makes a great backdrop to photos when it's flowering.

3.4.13 Final (or Last) Respects is the last rapid before the take-out. It is a long boulder garden with a couple of small drops in it and some very good surfing. It ends at a very large mid-stream rock just above a bluff that shelters the take-out eddy.

3.5 The Hawarden Gap run commences at the end of Maori Gully and ends about 20km later, usually on the right bank on private land a couple of km below the Balmoral irrigation out-take. It flows mostly through an open valley over boulder garden and shingle slide rapids. There are however several tighter bedrock rapids and the Hawarden Gap gorge, which is just below the Glenrae confluence, near the end of the run. The Gap rapid is the only well-known named rapid on this section that I know of and is a very tight chute through some standing waves and boils, followed by several rapids of decreasing difficulty until the gorge starts to open out again. It always provides a challenge and has a reputation for chewing up trip leaders, including me the last time I ran it. The run is an exciting one for intermediate paddlers and provides what is essentially a wilderness experience for paddlers as, although it runs through farmland, there are no nearby roads.

This is it's greatest value – a remote trip with comparatively low or easily manageable risk.

3.6 Cathill Station to SH1 I've only run 3 times, each with beginner groups several years ago. It is polluted with willows and this detracts highly from what would otherwise be a pleasant easy Grade 2 run through simple shoal rapids. The number of trees impinging upon the rapids can make it very dangerous for beginners, who may lack boat control to avoid such obstacles.

3.7 The South Branch is difficult to access, both because of access constraints imposed by landowners/lessees, and the state of the roads into the river. Roads exist through both Eskhead and Lake Taylor Stations, to the North Esk not far above its confluence with the South Branch and into the upper valley above the gorges respectively. The Eskhead Station road (which follows at least in part a legal "paper" road) is in good condition, but the station has a history of refusing public access under successive lessees. Access is available at present but for a fee that makes it effectively inaccessible for most (I've been told it's $250 per vehicle). The road via Lake Taylor Station is a couple of grades harder than the river it accesses (providing nearly enough excitement in itself to warrant the trip!), has a fee ($80 per vehicle) that is affordable to parties with full vehicles, and gets visitors into the broad upper valley only a few km above the gorges. The inaccessibility of this river is the only thing that has stopped it from becoming the popular trip it doubtless would be if it had access like the main stem. The scenery is stunning, and the trip consists of bedrock and boulder rapids in a series of tight high-walled gorges with open boulder rapids in between. It would suit advancing novices and intermediate paddlers at lower flows and I'm certain would provide some challenges for better paddlers with higher flows. It is one of the nicest rivers I've paddled, both because of the type and variety of rapids (mostly technical and rocky in nature, which is something I enjoy) and the environment through which it flows. I would very much like to paddle this river again.

## VARIABILITY OF HURUNUI RAPIDS WITH CHANGING FLOW

3.8 Below is an outline of how Maori Gully (and in particular Simon's hole as one example), changes with varying flow.

3.8.1 < 30 cumecs - Technical pool-drop character (especially below 20 cumecs) ideal for beginner paddlers pushing into grade 3, as the drops are distinct and can be inspected or portaged and the pools provide plenty of time to recover from any mishaps. Low flows often occur in late summer and the heat of the sun along with a slower journey from its source combine to provide unusually warm water for a South Island river. Again this is ideal for people pushing their grade. Simon's is usually safe to surf in and not too hard to escape with a bit of skill and effort. Other things of note are that in the low 20's there are several waves that simply don't exist at higher flows. Some of these go from being a great surf to impossible to catch with very small flow changes.

3.8.2 30-50 cumecs - Degree of technicality reduces but the river becomes faster and pushier with bigger waves and holes. Some rapids are slightly washed out (flatter) at these flows, others get bigger waves. Simon's becomes increasingly nasty and sticky. Anyone going in it needs to be either very good at playing in large holes and getting out of them, or happy to take a swim after a thumping. In the low 40's there is a wave in Big Bend that does not exist at other flows; OTO has a river wide hole that is split at lower flows and becomes a wave at higher levels.

3.8.3 60-80 cumecs - Some technicality returns as larger hydraulic features that need avoidance appear and the river gains even more push. Some of the most technically challenging flows overall on the Hurunui. At the top of this range Simon's is just starting to form into a big surf wave. At the lower end of this range one's chances of escaping it without swimming are limited. Bum Rock at this range is a very nasty hole too, whereas at lower flows it has a good eddy behind it.

3.8.4 80-100 cumecs - Some big surf waves and big holes appearing. Simon's now becomes a big bouncy surf wave that is great for modern play boats. Magic Roundabout has a mean hole at about 100, but the rest of the rapid is still a huge amount of fun to play in. The surf wave at the bottom of OTO is superb at about 90 cumecs.

3.8.5 100-200 cumecs - The Gully is then considered Grade 4, with large hydraulic features and lines a kayaker really doesn't want to miss. Any swim from this level up is serious as it tends to be long, and cold. Rapids become increasingly run together with less time for recovery between them. Simon's gradually flattens out and tones down. At around 130 cumecs it's great for older, longer boats, much higher than that and there isn't much left of it. At about the same flow the wave at The Weir is near its best. The hole at Bum Rock starts to become playable for the bold, but it's big enough to park an SUV in.

3.8.6 >200 cumecs - Becomes more of a 'roller-coaster' run of large wave trains. Simon's? It's Simon's ripple now, rather than Simon's Hole. The hole at Bum Rock has now become a massive fast surf wave (actually, 3 waves). My highest flow run (at 240 cumecs) took around 30 minutes and a good chunk of that was surfing this wave and emptying my boat out after it capsized me, imploded my spray deck and filled up my boat so I had to roll up with it full before paddling to the side. It was great! Other parts of the Gully that are normally relatively benign now become places to avoid – for example, most of the eddies are now whirlpools.

3.8.7 The other Hurunui River gorges react in a similar way to different flows as Maori Gully does. The more open parts of the Hurunui River change less markedly, but in my opinion, still surprisingly more than other rivers with a similar gradient do. This variation provides paddlers with different challenges each time they visit, and different features to develop specific skills on before trying harder rivers such as those on the West Coast.

3.8.8 In general though, the higher the flow the better you need to be as a paddler. The Jollie Brook teaching site is good for most beginners at most low-moderate flows, but best at the lower end of that range for total "newbies". Slaloms there are best at moderate flows as this increases the challenge for competitors without the river being flushed out. Wildwater racing is good at moderate to high flows. There is no flow when there isn't fun to be had somewhere on the Hurunui and every paddler will have certain flows they like for certain sections. Personally, I don't mind what the flow is as I know the river so well I could tell you where all the good spots are at pretty much any flow in the range I've paddled it. Lower flows are great for surfing smaller waves and practicing playing in holes, middle flows good for river running and slalom style trips and practicing creek-boat moves for harder rivers. Big flows are simply a hoot – a load of fun, even though it sometimes makes your hair stand on end! I've been sucked down in whirlpools at high flows and carried below the surface for several metres with my friends wondering where I'd got to and still popped up with a grin on my face, after I'd got some air of course!

3.8.9 Each rapid on the Hurunui changes dramatically with changing flow. The degree of these changes is far greater than any other river I know. The nearest white water river to Christchurch, the Ashley, has a similar flow range to the Hurunui and I've paddled it from 14 to 160 cumecs and have never noticed the kind of variability the Hurunui has. The Ashley is a great river to run, but it's rapids tend to become bigger versions of themselves as flow increases without changing much in character or without so many features appearing and disappearing. At some flows on the Hurunui, I can paddle down and get to a particular wave and think to myself "damn, I've got the wrong boat for this wave today", or I'll take a particular boat to target features I know will be present at the flow on that day.

## 4 CONCLUSIONS – HURUNUI RIVER

4.1 Many times a claim of uniqueness for a river is made and although, of course, all rivers are unique some rivers (if you'll please forgive the appalling grammar and the Orwell reference) are more unique than others. The Hurunui is one of those rivers. Its variety of rapids and natural variation of flows provides a variability of experience for kayakers like no other river I know. This variability is the key to the Hurunui's popularity amongst paddlers and its extraordinary usability as a venue for paddlers of all levels. Its proximity to Christchurch spoils local paddlers to a degree many will only realise if the river is ever altered. That proximity has made the Hurunui the nurturing ground for generations of Canterbury paddlers, many of whom have gone on to become known widely for their feats – Graeme Charles, river guide writer and remote wilderness adventurer; Mike Abbot, a world class expedition kayaker; Steve Gurney, multisport athlete. As for me, I didn't actually learn to paddle on the Hurunui, but I've learnt more about paddling while there than on any other river I've paddled and I know I'm not alone in that.

4.2 To protect and retain the existing values and use of the Hurunui River by paddlers a categorisation as Zone A (Protected from development) in the Proposed Hurunui and Waiau River Regional Plan (PHWRRP) of the upper Hurunui catchment is required. The categorisation of the upper Hurunui catchment as Zone C (potential development) categorically does not protect the existing values of white water paddlers. Categorisation as Zone C in fact allows potential for substantial degradation of white water values in the Hurunui by allowing impoundment of water and significant alteration of the natural flow regime of the river. Whitewater NZ and WWCC remain of the opinion that the Hurunui is of National Significance for white water sports and that a Water Conservation Order is warranted. However, a WCO application of 2 years ago was withdrawn in good faith in part to allow paddlers' representatives to participate fully in the CWMS process hoping that a collaborative approach (without paddlers or anyone else spending more time and money in court) would allow paddlers' views to be represented, to hear those of others and together to come up with a solution that met everyone's needs as best as possible. While the CWMS process via the Zone

Committee has gone a long way towards having paddlers' values and views more widely heard and understood, in the case of the Hurunui River under the PHWRRP it has not at all achieved what is needed to retain either the existing values of, and use of the river by, paddlers. The upper river catchment needs to be protected in its present unmodified state to achieve this as the whole system is needed to provide the paddling experience that presently exists, so, short of a WCO, a categorisation as Zone A (protected from development) in the HWRRP is required.

4.3 The entire upper catchment needs protection as, roughly, the main stem provides reliability of flow because of the capacitor effect of Lake Sumner, and South Branch provides much of the flow variability because of its more acutely fluctuating flows. This greatly variable flow is what provides the range of experiences on the Hurunui due to that variability changing the nature of the rapids and features within them so dramatically. This variability is critical to the amenity value of the Hurunui to paddlers and without it the river would not be the vastly useful resource it is. Yes we'd still paddle it if the variability were ever to not be there, but the river would have only one face instead of the hundreds it has now. It has been said by proponents of damming the Hurunui that variability can be provided by controlled releases. Those statements are incorrect and light on detail however. A variety of flows may indeed be provided under controlled releases and the likely flood overspills, but a variety or restricted range of flows is not the same as variability of flow and certainly nothing like full natural variability. As I've said above, and others have said and will say again, even very small variations of flow can have a large effect on the Hurunui's rapids and it is this continuously variable natural flow range that makes the Hurunui such a fantastic river for paddling. Dividing any part of the Hurunui's catchment off behind a dam would remove this continuously variable flow and create a situation much like that of a car that could only travel at either 45 or 75 or 100 km/hr. Sure it's kind of functional insofar as the car would move, but there would be a lot of corners you'd not be able to take safely and parking would be interesting to say the least! Another unique feature of the Hurunui is that at least some part of its catchment responds to rain from whichever direction it might come from, so flow can vary with rain from almost any quarter. This produces situations where the South Branch is in flood but the main stem is not, or the upper main stem is flowing clear and blue while lower down the river coastal rain has pushed the flows into flood range. This adds to the value of the Hurunui immensely by ensuring that almost always at least some section of it is

paddleable by nearly any paddler. In summation, a fully continuous range of natural flows in a natural environment ensures future generations of paddlers will be able to enjoy the experiences we have available to us now. Any kind of development, weir, dam, or abstraction in the upper catchment would irrevocably and severely degrade the paddling amenity.

4.4 Zone A categorisation of the upper Hurunui could still allow one of the bulk off-mainstems water storage developments (the one of which was actively proposed by kayakers) to gain consent. Given the existing highly valued white water amenity of the upper Hurunui can be only be protected by a Zone A categorisation and that this can be done while still allowing for significant development, it is, in my opinion, indefensible to do otherwise.

4.5 I therefore submit that a determination of this panel be that the Upper Hurunui catchment (presently categorised as Zone C in the provisional Plan) be categorised Zone A in the final Plan and that any dams impoundments or abstractions be prohibited from that area, including from the North and South Branches and Lake Sumner.

## 5 EXPERIENCE IN THE WAIAU CATCHMENT

5.1 I first kayaked in the Waiau catchment in 1992, paddling the Boyle River from its confluence with the Doubtful down to Windy Point and the Waiau main stem from the Hanmer River to the Leslie Hills irrigation intake (the Marble Point run). I've also paddled the Hope from the State Highway 7 bridge to its confluence with the Waiau, a trip that usually includes a continuation down the Waiau to about Don's Fan. I've kayaked and rafted the Upper Waiau from the Maling Pass road to the Hope confluence. Recently I made my first descent of the Lewis River from Sylvia Flat, continuing on down the Boyle to Windy Point. My trips in this catchment have not been as frequent as my trips on the Hurunui, nor anywhere near as regular, but, very roughly, I've paddled the Boyle about a dozen times, the Hope-Waiau trip about half that, the Marble Point run about 30 times, and the Upper Waiau twice.

## 6 WHITEWATER CHARACTERISTICS OF THE WAIAU CATCHMENT RIVERS

6.1 The Waiau and its tributaries provide a wide range of paddling experiences from the rock-dodging of the Lewis to the tight rocky gorges and boulder gardens of the Boyle, the open braided sections with intervening high-walled gorges of the Hope-Waiau section down to the mostly single channel open character of the Marble Point run, and up to the stunningly spectacular and varied scenery and character of the Upper Waiau. Further down the catchment is the Mason River, which I haven't paddled, that's reported to be one of Canterbury's few Grade 4-5 creeking rivers.

6.2 As suggested above, there's a bit of everything in the Waiau catchment. Access is mostly easy and by public road with the Upper Waiau now accessible by vehicle. This run is the jewel in the crown of the Waiau's paddling resources so I'll describe it in more depth.

6.3 The Upper Waiau is in my opinion one of the best runs in the country, not just for its grade but overall. Every trip on the Upper Waiau I've heard of has been rated somewhere in the region of "awesome". Many have also been rated as "epic", as in epic swim, epic portage, epic trashing, epic unplanned night out sleeping under an upturned kayak. The overall river Grade of 4 for the Upper Waiau doesn't do the river justice as it punches well above its weight. From the put in two hours or so of flat paddling brings you to the first rapid, a steep technical Grade 4 boulder garden 100m long in a confined gorge. After this, the rapids simply don't stop. It's almost constant Grade 3 to 3+ boulder gardens with the odd tight rocky gorge for the next 2 days (it's generally an overnight trip). Early in the second day is "The Narrows", an incised gorge of about 5m wide at its narrowest point and around 500m long. This is the second of the river's Grade 4 rapids and is very complex both in terms of technical difficulty and the often boily unpredictable nature of the water in such a confined gorge. After The Narrows, one passes (or not, as both Doug Rankin and I found out when we both pinned rafts on it within minutes of each other in October 2009) Chockstone after which the gorge widens briefly into a short braided section before becoming confined again in a series of rocky Grade 3 gorges until it

suddenly opens out almost in sight of the Hope confluence. I've paddled harder rivers and other overnight trips, but nothing as continuous intense and demanding as the Upper Waiau.

## 7 CONCLUSIONS –WAIAU RIVER

7.1 From my own experiences on the Upper Waiau River, from listening to those of others, and comparing these experiences to my knowledge of other rivers in New Zealand, I believe the Upper Waiau is a paddling gem of national significance. The other rivers of the Upper Waiau catchment may not rate as highly for their paddling values as the Upper Waiau River but they are nonetheless very important to the overall paddling ecosystem in Canterbury and worthy of protection. The Upper Waiau catchment should be retained in its present natural state.

7.2 I therefore submit that a determination of this panel be that the Upper Waiau catchment (presently categorised as Zone A in the provisional Plan) be categorised Zone A in the final Plan and that any dams impoundments or abstractions be prohibited from that area, including from the main stems of the Waiau and Hope Rivers.

**Ian Fox**

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The following photos I chose as much to demonstrate boat types to the non-paddler as to show some snippets of Maori Gully. Hopefully they might help explain some of the seemingly arcane terms for kayak types that paddlers use a lot better than a written description.

Play boats are designed to do just as their name suggests – play. Modern play boats are very short (<2m) with flat hulls and turned up low volume ends. This helps them surf, play in holes and launch off waves to perform aerial moves.

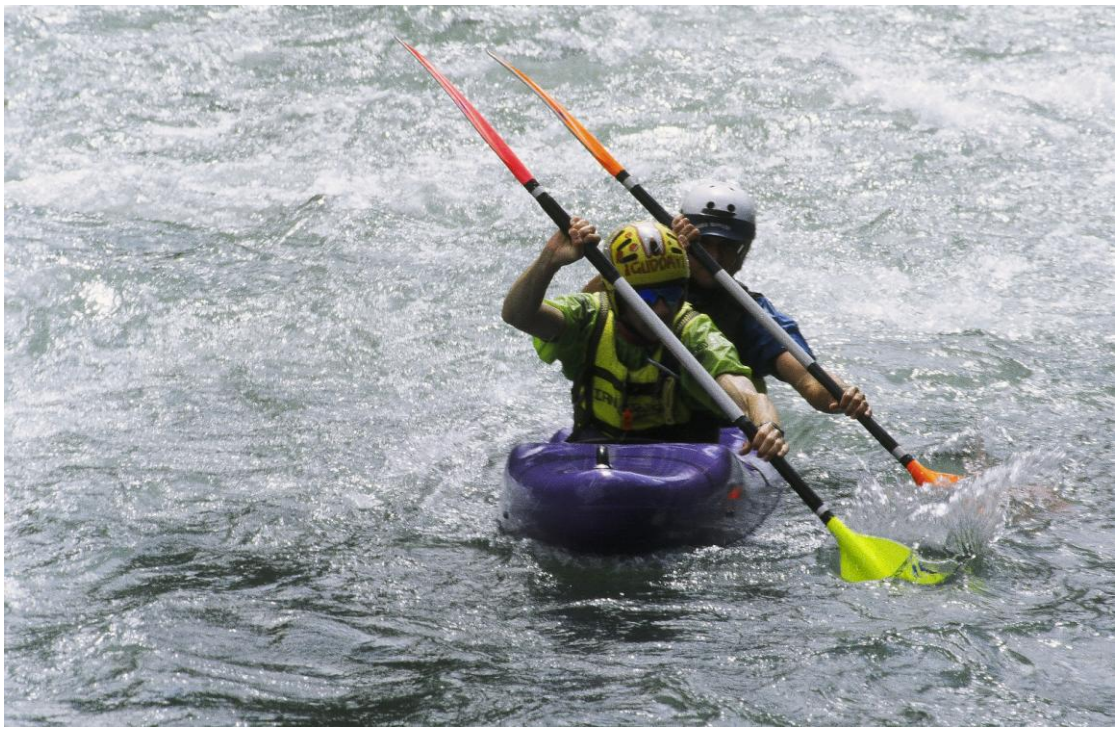
Creek boats are comparatively high volume and most have rounder hulls compared to other boat types. This suits them to paddling rivers that are very steep and narrow and often more damp rocks than rivers! Modern creekers have become much shorter than their predecessors to allow them to negotiate tighter rapids.

Slalom boats are designed to paddle quickly downriver through a course of suspended pairs of poles, known as gates, through which the paddler must pass in a set order without touching any in as fast a time as possible. Slalom boats are longer (current rules require a minimum length of 3.5m) than other white water boats are these days.

Down River Racers, DRRs, are speed machines intended to be paddled very quickly in as direct a route as possible down river. Like slalom, DRR is highly competitive and NZ has had representation at the highest level internationally. These boats are good to paddle in up to Grade 4, so the Hurunui is an ideal training ground for them. Races have been held for DRRs on the Hurunui.

My point here is that the Hurunui provides an ideal place to play around in any type of boat. It has rapids that lend themselves to all sorts of paddling types at a huge range of flows.

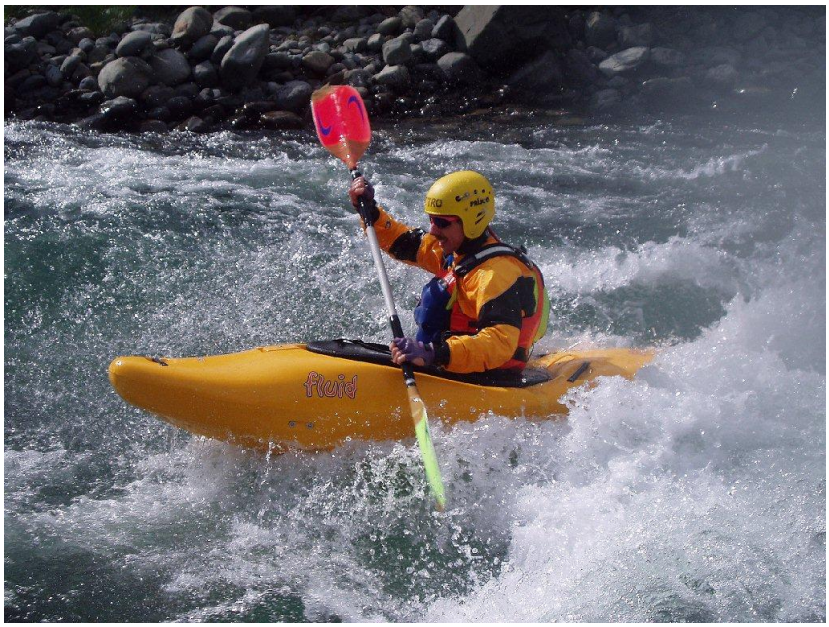
Me heading out of Grandstand Eddy into Cheesegrater @ 14 cumecs, paddling a modern play boat. The easiest line over this rapid is now on the other side of the river, about 4m to my right.



Me and my friend Bruce near OTO at about 40 cumecs, paddling a Topo Duo. It's hard to beat a sunny day out on the Hurunui with your mates. Duos are great for taking less experienced paddlers down sections they may not paddle in a single boat, as well as being great fun for a pair of good paddlers.

Me surfing at the bottom of OTO @90 cumecs in an older style creek-boat.

Katherine Surman in OTO just above the wave at about 65 cumecs paddling a plastic slalom training boat.  This rapid has changed a bit over the years – the rocks top left have moved a little and the hole there is now somewhat harsher.




Me again in OTO @ about 30 cumecs paddling a short modern creek boat.

This one's actually on the Waiau, but I've paddled this boat from Sisters Stream right down through Maori Gully. It's a Wavehopper – a plastic DRR trainer. It takes me about 10 minutes to get down the Gully in this boat without too much effort. Most other boats I'd be pushing 20 minutes at least.