

A Statutory Plan for the Rangitata River

NZSAA, SCSAA, and Future Rivers Trust

October 2020

WHY

- Anglers thought both the 2002 Tribunal WCO decision and the 2006 WCO secured the river with its outstanding attributes and special river character, but they have not.
- Evidence points to the fact that the river is currently in a degraded state.
- A statutory plan will trigger all the necessary planning processes to secure the river's health, character and cultural requirements, which the WCO was meant to do in the first place.

Rangitata River's Special Character

Tribunal decision (2002)

Summary of outstanding features and qualities and waters in a natural state

363. The table below summarises for each section of the river, and the whole river, which following features, characteristics values and/or purposes we find are outstanding, and which waters are in a natural state.

	Headwaters	Upper river	Gorge	Gorge - Arundel	Arundel - mouth	Whole river
Waters in a natural state	√	√	√			
Aquatic bird habitat		√		contributes	√	
Fishery - salmon		√	contributes	√	√	√
Fishery – salmon fishing		√		√	√	
Wild & scenic	√	√	√			
Other natural characteristics	√	√	√			
Braided river						√
Indigenous plants	√	√	√			
Macro-invertebrates						√
Water-based recreation		√	√	√		
Spiritual/cultural		√			√	√
Historical		√				
Tikanga Māori	√	√	√	√	√	√
Amenity / intrinsic	√	√	√	√		

The Tribunal Decision identified the special character in its final decision and recommended that a WCO be placed on the whole river. Each decision point in this report established a reference state that can be measured.

NPS FM (2020)

Degradation/Degrading

- Degraded:
 - below national bottom lines or not achieving a target attribute state (eg deposited fine sediment, macroinvertebrates).
 - not achieving an environmental flow.
 - Less able (compared to 7/9/2017) to provide for any identified value.
- Degrading: experiencing (or likely to experience) a deteriorating trend in a target attribute state.

An Iconic WCO Gazetted Braided River? October 2018

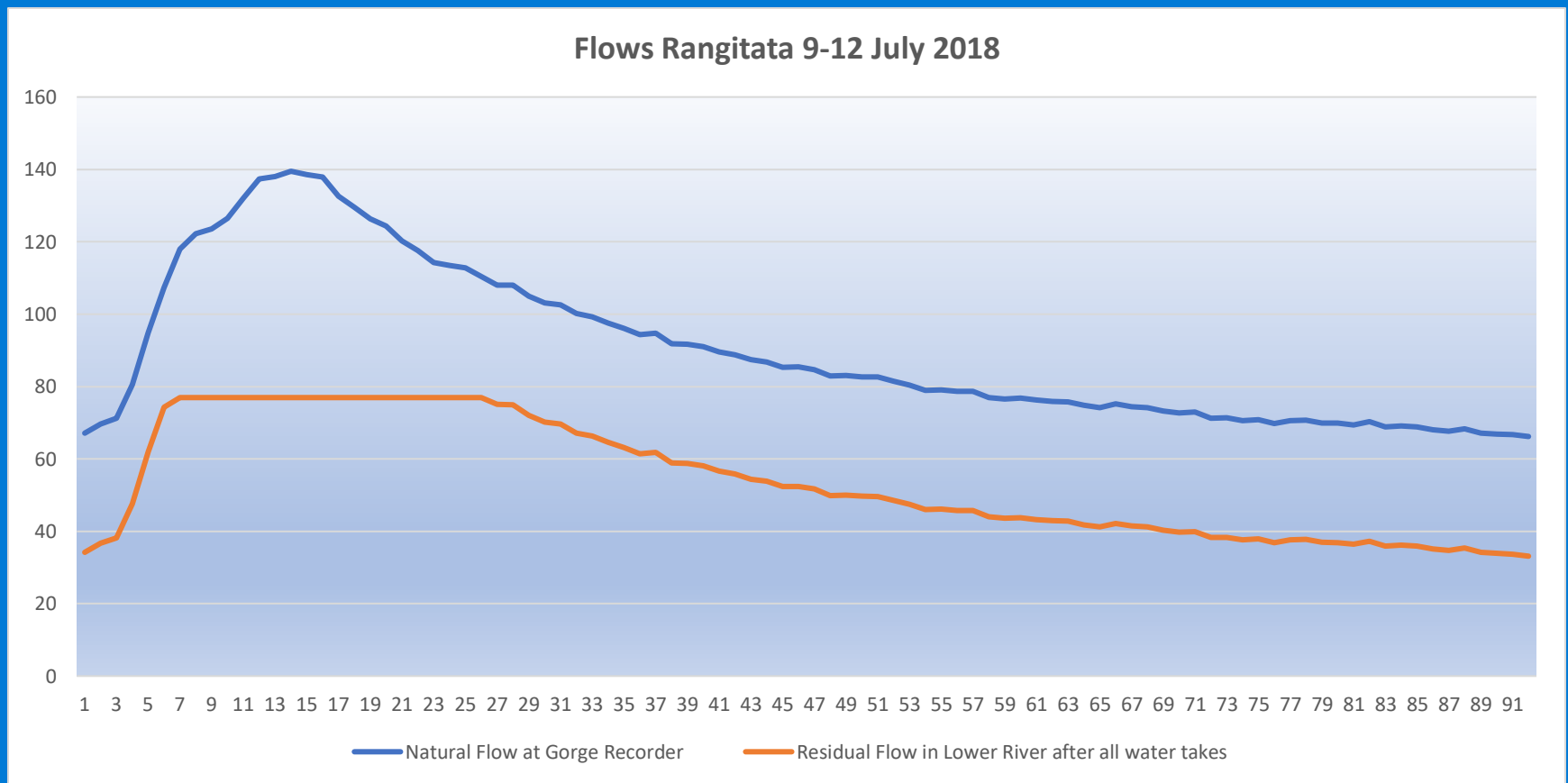


NPS FM (2020)

Responding to Degradation

- Policy 5: the health and well-being of degraded water bodies and freshwater ecosystems is improved.
- Policy 13: the condition of water bodies and freshwater ecosystems is systematically monitored over time and action is taken where freshwater is degraded, and to reverse deteriorating trends.
- **3.20: If deterioration is detected Council must, as soon as practicable, take action to halt or reverse the degradation (in regional or action plans).**

WCO: Section 9 - Restrictions on alteration of river flows and form



The RMA (1991) WCO Meaning

RMA section 200 imposes restrictions/prohibitions on regional councils' powers relating to:

...(c) **the maximum allocation for abstraction** or maximum contaminant loading consistent with the purposes of the order;

To meet the s199 purpose to recognise, sustain and protect the outstanding features and qualities

- What is the maximum allocation of water from the Rangitata River?

Abstraction Limit Milestones

“We consider that without a cap on total abstraction, or restriction on the number of takes in the main stem the outstanding values etc would not necessarily be preserved / protected.”

Special tribunal final decision (2002)

“[21] How the additional flows above $110\text{m}^3/\text{s}$ may be allocated can be dealt within a Regional Plan (as is recognised above when discussing the deletion of 9(3)(b)(ii) and 9(3)(c)(ii)). Judge Jackson Final Decision (2005)

Rangitata River WCO (2006)

- Different from Rakaia WCO in that water abstraction wasn't capped.
- All parties agreed, or didn't disagree, 15 years ago that the way to manage additional takes and cap the river was a Regional Plan. Judge Jackson Final decision (2005)
- To date, no monitoring plan has been put in place to determine if the special river character, health and cultural values have degraded over time, downstream of the additional water takes.

NPS FM (2020) Te Mana o te Wai

- First the health and well-being of water bodies and freshwater ecosystems.
- Second, the health needs of people.
- Third, the ability of people and communities to provide for their social, economic, and cultural well-being now and into the future.
- Policy 8: The significant values of outstanding waterbodies are protected.

Implementing the NPS FM 2020

- Define **Te Mana o te Wai** in the local context with tāngata whenua and communities.
- Develop **Long-term visions for freshwater** – ambitious but reasonable goals and by when they will be achieved.
- Identify **FMUs and Values**.
- Set **Environmental outcomes** – as objectives in a Plan.
- Identify **Attributes** for each value.
- Set **target attribute states and environmental flows** to achieve the environmental outcomes.

Regional Councils must also:

- **Monitor.**
- **Take action if degradation is detected.**

NPS FM (2020) Environmental Flows

- **3.16 Setting environmental flows and levels** – must achieve the **environmental outcomes**, **long-term visions** and be consistent with **Te Mana o te Wai** (eg river first).

“(1) Every regional council must include rules in its regional plan(s) that set environmental flows and levels for each FMU, and may set different flows and levels for different parts of an FMU.”

- **3.17 Identifying take limits** - to meet environmental flows and must be included in the regional plan to meet the needs of the water.

MFE Advise

“A WCO itself is a precise legal instrument with which regional plans must not be inconsistent. regional councils are responsible for ensuring that the provisions of the WCO are not inconsistent with their regional plans, and any response to the degradation of the special characteristics of the waterbody is their responsibility (as per their responsibilities under s30(1)(e) and (f) of the RMA).” Letter 25th May 2020 - 20-M-00625

What to do in the interim before the NPS FM (2020) is given effect?

- Begin monitoring all the significant values which contribute to the WCO now.
- Cap or place a moratorium on any further allocation of water from the Rangitata while an NPS FM (2020) Plan is developed.
- Ensure any discussion on Te Mana o te Wai, Long-term visions or environmental outcomes includes all significant values recognized by the WCO.

MFE Also Advise

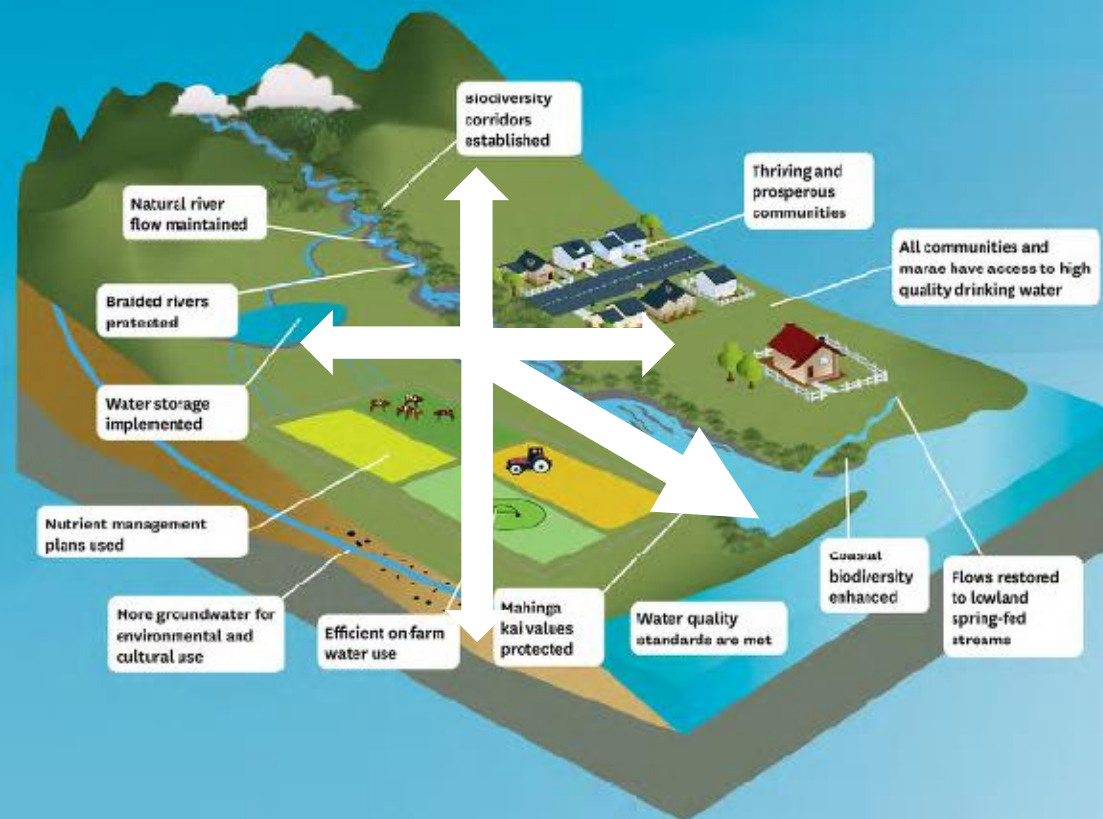
“In terms of detailing what should be done to manage rivers with WCOs in them, this again falls to the relevant regional authority, as is the implementation of an adaptive management response.” Letter 25th May 2020 - 20-M-00625

CWMS: All Elements Gain (2010)

Source SWZC: March (2020)

WHAT SUCCESS LOOKS LIKE

From the mountains to the sea - *Ki uta ki tai*



Chapter 4: The CWMS (2010)

Collaboration for Mutual Gain

Planning Strands - Anglers View

	RMA	WCO	NPS FM	Reginal Plans	CWMS
Planning Requirement Principals					
Consider effect over 10 years	✓	✓	?	✓	?
Take a precautionary approach	✓	✓	?	✓	?
Monitor special character	✓	✓	✓	?	✗
Monitor river health	✓	✓	✓	✓	✗
Monitor cultural requirements	✓	✓	✓	✓	✗
Adaptive Management	✓	✓	✓	✓	✗
Consider cummlative effects	✓	✓	✓	✓	✗
Protecting the significant values of outstanding freshwater	✓	✓	✓	✓	?
Natural river flows protected	✓	✓	✓	?	✓
Braided rivers protected	✓	✓	✓	?	✓
Flows Restored to ,low land streams	✓	✓	✓	?	✓
More ground water for enviromental and cultural use	✓	✓	✓	?	✓
Native birds and Fish requirements met	✗	✗	✓	?	?
Salmon and trout requirements	✓	✓	✓	✓	?
Key	✓ Requirement	?	✗ No Requirement		

Regional Authorities Shall Pay Particular Regard To:

- The maintenance of amenity values.
- The intrinsic values of ecosystems.
- The maintenance and health of the environment.
- Any finite characteristics of natural and physical resources.
- Monitoring of WCO's.
- The protection of trout and salmon habitat.

River Health Is Not Reducible To A Set Of Water Quality Attributes.

- Large braided rivers function as spatially connected ecosystems with interdependent processes & feedbacks.
 - River morphology, controls the pattern of water flow, which controls sediment transport and evolves the river form.
 - This creates a dynamic physical template for animals and plants, which in turn affect the flow by changing the friction and strength of the riverbed and in turn affect the flow ... and so on ...
- Standard NPS-FM attributes (nutrient concentrations, clarity and E. coli) that are measured at discrete points, do not capture the spatially and temporally complex effects of water abstraction on these fundamental processes.

Effects Of Depowering Rivers

PEST NUMBERS INCREASE

VEGETATION SUCCESSION INCREASES



BANK STABILITY INCREASES AND FLOODPLAIN ROUGHNESS DECREASES

INITIAL LAND BOUNDARY CONDITIONS

WATER MOTION decreases

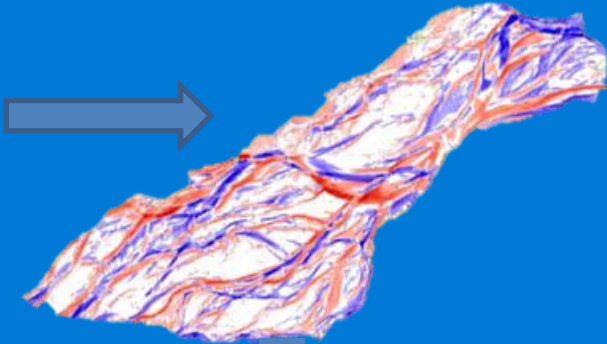
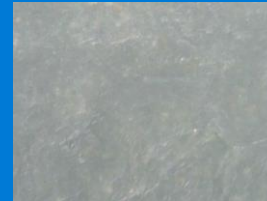
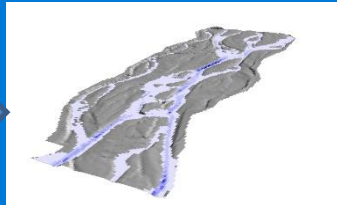
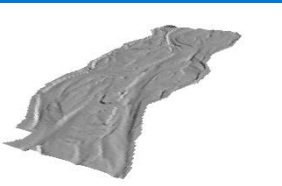
$$\rho \frac{D\vec{V}}{Dt} = -\nabla p + \rho \vec{g} + \mu \nabla^2 \vec{V}$$

SEDIMENT TRANSPORT DECREASES

$$q_s^* = \alpha_s (\tau^* - \tau_{c^*})^n$$

SEDIMENTATION & CHANNEL CHANGE

$$(1 - \lambda_p) \frac{\partial \eta}{\partial t} = -\frac{\partial q_s}{\partial x}$$



FEEDBACK SPEED INCREASES

FLOW > TRANSPORT > FORM > FLOW > TRANSPORT > FORM > FLOW

Trajectories May Not Easily Be Reversed



Feedback between flow, form and vegetation may lead to irreversible change in river state

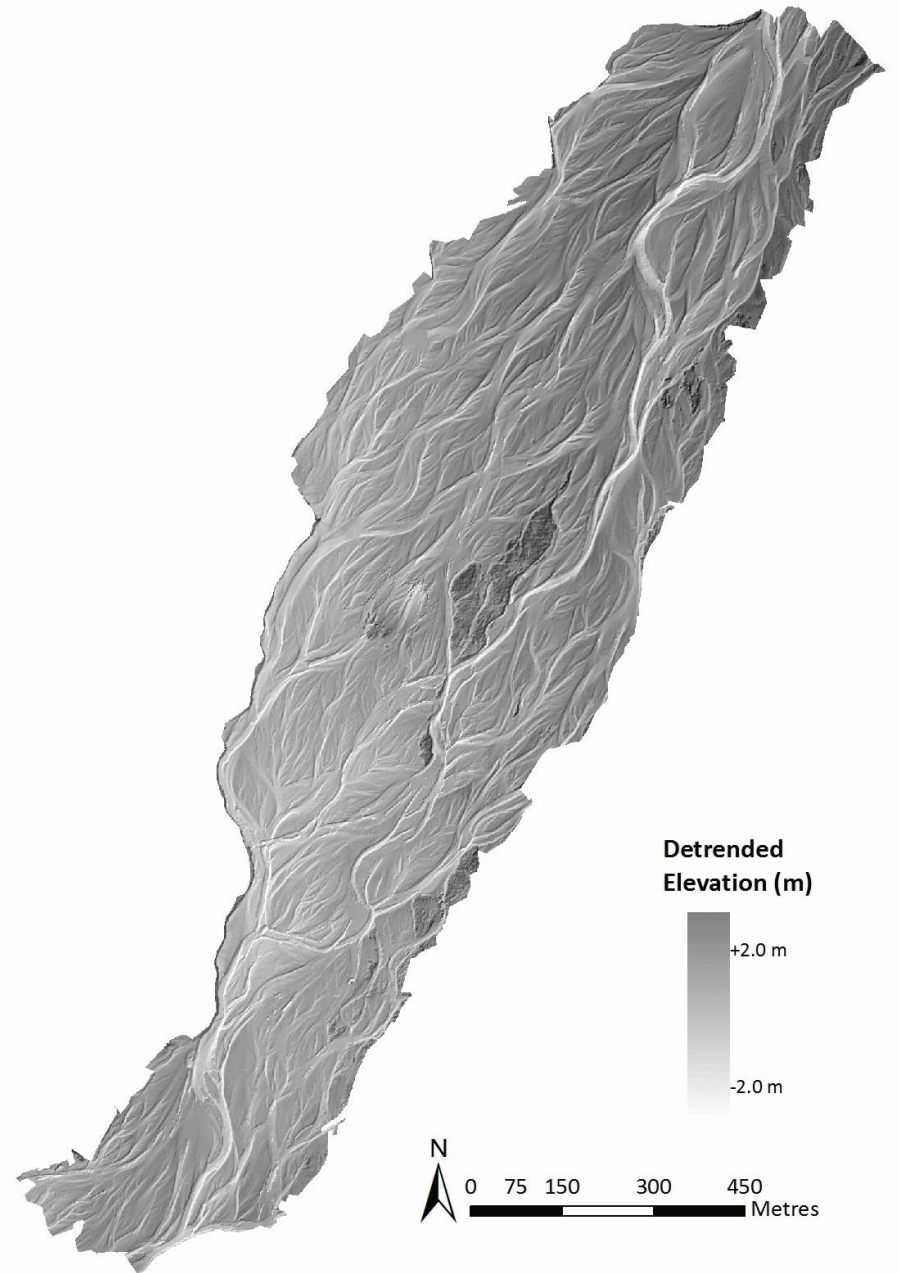
New stable river configurations dominated by vegetated bars cannot be remobilized even if original flow conditions are mandated

Change may be **one-way**

How badly degraded is the river currently?

- Anglers believe the river has gone past the tipping point.
- DoC have now committed considerable resources to restore the river!
- Council is required to develop a plan which monitors and responds to degradation (NPS FM 2020).

A Braided River Is Alive And Changes All The Time (2010)



Degradation Evidence - Anglers View

Degradation element	Anglers	DoC	NIWA	Ecan	Evidence
Sediment build up increasing					1, 2
Invertebrate diversity changing and species numbers decreasing					3,4,5,7
Weed build up in riverbed increasing					2,8,12
Armouring of riverbed increasing					2
Native fish numbers decreasing					2, 7
Native bird numbers decreasing					2
Decrease in Salmon and trout numbers					9
Loss of fishing window					10
Increase in river temperature range					1
River doesn't clear as quickly as it use to					1
Loss of intrinsic values of the river					1, 10, 11
Key Evidence of Unknown No Evidence					

Why a statutory plan for the Rangitata River ?

- The RMA, WCO, NPS FM, Regional Plans have a planning requirement to limit water takes (and set environmental flows under the NPS FM).
- DoC, CSIFG and Anglers think there should be a cap on extraction and a statutory plan for the River.
- Forces all parties to consider its requirements in the planning process and has some teeth.
- Any plan developed subsequent to it, can not detract from any requirements contained within the plan.

Conclusions

1. “[21] How the additional flows above 110m³/s may be allocated can be dealt within a Regional Plan” has not been implemented since 2005.
2. ECan has a statutory responsibility for the WCO to ensure that river character, health, and cultural requirements are not degraded.
3. ECan has a statutory requirement to monitor the river.
4. The current monitoring plan for the Rangitata River is inadequate to track changes in river health, character and cultural requirements downstream of water takes.

5. It is not Anglers' responsibility to prove that there have been adverse effects on the Rangitata River due to additional water takes.
6. It is ECan's responsibility to prove that river character, health and cultural requirements have not been degraded from the reference states agreed to in the 2002 Tribunal Decision.

Recommendations

1. ECan to begin appropriate monitoring of the WCO values now – informed by all the work to date and the new NPS FM attributes.
2. A moratorium/cap on any further abstraction from the river until the new NPS FM Regional Plan (required to be notified by 2024) is developed. Ensure the WCO values are all included in the discussion to define Te Mana o te Wai in the context of the Rangitata and to develop the long term vision, environmental outcomes, environmental flows and take limits.

The Rangitata River.

I could have saved the river today,
But I chose to look the other way.
It wasn't that I didn't care;
I had the time, and I had been there.

But I didn't want to seem a fool,
To argue over a water rule.
I knew they hadn't worked before;
If I spoke up people might get sore.

I took the chance; I closed an eye;
And with that act, I let the river die
I could have saved the river today,
But I chose to look the other way.

Now every time I see the river strife,
I know I should have saved its life.
That guilt is something I must bear;
But it isn't something you want to share.

When you see the river today and then
walk away,
Hope you never have to say,
"I could have saved that river today".

Source unknown