

Appendix 2

Manuherekia Management Scenarios – all responses

Below are the responses received on the Manuherekia management scenarios consultation. Where there were obvious duplicates or responses that referred to an attached or emailed response these have been merged.

DISCLAIMER: For privacy, every endeavour has been taken to remove any personal information (names and addresses) or identifying information, but there may be some remaining. Offensive language has also been redacted (only in two places).

1: ONLINE SURVEY

Anonymous User:877869598

2021-05-18 07:19:40 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It offers the best chance to restore the river ecosystems to an acceptable standardised the long term.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It looks from the background data like there's no middle ground compromise here: the choice before us is to save the river and [REDACTED] the farming, or save the farming and [REDACTED] the river. ORC's job is not to save farming, it is to protect our natural values from destruction.

Location:

Queenstown Lakes District

2: ONLINE SURVEY

Anonymous User:877960901

2021-05-18 10:31:24 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Number five presents the best all-around in terms of ecology and amenities and clearly provides mana whenua a renewed resource. Obviously this has an irrigation downside, but I rate this secondary to the ecological benefits.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:

Manuherekia

3: ONLINE SURVEY

Anonymous User:878078123 2021-05-18 14:06:43 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The vastly improved recreational values.

I would prefer 4000l/s

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

4: ONLINE SURVEY

Anonymous User:878106222 2021-05-18 14:34:54 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We prefer our river to be higher for swimming, the ecosystem health and fishing.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

5: ONLINE SURVEY

Anonymous User:878244475 2021-05-18 18:21:04 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Ecosystem health is a priority

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:	Manuherekia
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6: ONLINE SURVEY

Anonymous User:871155880 2021-05-18 19:36:04 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Ecosystem good

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Manuherekia

7: ONLINE SURVEY

Anonymous User:878374140 2021-05-18 22:31:40 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Seems good for the health of the river. Just unsure over how much of an effect it will have on landowners who rely on it for a living. Would like to swim more = healthier river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Manuherekia

8: ONLINE SURVEY

Anonymous User:873832783 2021-05-19 12:34:20 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Otago

9: ONLINE SURVEY

Anonymous User:878925662 **2021-05-19 15:50:15 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Swimable. i would like less flow, but also agricultural businesses need to survive.

I'm not convinced 'land valuation' is good reason to reduce the flow any more. 'Land viability': Central Otago cannot support large amount of dairying. full stop.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

10: ONLINE SURVEY

Anonymous User:878963030 **2021-05-19 17:10:38 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I want to see the river restored to its former beauty and use. The Manuherekia is not the place for the type of farming currently increasingly using vast amounts of irrigation.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

11: ONLINE SURVEY

Anonymous User:625157871 **2021-05-19 17:16:19 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the lowest flow that supports mana whenua values and reduces the risk of algal blooms ie it allows irrigators the most water possible compatible with the lowest acceptable environmental outcomes

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I would very much like to see better water health than that provided by a minimum flow of 2000 l/sec but that would be a disaster for farmers. I would suggest a gradual ramping up of minimum flow from current levels to a better level to give farmers time to make any adjustments I would suggest investigation of supplementing irrigation with pumped water from the Clutha for maintenance of irrigation in the lower catchment whilst allowing more flow in the Manuherekia.

Location: Dunedin District

12: ONLINE SURVEY

Anonymous User:878983092 2021-05-19 17:55:50 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We need healthy rivers and look at alternative and creative ways that we can secure enough irrigation for farmers but not sacrifice our waterways.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

13: ONLINE SURVEY

Anonymous User:878995872 2021-05-19 18:22:13 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

14: ONLINE SURVEY

Anonymous User:879002755 2021-05-19 18:36:30 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Swimming and ecological benefits

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Thank you for taking time to consider public opinion on our beautiful river

Location: Holiday / Family / History

15: ONLINE SURVEY

Anonymous User:879033371 2021-05-19 19:53:06 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

When I was a kid I would swim in this river, I would fish in this river and caught great rainbow trout. Now, I won't let my dog go in the river and I'm 28. That such damage can happen to a river in such a short period of time is deeply concerning, and I chose this flow level because I think any lower would be complacent.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This area's lifeblood is farming. So that can't be forgotten or ignored. But its second lifeblood is tourism, so its environment must be protected not only so people keep coming here, but also because it's the right thing to do.

I have seen a direct correlation between the introduction of dairy farming to the region and the degradation of the river. Central Otago is a region that can not sustain providing that amount of tucker without copious amounts of irrigation. You should farm to the conditions of your region and this is not a region for dairy cattle.

This isn't a pollution issue, it is undue stress on the resource.

Location: Queenstown Lakes District

16: ONLINE SURVEY

Anonymous User:878226526 2021-05-19 21:42:57 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

More user friendly

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

17: ONLINE SURVEY

Anonymous User:879094758 2021-05-19 21:56:33 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

18: ONLINE SURVEY

Anonymous User:878837950 2021-05-19 22:37:38 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I live next to the river and see the devastating effect taking water for irrigation has.

It makes the river unusable and a risk to health.

It causes bores to dry up.

I do understand the need of farmers so compromised from 5 to 4.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The use of large dams filled when river high makes much more sense.

Flood irrigation needs to stop and leaks repaired not ignored as too expensive to fix.

Reintroducing fish that have had numbers reduced by low water levels would be good.

Our climate is not suitable for cattle, they need a lot of water.

Location: Manuherekia

19: ONLINE SURVEY

Anonymous User:879309424 2021-05-20 06:49:39 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Over a period of 30 years I have seen the water flow reduced significantly in this important river to the point where it is sluggishness & polluted in many parts. This has coincided with the increase in dairy farming in the area. This land is not suitable for dairy farming. I support a huge reduction in dairy farming in this area.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Dunedin District

20: ONLINE SURVEY

Anonymous User:879309408 2021-05-20 06:53:18 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river is currently in a very poor state

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It has been heartbreaking seeing the condition of this river downstream of the irrigation extraction point. I grew up camping, swimming and fishing on this river, now I wouldn't take my family near there as the water quality is so poor

Location: Dunedin District

21: ONLINE SURVEY

Anonymous User:879318883 2021-05-20 07:13:36 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The state of the river below becks and Lauder is disgusting at times. Its nonsensical to undertake one of the most water intensive industries (dairying) in one of the driest regions, I wish the minimum would be

aspirationally higher actually. The amount of nitrates and effluent is leading to boil water notices and surely at some point humans and the environment can come first?

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

22: ONLINE SURVEY

Anonymous User:879319464 **2021-05-20 07:15:21 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Good for swimming but not affecting farming as much as 5

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

23: ONLINE SURVEY

Anonymous User:879321892 **2021-05-20 07:18:29 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best for environment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

You have too many farms in that region.

Location: Dunedin District

24: ONLINE SURVEY

Anonymous User:507625379 **2021-05-20 07:18:36 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Given the current level is 900, 1200 is a 33% increase. Also the economic viability of the community is dependent upon the farming community and for the whole community to remain, the farming sector needs to be economically sustainable.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It is disappointing that the most vocal people on this topic do not live in the immediate communities which will be most effected by this decision. Why it the opinion of the most effected, ie those directly affected communities, not given more weight in the final decision

Location: Clutha District

25: ONLINE SURVEY

Anonymous User:879312053 2021-05-20 07:29:18 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is a once in a lifetime opportunity to make a difference to our communities river. This is a river, a wonder of nature that supports an amazingly varied and fantastical environment. Why is there even a question about saving it - it is a river that has always been, and it is only modern people's assumption that we can use it how we please? All people should be for having a highest maximum flow as possible to ensure this natural wonder is kept for all people to enjoy, not just a select few.

A river is indicative of its environment, from its place at the topographical bottom of an area, everything that is around it, eventually in some form or another will make its way to the river. Therefore a healthy river equates to a healthy environment around it. This is not the case around the Manuherekia at present. When a river is so affected by irrigation takes that is highly polluted and unsafe to swim in, or toxic algae grows that will kill your dog, there is something very wrong with how we manage this resource. When you go walking on the river and you come across an irrigation take that has turned the main river flow into about 50cms across, and the river only flows again about 500m down when the take comes back in, there is something wrong.

Why are intensive farming practices allowed in a semi-arid area that for a lot of summer is essentially a desert? Why should the rest of the community suffer for this, when unsustainable farming practices seem to be the norm, and there seems to be a real reticence by the farming sector to admit this, and look to the future with more sustainable farming practices. We should not continue to live with the hubris that forcefully changing our natural environment is OK, when in we know that the climate crisis is real and all efforts should be for future-proofing our area against the affects this will have in the future.

Mayflies are an indicator of health in a river, the cleaner the water, the more there are. Take the Mataura river for instance, a world class trout fishery, and tourist attraction (Fly fisherman come from all over the world just to fish it, which supports the community in many ways) but a river that has a water conservation order on it. It has consistently large mayfly hatches, one of the few rivers in the lower South Island that does. The Manuherekia does not. As a fly fisherman I have spent 100's of days of the river fishing, and have fished about 90% of the river's length. I can state from my own experience that the Manuherekia does not have large amounts of mayflies nor consistent hatches. As mayflies are a staple of trout diet, the Mataura's

trout population is healthy and abundant, while the Manuherekia's is not. This would clearly show that the water is not healthy enough to support this. The benefits to the area and businesses of having a world class trout fishery and associated tourism would be great, especially with the increasing rise in popularity of fishing that I have noticed over the last ten years.

With the rise of the rail trail and the increase in tourism to this area (statistics clearly showing that during the last year or so of the COVID crisis, Central Otago/Alexandra is one of the few areas that has not seen a massive decrease in tourist numbers - <https://www.odt.co.nz/regions/central-otago/central-otago-tourism-market-still-performing-well>), surely having a healthy river is so important to the area. You can ride the trail alongside the river, so we need to look after the river. What better than a swim in clean clear water after a hot sweaty ride on the rail trail? Not really possible at the moment if you value your health.

When looking at the science (and ignoring the rhetoric) there is only one viable option given here to ensure that future generations can use and enjoy the river, and that is the highest minimum flow at 3,000l/s. I want my children and grandchildren to be able to enjoy the river, and be proud of the river that sustains their community. My question to those who do not see an issue with how the Manuherekia is now, is, at this once in a lifetime opportunity to make a difference to the Manuherekia what do you want your children to be proud of?

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

A healthy river equals a healthy community.

Location: Manuherekia

26: ONLINE SURVEY

Anonymous User:860048329 **2021-05-20 07:51:50 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best option for environmental and ecological outcomes.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The rivers health and natural ecosystems it supports must be prioritised of commercial pressures.

Location: Dunedin District

27: ONLINE SURVEY

Anonymous User:879338515 **2021-05-20 08:10:56 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The last one is the only viable option of those presented.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We have to start putting our precious eco systems above livestock farming.

Location: Otago

28: ONLINE SURVEY

Anonymous User:879345508 2021-05-20 08:26:51 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We have been camping by the Manuherekia for the last 40+ years. And have definitely noticed a difference in the quality of the water. We use the river for swimming and fishing. And want it to be safe to do these things.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

29: ONLINE SURVEY

Anonymous User:871327206 2021-05-20 08:58:34 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

because it is whats best for the wildlife that live in this waterway.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

30: ONLINE SURVEY

Anonymous User:877907190 2021-05-20 09:21:47 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

There has been a steady decline in ecosystem values in the Manuherikia River as a result of over use of the water resource. The baseline should set on the long term health of the river and Scenario 5 is the best option in that respect. Farmers have not had to adapt to more appropriate levels of water use and this has left them more vulnerable to change but it has been a choice they have made. Setting a baseline at this level will require more appropriate water use techniques and technology and farming practice to be adopted and hopefully will discourage other less sustainable activities such as diaring in what is a water short area.

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

Management to date has been too farmer centric at the cost of ecosystem, cultural and social values.

Location: Queenstown Lakes District

31: ONLINE SURVEY

Anonymous User:879371334 2021-05-20 09:23:50 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Healthiest option for the rivrr

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

Location: Queenstown Lakes District

32: ONLINE SURVEY

Anonymous User:879368223 2021-05-20 09:29:44 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Only at this level or above is the river a healthy environment for its living creatures and a clean resource for fishing and swimming.

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

In the last ten or fifteen years especially farming has been taking too much water from the river. And the increase in cattle/dairy cows is a significant negative for the river's health. After any significant rainfall the lower river currently has a khaki green colour due to farm effluent/runoff whereas it used to be tinged brown (the colour of local earth and silt).

Location: Clutha District

33: ONLINE SURVEY

Anonymous User:878100575 **2021-05-20 09:51:34 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The science indicates that higher flows will increase the health and vitality of the river, which is the paramount consideration under the NFWPS 2020.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The river and its tributaries are degraded and over-allocated because of the intensification of agricultural and horticultural enterprises. It is time to implement Te Mana o te wai.

Location: Manuherekia

34: ONLINE SURVEY

Anonymous User:879387984 **2021-05-20 10:07:12 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

3000 is a bare minimum. My preference would be for 4,000 l/s minimum.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

3000 is a bare minimum. My preference would be for 4,000 l/s minimum.

Location: Queenstown Lakes District

35: ONLINE SURVEY

Anonymous User:879399476 **2021-05-20 10:35:22 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I am an avid fisherman.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please take into consideration fishing.

Location: Queenstown Lakes District

36: ONLINE SURVEY

Anonymous User:879401392 2021-05-20 10:48:14 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

NZ rivers in general have become consistently deprived of water. This has largely been due to the policies of successive local and central governments, which have promoted maximum primary sector productivity at the expense of the environment. This is becoming increasingly unacceptable to most kiwis. The agricultural model in NZ needs to change to better align with environmental sustainability. Thus, I support the highest minimum flow option of 3,000 l/s.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

37: ONLINE SURVEY

Anonymous User:567338141 2021-05-20 11:00:38 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

NZ has to have reliable irrigation water, both for Economics and for the good of our Rural Communities and for the health of our soils and waterways. It's a no brainer, there is plenty of water but most of it runs out to sea in times of flood. NZ needs more water storage, Falls Dam should have been raised years ago, that would ensure sufficient water allocation for the Rural Communities and the health of the River. No one wants to see dry parched land, wind blows the soil away, and when it does rain, sediment is washed into waterways. With adequate vegetation cover this wouldn't happen. Also if Irrigation Quotas are restricted, the impact on Property Values will be huge, People live work down the gurgler. Historically the Manuherekia River has always been reduced to a trickle, even before Irrigation, we live in a dry area. Water is precious, store more water, raise Falls Dam so all will benefit. It's a no brainer.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Is the ever encroaching urban sprawl,lifestyle blocks helping? Im seeing good land that can be irrigated turned into Lifestyle Blocks or Housing, not good for future water use.

Location: Manuherekia

38: ONLINE SURVEY

Anonymous User:878798452 **2021-05-20 11:34:34 +1200**

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Any scenario that negatively affects the natural river ecosystem viability makes the decision that the want of those who are extracting water has more important than the ecosystem of the river itself, and the wider population who value the river for its intrinsic nature and values.

Any lower value trades economic value to a select group of individuals over the mana whenua and that of all who values rivers for their own intrinsic, biodiversity and recreational value.

It can be clearly observed (even with out the science that has been undertaken) that the river is in poor condition, and that more than a small change to water takes is required to start the journey to restoring the river to proper health. If we forever are scared of being bold and negotiate to a point of limited impact, then we will be forever condemned as guardians by those who come after us as being selfish, greedy and of having more concern for the short term financial wealth of a few than the long term natural wealth of this country.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

To date it has been abysmal, with over extraction and use of gold mining takes for irrigation. The use and conversion of the valley from sheep to beef and dairy has accelerated and acerbated an already significantly unhealthy river system. Use of water for private purpose is not a right, and it comes at great expense to the river itself and the users of the river. If farming in the manner to which some have become accustomed in not viable without environmental degradation in the form of river atrophy from water take, then the business itself must either change to not require the water, or cease.

Location: Queenstown Lakes District

39: ONLINE SURVEY

Anonymous User:879470713 **2021-05-20 12:00:52 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Maximum benefit for the environment and future generations.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Waitaki District

40: ONLINE SURVEY

Anonymous User:858828032 2021-05-20 12:03:06 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Irrigation for food production should take precedence over recreation.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Hopefully the raising of Falls Dam will allow some of that stored water to be used to increase the current minimum flow, subject to the needs of irrigators.

Location: Manuherekia

41: ONLINE SURVEY

Anonymous User:879514905 2021-05-20 13:01:52 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

To sustain farming viability. Farming is the key driver of a vibrant community in the catchment. The negative impact increasing the minimum flow has on the community far outweighs the environmental gains

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Holiday / Family / History

42: ONLINE SURVEY

Anonymous User:879530885 2021-05-20 13:28:11 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

At what location is the minimum flow measured? The information on the scenarios does not appear to provide this. How can an informed decision be made? What would the natural low flow be if Falls Dam was not present and releasing water over summer?

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Why are trout even a consideration?

Location: Manuherekia

43: ONLINE SURVEY

Anonymous User:879595178 2021-05-20 14:38:31 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

44: ONLINE SURVEY

Anonymous User:879544847 2021-05-20 14:51:04 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best option for ecosystem health and Te mana O te wai

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The water is for all the community and not a handful of businesses.

Location: Dunedin District

45: ONLINE SURVEY

Anonymous User:879606340 **2021-05-20 15:01:43 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It protects the river ecosystem more, improves recreation value. Mana whenua values mostly protected. Anything less is detrimental to the river and its values.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

For too long we have compromised the health of our rivers and lakes. It's important to protect the river.

Location: Manuherekia

46: ONLINE SURVEY

Anonymous User:879589870 **2021-05-20 15:13:31 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

No 4 is a happy medium

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

47: ONLINE SURVEY

Anonymous User:879694339 **2021-05-20 16:51:49 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The priority is environmental enhancement to get the river back to where it used to be before dairying arrived here. Fish able, swimmable and maybe even drinkable. 4 leaves a bit of irrigation take, but will still have some a significantly noticeable impact on improving the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Good to something is finally happening. The deterioration by neglect of appropriate management has been going on to long.

Location: Manuherekia

48: ONLINE SURVEY

Anonymous User:879712251 2021-05-20 17:19:21 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Better water quality for swimming and fishing as I go there daily

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

49: ONLINE SURVEY

Anonymous User:879732234 2021-05-20 17:57:20 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Scenario 1 improves ecosystem health which is a driver for myself. If total ecosystem health has to be achieved it scenario 6 would have to be put into action. 2-5 don't really achieve much. 6 cannot be put into action as the community would suffer far too much. Fishing is a low priority for me, there are other areas to fish in Otago and I don't believe that needs to be a driver for every river system. Swimming currently happens in the river and if it gets too low or dirty Alexandra residents have opportunity to go to another river. They are spoilt for options really.

I believe this is an achievable scenario for all parties and the council.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please keep perspective in mind especially on what everyone can accomplish. Don't teach for the stars and have no support in place.

Location:	Manuherekia
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50: ONLINE SURVEY

Anonymous User:879744937 **2021-05-20 18:19:39 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

best outcome for ecology of river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

it is a great asset for us as a family, we have swam in its waters, fished in it and enjoyed its beauty, it is concerning to see how low it can become and I am concerned at the impact this will have on its quality, recreationally and as a natural asset. Farms have a poor track record regarding sustainability of water ways, they will continue, as the climate changes, to demand more water from the river.

Location: Manuherekia

51: ONLINE SURVEY

Anonymous User:879756291 **2021-05-20 18:35:17 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think there should be a summer and a winter minimum flow with the winter minimum flow a lot higher than the summer minimum flow. I also suggest we keep the water races running until the end of May. In the future farmers will have more storage on farm and they can take winter water to fill the storage for a summer buffer.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

See above, additional to that we could even have a staggering minimum flow for different times of the year

Location: Manuherekia

52: ONLINE SURVEY

Anonymous User:879773587 **2021-05-20 19:17:27 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think the current minimum flow is adequate

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

53: ONLINE SURVEY

Anonymous User:879769196 2021-05-20 19:24:17 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Central Otago land and climate has not the soil structure and precipitation quantities to support higher density farming and agriculture, of which has been established in the last 5 years!. I have seen the degradation of both the Manuherekia and more recently The Clutha river! I do not swim in the Manuherekia any more and often worry about the dog swimming in the summer slime. The Clutha in the past year has lost its beautiful blue hue and gone a dirty grey, with white foam floaters a sign of high nutrient levels. I wonder why this is???

With climate change creating warmer weather we need to look at more sustainable farming practices. We need farming that has less impact on the environment. Less about making money, that fuels consumerism. We don't need multi national companies owned by overseas consortiums filling the pockets of CEOs.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We need to insure our rivers still excise for future generations. Say no to Dairy farming in Central Otago. Who even approved such a ridiculous venture!!!! Just look at the state to the Waikato river!!!

Location: Manuherekia

54: ONLINE SURVEY

Anonymous User:879782503 2021-05-20 19:26:32 +1200

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

seems fair to all users and will take into account the rise in storage from the proposed Falls Dam level rise

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

55: ONLINE SURVEY

Anonymous User:879797822 2021-05-20 20:02:34 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I prefer the scenario that best provides for ecosystem health, recreational and cultural values, which appears to be Scenario 5

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We need ORC to show some string leadership. Factors such as climate change mean that we need to make decisions that safeguard our future environments and resources. I believe this means existing intensive land uses need to be changed and that the status quo cannot continue. This is a politically unpopular decision for some parts of the community, but ORC owes it to us, and we owe it to ourselves as a community to make the right decision for our children and descendants. Of the options put forward, Scenario 5 is the best.

Location: Holiday / Family / History

56: ONLINE SURVEY

Anonymous User:879808274 2021-05-20 20:26:22 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

If the falls dam didnt store water the river would be dry most summers.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The dam should be extended

Location: Not specified

57: ONLINE SURVEY

Anonymous User:879806954 2021-05-20 20:27:03 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

i care about the rivers

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

keep it in the hands of all nz ers and not the tribel lot

Location: New Zealand

58: ONLINE SURVEY

Anonymous User:879803197 2021-05-20 20:30:09 +1200

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Please remember that this river has been kept alive only because it serves the farmers irrigation rights. With out Falls Dam you wouldn't have a bloody river, or are you people still got your heads up your bottom?

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I worked for an Irrigation Company responsible for the rights of the farmers but who also recognised the rights of the native fisheries and future sustainable use of the river.

Certainly there has been an increase in water use due to increased farming, but please remember that property has only been developed with the knowledge that they had the use of the water rights and not because of them

Location: Central Otago District

59: ONLINE SURVEY

Anonymous User:879811227 2021-05-20 20:36:57 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1200 still puts a lot of risk on the irrigation. The river would run dry at times if it wasn't for the falls dam. Higher flows also put native fish at risk. Why do we put more preference on introduced fish over native species

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Why do organisations like forest and bird and fish and game get such big say in how the river operates when they don't contribute financially to the up keep of the flows of the river which is created by the falls dam that is paid for by the irrigators of the manuherekia valley. And why is it that the irrigators of the manuherekia have very little say in how the river flows when they have paid and will have to pay again for the infrastructure that ensures the river keeps flowing all year round.

Location: Manuherekia

60: ONLINE SURVEY

Anonymous User:370535952 2021-05-20 20:38:45 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would prefer 1100l/s to be included. I have seen evidence that it would support aquatic life.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The farming, horticulture and viticulture are very important to this area, as is the health of the environment. It would be prudent to have much more water storage to overcome any shortfall in the ability to look after all the above. What unintended consequences may occur if the minimum flow is increased. Will the trout eat the galaxiids? Will it be possible to undo it if they do?

Location: Manuherekia

61: ONLINE SURVEY

Anonymous User:879822257 2021-05-20 21:05:08 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Would please all parties no one adversely affected

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

62: ONLINE SURVEY

Anonymous User:879829684 2021-05-20 21:16:29 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Ecosystem health
Support mana whenua

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

63: ONLINE SURVEY

Anonymous User:879829281 2021-05-20 21:18:07 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

To bring back a clean river for swimming & fishing

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Yes, get on with it, it's already pretty stuffed

Location: Manuherekia

64: ONLINE SURVEY

Anonymous User:879844204 **2021-05-20 21:51:01 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This flow will more than meet the environmental requirements and any higher flow will be extremely dangerous for children swimming. Also bear in mind that this is a minimum and most of the time the flow is above the minimum

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The minimum flow is very carefully managed

Location: Manuherekia

65: ONLINE SURVEY

Anonymous User:879791282 **2021-05-20 22:02:10 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river needs to be healthy

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

As a resident i can see it has degraded significantly these last ten years with the agricultural intensification which resulted from pivot implementation.

Location: Manuherekia

66: ONLINE SURVEY

Anonymous User:879862568 2021-05-20 22:30:55 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The very least to improve quality

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Don't delay

Location: New Zealand

67: ONLINE SURVEY

Anonymous User:879861932 2021-05-20 22:38:09 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Based on graphic and the description, scenario 3 appears to be the bare minimum to allow the river to recover in any meaningful way. It's a concession to self-interested land owners. I'd vote for 4 or 5 but I don't think that will be popular enough to carry, so I might be wasting my vote.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I love the Manuherekia and have been watching it whither and degrade for over 25 years. It's a shame and an indictment on ORC and all of Otago that it's been allowed to be abused for so long.

Location: Holiday / Family / History

68: ONLINE SURVEY

Anonymous User:880079528 2021-05-21 07:03:31 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

More water the better for fishing

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

69: ONLINE SURVEY

Anonymous User:763271533 **2021-05-21 07:56:21 +1200**

Q1: Minimum flow preference

> 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The data provided shows > 3.5 cumecs required to maximise ecological integrity

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

70: ONLINE SURVEY

Anonymous User:880109185 **2021-05-21 08:09:08 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

There needs to be more storage in the catchment- to contain water in flood time- and slow release later.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Water quality itself should be good.

Location: Central Otago District

71: ONLINE SURVEY

Anonymous User:637887912 **2021-05-21 09:16:44 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Fishing, swimming, healthy water makes sense

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Just that we need to be responsible for our wonderful river.

Location: Central Otago District

72: ONLINE SURVEY

Anonymous User:880143002 **2021-05-21 09:25:04 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Better water flow for the health of the river. Also better for the fish , swimming and long term benefits for the area.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We should all do as much as we can to protect all of our rivers.

Location: Central Otago District

73: ONLINE SURVEY

Anonymous User:880144140 **2021-05-21 09:34:44 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We have a responsibility to human society to return the Manuherekia to be a functioning ecosystem for manifold reasons, including the long-term protection of an economic resource. Water resources will become less reliable going into the future and to entertain anything less that this would be irresponsible.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Peoples positions on this topic can be largely determined by their values and world-views. Comments displayed following the ODT article <https://www.odt.co.nz/rural-life/rural-life-other/dismay-flow-rate-options> illustrate this and also illustrate the irreconcilable nature of the opposing views. No amount of biophysical science will change this but progress towards resolution can be better understood via social science and useful messaging for constructive debates can be devised. I encourage ORC to continue to develop expertise in these areas and bring it to bear on issues such as this. I would be happy to help if this needs clarification.

Location: Central Otago District

74: ONLINE SURVEY

Anonymous User:880147376 2021-05-21 09:41:36 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best balance for farm and irrigation with river protection values

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Need consider needs of local land owners before tourism and outside opinions

Location: Manuherekia

75: ONLINE SURVEY

Anonymous User:880212679 2021-05-21 11:47:05 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Keeping our rivers healthy should be a priority, and the Central Otago landscape is not suited to intense irrigation.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Prevent grazing on the river front and preserve ecosystems

Location: Manuherekia

76: ONLINE SURVEY

Anonymous User:349492862 2021-05-21 12:14:38 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We need to protect the river and Manuherekia has the right to be as healthy as possible. Important to have confidence when children go swimming or we are trying to catch a fish. Although certain farming forms would suffer, other farming options are available, that are more suited to our Central Otago climate.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please protect Manuherekia river and provide a safe place for our children and grandchildren to enjoy

Location: Central Otago District

77: ONLINE SURVEY

Anonymous User:880248686 **2021-05-21 12:47:30 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

we need to start looking after our environment

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

78: ONLINE SURVEY

Anonymous User:880250115 **2021-05-21 12:53:17 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Better for river health, recreation, and visual amenity.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

79: ONLINE SURVEY

Anonymous User:880196078 **2021-05-21 13:17:56 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

A high minimum flow is needed to allow river quality and ecosystem health to improve.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

80: ONLINE SURVEY

Anonymous User:880397413 **2021-05-21 16:59:53 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

81: ONLINE SURVEY

Anonymous User:880467447 **2021-05-21 19:47:38 +1200**

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I prefer these scenarios because they are the best for the ecosystem.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

At current levels I can smell the effluent in the river

Location: Manuherekia

82: ONLINE SURVEY

Anonymous User:879845312 **2021-05-21 20:09:16 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The description of scenario 5 pretty much says everything I'd want to say myself about 'why'. No (nuisance) algae, so safe for children and dogs to swim in and clean enough to support aquatic life - except algae! It's ridiculous, and a real reflection on the exploitative greed that's seen - for example, dairy farming on land which originally was only capable of grazing 1 sheep to 10 acres. It's obvious that Scenario 5 is going to be detrimental to some agricultural businesses, but we can't keep allowing the degradation of the natural resources that belong to everyone currently and are the heritage that we're going to be leaving to future generations.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We have to get serious about actually "managing" this waterway (and others) and not giving in to pressure from vested interests.

Location: Manuherekia

83: ONLINE SURVEY

Anonymous User:880496990 2021-05-21 20:30:51 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

You must place the health and wellbeing of water bodies first, to do this then it would seem need >3000. We have been robbing Peter to pay Paul for too long. Anything below 3000 and Peter dies.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: New Zealand

84: ONLINE SURVEY

Anonymous User:880480377 2021-05-21 20:55:35 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Better than now but not too radical

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Do not understand Rohe.

Location:	Manuherekia
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85: ONLINE SURVEY

Anonymous User:880597667 2021-05-21 23:03:44 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

86: ONLINE SURVEY

Anonymous User:880624393 2021-05-22 00:24:37 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Will make a significant difference to recreation value of the river without making such drastic change to farmers that they can't adapt

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Holiday / Family / History

87: ONLINE SURVEY

Anonymous User:880823681 2021-05-22 08:09:45 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This survey is an artificial set up to generate dumb, unjust and unnecessary conflicts between rurally committed locals, who are wrongly positioned to be opposed to care for nature. The commercialisation of superficial access for selling out to tourism, generating ecological disturbance and increased traffic in natural areas is a daft transfer. It is sad to see this destructive culture persist in a digital set up that floats as a confirmatory tool of easy populism and oppose alternative productive dialogues that are grounded in truth, meaning and reality. Surveys like this are used as an oversimplified bipolar political tool sourced from

an artificial calcified bubble to accentuate unsophisticated models that demotivate the organic support to improve biodiversity, ecology and nature in daily labour. Never sell to politicians and decision makers that external parties who quantify opinions online are in any way a reliable source of research. Stay behind your fake manipulative screens and don't ever visit the river. I hope DoC and Fish & Game will fight the construction of this survey and grow up; it would be awesome if they were productively grounded in communities.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Trust the locals and invest in work for nature, not in the casual entertainment of flippancy tourism. The commercialisation of assets is much more harmful than the quiet care of workers.

Location: Manuherekia

88: ONLINE SURVEY

Anonymous User:880870323 **2021-05-22 09:15:39 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Farm viability is threatened with other options

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: New Zealand

89: ONLINE SURVEY

Anonymous User:880891067 **2021-05-22 10:05:23 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Ecosystem integrity is more important than farming

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Manuherekia

90: ONLINE SURVEY

Anonymous User:880896565

2021-05-22 10:28:03 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We have to keep the health of the river going for future generations

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There is way too much water being pumped out of the river and too leaching into the river occurring

Location:

Manuherekia

91: ONLINE SURVEY

Anonymous User:880920093

2021-05-22 11:30:41 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

If we have to choose one it's scenario 1. Our community relies on Irrigation to keep it going. We need this water to generate jobs, support local businesses. That's more important than a few days a year when the rivers low.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The minimum flow of the river relies on the falls dam releasing water during summer. With out it the river would run dry. Why is there no support to build a new larger dam to capture water in high rain fall events/ winter. Rather than heading out to sea and wasted. Then during summer everyone is happy

Location:

Manuherekia

92: ONLINE SURVEY

Anonymous User:880946343

2021-05-22 12:34:00 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Safe river for swimming and fishing! Less toxic algae, feel safe walking the dogs and letting them swim.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Often river fluctuates through the year, how will you control minimum flow? We pay to be on the irrigation scheme for the Manuherekia to water our grass and our vegetables on our lifestyle block.

Water is a valuable resource for us, we currently pay \$1k+ per year to have it available as Central Otago known for very little rainfall. I hope a happy balance is achieved as river health and a healthy ecosystem are paramount for our land and future generations.

Along the Manuherekia is sewage and agriculture bordering the river, could this be looked at with more strategies to improve overflow, chemicals, nitrates flowing into the river etc.

Location: Central Otago District

93: ONLINE SURVEY

Anonymous User:881047215 **2021-05-22 16:23:07 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I grew up swimming in this river and would like my grandchildren to be able to swim in it

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Some types of farming in Central Otago could be classed as artificially supported and sustainable if there success requires destruction of this river

Location: Central Otago District

94: ONLINE SURVEY

Anonymous User:881052040 **2021-05-22 16:35:15 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No dairy grazing in the catchment

Location: Central Otago District

95: ONLINE SURVEY

Anonymous User:881058408 2021-05-22 16:52:57 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

People should be able to swim with confidence in our rivers

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

96: ONLINE SURVEY

Anonymous User:881063366 2021-05-22 17:20:29 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

More natural option than the others. Less likely to get sick using the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

97: ONLINE SURVEY

Anonymous User:655423398 2021-05-22 18:02:08 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

better farming practices will allow for better water quality

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

why would we look to better introduced trout habitats when they are our native fish's main predator?

Location:	Manuherekia
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98: ONLINE SURVEY

Anonymous User:881194003 2021-05-22 23:31:36 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

99: ONLINE SURVEY

Anonymous User:880962986 2021-05-23 08:36:14 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Its in the middle. We need to strike balance for the whole community

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I think raising the level of Falls Dam would be a better option

Location: Manuherekia

100: ONLINE SURVEY

Anonymous User:881377130 2021-05-23 08:45:04 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think we have to protect our waterways for swimming and fish life

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:	Manuherekia
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101: ONLINE SURVEY

Anonymous User:881379350 **2021-05-23 08:54:09 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best for ecosystem

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I'm glad something is finally happening to improve the water quality.

Location: Manuherekia

102: ONLINE SURVEY

Anonymous User:881381361 **2021-05-23 08:57:50 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is best for the river health and majority of a wide population.

In the MacKenzie Basin farmers have to bore for water and provide their own

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Just take care of what is the most natural approach

Location: Manuherekia

103: ONLINE SURVEY

Anonymous User:881379350 **2021-05-23 08:59:02 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

If it can't be scenario 5 then it should be at least scenario 4.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The river looks disgusting and off-putting and I wouldn't even let me dog swim in it. Nothing less than scenario 4 will do.

Location: Manuherekia

104: ONLINE SURVEY

Anonymous User:881379350 **2021-05-23 09:06:32 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

better for the river and therefore environment in general

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

105: ONLINE SURVEY

Anonymous User:881402855 **2021-05-23 09:50:22 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Full restoration for future generations.

Too much pressure is going on a landscape clearly not suited to high level production. Nz waterways are suffering.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

106: ONLINE SURVEY

Anonymous User:881401845 **2021-05-23 09:56:42 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I take the view that the natural health of the river should be paramount for the sustained health and well being of the land and people using the river, however, I am concerned about the economic viability of farms that are affected. I would like to see other ideas that would help mitigate the effect on farming, such as how effective farming practices are and alternative forms of irrigation.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The quality of the water should be paramount. The ecosystem should be healthy and swimming should be possible without risk to health.

Location: Manuherekia

107: ONLINE SURVEY

Anonymous User:881414970 2021-05-23 10:19:15 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

River health for everyone to enjoy

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

108: ONLINE SURVEY

Anonymous User:881415090 2021-05-23 11:32:01 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is very important that the Manuherekia is kept at a level that allows it to be used for recreational uses. River health has been gradually decreasing for as long as I can remember to the point now, where I openly avoid making the Manuherekia a visiting spot in the summer due to low levels of water and the river smelling and looking extremely disgusting. New Zealand needs to keep up with its clean green global image and this is definitely one of the rivers damaging that image.

I understand that farmers all the way down the valley require large amounts of water to keep their businesses running but there must be a compromise for public health and wellbeing.

Thank-you for your time.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

109: ONLINE SURVEY

Anonymous User:881471298 **2021-05-23 13:06:15 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I know plenty of people that fish this now.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Raise the falls creek dam to better manage the water flows

Location: Manuherekia

110: ONLINE SURVEY

Anonymous User:881506938 **2021-05-23 14:28:08 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

a good compromise

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

no

Location: Queenstown Lakes District

111: ONLINE SURVEY

Anonymous User:881506991 **2021-05-23 14:47:26 +1200**

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best health of the river and water. Whilst this puts pressure on farming I have to question the presence of dairy and irrigation systems in this low rainfall area.

Over my lifetime farming has changed its expectation of water. Also the presence and increase of lifestyle blocks with people coming in expecting to grow things with a higher need of water than what would normally grow given the rainfall. This in my opinion is unrealistic and with the limited water available should be restricted. Also this area is not traditionally a dairy area, so why force the land to support this. Additionally the change of orcharding to some form of hydroponics feeding must have an impact on requirement for water. There has been the change with vineyards as well though I am not familiar with their water use.

So I am saying that if the climate and land is not naturally suitable for an agricultural/horticultural or other use then it shouldn't go ahead or take priority over the natural environment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It has been fantastic to see the improvement to the water recently following the drainage work completed regarding the outlet joining the Clutha river. It has been a long time since I have seen the water as clear and flowing for instance around the Shaky Bridge. Also upstream at the Galloway bridge.

I was disappointed to see the dairy farm next to the river out by Lauder when I was through there a few years ago. Also the presence of irrigators in the Ida Valley.

Location: Holiday / Family / History

112: ONLINE SURVEY

Anonymous User:775808176 2021-05-23 16:21:04 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The higher flows will provide a healthier river providing better opportunities for recreation and drinking water. I do not like scenarios 1,2 or 3 as these will compromise all of the mana whenua values and be a poor environmental outcome.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I understand and appreciate this will impact agricultural interests, but it has been known for some time the existing water use was subject to review. There has also been a lot of changes to land use and intensification. There has to be a change to a more sustainable land use that takes into account the wider populations values. I have serious concerns that several O.R.C Councilors have agricultural backgrounds and are more sympathetic to farming requirements. Similarly I have concerns that farming groups, such as federated farmers, will lobby and apply pressure in a way the public are unable to. This will have a detrimental effect on adopting a flow rate that will provide a healthy Manuherekia flow rate.

Location: Manuherekia

113: ONLINE SURVEY

Anonymous User:881563539 2021-05-23 16:49:07 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Our district requires farming for its financial wellbeing.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

114: ONLINE SURVEY

Anonymous User:881591239 2021-05-23 17:52:01 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

i would like water improvement and hope this will leave a little room for farmers

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

no

Location: Manuherekia

115: ONLINE SURVEY

Anonymous User:881596511 2021-05-23 18:10:34 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best conditions for public /family use

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:	New Zealand
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116: ONLINE SURVEY

Anonymous User:881597563 2021-05-23 18:10:57 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because swimming is reasonable

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Can farmers get water for irrigation from other sources?

Location: Central Otago District

117: ONLINE SURVEY

Anonymous User:864289034 2021-05-23 19:07:40 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Paddling down the river in a packraft, the biggest issues are hitting the bottom and algae - this seems most likely to minimise these issues. It also seems to be the best for the ecosystem. Consideration should be given higher flows e.g. 4000L/s

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

118: ONLINE SURVEY

Anonymous User:881648927 2021-05-23 20:29:59 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's needs to be about restoring the ecosystem not about encouraging dairy farms in a climate, landscape and environment totally unsuited to that practice.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Council needs to discourage dairy farming in these areas as that type of farming is clearly not suited for this type of dry climate with low rainfall.

Location: Dunedin District

119: ONLINE SURVEY

Anonymous User:881882643 **2021-05-24 06:42:11 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

biological and environmental objectives are achieved

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The river at Alexandria is unpleasant. Algae, bad smell.

Location: Holiday / Family / History

120: ONLINE SURVEY

Anonymous User:881896410 **2021-05-24 07:17:52 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Protection of the Manuherekia River ecosystem must be the priority. From your information it's showing most of the native river species are only 'good' or not even reaching 'good' at Scenario 5. There should be a Scenario 6 that demonstrates the optimum flow rate for the river ecosystem. Clearly the historic and more recent takes are not even remotely sustainable and the status quo doesn't protect the river and its values.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please consider the voices of future generations and not just those with a vested economic interest.

Location: Holiday / Family / History

121: ONLINE SURVEY

Anonymous User:881900491 **2021-05-24 07:24:02 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It appears to be the minimum flow that best balances the environment with current farm viability. However, I would prefer to see a minimum flow of at least 2500 l/s phased in over 10 years.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

122: ONLINE SURVEY

Anonymous User:881902442 2021-05-24 07:28:25 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

To improve the health of the river is number one priority. The water is not owned by any individual. All should be able to enjoy it safely and experience a natural and healthy ecosystem.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

When I was a child I swam, fished, and drank from the Manuherekia.

Location: Dunedin District

123: ONLINE SURVEY

Anonymous User:881903770 2021-05-24 07:32:28 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Ecosystem health is an imperative

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It must be improved soon

Location: Manuherekia

124: ONLINE SURVEY

Anonymous User:776870146 2021-05-24 10:38:29 +1200

Q1: Minimum flow preference	
3,000 l/s	
Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why	
Best environmental implications.	
Q3: Do you have any other feedback on water management in the Manuherekia Rohe?	
Location:	Dunedin District

125: ONLINE SURVEY

Anonymous User:881971512	2021-05-24 10:49:19 +1200
Q1: Minimum flow preference	
3,000 l/s	
Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why	
because this is a road back to the way the river was when it was enjoyed as a community asset	
Q3: Do you have any other feedback on water management in the Manuherekia Rohe?	
It seems wrong that a dairy farm was established on semi arid land for the benefit of a few to the detriment of many. Maybe the farms should establish a huge water reservoir to capture flood overflow and then the responsibility for that allocation of that water would fall with those who want more from the river than it can naturally give.	
Location:	Manuherekia

126: ONLINE SURVEY

Anonymous User:881914726	2021-05-24 11:01:35 +1200
Q1: Minimum flow preference	
3,000 l/s	
Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why	
RIVER QUALITY	
Q3: Do you have any other feedback on water management in the Manuherekia Rohe?	
Location:	Manuherekia

127: ONLINE SURVEY

Anonymous User:881989935	2021-05-24 11:32:03 +1200
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Q1: Minimum flow preference	
2,500 l/s	
Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why	
Healthier river	
Q3: Do you have any other feedback on water management in the Manuherekia Rohe?	
Location:	Dunedin District

128: ONLINE SURVEY

Anonymous User:882039218	2021-05-24 13:31:53 +1200
Q1: Minimum flow preference	
1,500 l/s	
Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why	
Q3: Do you have any other feedback on water management in the Manuherekia Rohe?	
Location:	Not specified

129: ONLINE SURVEY

Anonymous User:882043793	2021-05-24 13:43:53 +1200
Q1: Minimum flow preference	
2,000 l/s	
Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why	
Best compromise of all the options	
Q3: Do you have any other feedback on water management in the Manuherekia Rohe?	
Location:	Dunedin District

130: ONLINE SURVEY

Anonymous User:455751262	2021-05-24 14:04:38 +1200
Q1: Minimum flow preference	
3,000 l/s	
Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why	

Fishing and eco health.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Should be 5000 not 3000.

Location: Dunedin District

131: ONLINE SURVEY

Anonymous User:744929381 2021-05-24 14:08:08 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

ecological health

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Flow should be 5000 not 3000

Location: Dunedin District

132: ONLINE SURVEY

Anonymous User:882055411 2021-05-24 14:10:18 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

in-stream values such as fish, insects and healthy water must take precedence over human activities including those historically thought to be acceptable

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

intensive farming has been allowed to develop to the detriment of river values, but this must not be allowed to continue

Location: Queenstown Lakes District

133: ONLINE SURVEY

Anonymous User:882189736 2021-05-24 18:05:20 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river needs to be good for swimming

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No sewerage in the water please

Location: Dunedin District

134: ONLINE SURVEY

Anonymous User:882186969 2021-05-24 18:06:25 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I have fished and swam in the manuherekia river for 35 years and it never used to regularly get so low and fishing was historically better. Farming intensification has increased over the years and the river has declined. farmers used to be fine when they actually farmed the land rather than intensely farming and forcing the land to do what they wanted.

I would like to see a decline in intensive farming and a natural return to the river levels.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Stop dairy farm proliferation in central otago. The land doesn't support it.

Location: Manuherekia

135: ONLINE SURVEY

Anonymous User:882194364 2021-05-24 18:24:54 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

That river was the best fishing swimming river around. Now it is so dirty you can't swim in it!

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Too much irrigation water is being taken off and too many dairy cows are up further and not fenced off the river. It is now unsanitary to enjoy any longer

Location: Holiday / Family / History

136: ONLINE SURVEY

Anonymous User:882270056 2021-05-24 19:33:52 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Any higher will put horticulture businesses out of business, causing the area to lose its traditional economic source and why people enjoy coming to Central Otago, for the fantastic scenery and stone fruit. Imagine if it became dairy country like Southland, no one would visit the region. If you make the water level too high, it will be dangerous for swimming, especially for younger children. What happens if the irrigators decide to remove Falls Dam, will we less warning when there are floods like at New Years? How would you control the flow without the dam?

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Why should New Zealanders put their businesses at risk for international people coming here to fish? Is that because most Fish and Game staff make most of their money by being international fishing guides?

Location: Manuherekia

137: ONLINE SURVEY

Anonymous User:882318350 2021-05-24 20:04:48 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Concerns over the health of the river(s) , the at times very low levels, while irrigation pumps are still going

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

138: ONLINE SURVEY

Anonymous User:882371582 2021-05-24 21:21:53 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe the current status quo should be given as one of the options.

You are misleading the general public. Please cease the consultation at once and add it in.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

As an employer of 9 people in my business which relies heavily on irrigation. I can see a potential staff reduction of 50% if irrigation reliability declines as per scenarios. This is very stressful for them at present. How can I reassure them whilst you are touting this stuff?

Location: Manuherekia

139: ONLINE SURVEY

Anonymous User:882851416 **2021-05-25 07:25:47 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Fair balance between river users

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Can another dam be created on the river for irrigation purposes and min flows increased to 3000

Location: Dunedin District

140: ONLINE SURVEY

Anonymous User:882883848 **2021-05-25 08:02:23 +1200**

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

better for the waterway

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

this water way needs to be looked after and far too much flow has been diverted from the river due to mining takes utilised now for farming. Lets make it soething we can all be proud of. Water is our life blood.

Location: Queenstown Lakes District

141: ONLINE SURVEY

Anonymous User:879325915 2021-05-25 10:02:52 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We must protect OUR NZ Waterways. The Manuherekia has deteriorated so very badly since the increase in Farm irrigation. Especially the absolutely massive DAIRY farms in the area. As well as taking water...they have been polluting with nitrates etc....Their short sighted profit is extremely bad for OUR Manuherekia River.

These Farmers should be looking at Alternative Agriculture. Its been proven to work.! In Central Otago.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Our chance is NOW. To make OUR Manuherekia healthy again.Future Generations will want to know why if not heeded.

Location: Manuherekia

142: ONLINE SURVEY

Anonymous User:759461308 2021-05-25 10:21:48 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This scenario will ensure the health of the river for future generations, rather than the present situation where a few people get the benefit, at the expense of future generations

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Businesses that depend on the water will just have to store water, buy it in, change their practices. They have had 30 years of knowing this time was coming. It has finally arrived, and the river should be looked after, for everyone, not the elite few.

Location: Manuherekia

143: ONLINE SURVEY

Anonymous User:883035756 2021-05-25 11:33:08 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's the minimum required for visual amenity as well as maintenance of other values such as ecosystem health, swimming and fishing.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The river is important for tourism
Central Otago rail trail

Location: Not specified

144: ONLINE SURVEY

Anonymous User:870642185 2021-05-25 12:00:32 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It goes the furthest to ensure the health of the river for current and future generations.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

3 cumec is not enough. I don't think the options have gone far enough, inevitably there will be compromise, likely landing on scenario 2 meaning only marginal improvements in river health. Basically it's been set up in order for it to be acceptable to farming. The most extreme scenario should have considered zero water take for farmers so that it framed the question around the river rather than farming. That way 3-4 cumec would be very appealing to the farming community.

Location: Manuherekia

145: ONLINE SURVEY

Anonymous User:763725606 2021-05-25 12:05:28 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the only possible option for the health of the river of and for itself. The river is not a resource to be used as we see fit for our own profit or entertainment. It exists and has existed long before there were human beings here, whether they be miners, irrigators, anglers or swimmers. We are a part of the ecosystem, not separate from it. If we continue to use rivers - not just the Manuherekia - as if we owned them, and as if we owned the land they flow through, we as a race, and this planet will become untenable. We are kaitiaki and need to behave as such.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

146: ONLINE SURVEY

Anonymous User:883082067 **2021-05-25 12:27:16 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

147: ONLINE SURVEY

Anonymous User:883119671 **2021-05-25 12:56:31 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe we need to protect our flora and fauna and waterways above all else right now, or we will lose it forever. Farming will need to transform and become more efficient as our climate continues to change.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

148: ONLINE SURVEY

Anonymous User:883122811 **2021-05-25 13:02:05 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

In stream values can be protected by flow management with water users.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

These scenarios are poorly conceived overly simplistic and in some cases wrong. There is no identification of the objectives or requirements to achieve them.

Location: Dunedin District

149: ONLINE SURVEY

Anonymous User:883192110 2021-05-25 14:19:23 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Life can be seen in the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

150: ONLINE SURVEY

Anonymous User:883234399 2021-05-25 15:28:00 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

TO GIVE IT THE BEST CHANCE OF RETURNING TO GOOD HEALTH

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

THE WATER QUALITY HAS DETERIORATED SIGNIFICANTLY SINCE FARMING PRACTISES HAVE CHANGED-
WATER DRAW OFF/ DAIRY/NITRATES

Location: Queenstown Lakes District

151: ONLINE SURVEY

Anonymous User:883271983 2021-05-25 15:49:25 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Compromise between recreation and farming

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: New Zealand

152: ONLINE SURVEY

Anonymous User:883278840 2021-05-25 15:58:42 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

To return the river to its natural flow which I enjoyed as a boy 60 years ago.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

153: ONLINE SURVEY

Anonymous User:883339742 2021-05-25 17:24:18 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

To simply return the natural habitat of the river and prevent the ongoing relentless degradation of this river. Allow our children and grandchildren their right to clean clear water.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The status quo is not an option. Significant change must happen now - it is long overdue.

Location: Queenstown Lakes District

154: ONLINE SURVEY

Anonymous User:883373457 2021-05-25 18:08:52 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best outcome for the health of the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

A lot more native bush beside rivers. Actually fence rivers from stock

Location: Dunedin District

155: ONLINE SURVEY

Anonymous User:883376085 2021-05-25 18:16:17 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The Manuherekia for as long as I can remember from living on its doorstep which is 48 years has been a fantastic river for children, sports fishing and the likes and should be brought back to that status again

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Let it do what all pristine rivers do

Location: Manuherekia

156: ONLINE SURVEY

Anonymous User:883380688 2021-05-25 18:21:04 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This option is the best of the 5 but still not adequate in my view for health of the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No I will leave that up to the experts

Location: Manuherekia

157: ONLINE SURVEY

Anonymous User:883421326 2021-05-25 18:58:57 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

People need to eat drink and keep warm and farming is where we get this from and you can't farm grow crops without water

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

158: ONLINE SURVEY

Anonymous User:883429620 2021-05-25 19:12:53 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

More flow better for environment

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

159: ONLINE SURVEY

Anonymous User:883442525 2021-05-25 19:37:27 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Seems to be a "best of both worlds" scenario, I believe there needs to be a balance between farms being profitable as well as the eco system thriving. More attraction for fishing could potentially provide money to the region with international anglers.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

At the current status quo the river is slowly being destroyed and it's encouraging that this report has been developed, I hope this eventually leads to an improvement in flows.

Location: Queenstown Lakes District

160: ONLINE SURVEY

Anonymous User:883455061 2021-05-25 19:43:44 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Better

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Better for recreational activities and a healthier river

Location: Manuherekia

161: ONLINE SURVEY

Anonymous User:883457005 2021-05-25 19:49:53 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the above because our rivers are healthy, fish and other wildlife are there. There is no need for change.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Omakau School conducted testing in Omakau with enviro schools and all tests showed the river was healthy and at or above recommended levels for various things but this info is not made available to the public - why aren't we hearing about it?? Why do we need change if it is already healthy.

Location: Manuherekia

162: ONLINE SURVEY

Anonymous User:883449331 **2021-05-25 20:06:35 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The economy of farmers is more important than a few fishermen and swimmers. But then it depends what sort of farmer. With the increase in cow farming, more water is used on the land and there is an increase of nitrates in our ground water. Before that cow farmer is allowed to use that water, he has to make steps on his farm to reduce this.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Manuherekia

163: ONLINE SURVEY

Anonymous User:883476710 **2021-05-25 20:25:30 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

164: ONLINE SURVEY

Anonymous User:883485700 **2021-05-25 21:00:40 +1200**

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of our rivers must be improved. Take water off the river at high flow times & store in dams etc on the farms. We don't have natural farming land that has high rainfall. We need to stop manipulating the environment to what we want & farm appropriately to nature. It's not natural or sustainable to dairy farm in this area. Once our waterways are destroyed they are gone forever no matter how hard you may try to fix it.

A drive from southern Canterbury up to Northern Canterbury is nothing but dried up streams & rivers with huge pivots and irrigation runs flooding paddocks. Greed seems to win out giving detriment to the environment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

165: ONLINE SURVEY

Anonymous User:883509161 2021-05-25 21:32:24 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Our area needs export income to fund infrastructure, health Andover community wellbeing. No 1 provides for this best.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The Falls Dam should be raised so that all values are enhanced.

Location: Manuherekia

166: ONLINE SURVEY

Anonymous User:883512761 2021-05-25 21:43:29 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would prefer higher quality water and eco systems, not a fan of poor farming practices

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It's easy to see where water quality is compromised, walk up the river and see the green algae

Location:	Manuherekia
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167: ONLINE SURVEY

Anonymous User:883514213 **2021-05-25 21:46:56 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because if a river is healthy enough to swim in it's a healthy ecosystem for all including local wildlife.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Otago

168: ONLINE SURVEY

Anonymous User:883520419 **2021-05-25 21:58:18 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This would likely cause status quo with regards to recreational and still enable those who have already been forced to invest massively in irrigation due to changing rules, to survive. The dams that were built many decades ago were for that very purpose.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I would like those in the know to contribute to these decision making processes, not those who have just arrived in the areas and are suddenly unhappy with their new neck of the woods

Location: Manuherekia

169: ONLINE SURVEY

Anonymous User:883515583 **2021-05-25 22:00:33 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because the Manuherekia River is a very special place to our family and friends for swimming and picnicking over summer.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We have noticed that water demand and water pollution has increased with increased dairy farming. Limit this activity to an appropriate sustainable level and Scenario 5 can be achieved.

Location: New Zealand

170: ONLINE SURVEY

Anonymous User:883559777 2021-05-25 23:14:26 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Still able to swim and fish and have dogs safely with limited algae and farming would still get some irrigation.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please don't take our outdoor activities away. Central Otago is beautiful and it is so beneficial for children to be able to swim in fresh water not chlorinated like the swimming pool.

Location: Manuherekia

171: ONLINE SURVEY

Anonymous User:883628019 2021-05-26 00:59:43 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

172: ONLINE SURVEY

Anonymous User:883811664 2021-05-26 06:26:25 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Ecosystem health but not severally affecting irrigation takes

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Waitaki District

173: ONLINE SURVEY

Anonymous User:883826394 **2021-05-26 06:48:51 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I used to swim in this river system as a young child. Now I would not dream of taking my kids anywhere near due to low flows, bad smell and toxicity.

I walked this river, fished, enjoyed it natural splendor.

Went back recently and utterly shocked at how poor the river looked.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Significant penalties for anyone/thing polluting it or taking too much water

Location: Dunedin District

174: ONLINE SURVEY

Anonymous User:883828772 **2021-05-26 06:54:00 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's about the best balance I can see for everyone

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

175: ONLINE SURVEY

Anonymous User:883826155 **2021-05-26 06:54:38 +1200**

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We need to move away from farming that uses vast quantities of water and focus on starting to improve our natural waterways health. Scenarios 4 & 5 would allow wildlife and the land around the river to return to a more natural state.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Otago

176: ONLINE SURVEY

Anonymous User:883836336 **2021-05-26 07:13:57 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

177: ONLINE SURVEY

Anonymous User:883901615 **2021-05-26 08:57:26 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best for environment

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please do the right thing.

Location: Dunedin District

178: ONLINE SURVEY

Anonymous User:883889454 2021-05-26 08:58:27 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Better chance of irrigation supply being available although I think the minimum flows set on all options are way too high. Plus it is the Falls Dam operated by the irrigators that keep the Manuherekia River flowing in the summer however this information is never included in what you tell the public. We are just vilified in the media by people who are lead by what they read.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I think the ODC needs to do more to educate the general public on irrigation and the benefits it brings to the local community and work with irrigators instead of against.

Location: Manuherekia

179: ONLINE SURVEY

Anonymous User:883915952 2021-05-26 09:18:01 +1200

Q1: Minimum flow preference

2,000 l/s - 2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Due to the swimming opportunity, the fact that irrigation reliability is pretty bad for all scenarios. Which is why we should benefit the fishing and swimming

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No, but farming should not be done above the river as run off just fills it up. There should be no agricultural activity above the river.

Location: New Zealand

180: ONLINE SURVEY

Anonymous User:883917303 2021-05-26 09:18:08 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

181: ONLINE SURVEY

Anonymous User:883921961 2021-05-26 09:27:07 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The environment is the most important thing for the future, if farm's can't run without irrigation they need to change what they are farming and the way they are farming

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

182: ONLINE SURVEY

Anonymous User:883930713 2021-05-26 09:44:00 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Central Otago farmers depend on irrigation supply, you would be ruining livelihoods. Many farms and lifestyle owners have made costly irrigation scheme upgrades to meet new requirements and reduce water usage and promote the positive use of irrigation - we dont want this cost to be all for nothing

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

183: ONLINE SURVEY

Anonymous User:883933262 2021-05-26 09:48:08 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Irrigation purposes.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

184: ONLINE SURVEY

Anonymous User:883908839 2021-05-26 09:52:28 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is the minimum minimum flow to meet essential needs

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Relatively recent dairy operations should cease - totally dependent upon excessive water take and will increase nitrate levels in ground water.

Location: Manuherekia

185: ONLINE SURVEY

Anonymous User:883942064 2021-05-26 10:03:27 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Most balanced option

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

186: ONLINE SURVEY

Anonymous User:883961195 **2021-05-26 11:38:27 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I prefer the present voluntary level of 900 l/s. This level shows a sheared level of pain across all aspects of the river, but is still achieving a better outcome than would have been if the River did not have the Falls Dam in place. History and Data of River flows show us that the river actually dries up under it's natural state under dry conditions for a short period of time during the Dry summer months and if not for a sheared approach by all then there would not be any benefits to all users of the river.

The ORC Table and poor assumption of river flows, shows a lack of understanding.

the Table assumes to tell your constituents that the Flow is like a Pipe, When in fact it is a reducing flow of natural water getting less as the Climate heats up under natural conditions, which has cause and effect to many aspects of the River, including the natural growth of algae.

As for a safe level, we believe at 900 l/s , My family consider this to be the best for recreational swimming, as this level has an abundance of safe pools of warm water for children to enjoy.

The many fish that are seen at this time shows that they have adapted and can be sustainable at 900 l/s.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I believe the current River management is in very good hands under the present guidance of the Falls Dam Directors and the River manager they employ to ensure that, all who have an interest in the River are shearing this precious resource equally and sustainably, as proven by science and facts of Data that have only recently come to light.

I also believe the Data which ORC and others have been collecting, ORC also has an obligation to shear with the people in the Manuherekia Community.

This data needs to be set out in a clear and Transparent way for all in the Manuherekia Community to see and understand the Full picture of the River.

Location: Manuherekia

187: ONLINE SURVEY

Anonymous User:884011760 **2021-05-26 11:48:30 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe it is the most practicable one because this district needs a viable farming community.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I don't know what a Rohe is.

Location: Manuherekia

188: ONLINE SURVEY

Anonymous User:884015461 2021-05-26 11:54:14 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This probably still below its original/historic flows

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Just more water in the stream and less for irrigation allowing safe swimming etc

Location: Central Otago District

189: ONLINE SURVEY

Anonymous User:884029572 2021-05-26 12:14:55 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This river should return to being safe for swimming

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

N/A

Location: Manuherekia

190: ONLINE SURVEY

Anonymous User:884035226 2021-05-26 12:27:29 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Holiday / Family / History

191: ONLINE SURVEY

Anonymous User:884034393 **2021-05-26 12:27:36 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

NO good having a good ecosystem if you staff the local farming and horticulture economy. need a balance

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

the trend toward green thinking is too severe and a better balance is needed. You usually find those wanting better river flows do not rely on the river for their economic wellbeing.

Location: Manuherekia

192: ONLINE SURVEY

Anonymous User:884050999 **2021-05-26 12:52:13 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's how it has been an it's taut on everybody not just one group

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The wider community will all be effected if Irrigation is taken. Farmers have all moved to spray irrigation which was asked of them give them a break

Location: Manuherekia

193: ONLINE SURVEY

Anonymous User:884069174 2021-05-26 13:20:23 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I have witnessed the deterioration of the river since 1980. We need the ecosystem to recover, and we need the nitrates to be stopped entering the waterway.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please do not allow unsustainable agricultural practices in the catchment. We have to act now, as it may be too late as it is.

Location: Manuherekia

194: ONLINE SURVEY

Anonymous User:884075330 2021-05-26 13:32:07 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is better than current without diverting too much from business viability. Not much use a river to swim in if there are no people because there is no business.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

195: ONLINE SURVEY

Anonymous User:884080650 2021-05-26 13:39:16 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:	Manuherekia
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196: ONLINE SURVEY

Anonymous User:884105794 2021-05-26 14:15:44 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Public benefit must always be considered before private benefit when considering public resources. Water should only be taken to a level where there is negligible impact on the environment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

197: ONLINE SURVEY

Anonymous User:884112142 2021-05-26 14:27:54 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The environment is more important to me than a farmer making a profit off the back of the river's flow. The water taken for irrigation is not even paid for and recreational users and the aquatic environment pay the price.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Water management needs to be strictly enforced and policed. I don't trust people making money out of the water being compliant.

Location: Manuherekia

198: ONLINE SURVEY

Anonymous User:884082201 2021-05-26 14:33:57 +1200

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

closest to existing.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Dairy farming should be banned in the Alexandra Omakau basin

Location: Manuherekia

199: ONLINE SURVEY

Anonymous User:884112142 **2021-05-26 14:39:23 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Actually I prefer 4000L/s but you do not give that option. It seems to me that ORC favours the Framers claim to the water too much. The environment is being degraded by intensive farming. The health of the river is critical to our future well-being, that of the fish, recreational users and the environment in general

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Water management is long overdue. It needs to be enforced and regular checking of Farmer intakes needs to take place. Stop pandering to the irrigators and get on with it.

Location: Manuherekia

200: ONLINE SURVEY

Anonymous User:884128526 **2021-05-26 14:39:51 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

best for the environment which will be best for all. dairy industry in the valley has had a huge negative impact on water quality.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

there should always be the same relative flow leaving a dam or catchment as enters it. storage can be built up during high rainfall events. this should have been much better advertised as question 4 below got no ticks. orc needs to seriously lift their game

Location: Dunedin District

201: ONLINE SURVEY

Anonymous User:884136974 2021-05-26 14:41:45 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is a river of high tourist and recreation value through the heart of Central Otago.

Q3: Do you have any other feedback on water management in the Manuharekia Rohe?

The valleys of Central Otago are not meant to be green - sorry farmers.

Location: New Zealand

202: ONLINE SURVEY

Anonymous User:884169297 2021-05-26 15:14:38 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I like when there is enough water for to keep the fish and swimming sector healthy

Q3: Do you have any other feedback on water management in the Manuharekia Rohe?

Beautiful river me and my mate would have caught and released 25 to 40 fish between 2 afternoon trips all good sized fish as well

Location: Clutha District

203: ONLINE SURVEY

Anonymous User:884175588 2021-05-26 15:21:43 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We should be allowing rivers to stay as natural as possible. If farming is unsustainable in the area due to lack of water then they should not be farming there. Stealing water from rivers for private gain should not be allowed

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

204: ONLINE SURVEY

Anonymous User:879544847 **2021-05-26 15:29:03 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Maximum water for the river and the ecosystems in it.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Too much water has been taken for the profit of a few at the expense of the environment

Location: Dunedin District

205: ONLINE SURVEY

Anonymous User:884236979 **2021-05-26 16:10:30 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Prefer to see the river in more useable and safer state for fishing, swimming and for wild life.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

N/a

Location: Manuherekia

206: ONLINE SURVEY

Anonymous User:884241025 **2021-05-26 16:22:13 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Middle ground, I love my fishing, but farmers are the back bone of the community and I'm good mates with many in that area who are all really good guys who would be struck down a lot with lower valuations of their property

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Dunedin District

207: ONLINE SURVEY

Anonymous User:884262951 2021-05-26 16:40:08 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Supporting recreation and ecology

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

208: ONLINE SURVEY

Anonymous User:884251916 2021-05-26 16:42:55 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Higher flow would have a decimating effect on the Manuherekia valley community, which is predominantly farming and support orientated. I don't wish to see all the small Manuherekia villages become empty run down dusty ghost towns.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I trust our rates will be reduced dramatically if a high flow rate is chosen.

Location: Manuherekia

209: ONLINE SURVEY

Anonymous User:884261901 2021-05-26 16:43:51 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is a higher flow than previous minimum flows and will only have a slight impact on water users. We can accept this as manageable.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

210: ONLINE SURVEY

Anonymous User:884267008 2021-05-26 16:48:09 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

A good compromise

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

211: ONLINE SURVEY

Anonymous User:884288960 2021-05-26 17:37:03 +1200

Q1: Minimum flow preference

> 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

What are all the scenarios about!???

Give the river back it's water so it can be healthy forever honestly is it that hard to figure out!!

If the water is needed for whatever reason give it sparingly and keep the rivers flow healthy and happy

Every river is important they were here way before us and common sense willing they should be here way after us so our children's children can sustain themselves

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Central Otago District

212: ONLINE SURVEY

Anonymous User:884291479 **2021-05-26 17:43:30 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river has been massively downgraded with abstraction. Te Mana o Te Wai requires the health of the river be placed first. While the 3m3 in this scenario does not accomplish a restoration of the instream environment it does come closer than any of the other scenarios

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The instream environment needs to be coupled with land use. Intensive irrigation activities should be precluded in land plans

Location: Central Otago District

213: ONLINE SURVEY

Anonymous User:884295188 **2021-05-26 17:48:04 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Needs to be enough flow for healthy water Eco systems to support good fish life, & also enough flow to ensure safe swimming without algae. These two important factors have been over looked for far too long in order to keep farmers happy! We should be protecting our waterways & the council has not been advocating hard enough to ensure the water is safe for children to learn from and enjoy the Manuherekia river!!

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This river has been terribly mismanaged, I have participated in several of these surveys over the years yet not significant changes ever get made. It so sad seeing this taonga continue to degenerate.

Location: Manuherekia

214: ONLINE SURVEY

Anonymous User:884302440 2021-05-26 18:00:00 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Health of river and its ecosystems is first priority - commercial use comes second

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It is high time the mauri of the river is restored. Farming can change and go dry but rivers cannot.

Location: Queenstown Lakes District

215: ONLINE SURVEY

Anonymous User:883579187 2021-05-26 18:06:53 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This River had been totally disrespected as the most overused for irrigation in the country. Once it was wonderful for swimming fishing etc now we have to worry about its safety to let our children swim in it. One of ourhas had rashes after swimming . None are allowed to put their head under the fun of rope swings over the river are banned in our family

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please think of future generations. Farming practices need to change. Farmers in this area used to farm appropriately for the climate. We have to get back to that.

Location: Holiday / Family / History

216: ONLINE SURVEY

Anonymous User:884303389 2021-05-26 18:12:17 +1200

Q1: Minimum flow preference

1,500 l/s - 2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because S1 doesn't provide much improvement on the status quo. S2 is a realistic compromise for irrigators to improve their precision and diversify their farming practices so as not to be dependent on water that isn't reliable. S3 is aspirational, but would be a great improvement for the river environment. It may force ingenuity and creativity in new (more sustainable) forms of land use. S4 and S5 are unrealistic and unattainable at this time.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

217: ONLINE SURVEY

Anonymous User:884320556 **2021-05-26 18:32:31 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Its seems to be the middle ground for both sides

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

As a fly fisherman, water quality is very important, but farming is also a big part of the area too. We need to get a balance between both.

Location: Manuherekia

218: ONLINE SURVEY

Anonymous User:884330395 **2021-05-26 18:37:27 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We have a get a balance for both sides, this seems in the middle, and bit of give and take

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

As a fly fisherman's wife, and someone who has dogs that live to swim in the river, it has been dangerous to do so for the dimigs as it is now.. .. not fit for humans to swim in either. As for fish, the water quality needs to be a the best for the environment for the fish and the bugs to live in. But our farmers also need to have water for stock and growth and they are also a big part of our area. We need to get a balance for both.

Location: Manuherekia

219: ONLINE SURVEY

Anonymous User:884339199

2021-05-26 18:54:42 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because the climate would never have made the farm type (dairying for example) to ever be viable. Entrepreneurs should not be able to wreck the waterways simply for profit and must

"bite the bullet" for the losses to be incurred from their original

Opportunistic decision

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Yes. As measured in the lower waitaki river the serious often life time impact from stephlococcus , particularly for children is a real current threat in the manuherekia especially when there is only one supposed monitoring site at the shaky bridge

Location:

Central Otago District

220: ONLINE SURVEY

Anonymous User:884354158

2021-05-26 18:55:25 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

To help the environment along with long term recreational hobbies for future generations.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:

Queenstown Lakes District

221: ONLINE SURVEY

Anonymous User:884362920

2021-05-26 19:11:31 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best outcome for all of our community and ecosystems.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

222: ONLINE SURVEY

Anonymous User:884371186 **2021-05-26 19:21:20 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would prefer to see the river in healthy condition rather than the state it has been lately

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

223: ONLINE SURVEY

Anonymous User:884365499 **2021-05-26 19:21:36 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Still below its 'natural' flow, and as a fishing guide I am mostly interested in the rivers health and not the farms around it.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Its had tremendous stress and degradation over the years, now is the time to make the most difference and change if possible.

Location: Dunedin District

224: ONLINE SURVEY

Anonymous User:884370812 **2021-05-26 19:23:02 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Protect river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Take less from river and it will give more

Location: Dunedin District

225: ONLINE SURVEY

Anonymous User:884374264 2021-05-26 19:31:43 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river and its ecosystem should have priority over any commercial considerations. If you cant grow your crops or graze your animals at this flow level then change your farming practices to something more suited to the arid conditions which exist in this catchment area .

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

226: ONLINE SURVEY

Anonymous User:884381774 2021-05-26 19:46:24 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best flow for natural river and its inhabitants

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

227: ONLINE SURVEY

Anonymous User:884383362

2021-05-26 19:47:52 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is close to the historical minimum and will return the river to a healthy river for people to enjoy.

Q3: Do you have any other feedback on water management in the Manuhereikia Rohe?

Location:

Not specified

228: ONLINE SURVEY

Anonymous User:665933652

2021-05-26 19:48:29 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of them

Why are Horticulture and Viticulture not included in the economic report. There is that information available. I think [name deleted] had all that information. If not it's not that hard to get. [name deleted] Cherries with 50 hectares planted pay out 3 million for a start per year and there are plenty of places this size on the manuhereikia?.

Pollution on the lower third of the river can't be that hard to source, You discovered Thompsons Creek as a source so what about the rest.

The low flow at the campground must be severely affected by all the willow trees pulling on the manuhereikia aquifer, there are thousands of willow between the campground monitoring station and Omakau. If you google how much water does a willow tree use per day you will see it's 80 to 100 gallons. The manuhereikia river water isn't just the water in the river it spreads out hundreds of metres either side of the main channel with thousands of trees sucking at it. The charts show the top 66% of the river pretty good now I'm pointing out a few things on the lower 33%. Can someone answer these questions?

900l/s would be a lot more than that if all the hectares of willow trees that have their roots in the water table were removed and controlled going forward. They shouldn't be necessary for brown trout as they aren't native. With the increase in the flow they'll stay cool without shade anyway. If the gravels were removed back to pre the Roxburgh Dam then there would not be the lift in water table and hence the flows we now experience. And there would be sea run salmon being caught there as well. A big part of this whole flow rate revolves around evolution and the water users on the land get the blame. Block the Clutha river with a hydro dam, fill up the bottom with silt, lift the water table, promote noxious plants that use heads of water and the end result is not enough water. The water take is probably far greater than the users of the land by farmers but only old people will know the history and evolution of the rivers.

Q3: Do you have any other feedback on water management in the Manuhereikia Rohe?

It is a much needed commodity for producing health food and needs supported and guaranteed.

If a bigger dam was built in the interest of producing health food and keeping other river users happy then this must be done for the term of the people. There is only one Manuherikia Valley that produces thousands of ton of good healthy food and employees hundreds to thousands of people far more than use the river for recreation. I'm saying kill the river. I'm saying use it to it's best. It's not a tourist river in a big way but food production is. The irrigators because of Falls Dam have kept that river alive in the bigger of droughts that wasn't possible pre the dam build. Sadly none of this stuff gets in the news does it.

In the bottom third of the River there are thousands of willow trees. The water table extends well beyond the main river itself. For example upstream of the campground there are several hectares both sides of the river all the way to Chatto Creek Gorge more so up as far as the Galloway bridge. Googling how much water does a willow tree use tells us 300 to 400 gallons per day. Gerry Eckoff was correct at the meeting in Alexandra. I lived in Manuherikia Road 54 years ago up until about 1995 as a kid. The river flooded always and destroyed our homes 3 times and orchard alongside a few other families living between the campground and Galloway bridge. Forced to leave. We know that if you dig down anywhere you get a hole full of water once you reach the level of the river no matter where you dig believe me. We used to have to dig out our pumping hole occasionally in year of low flow or more so excessive frostfighting and the water quickly replenished the supply all coming threw the gravel at least 600 to 800 metres from the main river. With hectares of willows now growing in the aquifer surely this has a huge draw on what water goes threw the monitor at campground that records minimum flows. As kids we were told not to break sticks off the willows to use as fishing rod props because they were a noxious plant and would spread it was called crack willow. It is now not on the noxious plants list for some unknown reason. Measuring water take 20 metres from the river bank in that gravelly country is not a fair and true reading there are several layers of silt from floods then gravel then more silt and more gravel the entire ground level has raised up over the years and the willows have roots down very deep some of those willows are I'd estimate 80 years old. The bywash water from Gilligans Gully, Letts Gully, Ferris Road and 100 metres up further, long gully and whatever other gully simply doesn't make it back to the river as was intended. Willows choking the streams and creeks. The big swamp just above the motorcamp is supplied by Gillians and Letts Gully that water has no hope of making it the river. On the other the Manoburn creek feed from the lower Manoburn dam is fully choked up with willows same as the oxbows that connect to it. Thousands of liters being consumed.

<https://www.tiakitamakimakaurau.nz/protect-and-restore-our-environment/pests-in-auckland/pest-search/Salspp>

<https://research.csiro.au/mwe/our-research/calculating-water-savings-from-willow-removal/>

Crack willow is also an unwanted organism under the Biosecurity Act 1993 given it is on the National Pest Plant Accord list of species banned from sale, propagation, distribution or commercial display.

Now google biosecurity

On another note can you please tell me how many liters per hectare of willow uses how many cubic metres of that relates to liters per second. Whatever order that went in when you rung me a couple of days ago.

About 25 years ago irrigators out of the Conroys Creek would end up with about half a flow of water from November to April. They sprayed the willow tress and removed them then they had a full flow again. I noticed last week driving to ChCh that there are groups busy removing the willows out of the Lindis River pretty big job but being done. In May I noticed that the willows have all been sprayed in the Upper Tarari river however it's splilt but the river from Ranfurly to Mosgiel.

I'd say that all the willow growing in rivers and side streams etc has gone unnoticed in the past 2 decades to the point where the general public think they are part of nature. We know that before Falls Dam was built that the Manuherikia did dry up apparently but the owners and users of that dam have solved that problem.

Location: Manuherekia

229: ONLINE SURVEY

Anonymous User:884396133

2021-05-26 20:17:16 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This river gets to low to often and regularly see fish suffering because of it

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

230: ONLINE SURVEY

Anonymous User:884400433 **2021-05-26 20:24:56 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

To maximize recreational use of the river and to maintain flows as close to natural as possible

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

231: ONLINE SURVEY

Anonymous User:884405935 **2021-05-26 20:38:17 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is most beneficial to the river and it's ecosystem at this level. Will allow the river to recover from years of mistreatment at an acceptable rate.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

232: ONLINE SURVEY

Anonymous User:884405504 2021-05-26 20:44:33 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's obvious that the river is under stress through over allocation of water rights. The river needs to be brought back to a minimal healthy state. While it will impact the viability of some farms in the region, the health of a river is more important.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

233: ONLINE SURVEY

Anonymous User:884410766 2021-05-26 20:49:32 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think prioritising the health of the river is really important. I want to be able to swim in it safely and supporting biodiversity is important for our planet. I understand farming will be affected but maybe this will help us come up with new more sustainable ways to farm.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

234: ONLINE SURVEY

Anonymous User:884392542 2021-05-26 21:09:34 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This seems to be the right balance

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This is not just about water, it is the complete cycle of life. Farmers practicing within the Rohe are the guardians, on the ground, daily, let them do their job.

Location: Central Otago District

235: ONLINE SURVEY

Anonymous User:884419705 2021-05-26 21:10:18 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We need to put the river and the ecosystem first. I feel for the farmers but the council should never have allowed for this situation to happen in the first place. I feel our only option now is to do everything we can to fix the mess we have made.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

If we want a resource that will be around for all future generations then big changes need to be made, otherwise it is the same old situation of "too little, too late".

Location: Manuherekia

236: ONLINE SURVEY

Anonymous User:884425731 2021-05-26 21:24:23 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

So it doesn't affect irrigation water too much so we can still rely on it for farming. I feel Farming is more important than hobby fishing and kayaking and swimming. At a time like this we need to support each farmer and farms as well as trying to protect our waters. It's a hard one.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

237: ONLINE SURVEY

Anonymous User:884436860 2021-05-26 21:50:44 +1200

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I fish the river regularly and it is a pretty good fishery - the cost to landowners up the valley is too high under the other scenarios and the river pretty sound as it is - there's balance here I think

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

238: ONLINE SURVEY

Anonymous User:884438848 2021-05-26 21:51:47 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think 3000 is the minimum. 4000 or more would be better

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Waitaki District

239: ONLINE SURVEY

Anonymous User:858860120 2021-05-26 22:04:49 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

All existing Agriculture would cease without reliable irrigation. How does ORC plan to support all affected Farmers, Horticulturists, Lifestyle Block Owners and Rural Communities if these businesses fail due to lack of reliable water? Remember, they are Rate Payers too. Historically this River has had very low summer flows even before Water Takes. Increase Falls Dam Storage. Guaranteed Irrigation and Augmented River Flow.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please use common sense.

Location: Manuherekia

240: ONLINE SURVEY

Anonymous User:884447808 2021-05-26 22:15:22 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Dairy farming is destroying our river. We need to support mana whenua values

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

241: ONLINE SURVEY

Anonymous User:884450468 2021-05-26 22:17:24 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river needs to be left for nature not farming.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Can't believe you have put the majority of scenarios favouring farming and not thinking about the environment.

Location: New Zealand

242: ONLINE SURVEY

Anonymous User:880453272 2021-05-26 22:20:12 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best scenario for all users

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

too many cows

Location: Manuherekia

243: ONLINE SURVEY

Anonymous User:758255085 **2021-05-26 23:12:09 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

No status quo scenario provided to understand what these scenarios mean!

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No.

Location: Otago

244: ONLINE SURVEY

Anonymous User:884486741 **2021-05-26 23:23:53 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The more water flow the better quality of water and less opportunity for algae to settle

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The Manuherekia is a living entity and not just a source of Income for a few. This Awa belongs to all People to enjoy.

Location: Manuherekia

245: ONLINE SURVEY

Anonymous User:884495793 **2021-05-26 23:34:45 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

River will be more healthy and it will improve the fishing and swimming.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: New Zealand

246: ONLINE SURVEY

Anonymous User:884502181 2021-05-26 23:45:35 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river comes first.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

247: ONLINE SURVEY

Anonymous User:884489013 2021-05-26 23:49:59 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because the river is a natural ecosystem and must take precedence over farming interests which are detrimental to the river's natural inhabitants. I have seen and reported dead cattle in this river. I fly fished this river extensively throughout its entire length from its confluence with the Clutha River, to upstream of both the East Branch and West Branch well above Falls Dam (with the exception of the Ophir Gorge). The river was and still is very special to me.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I fished the river several times a week during the open season from 1990 to 2010 and I have seen the effects of water abstraction and the temperature induced deaths of trout and aquatic invertebrates during summer low river flows when the water temperatures in the section between Ophir and Alexandra exceeded 25 degrees Celsius. It is time to put the health of our freshwater ecosystems ahead of agricultural values.

Location:	New Zealand
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248: ONLINE SURVEY

Anonymous User:884512680 **2021-05-27 00:03:39 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Closest to current sustainable volumns. meets the needs of the majority of users.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Dairy farming should be banned. it destroys rivers

Location: Central Otago District

249: ONLINE SURVEY

Anonymous User:884539526 **2021-05-27 00:37:29 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Given my experience of other rivers , this is the lowest flow that will prevent the death of the river thru extended dry periods. Dissolved oxygen levels need to be at acceptable levels to sustain the sport fishery mid summer . Only healthy flows can provide this

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

250: ONLINE SURVEY

Anonymous User:884568270 **2021-05-27 01:12:43 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Quality water is good for everything and improve oxygen

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We have to protect the environment at any cost, it is one of the only countries which is still wild

Location: International

251: ONLINE SURVEY

Anonymous User:884755236 2021-05-27 06:43:50 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This flow level seems to meet most criteria. While no set level will please everyone we have to protect species and amenity values. Farmers can be encouraged to develop on farm reserves to mitigate any adverse effects.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Lets try to think in terms of one hundred years plus. Protect what we have for future generations.

Location: New Zealand

252: ONLINE SURVEY

Anonymous User:884771642 2021-05-27 07:15:15 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is not a tourist destination but a working environment. No need to kill the farmers to try to attract tourists.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

TALK to people, rather than send out these questionnaires that give no solution for the people (farmers!) that actually inhabit the place.

Location: Manuherekia

253: ONLINE SURVEY

Anonymous User:884777266 2021-05-27 07:37:17 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's time to take a stand and save our rivers now before it's too late. The entire Maniototo region needs to look for better ways to provide irrigation. Many are starting to employ their own, on farm storage dams. The area requires greater water storage ability, reinstating Taieri Lake is the sensible option to store a large body of water that can be used for irrigation, recreation and future sustainability. Storing the water that falls on the plains instead of letting it leave the area by flowing out to sea is a no brainer. It's time to protect the rivers by storing more water in these areas thus enabling the highest possible minimum flow level for all rivers to protect and save them now.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

All river minimums need to be increased before we have lost some of our most valuable resources entirely. Kyeburn River is another.

Location: Dunedin District

254: ONLINE SURVEY

Anonymous User:884794853 2021-05-27 08:25:22 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I dont like any of the above scenarios, the status quo should remain as the only reason the river has any flow is because the Falls Dam holds the water and enables the river to flow during dry periods

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I do not agree that the Alexandra Camp site being the flow monitor site as this is and can be influenced by the Clutha River flow which is controlled by the Clyde Dam, the Monitor site should be higher up the Manuherekia River.

Location: Manuherekia

255: ONLINE SURVEY

Anonymous User:884800386 2021-05-27 08:40:06 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Why is status quo not listed as an option? Or another option between status quo and 1200lps, say 1100 lps? I swim in the river with my kids in summer and it is fine. Also, I walk the river daily and observe insects and fish jumping. It is a habitat full of life.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

256: ONLINE SURVEY

Anonymous User:884824013 **2021-05-27 09:26:20 +1200**

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Any economic loss caused by increasing minimum flow pales in comparison to the loss of biodiversity or the river itself. Also expect tourism to increase if you have a swimmable clean and biodiverse river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

257: ONLINE SURVEY

Anonymous User:884820499 **2021-05-27 09:35:22 +1200**

Q1: Minimum flow preference

> 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would like an even higher minimum flow than scenario 5. I believe that human take should be capped at equivalent to 10% of normal flow.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

From reading the reports it is very apparent that private interests have had it all their way historically and for them it is an easy financial decision, they will always want more water because they make money from it especially because they can currently externalise some of their pollution costs back onto the community. They will no doubt kick up a huge fuss when these rights are reduced. Please do not give in to this pressure.

It is also very obvious from the reports that the regional council has failed historically to protect the natural resources of this river and no doubt other natural resources such as Lake Hayes. The new government guidelines are being used as an excuse that - oh sorry farmers we are now forced to take action. No, the

regional councils whole reason for being has always been to protect the natural resources of its region. To have conceded so much to private businesses and polluters seems like a form of corruption.

Location: Waitaki District

258: ONLINE SURVEY

Anonymous User:884828056 2021-05-27 09:42:12 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's a compromise between in stream values and extractive/ economic values

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

ORC should be encouraging winter water harvesting/ on farm storage and high efficiency irrigation.

Location: Manuherekia

259: ONLINE SURVEY

Anonymous User:884861092 2021-05-27 10:37:58 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe that #5 is the only acceptable option to restore the waterway to good health for everyone and aquatic life to enjoy.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

As above.

Location: Dunedin District

260: ONLINE SURVEY

Anonymous User:630801691 2021-05-27 11:24:15 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The above minimum flows are not suitable for the viability of the region, as the minimum flows increase jobs in the area will decrease and families will have to leave Central Otago

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

261: ONLINE SURVEY

Anonymous User:884930920 **2021-05-27 12:43:34 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is a compromise between recreational and farming activities

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We own a property at Galloway which borders the river. Over the last 25 years I have been fishing the Manuherekia and the fish numbers and health has decreased by over 50%! There has also been an increase in dairy farming up the valley which has contributed to the pollution and increasing water take from the river. This river is a great asset for the area and its health needs to be restored and preserved for future generations.

Location: Manuherekia

262: ONLINE SURVEY

Anonymous User:884938378 **2021-05-27 12:52:57 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Reports make a lot of assumptions regarding minimum flows. Weather not people has the biggest impact.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I fish the river regularly and have had or seen NO problems with water quality and fish numbers or condition.

Location: Queenstown Lakes District

263: ONLINE SURVEY

Anonymous User:884947639 2021-05-27 13:15:17 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river needs to operate as naturally as possible and the river environment should come first before farming.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

If the river has as much natural flow as possible and fauna, flora, aquatic life, insects and birds are once again flourishing as they should, then this would attract visitors and paying tourists to the area and have a flow on effect to Central Otago. If all NZ rivers were allowed to become as they were before intensive farming and greed took over then we would have the most beautiful country in the world again.

Location: Manuherekia

264: ONLINE SURVEY

Anonymous User:884956490 2021-05-27 13:24:59 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We should allow as much water as possible .. farming practices need to change

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

265: ONLINE SURVEY

Anonymous User:884959231 2021-05-27 13:38:12 +1200

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I like it the way it was when growing up in Alexandra in the sixties

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

266: ONLINE SURVEY

Anonymous User:884962702 **2021-05-27 13:40:13 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Scenarios 1-3 continue the degradation of the river over many years. I would prefer scenario 5 but have some sympathy for the farmers and other irrigators (although not too much!)

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This MUST be moved from an approach that benefits only farming and other irrigators to a more holistic approach

Location: Queenstown Lakes District

267: ONLINE SURVEY

Anonymous User:600624060 **2021-05-27 13:46:21 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because I value high ecosystem health, and in a dry environment, irrigation should not be an activity that receives a great deal of priority when there is a 'contest' for the resource.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Irrigators should be encouraged to be more efficient with the water they've been allocated, after adequate water for sustaining ecosystem health has been delivered. In addition, Irrigators should be encouraged to diversify into growing crops that deliver higher value and require less water, mitigating the need for higher water volumes and sustaining their ability to continue farming.

Location: Dunedin District

268: ONLINE SURVEY

Anonymous User:853257375 **2021-05-27 14:01:38 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think the health of the river should come first and we should not allow pollution or over exploitation.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

269: ONLINE SURVEY

Anonymous User:882074411 **2021-05-27 14:27:31 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I favour scenario 5 because it offers the best protection for the river as well as encouraging the most sustainable forms of agricultural development for the future. I favour phasing a move to this scenario over a reasonable period of time to allow current users of water from the catchment to adapt their farming practices. Other forms of assistance may also be required for parties adversely affected by the changes.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The current management of the water is deeply harmful to the living river, and the great river it feeds.

Location: Manuherekia

270: ONLINE SURVEY

Anonymous User:881435730 **2021-05-27 14:32:21 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Like it used to be when I lived there sixty years ago. Dairying is ruining nz dryland.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:	New Zealand
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271: ONLINE SURVEY

Anonymous User:872616797 2021-05-27 14:39:44 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Rivers need protection for multi uses, swimming, recreational fishing, support for eco systems and SOME irrigation. Farming practices must match and adjust to environmental characteristics not dictate usage. This river used to be so beautiful and a huge asset to those who live beside or close to it.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The word 'management' can hardly be used in reference to the past, but it is encouraging to see some enlightened thinking about the future. It is almost too late but Thankyou for really considering future 'management'!

Location: Queenstown Lakes District

272: ONLINE SURVEY

Anonymous User:884990147 2021-05-27 14:41:51 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is big river that is taken to a trickle in summer by the irrigation draw-off. I have been Alex 40yrs and the quality of the water in summer has decreased over that time despite the clearing of willows. Too much algae for swimming in the peak summer swim period. Aquatic life must also be affected and I take algae as a river in poor health and the combo of water temps, algae effects on oxygen and water temps, run-off or stock pollution all adding to it becoming a rural sewer when it is actually a strong river. Kill the river with any further draw-off and all will suffer. There also needs to be additional water in the rules than bare adequateness for all parties because of the unofficial taking and compliance verification during the summer periods and at times of high summer stress, being at the same time - for the farmers and for the river ecosystem. Dairy farming is not an appropriate use of this scarce resource in this area. It should occur in more coastal, climatically appropriate areas.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It is the backdoor river at our doorstep long ignored by officialdom and left for the farmers to plunder. It actually is a magnificent river running thru a dry land and can have much more recreational impact to the communities than present due to the water drawoff, turned-back on attitudes andto build on the new happenings for tourism and recreation options building on the cycle trials around and water activities. It is a very safe river for young families and adolescents to be safe with activities on.

Location: Manuherekia

273: ONLINE SURVEY

Anonymous User:885002079 2021-05-27 14:43:51 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river really needs more share off the water to be healthy. I do not agree with dairy farming using the water or being in this area at all

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

274: ONLINE SURVEY

Anonymous User:885013676 2021-05-27 15:00:18 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

health of the river must be improved

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

You fail to state clearly why we have reached the point of poor river conditions. Basically the problem lies with the NZ Govt. which has failed to regulate water. Water is also over-allocated in many cases, why.

The Regional Council is staked with people of farming interests. These people must not be allowed to vote on issues related to farming.

Location: Manuherekia

275: ONLINE SURVEY

Anonymous User:885002216 2021-05-27 15:17:52 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Central Otago is a dry climate and pumping water onto farms and other horticulture is not sustainable in this area. Yes there is a river but that doesn't mean we can change the ecosystem for farming. There are many other people who would like to use the river, many other uses for the river, if managed well can bring economic advantages. As I kid I used to swim in the river at Galloway, my parents did when they were kids but for many reasons my kids cannot.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Dairy farming in a dry climate is not environmentally smart and very few winners. Don't allow the few to take the majority.

Location: Manuherekia

276: ONLINE SURVEY

Anonymous User:885023339 2021-05-27 15:20:17 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The first line in scenario 5 says it all.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

277: ONLINE SURVEY

Anonymous User:885018970 2021-05-27 15:27:22 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because the river belongs to us all, and so recreation is important. Farmers need to farm to the climate and stop draining our rivers.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Let's see less influence by farming groups, the entire community needs to be considered

Location: Queenstown Lakes District

278: ONLINE SURVEY

Anonymous User:885019278

2021-05-27 15:39:38 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I grew up in Omakau in the 1960s and spent most of my summers in the river. It is no longer a pleasant river to swim in, and has been that way at least since I last swam there 20 years. I do not accept that the current level of intensified farming in the Manuherikia Valley is "sustainable" - whatever that means - and am not confident that even the current degraded level of water quality can be maintained under the present regime. Your own graphics show that community health for diatoms and several key macroinvertebrate taxa (e.g., Aoteapsyche) are potentially compromised even at 3 cumecs.

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

Location:

Queenstown Lakes District

279: ONLINE SURVEY

Anonymous User:885053185

2021-05-27 16:17:33 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river needs as big a flow as possible, to counteract the pollution/runoff from all the cattle farming.

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

When is the ORC going to start prosecuting farmers for totally ignoring the ORC advise. They treat the ORC as a joke organization.

Location:

Manuherikia

280: ONLINE SURVEY

Anonymous User:885066120

2021-05-27 16:37:42 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

scenarios 1, 2 and 3 will continue the degradation of the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

this river needs to be managed for more than just irrigation.

Location: Queenstown Lakes District

281: ONLINE SURVEY

Anonymous User:885055444 **2021-05-27 16:40:46 +1200**

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I have not picked any of the above as without the falls dam in place the river would be dry so to say that we need minimum flows of any of these levels is not right.

Lets look at the big picture - If the ORC go with any of the higher minimum flows mentioned then expect food prices to rise in our shops for all products as they will become more scarce which creates supply pressures and price increases. People need to aware of this before their submissions.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The effect on peoples lives and well being are stake here and if you go with any of these minimum flows I think we will lose good people and income from area.

Location: Central Otago District

282: ONLINE SURVEY

Anonymous User:884878939 **2021-05-27 16:54:28 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Makes the least effect on farmers.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

283: ONLINE SURVEY

Anonymous User:879821537 2021-05-27 17:05:17 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

284: ONLINE SURVEY

Anonymous User:885074264 2021-05-27 17:17:43 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is higher than current 900 l/s so there is going to be improvement to the river at 1200 or even 1500 l/s. I am a farmer in Galloway and need irrigation to grow grass and crop. We have 69 hectares, and winter approx 100 cattle. I have a bank loan of close to one million dollars from purchasing this property 5 years ago. If there is effectively no irrigation (under options 3,4, and 5), then farming becomes unviable and the value of my land will be drop considerably, to the point where I will not be able to pay this bank loan back. As a farmer I am supporting local businesses and contractors and their employees and families, and am contributing to our export earnings with meat production.

I am happy to pay for my share of irrigation water and whatever infrastructure is required to help improve the river health, as I'm sure other irrigators and farmers are also prepared to do. If we loss access to this water, it simply ends our ability to be farmers and service our debt. Its really as simple as that.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I think river health is a very important issue, but there needs to be a fair balance between all users. At option 3, 4, 5 it will be unviable for farmers and a lot of people will lose a lot if not all of thier equity in their properties. It will cause a lot of stress, depression and suicide in the community.

Location: Manuherekia

285: ONLINE SURVEY

Anonymous User:885108386 2021-05-27 18:05:49 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Heath of the environment should always be our first priority

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I suspect this is nothing but pretending to consult with the public as NZ buckles under to agriculture at every turn.

Location: Dunedin District

286: ONLINE SURVEY

Anonymous User:885150591 2021-05-27 19:25:46 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the minimum flow at which environmental concerns are allayed.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Land owners knew about the end of mining water take rights for decades. Any capital invested since then was knowingly put at risk.

Location: Dunedin District

287: ONLINE SURVEY

Anonymous User:885154167 2021-05-27 19:45:56 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Hopefully it is fair to all parties - Leisure & farming

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

288: ONLINE SURVEY

Anonymous User:559753184 2021-05-27 20:24:58 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

These are all higher than what is happening now and I think what is happening now is great

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I think what everyone is doing now is great - spend lots of time at the river.

- river is well managed now - lots of time in summer swimming and fishing - all good as far as I can see

Location: Manuherekia

289: ONLINE SURVEY

Anonymous User:885172930 2021-05-27 20:26:39 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I prioritize the recreational & scenic aspects of the river. For me, if farming is to take place, alternative solutions are needed for irrigation to what is currently being done. We are facing a national water crisis and need to take action now to mitigate this.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Manuherekia

290: ONLINE SURVEY

Anonymous User:885204938 2021-05-27 21:36:47 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This scenario is the only scenario that provides for the widest range of organisms to live in the Manuherekia supporting biodiversity

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The ORC should also consider terrestrial wildlife dependent on freshwater such as braided river birds, which are declining or even critically endangered.

Location: Dunedin District

291: ONLINE SURVEY

Anonymous User:884794999 2021-05-27 21:47:09 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is the best flow for ecosystem to thrive. Good stable flows are important for fish breeding and movement. Manuhereika has been suffering for way too long.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Needs more stable flow, badly affected by Didymo. Also farmers do changes to the structure of the river...

Location: Queenstown Lakes District

292: ONLINE SURVEY

Anonymous User:885100646 2021-05-27 21:57:17 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Anything more than this and I have grave fears of the economic impact on Alexandra and the wider Central Otago community. Even at 1,200 l/s this is likely have a significant economic impact on the region.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The takeaway from the Alexandra meeting was that more water is not necessarily better. The other issue I see is a lack of attention to treating the cause of the problems rather than the symptoms. More water doesn't solve the algal blooms but treating what causes these can.

Location: Manuherekia

293: ONLINE SURVEY

Anonymous User:885212703 2021-05-27 22:02:20 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The NPS 2020 clearly defines what the outcomes should be, protect the environment first, clearly agriculture has been subsidised by the environment, too much water has been allowed to be taken, agriculture will need to adapt its practises to fit within the environment and live with it, not exploit it for person gain

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: New Zealand

294: ONLINE SURVEY

Anonymous User:885215375 2021-05-27 22:02:29 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why**Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**

Location: Queenstown Lakes District

295: ONLINE SURVEY

Anonymous User:885219490 2021-05-27 22:44:52 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think that the flow should stay the same, due to the fact that I've seen what happens in flood and the affect it can have. So if the flow was increased there is a grater risk of flooding.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

So far the management of the river has been good, if it ain't broken don't fix it.

The council needs to consider the amount of money borrowed by farmers to set up irrigation so that they can still irrigate and run a successful business. To raise the flow rates will be a disadvantage to farmers, farm workers, not only will it affect farmers but the hole area. Less money being spent in the community

if farmers profits are down so will other businesses. In this day and age we all know that every business needs as much help as possible.

Also if you set the tone now it is only fair that the clutha river flow rate should be increased what will affect the orchard's, vineyards what will have huge affect on all central otago. It doesn't take a rocket scientist to figure out the downward affect it would have on all of otago. But if the council can't have one rule for one and not the other.

The council needs to be very careful not to bit the hand that feeds them.

Location: Central Otago District

296: ONLINE SURVEY

Anonymous User:885450622 **2021-05-28 07:39:12 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Public amenity and environmental considerations are higher priority than corporate considerations such as agriculture during periods of low (or lower) flow.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Management of the consequences resulting from implementation of scenarios 1 to 3 would be difficult, expensive and not worth the risk. And see comment in 2 above.

Location: New Zealand

297: ONLINE SURVEY

Anonymous User:885452335 **2021-05-28 07:46:13 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Good compromise

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I feel the dam and scheme aid the whole environment as if it was not for the minimum flow there would be times when the river would naturally run dry which is very bad for the environment so this aids to provide a better environment.

Location: Manuherekia

298: ONLINE SURVEY

Anonymous User:885476306

2021-05-28 08:53:59 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It shows the best outcome for the community and the environment. If irrigation is marginal and farm viability stressed, that industry needs to look at operational practices and whether they should even be occurring in this catchment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

ORC can do whatever is required to improve and maintain the river flow and the associations we all have with it.

Location:

Dunedin District

299: ONLINE SURVEY

Anonymous User:885496812

2021-05-28 09:53:10 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

farming the land is far more important than the eels and fish. Without the irrigation this valley would die. The faia dam scheme has been fine over all these past years what concerns me is allowing farmers to milk cows in Central Otago they need too much water

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:

Manuherekia

300: ONLINE SURVEY

Anonymous User:885505917

2021-05-28 10:06:04 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Balancing environmental, cultural and water quality in more effective way that should help agriculture adapt to more environmentally sustainable activities in future. Current irrigated farming is too damaging.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Where possible, encourage farmers to change land use for dry land products and markets.

Location: Central Otago District

301: ONLINE SURVEY

Anonymous User:884459052 2021-05-28 10:30:44 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

As an angler and environmentalist I feel the health of the river comes first.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: New Zealand

302: ONLINE SURVEY

Anonymous User:885554569 2021-05-28 12:03:54 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Scenario 5 is the only viable sustainable option and allows all users - particle those without a vest commercial interest to enjoy the river now and into the future

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The water management Manuherekia Rohe had been appalling in the past -it's time for this to change

Location: Queenstown Lakes District

303: ONLINE SURVEY

Anonymous User:885555303 2021-05-28 12:34:14 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Don't particularly like S5 but it is the best compromise available to choose. Believe it should be more like 5,000l/s. River health is the priority, commercial use is the lowest priority.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No commercial enterprise that lines the pockets of very few individuals has the right to compromise a natural resource that MUST be preserved for future generations of mass population. Many affected enterprises are relatively late comers that have gambled on massive capital gains through water extraction at levels which seriously deplete river health & public enjoyment. Productivity & profits are totally insignificant when compared to permanent damage & loss of amenities.

Location: Manuherekia

304: ONLINE SURVEY

Anonymous User:559753184 **2021-05-28 13:20:01 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I want to see the existing flow maintained.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It is well managed and the river is in a good state

Location: Manuherekia

305: ONLINE SURVEY

Anonymous User:861434098 **2021-05-28 13:32:38 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why**Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**

Location: Not specified

306: ONLINE SURVEY

Anonymous User:885600800 **2021-05-28 14:00:44 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't like any. MRG was minuted to include 1100 l/s and it should have been one of the options as this is what the farmers can work with and it covers off most

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Why on page 21 of the discussion document it says that ecological health is based on 80% of MALF. Why has the ORC used that when they recommend 70% Habitat at MALF flow for trout and native fish in the Cardrona River? Seems like ORC are ignoring Farmers and their water quality experts and try to make it fit an agenda!

Location: Manuherekia

307: ONLINE SURVEY

Anonymous User:885609630 **2021-05-28 14:13:24 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best compromise between river needs and irrigation needs

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

308: ONLINE SURVEY

Anonymous User:885659414 **2021-05-28 15:32:11 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Without clean potable water, nothing can live well, let alone survive. We need to learn better more conservative farming practices - for example - forms of permaculture and/or regenerative agriculture. There are many examples of farms flourishing on much less water when used well. the ancient Peruvians for example, as well as that mentioned in the previous sentence. Smaller farms rather than larger industrialised farms will also be easier to manage. Also, it is not okay to enable farming practices that contribute to cancer issues down stream re: nitrates, so why not heal all things - it is a win win situation. Farms can keep going with different irrigation practices, and people and other life forms can be healthy.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

309: ONLINE SURVEY

Anonymous User:885747605 **2021-05-28 16:27:12 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This will make for a far more healthy ecosystem in the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Keep water flows up and cows and other stock fenced to allow them to drink but not wade through the river

Location: New Zealand

310: ONLINE SURVEY

Anonymous User:883999058 **2021-05-28 16:37:19 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The flow scenarios chart is inaccurate . It does not establish where these scenarios are taken on the river . It should also have a scenario at the purple line which I presume is 900 l/s. This should be scenario 1.

The swimming scenario at 3,000 to 4,000 I would consider dangerous for young families especially at 1st Galloway to Orlig where most families picnic and camp . That flow is dangerous to small children getting swept away or under the excess of wilding willows that suck large quantities of water from the river . Young families swim and play comfortably at 900 l/s which is not on the chart .

The visual amenity on the chart is an individuals perception . Some love it at 900 some love it in flood and some just love it as it changes with the seasons .

What does Mana whenua mean . It should also be in english for those that have no idea of maori .

In your scenarios you should also show the length of time that the river flows at various levels ie 30 days at 900 or 100days at 1200 etc.The chart makes you think that the water should flow consistantly at the levels shown all year round .

I would prefer to choose the preference of how it is managed now but may be able to live with 1,200 .

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I have lived and used the Manuherekia all of my life and I would consider that the management of it in recent years has been the best I have known since the mid 1950's. I do agree that the river health should always be checked .

Location: Manuherekia

311: ONLINE SURVEY

Anonymous User:883441781 **2021-05-28 17:41:15 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Seems a good balance for all users

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

312: ONLINE SURVEY

Anonymous User:885833957 **2021-05-28 18:34:50 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's the minimum you can have for river health while giving water takers as much as possible.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Why aren't farmers, lifestyle blockers, etc who use irrigation making their own dams for rainfall?

Location: Dunedin District

313: ONLINE SURVEY

Anonymous User:773133027 2021-05-28 19:20:57 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best outcome for everything, including farming if farmers irrigated more efficiently and created more water storage.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It is not the farmers right to take water to make money off, it's a partnership with other water interests.

Location: Queenstown Lakes District

314: ONLINE SURVEY

Anonymous User:885600800 2021-05-28 19:39:39 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 l/s should be in as all the irrigators put forward that in their consent applications as a collective group.
1100 l/s please.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

ORC should have got sign off of the ecology work from TAG before any of this should have been put forward!

Location: Manuherekia

315: ONLINE SURVEY

Anonymous User:885600800 2021-05-28 19:51:34 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 l/s please. Irrigators as a group put forward a management scenario with residual/min flows on all the tribs that resulted in a min flow of 1100l/s.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

ORC has let us down regularly on time frames and I don't expect it to change

Location: Manuherekia

316: ONLINE SURVEY

Anonymous User:885600800 2021-05-28 20:02:11 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Don't like any. Want 1100l/s as it is the best overall scenario. It fits 70% of the of the habitat at MALF

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

ORC has squard the information to fit an agenda

Location: Manuherekia

317: ONLINE SURVEY

Anonymous User:883389320 2021-05-28 20:09:05 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

All of these scenarios have bad implications for the community

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Water management as it stands needs to be maintained as is

Location: Manuherekia

318: ONLINE SURVEY

Anonymous User:885957906 2021-05-28 23:41:42 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river will allow safe swimming, and risk of algae considerably reduced. Mahika Kai and Mana Whenua values would be well respected. The opportunity to improve the sport fishing will be significant. It is time to give back to the river, its values, its attractions to a more versatile and general public

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Time for changes for a safer river.

Location: New Zealand

319: ONLINE SURVEY

Anonymous User:886163012 2021-05-29 08:07:23 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Health of the river and from a flyfishing prospective. Also more safe to swim

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Flyfishing is a big industries and the farmer need to find alternative option rather than destroying a river.

Location: Central Otago District

320: ONLINE SURVEY

Anonymous User:886181090 2021-05-29 08:48:51 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's a balanced level

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The modeling and data used for this is fundamentally flawed

Location: Manuherekia

321: ONLINE SURVEY

Anonymous User:886191546 **2021-05-29 09:12:40 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think protecting and preserving this superb river should be a local priority. Currently, the river serves too much in favour of farming and too little for the general public. I think water storage is the way of the future, not taking water from the Manuherekia river when it needs it most. Flood water could be diverted into storage ponds for use during dry months. Irrigating on hot days should not be allowed as so much of this water evaporates. Less wasteful ways of irrigation should be considered.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The more water allowed to flow in the river the better. My kids love to swim there. As a family we walk and picnic there. I also love to fish there. It's an extremely important river to my local business as a fly fishing guide. With a healthy flow the benefits from tourist anglers and tourists in general would be great. Aesthetically, ecologically, economically and environmentally it make sense to keep the water in the river.

Location: Manuherekia

322: ONLINE SURVEY

Anonymous User:886219242 **2021-05-29 10:17:23 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

323: ONLINE SURVEY

Anonymous User:776849482 **2021-05-29 11:16:14 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Need a balanced outcome to many water users, read submission

Q3: Do you have any other feedback on water management in the Manuhereikia Rohe?

Submission for/ Proposed Plan Change 5C to the Regional Plan: Water for Otago and Southland

Manuhereikia River "Minimum flows and allocation limits"

Quota volumes- Formulas rosters - Capping total irrigated area - Water supply agreement contracts - Surety of supply - Climate variation - Methodology

Inefficiently water use:

1. Water that is surplus should be returned to the river or allowed to travel to a downstream water user. This would mean it would need to be measured, and used to offset the monthly cost to the given landowner as a rebate.
2. If it rains it should be measured and if soil is in an irrigated state the irrigation water available should be allowed to travel to next user downstream or returned to the river.
3. Commercial takes, bores for domestic water take areas and inefficient infrastructure need to be replaced with intakes that better serve the water area users, to save water grab?
4. Social values, fishing, kayaking, swimming, walking, biking, food gathering, picnicking, camping, hunting and curling Local iwi, should be allowed with public access for all.

Regards

Glen Callanan

Clyde

0279745532

Saturday, 29 May 2021

References:

manuhereikia-draft-background-information-paper-feb-2017.pdf (orc.govt.nz)

Minimum flow for the Manuhereikia River | Scoop News

Fish and Game staff concerned at the state of Manuhereikia River

Economic impacts of minimum flows in the Manuhereikia Catchment - Central Otago District Council (codc.govt.nz)

Location: Central Otago District

324: ONLINE SURVEY

Anonymous User:886241068

2021-05-29 11:36:23 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I accept no scenarios. I do not accept any scenario that affects the farming community in the Omakau area with less water for irrigation.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

325: ONLINE SURVEY

Anonymous User:886241068 2021-05-29 11:43:47 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

NONE. ORC appear to have no consideration for businesses in the Omakau area. Any one of these scenarios could put so many businesses under, and with farmers walking off the land. A Mental Health crisis.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It appears ORC believe fish are more important than people's survival in the small community of Omakau.

Location: Manuherekia

326: ONLINE SURVEY

Anonymous User:886265481 2021-05-29 11:59:16 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because the river is a natural resource and the environmental well being of the the river is best protected at that rate

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Commercial users should pay for privatizing public water

Commercial users should construct dams / water storage and collect in time of high river flows

Location: Manuherekia

327: ONLINE SURVEY

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The water must flow, but educate the water users...

Read the first report.

It not to late to accept the correct change.

The Correct change.

Manuherikia River has been over allocated for water users.

UUTY OF CARE.

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

Submission for/ Proposed Plan Change 5C to the Regional Plan: Water for Otago and Southland

Manuherikia River "Minimum flows and allocation limits"

Quota volumes- Formulas rosters - Capping total irrigated area - Water supply agreement contracts - Surety of supply - Climate variation - Methodology

Since local government reform 1989

Reasoning- By Catch

Many years ago the coastal fisherman had a quota for a perspective fish type, any other fish caught was put back into the sea to feed the others, but they were all dead? WHAT?

BUT today all fish caught are by Catch and use by the different communities and industries 'so the fish in the sea go hungry but like humans have to adapt to change, it's a process but like reforms millions of dollars have been wasted in red tape, high paid jobs, as a dely.

The Implementation phase has to start.

Environmental damage Moo Cows

Farmer 1 How are we going to lower our footprint to save nitrate runoff into the water table.

Farmer 2 Sell the farm gets the government to buy it.

Farmer 1 No well will cut the cow number in half and the grass will grow, this will lower our cost, but will we use less water.

Farmer 2 The council will reward us, what a plan ,must update my plan on the Park drive packet. Offset the costBut after that, orc will take a higher rate take....WHAT let gets moving and have a SAY...

Submission for/ Proposed Plan Change 5C to the Regional Plan: Water for Otago and Southland

Manuherikia River "Minimum flows and allocation limits"

Councils, who can't accept the correct change disappear, they have but at what cost? The Southern, Invercargill and Waitaki Electorate will take control; they forgot to tell the residents and ratepayers that. A one stop shop, because they have all failed to agree with change put a peg in the ground and start.

Outcome: The fire chief, district health nurse, school principle iwi community police etc will have to form a working group in each community within the Vincent community ward and make a start as FENZ becomes the business case manager a new business case.

1989 to 2021

What's in the bookcase behind the Mayors desk, references groups reports; they haven't made a start because the costs have been triples to justify the outcome, status quo report.

Report 1. Too many users along the Manuherikia River.

Answer, don't allow the council s to allow more permits and cut stock numbers by 50%

Hint: They granted more permits to users, to lift land values and allowed more stock to muddy the water.

Recommending Report: Remove the old permit system water grab and upgrade the intakes, change the land use, and allow suitable amount of water down the river that will please all.

That was in the first report.

Outcome: They don't know what to do all have been superseded, the false account get bigger for users to pay.

Reason. Bedding in time for our new councils, they haven't don't a thing but delayed to take action for the above report but got another reference group to report on the report.

Outcome: We need more time, need to employ more staff, and require new logos to indemnify each other in the board room.

Some History

Example: I retrained at a local school and our class only got 30 units standards from 120 level 4 Introduction to Horticulture. Cost \$7,500.00

Reply: Like council they weren't reading to put the new unit standards in place string people along who cares.

Example: I just got finance from a motor trade finance company: One of the conditions was I had to go and work for my old employer.

Summary CODC

Have an Idea, Everything starts very well, and then they change the plan for others who don't have the skills but money. The CODC is skiing on very thin ice they will need to stay on top of their game or will disappear into the new Electorate; the true story of Annan's Gully will be reviled at a cost of only \$14,500.00. They will string all along again and be superseded/

Key words: superseded, refocus, suicide, car driving on the wrong side of the road,move into the barn and rent the house out.....Don't sit on that chair.....

Farmer 1. We all have been misled by our councils with high forecast to support the consents cost.

Farmer 2. What's the name of your dog...Bitch...Bitch what...the bitch won.

Farmer 1. The immigrant's will take over the council top position, as most can't stand the refocus.

Farmer 2. The reset will put interest rates to 8%.and rates to 86% + 9.9% local government.

Farmer 2. Its my turn again, what would this mean, our financial advisers have misled with the stocking rate, reed seeding the back block with a diploid not a haploid. A parental plant crosses bred, will the farmers take the council to court the high 1..

Farmer 3. I though the government would install a mayor for each of the community board for order.

Dog. Bitch

Farmer 1. We on the rising market, that going to crash, sells to the bank for dollars that lent us millions.

Did they read the small print...it doesn't get any better...buy this and we will get a free one...it even gets better buy this and we will give your even more.

Summary: That's the result of local government reforms; nothing has been completed until the Vincent gets it \$20, 000.000 COMPENSATION CLAIM SETTELED.

All have been misled again....Come on let's get moving....

Submission for/ Proposed Plan Change 5C to the Regional Plan: Water for Otago and Southland

Manuherikia River "Minimum flows and allocation limits"

The Vincent Community board gets it \$20,000.000 compensation claim sorted to day....

- 1million Alexandra ice rink.
- 3.4 million Consultants settlement for nothing?.
- 1 million Omakau community plan
- Manuherikia river intake upgrades 7.4 million
- Iwi they needed to ask for MORE.
- New Crops 1 million but Ann Rodgers wanted strode road to pick this up and lead with the other dumb sods of local summer fruit. Failed again, all research copyrighted with Copyright Australia. When you ask for support to lead economic development the all mislead and perish in the mist.

Summary: 1.9 billion for mental illness should be transferred to the local fire chief to start the correct process of reforms. It so easy but the council can't accept the first step without taking it for them self, they should have been for the peoples, they will have to put their names on the monument, let them rest in please again. A big bum.

Submission for/ Proposed Plan Change 5C to the Regional Plan: Water for Otago and Southland

Manuherikia River "Minimum flows and allocation limits"

A reset of local government boundaries needs again to be reconsidered for an even larger rating base to support the government requirements. Therefore the Manuherikia River has been over allocated for water users\ and needs

to be reallocated to allow the require water flow to the Clutha river.

The Community boards with in Vincent will require a mayor each as with local knowledge the problems would be solved.

The community plans will need to be taken by FENZ as stated before 1989 reforms.

The problem is if any person has an idea, they get support, but then they don't have the required fund to complete the concept, and other become involved that have more money, this continues until all have been misled, leading to leaderless local and regional councils.

One more report that reads the first it's a string along for added cost, more staff, higher rates.

Duty of Care:

Since the local government reforms 1989 the incorrect agendas has been uptake by local government to gain all of the peoples idea's and take control from the each community fire chief of yesterday Vincent community ward, and brake the community spirts as they try to get government funding for an overall plan that part hasn't work out, 1.9 billion set aside to of set the un well-being sate of each community as a state run business plan won't be support, why.

- I paid for a vegetation report at a \$1050.00; the same contractor was commission by the government to complete the take for Annan's gully, where I instructed the contractor? Paid twice. They are planning for others, I understand there plan, more money in the banks for them, really?

- Farmers have been misled by consultants buy more stock, and you will get more water because I now the consultant who increase your bull / you do.

Farmer 1. I realise we were hood winked by the overall plan, the Hotel on the Earnsclough Station side of lake Dunstan wasn't for the land owners at all, it will be sold to down pay the Clyde sewage and storm water account, you knew to get strung along by the system, and let it all go.

Farmer 2. Well we realise our duty of care downsizing, sell half of the cows and the bill for fencing won't be required.

Farmer 1. Yer we won't need to sow the swedes in the top block as we will let it rest for a year while the dust settles.

Lawyer 1 to 10 they instructed us to lead a pathway forward, that cost them, the council need to show leadership for the new plan, the southern / Waitaki and Invercargill electorate for a one stop shop funded by taxation and reserve rate held over since 1989.

Sadly central Otago will be split straight down the middle as half go with Waitaki at the other with the southern electorate.

All ; We all agree the council haven't considered our Duty of Care, only their own well being. They have been fluxed, in a state of speculation, they will be all called in to have a say.

Note: You can't marry the fire chief daughter as she's going out with Fulton Hogan staffer, he drive a big blue truck.

Location: Central Otago District

328: ONLINE SURVEY

Anonymous User:885090137 **2021-05-29 12:15:25 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

A minimum flow of 3,000l/s is the optimum for ecological values. In very dry years this is probably not practicable but flows below this should be for the shortest periods possible.

I live alongside the Manuherekia, below the campground. The poor state of the river is very obvious at any flow below 2 cumec.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The abacusbio report appears to be a very thorough analysis of the economic impact in various scenarios. However all the complex analysis relies on generalized estimates of water usage. It makes no reference to the potential for more efficient water use, reduction of waste, or on farm storage, all of which would lessen the economic impact.

Thus the economic impact has been exaggerated.

Location: Manuherekia

329: ONLINE SURVEY

Anonymous User:879309408 **2021-05-29 13:13:09 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river is important, the whole river, not just the top 70 percent

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

330: ONLINE SURVEY

Anonymous User:879309408 **2021-05-29 13:14:28 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Don't kill our rivers

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

331: ONLINE SURVEY

Anonymous User:853886002 **2021-05-29 13:54:18 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Assumption that land areas will be further developed to house more population in the future. Land use likely to be modified from farms. Good water quality needs to be established now.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

332: ONLINE SURVEY

Anonymous User:886325664 **2021-05-29 14:03:10 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

at this flow it would give the river it's life back, while still provideing some water most of the season for farms & orchards.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Starting at the headwaters, last time I was at Falls dam, admittedly a couple of years ago lots of cattle seen in the water .

Location: Manuherekia

333: ONLINE SURVEY

Anonymous User:886384985 2021-05-29 15:44:32 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I prefer these scenarios as they suit to maintain or just improve the ecological health of the river. The river has been degraded for a long period of time so it should be afforded the best possible outcomes in order to recover. Continuing to degrade its quality is not giving the river the respect it deserves. I would say that I dont like any of the scenarios, they are too soft along with many regulations that are in place for water management. Our environments are only going to continue to degrade if we maintain them at "okay" levels. It is my belief that if we are treating a river to an "okay" instead of great level then something is being done wrong.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Water management needs to stop vying for economic gain and actually protect what environment we have left where its viable for ecological habitats to recover. To continually degrade these environments past the point of recovery is wrong. The levels being set shouldnt be at the "okay" level, they should be at the thriving level. With the climate change impact, if this river system stays dry even with the increase in precipitation this wont fall or will evaporate out of the catchment if its too dry. Having larger water restrictions now and maintaining the health of the river is better for the long term, rather than in 10 years this environment being completely dried up. Water management needs to fluctuate with the seasons and with dry years/wet years. Also allowing for groundwater supply to re-generate, as if we keep extracting from this overtime and not resupplying its source we will be in a dire situation in the future. The entire hydrological system needs to be taken into consideration more.

I will add that I heard about this from this article <https://www.odt.co.nz/regions/central-otago/feelings-run-high-meeting-about-manuherikia-river> , I am studying the Lindis River at the moment and try to keep up to date with whats going on in the region. When I googled Manuherekia River submissions it took me awhile to find this submission. I have not seen or heard about this submission before now.

Location: Dunedin District

334: ONLINE SURVEY

Anonymous User:570432036 2021-05-29 17:30:54 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

900 works

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Yes the economic needs the horticulture and viticulture data added in. There is absolutely no reason to have excluded this. We're in horticulture and pump 3 million in wages to staff annually alone and there is more of us. Put that economic data in the front page of the paper. Fish and Game will know how many fish are in the river. Divide that number into the economic survey and what is each of the trout worth? Americans pay 10K plus to shoot a trophy head. What are these trout worth?

Why is the bottom third of the river out of grade. This can be fixed and why is Thompsons creek the same. Call me on 0272936893 I need to speak to someone?

Location: Manuherekia

335: ONLINE SURVEY

Anonymous User:886483328 2021-05-29 19:33:05 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

State of river is fine to start with.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

336: ONLINE SURVEY

Anonymous User:886462770 2021-05-29 19:39:20 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't like any of the above scenarios. I believe the majority of the Manuherekia is currently in good health. I don't think the habitat values ORC have set in the consultation information above represent what I have experienced in the river especially around Alexandra. I have recollections of times (20+ years ago) when the river as it passed Alexandra was much lower, to the point of being almost dry. The last 10 years (even a very

hot dry summer 2015 I think) the river has provided good fishing and swimming with good flows through Alexandra. I have witnessed children in trouble swimming in the rivers some summers when the river running slightly higher than normal summers.

I also notice you don't list all native species in the river is this because they no longer live there because of abundance of trout in the river.

My understanding of Te Mana o te wai was that threatened native species habitat be improved! Providing more habitat for trout is counterproductive to what Te Mana o Te wai is meant to achieve.

In my experience more is not necessarily better, even when it comes to water in rivers.

I am worried a higher flow level will have adverse economic implications for our small town of Alexandra and the wider community.

I don't want to see our town suffer and lose people because business have to scale back. We are a town that relies heavily on the prosperity of orchards vineyards and farmers.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Take time to listen to the older generation who have spent time in the river on a regular basis. I'm thinking of fishing guides,

Location: Manuherekia

337: ONLINE SURVEY

Anonymous User:886494075 2021-05-29 20:05:13 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

What about over 3000? Aka flooding - not good for anyone and worse than level 1 . The level scenario is flawed.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Ask those who live beside it and have so for many years. - they know best!

Location: Dunedin District

338: ONLINE SURVEY

Anonymous User:886506238 2021-05-29 20:42:40 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

339: ONLINE SURVEY

Anonymous User:886462770 2021-05-29 20:54:42 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None. All too high

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

340: ONLINE SURVEY

Anonymous User:886542312 2021-05-29 22:24:04 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Higher flows result in cooler water that protects species.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

341: ONLINE SURVEY

Anonymous User:886553992 2021-05-29 22:57:50 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Trout fishing

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

342: ONLINE SURVEY

Anonymous User:869326054 **2021-05-29 23:00:11 +1200**

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Wouldn't I be better to use as much water to produce food as possible rather than create habitat for trout that are an invasive fish that kill the native species

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It is important that the public understand the true cost of the potential outcome

Location: Manuherekia

343: ONLINE SURVEY

Anonymous User:869326054 **2021-05-29 23:19:00 +1200**

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't believe the graph is accurate and don't trust the process from what I have been told and what I have seen with my own eyes the ORC ARE NOT FULLY INFORMED

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I was at the omakau meeting and it seemed that community had a better understanding of the river than you did how can you possibly regulate something you don't understand completely

Location: Manuherekia

344: ONLINE SURVEY

Anonymous User:886565950 **2021-05-29 23:36:19 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Be wise the health of the river should be the number one priority and this supports that the best.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It would be great to see this river as the thriving ecosystem that it has the potential to be instead of the trickle of a 4x4 track that it has become in the summer.

Location: Queenstown Lakes District

345: ONLINE SURVEY

Anonymous User:886708688 2021-05-30 06:32:30 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Healthy ecosystem

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

346: ONLINE SURVEY

Anonymous User:886720154 2021-05-30 07:10:20 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

347: ONLINE SURVEY

Anonymous User:886731745 2021-05-30 07:58:13 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Manuherikia river has been a favourite fly fishing river and water quantity and water quality are essential for trout to thrive .

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

Water storage would be useful to support agriculture

Location: Queenstown Lakes District

348: ONLINE SURVEY

Anonymous User:886768756 2021-05-30 09:45:40 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of our environment is more important than anything else.

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

Location: Queenstown Lakes District

349: ONLINE SURVEY

Anonymous User:886768756 2021-05-30 09:50:21 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We moved to NZ because of its pristine environment. Let's keep it this way, for future generations

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

Location: Queenstown Lakes District

350: ONLINE SURVEY

Anonymous User:886823048 2021-05-30 12:34:37 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Recent water quality has prevented recreational use of our river at traditional sites. For over 30 years our family has swum and picnicked in and near the Manuhetikia River near Ophir. We have become increasingly distressed at the smell, sub optimal water levels, nuisance algae, discoloration, 'industrial' dairy interventions, habitat destruction, stock proximity etc.

Scenario 4 appears to offer the best chance of restoration without annihilating farming viability.

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

Not yet.

Location: Manuhetikia

351: ONLINE SURVEY

Anonymous User:885867997 2021-05-30 12:37:37 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Fish have survived in the river through till now so active fishing can be had upstream

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

It is only the bottom 1/3rd of the river that needs addressed. Do the public actually know what 3000 lps is. Not swimmable that's for sure

Location: Manuhetikia

352: ONLINE SURVEY

Anonymous User:886823048 2021-05-30 12:42:19 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The amount of water taken from the river needs to be sustainable for the river rather than the humans exploiting it as a commercial resource.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Manuherekia

353: ONLINE SURVEY

Anonymous User:881567218 2021-05-30 12:47:49 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

354: ONLINE SURVEY

Anonymous User:886829903 2021-05-30 12:54:02 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I know the benefits to the whole community that comes from the water takes being used along the river. This far out weights the benefit of having a higher flow for the last few kilometres where the flow drops after the last take for irrigation.

I have worked and fished along the full length of the river and think the river has been generally well managed in the past.

There has to be a common sense approach to the whole river for everyone not just a few with extreme views on both ends of the scale.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

355: ONLINE SURVEY

Anonymous User:886773137 2021-05-30 14:02:56 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Personally, I don't believe that the viability of farming should impact the standards we set for our fresh water resources. If there is not enough excess water to provide farming the amount it needs then farming is obviously not an option in that catchment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This is a very sensible survey. I'm glad to have been able to have a say and look forward to seeing more of these in the future.

Location: New Zealand

356: ONLINE SURVEY

Anonymous User:626580779 2021-05-30 14:30:02 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

bringing back the biodiversity in a healthy river is good for the environment and the river has been under severe duress from the farming practices and reduced flow for too long.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Some repair to wet land habitat work on the catchment by land owners and council would help alleviate some of the run off eg silt and slow the flows.

Location: Queenstown Lakes District

357: ONLINE SURVEY

Anonymous User:886871841 2021-05-30 14:36:29 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Protection of river environment should be a priority while facilitating measured irrigation needs. Gallery takes, alternative water take options need to be fully investigated to minimise agricultural stress. Historical usage should "put something back" rather than maximise consumption. There seems to be little movement on that front.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

While acknowledgement of greater water irrigation efficiency is noted the amount of irrigated land has increased dramatically. Understandably the ORC message of "use it or lose it" has been taken full advantage of by irrigators with little regard or indeed any incentive to the restoration of meaningful environmental flows, a directive of the very intent in 1991 in which an initial timeframe of 10 years was given for the cessation of mining privileges but after understandable protest from the agricultural sector a 30 year "lead in" was adopted. The degree of water extraction has not lessened and now there is an expectation that current takes should be the protected. Current takes are environmentally unsustainable.

Alternative storage solutions need to be fully explored - the riverine environment, particularly in the lower reaches needs to be restored to reflect the popular amenity interests of the local community. It appears that economic considerations are the only ones that have prevailed in ORC's management.

This has to be addressed.

Location: Central Otago District

358: ONLINE SURVEY

Anonymous User:886861303 2021-05-30 16:28:52 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We prefer Status Quo. It is shown in the Abacusbio report that farming with irrigation at present in dry seasons with restrictions is a struggle even at status quo.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We are making big changes to our farming systems to be more environment friendly and sustainable. this is through Regenerative Farming i.e. less nitrogen, no acid fertilizers, no cultivation, minimal sprays, applications of lime, minerals etc to improve soil biology and structure. Tree planting, fencing off waterways and wet areas. All this will improve water quality and biodiversity. Our nitrogen loses are less than 10 [Overseer].

We have and are making big changes to our farming systems to be sustainable and more environment friendly. This is being done through Regenerative Farming systems, i.e. less nitrogen used, loses less than 10 in Overseer, no acid fertilizers used, no cultivation, applications of lime, minerals etc which improves soil structure and biology. Tree planting, fencing off of waterways and wet areas. All this will improve water quality and overall biodiversity.

The Manuherekia River is recognised as a very good fishing river which means it is in good shape under present management. Falls Dam helps to regulate flood and low flows. We have eels and native fish in our drains. the profitability of our farmers means a healthy and vibrant community. I'm a dairy farmer who has spent hugely on pivot irrigation to best use water.

Location: Manuherekia

359: ONLINE SURVEY

Anonymous User:885586298

2021-05-30 16:52:45 +1200

Q1: Minimum flow preference

> 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would prefer an option which is the least flow level which actually provides the most part of the first and second priority hierarchies of the NPFWS. Your scenario five (at 3000 l/sec) provides only four out of seven of a Good achievement of Eco system values identified on Fig.6 of the ORC document (a bare majority), and only five out of six of the remaining categorised values (excluding irrigation). Whereas 3500 l/sec meets six out of seven of the Eco system values, and six out of six of the "other" values. Surely, anything less than Good or better achievement of these values is not enough to meet NFWPS requirements, nor is a bare majority (4 out of 7). By limiting your scenario choices to a maximum of 3000 l/sec it suggests you have already sacrificed the choice of options to economic irrigation interests. Which of course is totally contrary to the NFWPS objectives. I appreciate the weight of pressures from the irrigator lobby, but this cop-out is not a good start for the integrity of the process.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

If this is the only other space in the survey to offer comment on your originating thirty odd page document, and there are no other specific questions on the wide-ranging matters raised within it, then the ORC is falling well short on seeking proper and full consultation. Your document asks for feedback on a good number of other items, eg. An introductory time frame for implementation of reduced flow levels, extent of ORC assistance with the adjustment process, etc., etc. I note as well that there is no mention at all in the originating document of the implication or effect of the explosion of groundwater extraction from within the catchment. Surely this is relevant to the entire exercise?

This survey is not in any sense a real effort to consult on the range of matters which the ORC is obliged to engage in. Not everyone is in a position to make a submission in person, but every constituent must surely be offered the option to comment in full. This is just not good enough!

May I also add that I sincerely hope that the ORC does a better job of reflecting submission inputs into its final decisions than was the case of the recent decision on funding the remediation costs for Lake Hayes, where the ORC plumped for a decision which went against the majority views and instead reflected a mere 15% of submissions. Is it any wonder that cynicism and opting out amongst the general constituency is widespread?

Location:

Queenstown Lakes District

360: ONLINE SURVEY

Anonymous User:886967391

2021-05-30 17:25:48 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I grew up swimming and fishing the Manuherekia and over the past 30 years have had to watch the river turn into a toxic pool

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

361: ONLINE SURVEY

Anonymous User:886992316 **2021-05-30 18:34:31 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This allows a state of play that is fair for all rate payers

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Water and land are a commodity and we really need to future proof this for our future. Let's do what is required to preserve this

Location: Manuherekia

362: ONLINE SURVEY

Anonymous User:886992316 **2021-05-30 18:38:56 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe irrigation water is far more important for the land masses than allowing the water to go out to the oceans

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There should be NO dairy farms in this area

Location: Manuherekia

363: ONLINE SURVEY

Anonymous User:887072788 **2021-05-30 21:58:11 +1200**

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Scenario 5 is best long term for the river environment and full community, will minimise the risk of permanent long term harm and protect it for the long term. Scenario 4 would be a compromise that may be more acceptable.

Scenarios 1 and 2 are totally unacceptable for environmental, cultural, community and long future protection

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please think of the whole community, manua whenua (your partners) and the future, not just short term financial returns

Location: Dunedin District

364: ONLINE SURVEY

Anonymous User:887087141 2021-05-30 22:41:00 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the highest flow to choose and is still below what I think the minimum should be.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The government have quite clearly stated the health of the environment, ie river, needs to be the priority over economic activity. I believe if irrigation is not an option, the land will adjust to appropriate values and land use will adapt to suit conditions.

Location: Manuherekia

365: ONLINE SURVEY

Anonymous User:628436053 2021-05-31 10:25:49 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

need water for irrigation- which will help with the concept of kai whenua much more significantly than having more fish in the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Your documents and graphs here need to place more value on the economic risk that these scenarios place on the entire community.

Location: Manuherekia

366: ONLINE SURVEY

Anonymous User:887291396 2021-05-31 10:39:13 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Better for the river, for the environment and the community.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Businesses based on exploiting historical mining water rights, when no mining is involved, are deceitful and over exploiting a resource. Just because a right has existed in the past, and yet is causing damage, is no reason to perpetuate the ongoing disaster. I often hear property users say they hope to leave the land in better condition than they started with, but voices for more water abstraction seem to be claiming they are an exception. Every catchment has people claiming exceptionalism. Time to move into the 2020, not the 1970's.

Location: Manuherekia

367: ONLINE SURVEY

Anonymous User:887295511 2021-05-31 10:53:59 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I regularly fish in this River and swim wade it .option 4 is bottom line for this river
anything below this can create the fungi that can kill dogs and or children if they ingest it . fishing the river is more difficult as holding water is compromised.
Natural flows keep it healthy

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Support for farmers to capture and store run off rainwater in winter , could help farmers

Location: New Zealand

368: ONLINE SURVEY

Anonymous User:887300088 2021-05-31 11:00:12 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Farmers need to realise rivers belong to all New Zealanders and not raped to provide healthy profits to a few.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Viva la revolution

Location: Queenstown Lakes District

369: ONLINE SURVEY

Anonymous User:887302326 2021-05-31 11:13:27 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because I fish this river and over the years it has gotten lower and lower.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I have spoken to people who live in Oturehua and confirmed the deterioration of the river over the past few years, especially in summer.

Location: Manuherekia

370: ONLINE SURVEY

Anonymous User:887330200 2021-05-31 12:22:31 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Question, what flow rate will there be if falls dam was not available to manage the flow? What minimum flow would be expected without falls dam?

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Question, what flow rate will there be if falls dam was not available to manage the flow? What minimum flow would be expected without falls dam?

Location: Manuherekia

371: ONLINE SURVEY

Anonymous User:887349321 2021-05-31 13:17:31 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I dont believe that any good can come from total water flow for farming. All aspects have to be considered ,perhaps farmers should assess weather this area suits cattle farming and using all the resource for this purpose. I want my granchildren to stalk the river with a fly rod , as I have and enjoy this resource as it should be used.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

372: ONLINE SURVEY

Anonymous User:887361753 2021-05-31 13:43:44 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river has been destroyed by the lack of water. It used to be one of the best fisheries.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

A water fluctuation is the biggest problem.

Location: Queenstown Lakes District

373: ONLINE SURVEY

Anonymous User:875468624

2021-05-31 13:51:01 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I personally don't like any of these options. I believe that there should be another option, which is the current minimum flow or even 1100 l/s. The river is not as degraded as ORC states, with my family swimming in the river at low flow at our farm. The river is degraded at the bottom of the river, near Alexandra, what research has gone into what pollutants smaller farms, busy roads and the township is influencing the state of the river?

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Trout should not be a priority. There are other areas within NZ where fishermen could go, promote those areas and help those communities. Why cant this catchment focus on native species and providing a unique twist to the manuherekia catchment by focusing on farming in relation to native fish species. It would be unique and a game changer for the region. Not every waterway needs the same amount of trout.

The falls dam is the long term answer to ORCs solution, not this current 'band aid' fix that ORC are proposing. Get up there and improve the falls dam. If the dam could be improved then the river can be improved allowing all parties would be satisfied.

Also, no one that doesn't work with water understands what a l/s is and cannot comprehend what the different scenarios actually mean. ORC has done a poor job at this consultation, only passing on information that can sway the decision that ORC already want.

Communities and people should be a high priority on the list and people currently are not, being far down ORCs priority list. Regional council's are supposed to manage sustainable regional well-being... key point being in here WELL-BEING. ORC are not doing this.

We are already going through PC7, why cant ORC just wait to see what happens with this plan change. Why constantly do poor work on a variety of projects instead focus your limited resources on one thing at a time and do it properly.

Location:

Manuherekia

374: ONLINE SURVEY

Anonymous User:887420915

2021-05-31 15:27:56 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

A good balance between retaining the economic benefit of farmers retaining their water rights and protecting the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Anything other than option 1 will have a devastating economic impact on our area. The benefit gained from sport fishing is negligible when compared to the loss of hundreds of jobs and the loss of 1000's of hectares of farmland. The waterway has been potentially compromised by decisions many years ago, we cant undo these decisions.

Location: New Zealand

375: ONLINE SURVEY

Anonymous User:887419839 **2021-05-31 15:34:16 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't agree with any of the scenarios, I think they are all to high a flow rate compared to our current rate as it stands. 1000 to 1100l/s would be a better rate. I fish the river on a regular basis and I find the fishing over the last 10 Years has not had a decline he in fish or river conditions.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

As above

Location: Manuherekia

376: ONLINE SURVEY

Anonymous User:887423782 **2021-05-31 15:35:29 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the bare minimum I believe is acceptable. After spending many years fishing the river I have seen it be used and abused year after year to the point where dead fish are washing up as the water is warm to the touch. With an in-depth knowledge of the river, anything under 3000l/s there is a obvious decline in the health of the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There needs to be restrictions put around river alterations made by farmers to redirect water. I have personally witnessed whole sections of the river dug up and redirected into an irrigation canal, leaving just a trickle of water. This is also a major issue when the river is straightened and levelled off as it means the water heats up much faster in the summer. I believe it should be illegal to alter the river without valid and necessary consent.

Location: Queenstown Lakes District

377: ONLINE SURVEY

Anonymous User:887428886 **2021-05-31 15:51:05 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My preference is for a minimum flow of 1,100 litres per second at the Alexandra Campground.

This is a fair compromise and will allow irrigators in the Manuhetikia Irrigation Co-operative to continue to irrigate farmland and crops without compromising the quality of River flow, and with minimal disruption to the availability of water.

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

Location: Manuhetikia

378: ONLINE SURVEY

Anonymous User:887427316 **2021-05-31 15:52:17 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I prefer the status quo as farming with irrigation is a struggle and can be manageable at current. The river is already good for fishing and recreational use for families

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

As a dairy farmer were making big changes to the way we farm to become more friendly to the environment for example less nitrogen used and no acidic fertilizers move more into regenerative farming systems for example no cultivation planting of trees fencing off waterways around the farm and also wet areas in paddocks

Location: Manuhetikia

379: ONLINE SURVEY

Anonymous User:887431830 **2021-05-31 16:03:21 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

How about 1100 LTR/Sec at campground ? There has been ongoing fact finding/consultation between ORC and stakeholders. 1100 LTR/Sec at the Campground is NPSFW 2020 compliant.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

380: ONLINE SURVEY

Anonymous User:887434460 **2021-05-31 16:14:58 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This seems necessary to allow New Zealand rivers to at least have a chance to stay reasonably healthy.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I am part of an irrigation scheme but think that it is more important to look after the environmental state of the rivers than our irrigation activities. Climate change might well force us to rethink some of our activities anyway and to come up with some smart and sustainable ways of farming and with lifestyle choices so we can all keep enjoying the rivers around us.

Location: Manuherekia

381: ONLINE SURVEY

Anonymous User:887434462 **2021-05-31 16:20:09 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1,100 l/s Minimum flow. I need water to be able to feed my family.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The community is making progress with the health of our ecosystem.

Location: Manuherekia

382: ONLINE SURVEY

Anonymous User:887444987 **2021-05-31 16:28:32 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We have been advised that 1100l/s is the best scenario for our scheme. We live in Young Lane and would like to sub divide into much smaller lots. This would reduce our need for water greatly as we could afford to pump from a dam to all lots. But cannot afford the infrastructure for one lot. So flood irrigation is our only option. This requires all full allocation.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

383: ONLINE SURVEY

Anonymous User:887453748 **2021-05-31 16:51:22 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My view is to leave the river as it is. I am a keen fisherman and have no problems finding good fishing areas even in a dry year. It is important to the area to have good irrigation systems in place to keep up production for horticulture, viticulture and farming in general. It keeps people in employment and is beneficial to the small outlying towns.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

384: ONLINE SURVEY

Anonymous User:883913709 **2021-05-31 17:05:20 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100/sec would be our preferred option because it is a figure deemed to be fair to all users of this precious commodity.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

385: ONLINE SURVEY

Anonymous User:887482347 2021-05-31 17:37:00 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Reduce intensive farming. Improve water quality

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

386: ONLINE SURVEY

Anonymous User:887509660 2021-05-31 18:44:25 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100l/s at the campground. Water users have done a great job already of maintaining quality and supply. Without irrigation the region will die and people will leave; there won't be anyone going swimming or anyone fishing. Water has always been the lifeblood of any community and yes it needs to be appropriately managed and ecologically sound but not just be the exclusive domain of recreational sport fishers. Do we really want to see the end of all horticulture, viticulture and farming in the region? That is ultimately what will happen. Build some dams and encourage storage when it does rain.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

as above

Location: Manuherekia

387: ONLINE SURVEY

Anonymous User:887497053

2021-05-31 18:49:00 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't feel this land is able to support the type of irrigation intensive farming that is happening. I get my drinking water from the Manuherekia and your reporting of its quality has left me sick. I'd like to be able to swim and fish in the rivers. It is a beautiful place that can generate jobs and financial security while keeping a sustainable and clean ecosystem. We shouldn't put all our eggs into one farming basket at the expense of the environment and all the other opportunities it can provide. I think we can find a good balance to sustain our lifeline into the future. Thanks for your work.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:

Not specified

388: ONLINE SURVEY

Anonymous User:887524314

2021-05-31 19:20:07 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

3000 l/s is needed to ensure ecosystem health.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:

Manuherekia

389: ONLINE SURVEY

Anonymous User:887524378

2021-05-31 19:21:20 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I as both a user of Irrigation from the river and also live right by the river would prefer 1100L/s as this allows me to irrigate my lifestyle block and is a good safe level of flow for my kids to swim and fish in the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

390: ONLINE SURVEY

Anonymous User:887531835 **2021-05-31 19:44:42 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river has, for a reasonable period of time been managed to a 900l/s voluntary limit. It is a real shame the ORC has turned its back on the local rural community by not working with it to put in place processes that allow for shared management of this resource. I, and others in the rural community have lost confidence in regional council.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Water management must be better with a community on board. ORC have lost this cooperation.

Location: Manuherekia

391: ONLINE SURVEY

Anonymous User:887420859 **2021-05-31 20:19:28 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

392: ONLINE SURVEY

Anonymous User:887567220 **2021-05-31 21:22:08 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 l/s at the campgrounds

Extensive investigations and fact finding activities have taken place prior to this survey and as a result the application for 1100 l/s has already been submitted to ORC and is deemed appropriate.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: New Zealand

393: ONLINE SURVEY

Anonymous User:884512680 2021-05-31 21:37:06 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the above. I prefer 1100 l/s. This is closest in line with existing sustainable use. It is a good balance for the health of the river and sustainable land use.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Cease dairy farming and dairy grazing in this area.

Location: Central Otago District

394: ONLINE SURVEY

Anonymous User:886212730 2021-05-31 21:39:35 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1. Scenario 5 is the best option to restore the health of the Manuherekia River ecosystem to a near healthy state from its currently highly degraded state and to protect its future health. There will still be abstraction and other human impacts that will stress the river and its ecosystem. So the closer we return flows to their naturalised level, the better able the river ecosystem will be able to respond to the other stressors.
2. We need healthy ecosystems and good flows to assist in addressing the inevitable impacts of climate warming. With climate warming water temperatures will rise - and with low flows the ecosystem of the lower part of the river will be under increasing stress from warm water and less oxygen. The higher the flow, the better we mitigate these effects.

3. It is the only option that would result in a close to fully healthy ecosystem throughout the whole river - all of the lesser flow scenarios mean parts of the lower river would still not be completely healthy.
4. It is the flow that best aligns with Kai Tahu/mana whenua values.
5. It provides the best suite of recreational and amenity opportunities for the wider community, including swimming, attractiveness of a healthy river, and recreational fishing and food gathering.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Water management in the Manuherekia Rohe has been very poor and the river has suffered. It is time to put this right by recognising that wider community, ecosystem and environmental values have been severely compromised by the failure of ORC to effectively manage our water bodies in the public interest. Any minimum flow should be implemented as quickly as possible. If there is to be a staged reduction in water abstraction to achieve the minimum flow, it should be done in a strict timetable of not more than 15 years - which is certainly long enough for businesses to adjust.

Location: Queenstown Lakes District

395: ONLINE SURVEY

Anonymous User:886883937 **2021-05-31 21:57:33 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My first preference is 1100 l/s as suggested by ORC initially for renewal of water rights.

Second choice would accept 1200 l/s. As a business person involved in the land in the of the Manuherekia catchment, the raising of the minimum from 900 l/s to scenarios 1 is a considerable difference, but it could allow the business of the community in the catchment to continue in a positive nature while allowing the history of the river to be maintained.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Flows and water quality needs to be monitored at sights along the river to identify problem areas and find solutions to fix them.

Location: Manuherekia

396: ONLINE SURVEY

Anonymous User:887600391 **2021-05-31 22:47:25 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

would support farms, and other fruit industries

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Central Otago District

397: ONLINE SURVEY

Anonymous User:887627454 **2021-06-01 00:08:38 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 litres per second would be appropriate to improve the waterbody without impacting the rural\lifestyle blocks too much

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

398: ONLINE SURVEY

Anonymous User:886883937 **2021-06-01 00:18:47 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We need to support the farming industry because

1. It is the backbone of our economy.
2. Irrigation is essential to farming in the Manuherekia and Ida Valleys.
3. The Manuherekia River is a valuable asset, more so for the irrigation it provides than recreation/tourism.
4. Farmers are conservationists. They are very aware it is their best interest to maintain the ecosystem health of the river, as the water is so important to the viability of their farms.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Encourage native plantings. If the non farming community would like recreation and mahika Kai and mana whenua values from the river then they must be willing to cover the cost of raising the Falls Dam to increase the flow in the river.

Location: Manuherekia

399: ONLINE SURVEY

Anonymous User:887735408 **2021-06-01 06:21:34 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Concern for farmers in times of drought

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

400: ONLINE SURVEY

Anonymous User:887740600 **2021-06-01 06:36:14 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 l/s

More than enough to sustain flow at catchment, and an increase on current level.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

401: ONLINE SURVEY

Anonymous User:887762462 **2021-06-01 07:38:36 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We need water for orchards

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

402: ONLINE SURVEY

Anonymous User:887407452 **2021-06-01 08:17:33 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Scenario 1 (1200) will still maintain most of the river to meet all of the social requirements listed. If you make the water level much higher than that then children will not be able to swim safely in the river at Alexandra

It is unfortunate that the river widens at the lower point. Any increase in the water will only spread out not deepen the river.

An economic analysis has to be also taken into account. People's lives, loss of schools, businesses, sports clubs, an exodus of people from the community must be taken into account. It's hard to have leisure activities when you don't have a job.

The It needs to be a decision made by the local community not people from outside of the immediate district.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The building of a new bigger dam would enable everyone's wishlist to be ticked off.

Location: Manuherekia

403: ONLINE SURVEY

Anonymous User:887780326 **2021-06-01 08:40:00 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

best of both worlds

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

404: ONLINE SURVEY

Anonymous User:880511900 **2021-06-01 08:44:56 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Thought about scenario 4, but decided on 5 as the river has been exploited as a resource with no thought of the effect it might have further down stream.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The Steady decline of the river over the last 20 years or so, show that the current management isn't working.

Location: Manuherekia

405: ONLINE SURVEY

Anonymous User:887781346 **2021-06-01 08:51:41 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

A minimum flow of 1100 litres per second at Campground because this is an appropriate flow regime that strikes a fair balance between ecological needs (e.g. instream flora and fauna) and business needs (e.g. horticulture, agriculture) or else we will end up decimating our fragile rural communities and ecological systems.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

406: ONLINE SURVEY

Anonymous User:883999058 **2021-06-01 09:27:32 +1200**

Q1: Minimum flow preference

900 - 1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The current voluntary minimum flow is 900 l/s , why is there not a scenario in this survey .

My preferred minimum flow is 900 to 1100 l/s as I think the health of the river at this level is still very good for the short period it is at this level in peak summer dry period.

I find the graph that the ORC has given as information to answer this survey is misleading and difficult to understand .

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The health of the Manuherekia river is very good and well managed by the irrigation companies . When the Roxburgh dam was built the river has silted up dramatically from the Clutha to Chatto creek . Due to this many of the good swimming holes silted up . In the late 1950's you could still take a rowing boat to the camp ground from the mouth of the river .

Contact Energy regularly remove gravels from the mouth to just above 1st Galloway this has a big effect on silt in the water and the life of fish and eels etc .

Storm water entering the river in the urban area and human sewage is a problem .

These problems have not been caused by the growers of healthy food , the irrigator , who manage and care for this river as it is their life blood . Any problems are caused by others but it appears the growers of healthy food are being punished .

Location: Manuherekia

407: ONLINE SURVEY

Anonymous User:885469782 2021-06-01 10:16:40 +1200

Q1: Minimum flow preference

900 - 1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

none of the above.current voluntary level 900l/sec.I understand that 1100l/sec at Campground is NPSFW 2020 compliant

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

As a irrigator on the Manuherekia scheme water restrictions during the dry periods have a impact on production.That said 2/3 of river is in good health.The environmental issues in the last 1/3 have been recognized and remedial action proposal plan has been lodged.

Location: Central Otago District

408: ONLINE SURVEY

Anonymous User:564589378 2021-06-01 11:53:35 +1200

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Supply of water is needed for employment. Less water means orchards, vineyards & pastoral farm less productive, this means less employment, this means less spending power in the community, this means less commercial activity.

Higher the minimum flow would have employment consequences on district.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Trout eat the native fish!

Location: Manuherekia

409: ONLINE SURVEY

Anonymous User:887857066 2021-06-01 12:02:06 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best quality of water

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

410: ONLINE SURVEY

Participant 2021-06-01 12:42:43 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Status quo of 900l has worked well with good controls from the irrigation companies.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This needs to be controlled properly to ensure river health and economic benefits to the central Otago area

Location: Central Otago District

411: ONLINE SURVEY

Anonymous User:887856256

2021-06-01 12:48:17 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Bsedon the priorities laid out in Te Moana o Te Wai scenarios 4&5 suit these best, scenario 5 may be too much of drastic change in the short term economically.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The measure of macroinvertebrates reported described in the full report under 4.1 & 4.2 are noted as incomplete - more conclusive sampling of these would be useful, as based on my own experience these do not appear to be as numerous over recent years. I would suggest that the results reported in 4.1 of the report are probably an over estimation of what macroinvertebrates can be found in the river.

Location:

Manuherekia

412: ONLINE SURVEY

Anonymous User:887887177

2021-06-01 13:19:48 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

After considering the values chart and other information feel this is the best option for us to have a sustainable environment for the future.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We need to look at ways of managing this precious resource that can also be sustainable for all farming, orchards etc and recreation

Location:

Manuherekia

413: ONLINE SURVEY

Anonymous User:887925354

2021-06-01 14:41:21 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Irrigation of valley is essential for farming and horticulture. Rabbits would become even more of a issue.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

414: ONLINE SURVEY

Anonymous User:887957324 **2021-06-01 15:11:01 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

none of scenarios offered. Would like 1100ltps at Campground as i believe that will work for all river health and current commercial requiriements needed

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

415: ONLINE SURVEY

Anonymous User:887963139 **2021-06-01 15:16:22 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

416: ONLINE SURVEY

Anonymous User:887965647 **2021-06-01 15:30:52 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the above are realistic or acceptable if we are to manage the resource in a "balanced" way recognising the rights and needs of all members of the community. The proposed scenario's in question 1 have some members of the community being advantaged at the cost of other members of the community who will be significantly disadvantaged.

I believe 1100 l/s should be the absolute maximum minimum flow.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

417: ONLINE SURVEY

Anonymous User:888046112 **2021-06-01 17:03:14 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Have to look at bigger picture of biodiversity etc, and not at the short term picture of non-sustainable forms of farming (irrigation reliant).

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Will be sending in a written letter.

Location: Dunedin District

418: ONLINE SURVEY

Anonymous User:888104663 **2021-06-01 18:37:15 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Don't like any options. I understand the current min flow is around 900 l/s. This works OK but suggest a move to between 900 and 1,200 l/s would suit most. Much more flow is too much for recreation, and anything over 900 is sufficient for fish life and health of river. Split the difference and make the minimum 10,500 l/s.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The entire process appears to be poorly run. Even the Alexandra consultation meeting was a joke. Not seating arranged in advance, no sound system and overhead presentations too small to read. Very amateurish of ORC, but sadly consistent with previous interactions.

Location: New Zealand

419: ONLINE SURVEY

Anonymous User:888165502 **2021-06-01 20:50:30 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 litres per second at Campground As this is the problematic area and flow restrictions along the entire scheme should not be altered when it is a specific portion that is the issue. Restrictions in other areas for the wrong reasons will directly effect our ability to irrigate our land and sustain an income.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

420: ONLINE SURVEY

Anonymous User:888412142 **2021-06-02 07:54:16 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Science supports a minimum flow of 3000 therefore no other option is viable

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Over 20 years of living in the area I have seen the increased dairy farming up river of Alexandra has seriously degraded the quality of the water. My family used to swim and fish in the river at Galloway however due to the pollution and level of the river this is no longer a healthy to do.

Location: New Zealand

421: ONLINE SURVEY

Anonymous User:887844735 **2021-06-02 08:34:58 +1200**

Q1: Minimum flow preference

900 - 1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My preferred minimum flow is 900 to 1100

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Manuherekia river's health is very good along with well management by the irrigation companies. Many of the good swimming holes was silted up when the Roxburgh Dam was built which result in the river has silted up dramatically from the Clutha to Chatto Creek.

Contact Energy regularly remove gravels from the mouth to just above 1st Galloway this has a big effect on silt water and the life of fish and eels, etc.

The problems of storm water entering the river in the urban area and human sewage were not caused by the growers of healthy food, the irrigator, who manage and care for this river as it is their life blood. Any problems are caused by others but it appears the growers of healthy food are being punished.

Location: Manuherekia

422: ONLINE SURVEY

Anonymous User:888436323 2021-06-02 09:06:00 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

If the river does not survive long term, neither will the people

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

My house bore which worked fine a few years ago has reduced flows down to about 10mins at a time, since lots of new irrigation

Location: Queenstown Lakes District

423: ONLINE SURVEY

Anonymous User:888469604 2021-06-02 10:26:43 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Better fishing and more swimming

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The algae is disgusting

Location: Central Otago District

424: ONLINE SURVEY

Anonymous User:888501479 **2021-06-02 13:44:46 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river needs to be returned to a healthy state where it is swimmable

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: New Zealand

425: ONLINE SURVEY

Anonymous User:888695365 **2021-06-02 17:36:30 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It seems to be fair" to all.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There is another survey we will complete. Much depends on land use near tributaries and the main river.

Location: Manuherekia

426: ONLINE SURVEY

Anonymous User:856958050 **2021-06-02 19:15:41 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

At this flow level the water quality would be much better with less algae and more usable for recreational activities.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

in mid summer there are large quantities of very smelly algae. Happy to provide photos. It appears to be unsafe for swimming, dogs etc Many times I have met visitors to the area who say that the river is unfit for use/ fishing and will not use the river again. Not good for local businesses??? The river is a public asset and should be fit for use by all.

Location: Manuherekia

427: ONLINE SURVEY

Anonymous User:888774317 2021-06-02 20:15:32 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It appears to be most suitable flow for sustaining a broad range of both invertebrate and fish life and to allow for recreational activities.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Economic assessments of loss need to factor in environmental degradation and restoration costs. If these were adequately factored into financial models then it would be far more costly not to adopt minimum flows at the higher end of the proposed flow modelling.

Location: Central Otago District

428: ONLINE SURVEY

Anonymous User:663394218 2021-06-02 20:41:49 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why**Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**

Location: Manuherekia

429: ONLINE SURVEY**Anonymous User:889061527 2021-06-03 08:46:21 +1200****Q1: Minimum flow preference**

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This seems fair for more people

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**Location:** Central Otago District**430: ONLINE SURVEY****Anonymous User:889074531 2021-06-03 09:10:18 +1200****Q1: Minimum flow preference**

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Current voluntary flow of approx 900 should be given as option 1. The SQ is set by court at 820. I prefer the voluntary 900 as the best option giving a balance between environmental and community needs. Food protein producers should be prioritised over leisure as we humans need reliable access to safe food.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It is wrong to start this consultation with such high flows as scenario 1. Unless the ORC is going to commit to the building of a larger dam to allow more storage. This is the only way that the community can achieve these flows without destroying the local economy which includes omakau alexandra and further

Location: Manuherekia**431: ONLINE SURVEY****Anonymous User:881914298 2021-06-03 10:03:54 +1200****Q1: Minimum flow preference**

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Reasonable flow to environment. River flow protected . In stream values maintained.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Pollution from some land users a major problem.

Location: Central Otago District

432: ONLINE SURVEY

Anonymous User:889112988

2021-06-03 11:04:16 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None - I prefer 1100lps or status quo.

A minimum flow higher than 1100 has a significant detrimental impact on the viability of farming in our area. The company I work for almost exclusively serves farming or farm related industries. I am concerned about my job & livelihood!

The consultation brochures do not accurately represent the values and science of the whole river system. Only the bottom 20% of the river length in summer was described in the graphs.

The irrigators have been working for years on a solution that is based on science and values and includes environmental gains through out the whole catchment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There has not been enough consultation with local businesses & community, and what little has been done seems to not have been listened too. My employer, represented by Steven Hore attended a consultation meeting discussing the effect of irrigation security on local businesses and the community. There were questions asked of the ORC which never got responded to. This isn't good enough - our jobs and livelihoods are on the line, the council needs to take this more seriously!

The consultation brochures do not context the implications of the choices offered.

Local families swim, fish, tramp, bike etc and enjoy the river as it is. The ORC's material makes no sense.

Irrigators have worked with independent science experts and stakeholders to develop a proposal that is the sweet spot between environment and community wellbeing. Even 1100 is not an easy minimum flow to deliver.

The hydrological model and its outputs have not been peer reviewed or signed-off by the hydrological experts.

The scenarios presented do not address any values based flow regimes in the tributaries of the Manuherekia (tributary flows have been apportioned pro-rata in the modeling)

The modeling assumes the same sharing and dam management regime would occur under the higher minimum flow scenarios as status quo – this is seriously flawed.

Allocation was not assessed or presented appropriately.

No flow options have been assessed for ecological outcome collectively by TAG.

Location: Manuherekia

433: ONLINE SURVEY

Anonymous User:889112988

2021-06-03 13:08:28 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None - I prefer 1100lps or status quo.

A minimum flow higher than 1100 has a significant detrimental impact on the viability of farming in our area. The company I work for almost exclusively serves farming or farm related industries. I am concerned about my job & livelihood!

The consultation brochures do not accurately represent the values and science of the whole river system. Only the bottom 20% of the river length in summer was described in the graphs.

The irrigators have been working for years on a solution that is based on science and values and includes environmental gains through out the whole catchment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

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The modeling assumes the same sharing and dam management regime would occur under the higher minimum flow scenarios as status quo – this is seriously flawed.

Allocation was not assessed or presented appropriately.

No flow options have been assessed for ecological outcome collectively by TAG.

Location:

Manuherekia

434: ONLINE SURVEY

Anonymous User:889112988

2021-06-03 13:09:41 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None - I prefer 1100lps or status quo.

A minimum flow higher than 1100 has a significant detrimental impact on the viability of farming in our area. The company I work for almost exclusively serves farming or farm related industries. I am concerned about my job & livelihood!

The consultation brochures do not accurately represent the values and science of the whole river system. Only the bottom 20% of the river length in summer was described in the graphs.

The irrigators have been working for years on a solution that is based on science and values and includes environmental gains through out the whole catchment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There has not been enough consultation with local businesses & community, and what little has been done seems to not have been listened too. My employer, represented by Steven Hore attended a consultation meeting discussing the effect of irrigation security on local businesses and the community. There were questions asked of the ORC which never got responded to. This isn't good enough - our jobs and livelihoods are on the line, the council needs to take this more seriously!

The consultation brochures do not context the implications of the choices offered.

Local families swim, fish, tramp, bike etc and enjoy the river as it is. The ORC's material makes no sense.

Irrigators have worked with independent science experts and stakeholders to develop a proposal that is the sweet spot between environment and community wellbeing. Even 1100 is not an easy minimum flow to deliver.

The hydrological model and its outputs have not been peer reviewed or signed-off by the hydrological experts.

The scenarios presented do not address any values based flow regimes in the tributaries of the Manuherekia (tributary flows have been apportioned pro-rata in the modeling)

The modeling assumes the same sharing and dam management regime would occur under the higher minimum flow scenarios as status quo – this is seriously flawed.

Allocation was not assessed or presented appropriately.

No flow options have been assessed for ecological outcome collectively by TAG.

Location: Manuherekia

435: ONLINE SURVEY

Anonymous User:889112988

2021-06-03 13:10:18 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None - I prefer 1100lps or status quo.

A minimum flow higher than 1100 has a significant detrimental impact on the viability of farming in our area. The company I work for almost exclusively serves farming or farm related industries. I am concerned about my job & livelihood!

The consultation brochures do not accurately represent the values and science of the whole river system. Only the bottom 20% of the river length in summer was described in the graphs.

The irrigators have been working for years on a solution that is based on science and values and includes environmental gains through out the whole catchment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There has not been enough consultation with local businesses & community, and what little has been done seems to not have been listened too. My employer, represented by Steven Hore attended a consultation meeting discussing the effect of irrigation security on local businesses and the community. There were questions asked of the ORC which never got responded to. This isn't good enough - our jobs and livelihoods are on the line, the council needs to take this more seriously!

The consultation brochures do not context the implications of the choices offered.

Local families swim, fish, tramp, bike etc and enjoy the river as it is. The ORC's material makes no sense.

Irrigators have worked with independent science experts and stakeholders to develop a proposal that is the sweet spot between environment and community wellbeing. Even 1100 is not an easy minimum flow to deliver.

The hydrological model and its outputs have not been peer reviewed or signed-off by the hydrological experts.

The scenarios presented do not address any values based flow regimes in the tributaries of the Manuherekia (tributary flows have been apportioned pro-rata in the modeling)

The modeling assumes the same sharing and dam management regime would occur under the higher minimum flow scenarios as status quo – this is seriously flawed.

Allocation was not assessed or presented appropriately.

No flow options have been assessed for ecological outcome collectively by TAG.

Location: Manuherekia

436: ONLINE SURVEY

Anonymous User:889296290 2021-06-03 16:26:29 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The impact it will have on local businesses and farming etc.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The brochures didn't represent the actual impact it will have on the future.

Location: Manuherekia

437: ONLINE SURVEY

Anonymous User:889296290 2021-06-03 16:50:04 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Leave it as it is. Raising the minimum flow will have a huge detrimental impact on the farmers and businesses and schools.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I don't think it has been well understood about what it means to people other than farmers - apart from "more water in the river and a few more fish".

Location: Manuherekia

438: ONLINE SURVEY

Anonymous User:889307460 **2021-06-03 16:51:32 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The scenario I prefer is a minimum flow of 1,100 l/s. Being that the current minimum flow is 900 l/s this is generally adequate and anything more than 1100 l/s could result in a completely unjustified disaster to our local economy.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I think that some of the information given to the public by ORC in this process has been often misleading and could do with with greater clarity and improvement. This information will skew perspectives and give results that aren't correct.

Location: Manuherekia

439: ONLINE SURVEY

Anonymous User:889307737 **2021-06-03 16:55:24 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Leave as status quo

Why= farming is a struggle even with current situation

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We making big changes to our farming system eg less nitrogen no acid fertilizer less cultivation

Location: Queenstown Lakes District

440: ONLINE SURVEY

Anonymous User:889405809 **2021-06-03 19:44:36 +1200**

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Needs more consideration and consulting with community.if the flow at alexandra end is the problem maybe look at a reservoir to maintain flow closer to the problem part of the river.or taking water needed from the irrigation scheme and putting the water in nearer the problem and maintaining the irrigation system.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

If the flow at alexandra is to low would a take from the manorburn scheme solve the problem? As this is from the same catchment

Location: Manuherekia

441: ONLINE SURVEY

Anonymous User:889408396 **2021-06-03 20:34:49 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Preference is for minimum flow of 1,100 l/s at campground. This is higher than current voluntary minimum. As a member of Manuherekia irrigation co-op this level is consistent with recent RC applications and is supported by the the extensive catchment investigation undertaken to determine sustainable flow levels. It is appropriate flow regime to improve the water body and instream values in the desired locations (not all of the river has water quality issues). Importantly it will not degrade portions of the river with good - very good water quality, and it ensures a sustainable level of primary industry that supports our rural communities

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The mauri of the Manuherekia river should not be compromised

Location:	Manuherekia
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442: ONLINE SURVEY

Anonymous User:889452088 **2021-06-03 22:08:45 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't agree with any of the proposed scenarios. The flow should be 1100 litres per second at campground.

I am all for protecting our natural flora and fauna and increasing the water quality. However, anything over 2000L/s would be un-swimmable for the majority of the public which poo-poops the idea of increasing flow and therefore water quality for recreational swimming. The safety of the publics would be hugely compromised. paddling in the shallows as a kid is a right of passage if you grow up or holiday in Central Otago. Not being swept away down stream.

There are plenty of other locations around Central Otago for recreational trout fishing (which is an exotic and invasive species). The lower reaches of the Manuherekia does not need to be one. And the suggested increase in tourism with a greater trout population (if the flow rate was increased) is very unlikely to outweigh the number of domestic holiday makers who park up near the Manuherekia River over the summer so they can safely enjoy a paddle in the water.

I also feel the public information provided leans heavily towards increasing the flow to ensure toxic algae does not grow. This is a very isolated issue, not the entire length of the river as the public are being led to believe. This is pulling at the heart strings of many who do not understand the entire issue.

We own a small business which we operate from our lifestyle block near Alexandra. We rely on irrigation from the Manuherekia Irrigation Scheme for our income as we operate a plant nursery and graze our paddocks. If the ability to gain access to regular and reliable irrigation water was compromised we simply could not operate our business, as the plants rely on regular irrigation during the summer months. We share a bore with our neighbours for our potable drinking water. There is no capacity in it for irrigation water as well. We have drilled 2 bore holes on our property and been unsuccessful in gaining enough water so this is also not an future option.

We back onto the CODC owned Alexandra Airport Reserve which is an unmaintained dryland. Exotic thyme, briar and wilding conifers thrive as do rabbits, feral cats, ferrets and not much else! If access to irrigation water was reduced to the majority of land owners in our area the rabbit and exotic weed population will soar. I cannot imagine this sits well with the ORC Pest Management Programmes. The Regional Councilors need to ensure they view this issue holistically as increasing the Manuherekia River flow rate may appear to 'fix' one issue, it will create a while lot more.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

443: ONLINE SURVEY

Anonymous User:889661093 **2021-06-04 07:57:20 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Uncontrolled irrigation take for private gain has this river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Restore water control /restrict irrigation

Location: Waitaki District

444: ONLINE SURVEY

Anonymous User:889659713 2021-06-04 08:19:03 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It has a balance which might satisfy most users

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Climate Change needs addressing urgently. We are told that rain storm events are going to be more severe. Dry periods longer and drier than in the past. The advent of regenerative agriculture seems very sensible. Traditional farming methods could be encouraged to be changed, where appropriate, such to benefit both the farmer, the soils and the river. Education of all parties is a key factor to better management of the catchment.

Location: Dunedin District

445: ONLINE SURVEY

Anonymous User:531206496 2021-06-04 11:00:44 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I have not specified a preferred minimum flow as I don't want that statistic to be used against the other scenarios. Ideally I would want to see a 3,000l/s flow, but I know that is not at all sustainable over a whole season with the limited source of water that feeds this river. I am a biologist who has had work published, and before retirement and sale of my farm I was also an irrigator in a different catchment in Central Otago. I can see both sides of this argument. I am also a keen fisherman and nothing would please me more than to see a larger sustainable flow in this river. However; this can't be done as modelling has shown without increased storage at Falls Dam.

The CODC has allowed intensive farming to occur around the Omakau area and run-off from flats near the river in times of periodic, but infrequent heavy rain has contributed to pollution in this waterway. This can

be mitigated to some extent, but these farms exist and contribute to the economic wellbeing of the wider economy so any decision on river flow volumes has to take into account existing land use.

The only solution to this conundrum is to maintain the status quo until storage at Falls Dam is increased. There have been several attempts to do this but each has fallen over at the cost end of the investigation. If Government wants revision of the nation's minimum river flows then it must be prepared to help pay for such mitigation where river flows don't currently meet standards, such as the Manuhetikia situation. Otago Regional Council should be trying to solve this dilemma by encouraging the funding of raising Falls Dam from all available stakeholders producing a win/win rather than a lose/lose for this catchment.

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

Surely after all the data you have collected that increasing the flow by the use of storage is the only sensible outcome, especially given climate change modelling.

Location: Manuhetikia

446: ONLINE SURVEY

Anonymous User:658049747 2021-06-04 11:04:55 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river is sustainable for most species and allows safe use of the river for children and maintains an economic outcome for the greater area.

A minimum flow of 1100l/sec is totally sufficient

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

All the information complied by various agencies involved in PC 7 and other processes

Location: Manuhetikia

447: ONLINE SURVEY

Anonymous User:889743967 2021-06-04 11:59:43 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Due to our irrigation needs any greater restrictions would stress our property and livelihoods

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

Location: Manuherekia

448: ONLINE SURVEY

Anonymous User:889742911 **2021-06-04 12:05:20 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

to stay at status quo as changing the river levels would impact on the environment and ecosystems that already live in the river as per your studies

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

changing the flow rates of the river will come at a cost to the farmers etc that use the irrigation water witch supports our towns and people

Location: Manuherekia

449: ONLINE SURVEY

Anonymous User:878973873 **2021-06-04 12:25:15 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Have ticked 4, as this is only a scenario situation. Reality is Scenario 1, 2 or probably less than these is perhaps more realistic with current situation.

When we look at the demands upon and the history of the river as we move into times of global warming and demands of increasing populations, we need to collectively create change.

The people who use the river for recreational purposes, the campers, the tourists who swim in the river after a day on the Otago Central Rail Trail, our locals, and other users or guardians, Scenario 4 is appealing.

But, this is not a reality until a new higher Dam wall is built with urgency. Minister James Shaw has stated we need more investment in hydro, here is the perfect opportunity while also meeting the needs of our river and all the current users and interested parties.

Pump water back into the Dam for further hydro regeneration, the new dam will mitigate downstream flooding and the lake will provide a fantastic new recreational asset.

We can meet the needs of all, so lets do this.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

ORC should never have given consent for the Omakau Wastewater to be measured 10 metres downstream, obvious pollution by dilution, but accept that CODC did not have the funding or the pressure to improve.

The improvements are being made for change, just like the farmers have made improvements for the betterment of the river. NOW we need to have a confirmed community lead vision about what the entire Manuherekia Valley will look like in 20 - 50 years and deliver this.

Lets start with the continuation of improved farming practises, better water treatment and discharge, riparian plantings, a new storage lake for recreation and tourism opportunities, renewal energy enhanced with pumping water back into the dam, cycle or walking tracks along the river, increased on farm water storage, new wetlands, predator control, selected plantings to encourage native birdlife etc.

We need to work better alongside our farmers, Iwi, interested groups and our communities so we can have a thriving economy and also deliver better recreational opportunities in the river.

The new higher storage dam is a no brainer as you will be well aware and is the only way we can make this happen.

Please take the first steps today on our behalf, as we owe this to ourselves and our future generations.

Thank you.

Location: Manuherekia

450: ONLINE SURVEY

Anonymous User:889791936 2021-06-04 13:26:25 +1200

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Flow consistent with safe use of the river at Alexandra while maintaining clean water.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Future irrigation systems should be based on water harvesting scenarios ie at times of high natural flows into large storage systems built from govt funded body. Would enhance New Zealand's food production and at the same time satisfy the needs of clean and safe rivers with natural flows. Ie rather than damming rivers completely as is done now.

Location: Manuherekia

451: ONLINE SURVEY

Anonymous User:727009963 2021-06-04 14:04:54 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Scenario 1 is as high as I could support.

All of the reading I have done over the last couple of years on this and similar topics covering the Central Region leads me to believe that any higher level is simply unsustainable. Indeed, at 3,000l/s it appears to

me that there would not be enough water in the Manuherekia catchment in a dryer summer to maintain that level even if irrigation was severely limited.

Further, I suggest that 3,000l/s minimum flow would mean little or no swimming in the camping ground area because, depending on the state if the gravel beds at the time, the river would be too swift.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Historically, I clearly recall residents in the Manuherekia talking about algal blooms in the river 60 years ago on occasion and suggest that these events are more of a natural phenomenon than a man made event.

I sincerely hope that those who are trying to ramrod these sorts of pie in the sky policies through have got a plan for where their future food supplies will come from and how the economics of the region will be able to be sustained. Perhaps they will survive by hunting the wallaby, rabbit and other pests which will invade the wasteland that much of the productive farm and horticultural land will undoubtedly become.

Now, more than ever before, is a time when decisions must be made based on sound scientific research, not figures seemingly plucked from the air by what increasingly seems to me to be an ideaology driven group of people in positions of some power who are 'pushing their own barrow' when they should be focusing on a much bigger picture.

Location: Central Otago District

452: ONLINE SURVEY

Anonymous User:889929365 **2021-06-04 17:34:03 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Actually I'd prefer 1100l/s but this wasn't given as an option. This a fair minimum flow which allows for irrigation as well as river health. It is also a level that the small Falls Dam can cope with.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The Council has not been unbiased in this process.

Location: Manuherekia

453: ONLINE SURVEY

Anonymous User:559753184 **2021-06-04 17:34:49 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I like the present level - it is only for a short period of the year.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I am concerned that the ORC have put out these "senarios" and at their meeting they set they are not set in stone, but everyone I talk to talks about the "options". and thinks that the 5 are the only choices. I would also question should there be a distinction between old fashioned mahika kai methods from the river itself - and by producing food on the land with irrigation. Also the river doesn't need to be completely suitable for fishing all the time - as a fisherman I am aware if its not right in one spot I move to another spot that is. As this low flow is at the bottom of the river I move up the river with success

Location: Manuherekia

454: ONLINE SURVEY

Anonymous User:889945559 2021-06-04 18:10:14 +1200

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why**Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**

Location: Manuherekia

455: ONLINE SURVEY

Anonymous User:890010241 2021-06-04 20:37:47 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because we rely on farming horticulture to look after our community. The river has been only running due to the falls dam built many years ago. We need to protect our river but not at the expense of livelihoods

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Common sense needs to be applied. Make it still water and user friendly for the farmers and still available to swim in.

Location: Manuherekia

456: ONLINE SURVEY

Anonymous User:890032393 2021-06-04 21:44:06 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

For the sustainable good of our entire community.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

457: ONLINE SURVEY

Anonymous User:890304277 2021-06-05 09:46:46 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Takes a middle ground approach. Improves the ecosystem and still makes a provision for farming albeit at lower levels of intensity.

Irrigation for farming from other sources should be explored. New methods of farming could be introduced.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Change needs to occur.

Location: Queenstown Lakes District

458: ONLINE SURVEY

Anonymous User:890338496 2021-06-05 10:51:56 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because it retains some farming viability but doesn't completely compromise the ecology, the recreational use like swimming, or mana whenua values

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

459: ONLINE SURVEY

Anonymous User:890532915 **2021-06-05 15:05:43 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river and all the species that call it home rely on higher flows. Many of the ecological factors aren't good until there is 3,500 l/s flowing down the river with most not being met until the flow reaches 4,000 l/s. Yet the maximum the regional council is offering is 3,000 l/s. Currently, only 900 l/s flows down the river.

Therefore I'd at least prefer it to be better at the rate of 3,000 l/s.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

N/A

Location: Clutha District

460: ONLINE SURVEY

Anonymous User:890572444 **2021-06-05 17:04:14 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 litres per second at the campground

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This is an increase off 22.5% over the old minimum, which is a huge amount.

Location: Manuherekia

461: ONLINE SURVEY

Anonymous User:882851416 **2021-06-05 17:11:14 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Well above current min, fish and economic use seems to be sustainable and river flow suitable for recreational use

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Increase height of falls dam or create another dam to assist in droughts?

Location: Manuherekia

462: ONLINE SURVEY

Anonymous User:890615153 2021-06-05 18:54:12 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 litres per second at the camping ground

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This quite an increase over the current minimum flow and should keep the river in a healthy condition.

Location: Manuherekia

463: ONLINE SURVEY

Anonymous User:890640833 2021-06-05 20:17:17 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The community have voluntarily upheld the flow of 900 litres with no council enforcement. It works, why is the status quo not a option or the generous increase offered by the irrigators of 1100?

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Most of the river is in good health and improving. This has and is being done by the community. Let them just keep going rather than increasing costs for the council to stuff it up.

Location: Manuherekia

464: ONLINE SURVEY

Anonymous User:890885738 2021-06-06 08:32:33 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I am a landowner and rely on water for irrigation and stock. It can already be low to unreliable so reducing available levels further will put extreme pressures on future farming practices

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Working alongside farmers and the people who this will affect is paramount

Location: Manuherekia

465: ONLINE SURVEY

Anonymous User:890885738 2021-06-06 08:35:09 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

to sustain water for farming systems

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

466: ONLINE SURVEY

Anonymous User:890895428 2021-06-06 08:54:49 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Better ecosystem for fish and other animals

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: New Zealand

467: ONLINE SURVEY

Anonymous User:885116036 2021-06-06 09:55:48 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I do not support any of the above scenarios for the following reasons:

The Irrigation groups have spent a huge amount of money and time on consultants for submission on the renewal of deemed permits. This extensive work shows a commitment from irrigators to do what is right for the long term health and ecology of the river. What would the irrigators have to gain by ruining the very thing that provides them with a living.

I understated that the Manuherekia Irrigation Society has submitted a deemed permit renewal on the basis of a minimum flow 1100 l/s. This has been based on their consultancy work and this is the flow rate that I support as reasonable and responsible.

History has shown that Dams and reservoirs were built because there was a need to provide water to farms etc in order for the land to become productive and habitable which has seen the community grow in population and thrive as an economic area for people to live.

I believe that a higher flow rate could be achieved by building a larger Dam/Reservoir at the source of river. This would give the ability to provide everyone with the water that is needed for current irrigators, provide higher minimum flow than 1100 l/s and has the ability to increase the water available to new business ventures allowing the community to prosper and grow into the future.

The cost of this I know will be significant so this needs to be shared by all who will benefit being the entire community not just irrigators.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The setting of these flows is only the beginning. I believe that a flow rate at 1100 l/s can be acceptable if the quality of the water is significantly better than where it is right now.

There needs to be a lot of work done on land management to improve the quality of the water.

Location: Manuherekia

468: ONLINE SURVEY

Anonymous User:890921896 2021-06-06 10:26:09 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This option supports the best outcome for the ecosystem plus swimming and recreational use of the river. These things cannot be attained in any other way. The other options provide less 'good' for the community. Even at this level the river does not reach the 'good' standard for algae, midges, caddisfly or Rainbow Trout.

The pressure on farmers is unfortunate and undesirable, however there are alternative ways to address irrigation reliability and farm viability. Practices that include on-farm water storage ponds / dams which can store surplus water in winter and spring when the river flow is greater and more sustainable farming practices in this area could help address these issues.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We need to be 'honest' with our environment. The Manuherekia catchment is a naturally dry area with about 300mm rain each year. We need to respect the natural environment and manage the land in a way that works for the land rather than try to change the land to achieve other purposes.

Location: Manuherekia

469: ONLINE SURVEY

Anonymous User:885116036 2021-06-06 10:33:47 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I have not ticked any of the above scenarios for the following reasons:

I believe none of these flows are proven examples needed to achieve the necessary outcome of all parties. Extensive study work from the Manuherekia Irrigation Society has shown that a flow rate of 1100 l/s will meet the government criteria.

The economic consequences of reducing or losing irrigation has been proven by the CODC Report to be significant and damaging for the community.

Also I believe that the economic consequences would be even more detrimental if the horticultural and viticultural businesses were modelled into this report. I cannot understand why these business who rely heavily on irrigation have not been included in these studies.

To say that they can build bigger reservoirs/dam for themselves is not taking into effect whether there is the ability for them to even be able to fill a bigger reservoir/dam based on their current water allocation(for which there is no ability to get more water as this is fully subscribed)

In conclusion I think that the past 2 years has been a waste of time and ratepayers money to not even come to a set of scenario's that are realistic for consideration and I believe that there are certain parties that are completely inflexible and unwilling to compromise for a satisfactory outcome for all involved.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The studies seem to indicate that there is a problem with the river downstream.

Would it be possible to fix this by building a reservoir/dam down river at the point of issue which would be able to be utilised to increase the minimum flow when required.

Location: Manuherekia

470: ONLINE SURVEY

Anonymous User:885116036 **2021-06-06 10:40:19 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I do not support any of the scenarios above for the following reasons:

I support the submission made by the Manuherekia Irrigation Society for a flow of 1100 l/s as this has been based on sound research

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Improvement of the quality of the water through sound and realistic land management

Location: Manuherekia

471: ONLINE SURVEY

Anonymous User:890988577 **2021-06-06 13:01:22 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't support any of the scenarios. The status quo is the appropriate level if water quality can be improved in the bottom stretch of the river. Dumping more water in the Manuherekia is only hiding any problems that may or may not be present.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The majority of the Manuherekia is in very good health. This has not been publicly recognized by ORC. Why is there no mention by ORC of the world class trout fishery in the Dunstan Creek the main tributary of the Manuherekia? ORC are being very selective with the truth when it comes to the Manuherekia. If Regional and Central government were to put up a decent sized grant for a new and bigger Falls Dam this would allow enough water for everyone. So far irrigators are the only group that have supported efforts for a new dam. Where is the financial support from the NGOS and other interested parties that are so concerned with the Manuherekia?

Location: Manuherekia

472: ONLINE SURVEY

Anonymous User:891008911 2021-06-06 13:40:13 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I feel that none of the above scenarios are suitable. The 1100L/sec at the campground is the best option. This is the best flow regime to maintain and improve the waterbody.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

During dry periods in the future, the Falls Dam can support maintaining a flow. The Manuherekia Irrigation Coop Society have historically been very supportive in maintaining river flows in periods of low rain fall.

Location: Manuherekia

473: ONLINE SURVEY

Anonymous User:891008911 2021-06-06 13:48:37 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I feel none of the scenarios are suitable and 1100L per second at the campground would be the best option. This is the appropriate flow regime to maintain and improve the current waterbody and continue the economic conditions in the valley.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I have been a member of Fish and Game for over 50 years. Over this fifty years I have fished most of the Manuherekia catchment. Currently under voluntary 900 L/sec regime the catchment the fishing is the BEST I CAN REMEMBER.

In the future, during dry periods the Falls Dam can support maintaining a viable flow. The Manuherekia Irrigation Coop Society have historically been very supportive in maintaining flows.

Location: Manuherekia

474: ONLINE SURVEY

Anonymous User:891016961 2021-06-06 13:52:53 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

475: ONLINE SURVEY

Anonymous User:891039185 2021-06-06 15:13:59 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I dont agree with any of these scenarios, there is no mention of how much water comes into the top of the Falls Dam and the other tributaries that enter the Manuherekia.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I dont know what the word rohe means, would prefer that our council uses terminology that all can understand.

Location: Central Otago District

476: ONLINE SURVEY

Anonymous User:891028922 2021-06-06 15:55:17 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1. I believe strongly that this river that I played in, drank from when tramping, ate eels from, should be tampered with as little as possible.
2. I have been longtime science teacher/writer of teaching material, and truly grieve over the despoliation of so much of New Zealand including this special river, near whose headwaters i was born.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I know that drought conditions are the norm in most of this rohe. but when it rains it rains in earnest.

Tanks, which if underground or under the deck of a house can hold enough for household use.

Smallish dams or ponds perform same function for farms I should think UNLESS OWNER ENGAGED IN WRONG TYPE OF FARMING OR OVERSTOCKED.

My memory of child of early '30's recalls sheep, and obviously enough grass grown to make haystacks for winter feed.

Importantly though, in regard to grass, many farmers employed a rabbitier with house (at least) to keep down those demolishers of grass.

SUGGESTION: With some brands of pet food unobtainable (presumably formerly imported) could rabbit flesh not be substituted? The furs of course were once exported for making coats etc.....could not that be a thriving industry, making us much less reliant on artificial fabrics/fibres which break down to the detriment of our rivers and ocean?

(Now if ORC constitution allows, it could feasibly organise and profit by that, so keeping our rates at minimum!)

Location: Dunedin District

477: ONLINE SURVEY

Anonymous User:891129806 2021-06-06 20:07:14 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

478: ONLINE SURVEY

Anonymous User:891140089 2021-06-06 20:59:41 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This option is best for the river's ecosystem health, which is vital to support, as climate change is likely to impact negatively on this fragile ecosystem. A multitude of species are dependent on the health of this river and its surrounds.

The opportunity to swim and fish in clean, algal free water would be fantastic.

Maintaining a "natural flow", unaltered by irrigation draw off will recharge the aquifers and ensure that properties that depend on well domestic water will continue to be able to access high quality water. from underground.

While irrigation and farm viability are of concern to me, (coming from an irrigation farming background) it has come time to adapt to a new scenerio, that of the water staying in the river, and farmers finding other ways to produce primary products.

Like all of us, Farmers are unlikely to change their current practises until they have to.

"Necessity is the mother of invention "is a valid proverb in this situation. Our farmers are innovative, intelligent and resourceful. They will rise to this challenge, even though it will be a major major challenge.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It is gift and opportunity of great value to have clean rivers to swim in , paddle in , fish in and sit beside. Please give this river back its true vitality and life. So our grandchildren and their children enjoy this gift and opportunity and continue to treasure them as we do.

Location: Manuherekia

479: ONLINE SURVEY

Anonymous User:891200150 2021-06-07 00:03:17 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I am a fisherman, it breaks my heart when the rivers are almost dry and fish are gasping for air, also I'd prefer more areas of the river to be swimmable through out the year. Considering the need of water for all party in the region, I believe this is the right balance for all parties.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

480: ONLINE SURVEY

Anonymous User:891349864 2021-06-07 08:41:38 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Offers best protection for river health

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Support needs to be proved to farmers to transition away from irrigation from the river. Storage ponds?
Alternative crops and land management systems?

Location: Dunedin District

481: ONLINE SURVEY

Anonymous User:891354064 **2021-06-07 09:03:19 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I prefer status quo so have therefore selected option 1 as best of available scenarios. I believe the economic impacts to the wider Central Otago community of any of the other scenarios will be severe and far outweigh and perceived benefits

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There needs to be far more engagement with the wider community not just a few self interested groups

Location: Central Otago District

482: ONLINE SURVEY

Anonymous User:776849482 **2021-06-07 09:04:22 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

900 cs

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The Local Government Act 2002 (LGA) requires councils to consider and promote the current and future wellbeing of communities.

Before local government reforms 1989 if we all sat back to see where it would lead to, the only answer was that each community required its Fire Chief, district health nurse, community police, school principle, Iwi and others to consider and promote the current and future wellbeing of their community. Within the Vincent community ward, Clyde, Alexandra, Omakau,

Community plans need to be actioned by community board,

- Determine the group's mission and purpose.
- Set a strategic vision and plan.
- Ensure the group is financially and legally accountable

- Ensure the group has adequate resources.
- Work to enhance the group's public image.
- Assess the boards effectiveness

The fire Chief role is take up there community plan of their town, including work and income unemployed. This will involve.

- Setting and approving budgets.
- Managing risk (Ward support teams) the integrated expansion Group, for all ages.
- Keeping on top of relevant laws and regulations.
- Approving major programs and projects undertaken by the groups in achieving its mission.
- Attending and participating in meetings.
- Serving on-board communities.
- Undertaking or overseeing fundraising activities.
- Representing stake holders view during meeting.
- Acting as the group's media spokesperson.
- Lobbying on behalf of the group.
- Organising and attending board retreats and other evaluation activities.
- Others.

The council would only require a single board Central Otago.

Location: Central Otago District

483: ONLINE SURVEY

Anonymous User:891384633 2021-06-07 10:36:49 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Are rivers need to be restored and kept healthy.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Otago

484: ONLINE SURVEY

Anonymous User:885447028 2021-06-07 11:23:31 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of these. I would prefer 1100 l/s or less, e.g. status quo. As presented in the brochures only the lower 20% during summer is represented which is badly skewed and therefore unrepresentative. I feel the whole scenario is unreasonably slanted towards the occasional fisher person(s) and even rarer food gatherer of pre-European ancestry and is unfairly prejudiced against the local residents of the Manuhirikia Valley who actually live and work here and base their whole lives and community here, rather than being solely recreational visitors. The community to a very large extent relies on the viability of the local farming profession.

Q3: Do you have any other feedback on water management in the Manuherehia Rohe?

Residents's research conducted over the last many years has indicated that an 1100l/s min. flow would provide a viable balance for protecting the environment and the local community's survival.

Location: Manuherehia

485: ONLINE SURVEY

Anonymous User:891402486 **2021-06-07 11:26:39 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Reduce algal bloom and river health for swimming, fishing and water quality including drinking water in towns like Omakau

Q3: Do you have any other feedback on water management in the Manuherehia Rohe?

This area is a dry area not appropriate for dairy farming and causes major water quality problems. Have spent many years in Omakau and water quality and flow has substantially declined with introduction of dairy farming to this area

Location: Dunedin District

486: ONLINE SURVEY

Anonymous User:891377309 **2021-06-07 11:37:45 +1200**

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best for river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Health of river is paramount

Location: Dunedin District

487: ONLINE SURVEY

Anonymous User:891397981 **2021-06-07 11:46:32 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Minimum level to ensure ecological health of river and public amenity values while acknowledging basic irrigation need.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Recent expansion of irrigation infrastructure has been unrealistic in face of cessation of historic deemed rights.

Location: Dunedin District

488: ONLINE SURVEY

Anonymous User:884300426 **2021-06-07 12:40:38 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would like to stay at status quo since it it's working just fine

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We need to be in support of farmers and farming communities both in horticulture and viticulture as this is what nz is built from

Location: Manuherekia

489: ONLINE SURVEY

Anonymous User:891448889 **2021-06-07 13:20:48 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

490: ONLINE SURVEY

Anonymous User:891503768 2021-06-07 14:32:17 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because looking at the graph that is where most things are "good" which would hopefully correlate with good river health.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The amount of didymo and other algae is alarming.

Why do recreational 4x4s and motor bikes get to drive in it? Ban them or at the very least restrict access and build in a fee system that represents the costs of vegetation and river health restoration.

Location: Dunedin District

491: ONLINE SURVEY

Anonymous User:891568845 2021-06-07 16:53:32 +1200

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I prefer a happy medium where sheep & beef farming are catered for and orcharding. Many years ago I wrote to the ORC expressing concern at a dairy farm being given permission to be established at Omakau. I was assured by letter that there would be no detrimental effect on the Manuherekia River. The starting of this new form of farming opened the floodgate to heavy irrigation on some properties in the Manuherekia valley, so effecting the river flow and quality. How the regional council corrects the problem that have allowed to happen is complicated and will adversely effect farmers, and many who have had no part in creating the problems.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I have lived twenty years in Alexandra beside the river and earlier in my life further upstream. One big change over the last five to eight years is the huge increase in the number of ducks making the river home. I feel but have no back up research that these animals have also had a significant impact on the health of our river.

Location: Manuherekia

492: ONLINE SURVEY

Anonymous User:891585302 **2021-06-07 17:25:40 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Seems to be fairest option for all river users.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

How much contamination if any are we really getting from farm runoff?

Location: Manuherekia

493: ONLINE SURVEY

Anonymous User:891670355 **2021-06-07 20:35:10 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Trout fishing and swimming and water clarity

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We can't keep sucking the water dry.

Location: New Zealand

494: ONLINE SURVEY

Anonymous User:891662807 **2021-06-07 21:18:01 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This is a very difficult issue trying to balance the ecosystem needs with those of irrigation water users such as myself. Any scenario beyond scenario 2 will severely affect my land usefulness and therefore value. whilst further store is an option, building a dam is hugely expensive and not viable for an 11h lifestyle block. I have supported scenario 2 with trepidation, I want the river to be dimmable and fishable but also want to retain useful use of my land for horticulture and tree growing. I would suggest that the ORC seriously consider limiting intensive water land uses on the river catchment and especially restrict or ban dairying and other intensive water uses.

Location: Manuherekia

495: ONLINE SURVEY

Anonymous User:816041851 **2021-06-08 10:39:46 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Cleaner river. Better use of river, fishing, swimming etc. More people will use and appreciate this natural amenity.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Central Otago District

496: ONLINE SURVEY

Anonymous User:892022180 **2021-06-08 12:11:15 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I fully applaud the priorities set by the NPSFM and feel they are long overdue. Only this level of minimum flow allows for a healthy river and public enjoyment of it.

Also future impacts of climate change are likely to stress river health further and this level of protection will mitigate that stress.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I attended a public meeting in Alexandra and saw first hand the lack of understanding much of the farming community has around the health of the river. I am disturbed at individuals destroying a public good for private gain. Regulators like ORC must regulate to protect nature which has no voice. Self interest has had its day and our environment in general is in a mess because of it. I am happy for a timeframe to be put in place to help farmers adjust but it needs to start ASAP.

I feel very strongly about this.

Location: Central Otago District

497: ONLINE SURVEY

Anonymous User:441681326 **2021-06-08 13:43:02 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I want a healthy river we can safely swim & kayak in that does Not leave us violently sick with water poisoning if we imbibe any.

Eels, fish & invertebrates will also be able to live in it.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No-one should be able to take huge Manuherekia River water quantities, No-one.

Otago Regional Councillors need to actually do their jobs. That's why we voted for you. To restore our River with both enough water and swimmable quality water.

Location: Central Otago District

498: ONLINE SURVEY

Anonymous User:892090733 **2021-06-08 13:48:02 +1200**

Q1: Minimum flow preference

2,000 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I value the river for recreational and environmental use, and want to ensure the health of the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Ensuring good accessibility is important to me, as is providing locations for people to camp.

Location: Dunedin District

499: ONLINE SURVEY

Anonymous User:892101517 **2021-06-08 14:11:07 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the best for insect life and all critters that live in or near the water.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: New Zealand

500: ONLINE SURVEY

Anonymous User:892120419 **2021-06-08 14:39:10 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is inconceivable that the river can be any lower than 3000l/s. The world is heading away from habitat destruction and intensive farming and New Zealand should be at the forefront of this move. 3000L/s is a good start and would encourage wildlife to come back. Which will encourage tourism. No-one wants to visit an algae covered stinking stream that is as shadow of itself.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

501: ONLINE SURVEY

Anonymous User:892105682 **2021-06-08 15:14:29 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

the river works well for all as is now, no need to change something that works

the values listed are all happening now, our family and freinds swim, fish and enjoy the river at our farm river boundary near Lauder, and when river on min flow still plenty of water for these activities

Please do not ruin a district and take away from our economy over perceived values that have been deemed more important than the people who live and rely on this vibrant valley. For example, in all my 40 years farming near rivers not one person has asked access for food gathering, apart from trout fishing whom we are pleased to let through(they mostly return trout), so I fail to see why this value is so important when no one seems to do it, and if they are there i am sure the river is healthy enough to supply what they seek

A full economic report should be available at the different min flows so town people especially should be able to see what impact taking production away, when irrigation reduced, will flow on to all business, schools and sport and social life.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Ways to create better flow should be investigated. Willow removal would release a lot of water that they remove and of course a higher falls Dam would release more water to keep all groups happy.The enviromental, fish and game , in fact all groups involved should join forces with the Falls Dam project to help fund this when such a logical solution is there.

Give farming some time to implement regulations required in future such as fencing off streams, riparian plantings, slope and winter grazing management,sprinkle irrigation and monitering soil saturation etc. All this will help keep river clean and in time, if towns also work on there pollution issues we should be able to clean the small part of deemed degraded water Chatto creek down stream.

Location: Manuherekia

502: ONLINE SURVEY

Anonymous User:892156534 **2021-06-08 15:37:10 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't like any of the above options, I believe a minimum flow of 1100 litres per second at the campground would be the most suitable outcome for all parties involved. By far the bulk of the people living in this Valley, including Alexandra are dependent on a thriving agricultural/ horticultural industry. Having been involved in the Agricultural industry in this area for the past 22 years I have a very good appreciation of the importance irrigation water to the farming and horticulture/ viticulture industries. I believe at 1100 litres per second, and with the monitoring of run-off, nitrogen leaching etc. via the introduction of farm environment plans the in-stream values of the river can be maintained to a satisfactory level, and with some more storage, farming can remain viable. My wife has a retail business in Alexandra and it to is reliant on an economically viable farming industry.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

503: ONLINE SURVEY

Anonymous User:892173299 2021-06-08 15:49:17 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The comprehensive faults and unfinished science in the scenario process make it impossible to make an informed decision.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Not enough reliable information.

Location: Manuherekia

504: ONLINE SURVEY

Anonymous User:892164170 2021-06-08 15:56:42 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Improvement in ecosystem values without severe socio-economic consequences.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Management needs to balance ecosystem needs with community needs. People have built their livelihoods around this river (permitted by the ORC) and taking this away will have severe social consequences. Farming is part of this community's identity too - it is not all about anglers' and swimmers' interests and this should not be forgotten.

Location: Central Otago District

505: ONLINE SURVEY

Anonymous User:892188079 2021-06-08 16:09:16 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Better life in and of the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

In a fragile environment perhaps intensive farming is not in New Zealand's best interest.

Location: Manuherekia

506: ONLINE SURVEY

Anonymous User:892188654 **2021-06-08 17:33:03 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is important that all usage is considered. Management is improving all the time. The community wellbeing and overall financial impacts need to be seriously considered.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

ORC needs to step up and promote better water storage. There is a serious lack of leadership here. Falls Dam should be raised. This valley needs development not backward steps.

Location: Manuherekia

507: ONLINE SURVEY

Anonymous User:892264253 **2021-06-08 19:08:42 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's a balanced outcome and more respectful of the river when growing up on this catchment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I would assume a lot of water is unaccounted for, more metering is essential but we should also look into acquiring replenishing during high flows

Location: Manuherekia

508: ONLINE SURVEY

Anonymous User:892272503 **2021-06-08 19:31:19 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

River needs to have maximum health, particularly with climate change providing known and unknown stressors to ecosystems.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

509: ONLINE SURVEY

Anonymous User:878909228 **2021-06-08 19:33:31 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Swimming and overall river health.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I would love it to be possible to sort out what irrigation is for. I am totally opposed to dairying in this low rainfall area, whereas irrigation for fruit production is a quite different scenario.

Location: Holiday / Family / History

510: ONLINE SURVEY

Anonymous User:892273690 **2021-06-08 19:52:41 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None,not suitable for farming prefer a flow of 1100 or less

Brochure was MISLEADING and only half the real information ie job losses,farms not worth anything with no irrigation ,business struggling communities sports clubs schools demishing.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

You go on about saving trout but aren't they like a rat off river and eat all the galxids anyway.nothings been done properly and half arsed without proper signing off of reports

Location: Manuherekia

511: ONLINE SURVEY

Anonymous User:892273690 **2021-06-08 19:56:31 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because I want see farmers survive

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Y didn't you do the brochure properly with all the proper facts

Location: Manuherekia

512: ONLINE SURVEY

Anonymous User:892273690 **2021-06-08 19:59:18 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I want to keep my job

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

What wrong with way it is

Location: Manuherekia

513: ONLINE SURVEY

Anonymous User:892294321 **2021-06-08 20:48:38 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Rivers should be healthy. Compromising on ecological health or allowing ecological health to deteriorate for the sake of an industry (1) ignores the fact that that industry (in this case contemporary modern agriculture) is ecologically unsustainable; (2) is selfish in allowing commercial profit of individuals to override public goods; (3) is mean-spirited in 'passing the buck' for ecological ill-health to future generations.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Sooner or later we have to start making decisions that are based on good science and which recognise the inextricable connection between human health and the health of the biosphere. Modelling that pits "ecological outcomes" against "economic outcomes" in a win-loss scenario are based on outdated modes of thinking which are redundant and problematic in light of what we now know about ecological limits and the extent to which we as humanity have overshot these limits. The sooner we prioritise ecological health and begin to adapt our "economic" activity to fit with this priority the better we will be. This will be uncomfortable for many in the short-term (particularly those who benefit financially from the irrigation), but we owe it to the community and to the future generations to ensure that the health of the Manuherekia rohe is improved. This will require therefore a major shift in farming practices. This adaptation is also required due to climate-change realities.

Location: Queenstown Lakes District

514: ONLINE SURVEY

Anonymous User:892303710 2021-06-08 21:01:04 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

For the health of the river and it's habitat. Science shows this is the minimum flow to sustain the health of the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

515: ONLINE SURVEY

Anonymous User:628986838 2021-06-08 21:07:07 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

NONE... I support the current voluntary minimum flow of 900 lts/s , as a higher minimum flow will seriously impact the productive and employment sectors, which are the base of progressive rural populations . A larger minimum flow resulting in mid summer irrigation water use restrictions for essential seasonal farmland or intensive horticultural production, will result in large swings for annual production, essential employment both seasonal and full time, resulting in less energetic and vibrant rural towns, and even regional centers such as Alexandra.

As the claims made in the O R C. five options cannot be challenged by informed examination until 2023, it is foolhardy to accept that document as the finale determination on river flows, and the resulting social impact. To expect public opinion to reach a balanced and informed opinion, based only on this one report, including the chosen comments, is to dis respect the normal contestable determination of the relevant facts.

The Fish and Game opinion piece in today's Otago Daily Times newspaper [8/6/21] written by Nigel Paragreen , is a clear example of a one dimensional viewpoint expressed in ignorance of Community well being. Even questioning current knowledge on water harvesting and river flows from his limited knowledge, is an insult to those who administer on behalf of their Community, a full seasons river flow.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

As so few people have long term experience of water harvesting in that catchment , and forecasting future weather trends which give rise to flow restrictions, it would be wise to rely upon actual seasonal records, over model flows. Of note, the river has not failed during current administration.

I am not happy with the O R C. process of involvement with your rural communities, and expect in future more in depth consultation as valued long term constituents , whom year after year are your productive rate payers .

Location: Central Otago District

516: ONLINE SURVEY

Anonymous User:559753184 **2021-06-08 21:18:56 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I want the status quo

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I want things to stay the same as it is the unintended consequences of actions that worry me - ORC doesn't seem to have provided enough evidence of the consequences of raising levels

Location: Manuherekia

517: ONLINE SURVEY

Anonymous User:892315722 **2021-06-08 21:39:53 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The good health of the river is the bottom line. This must not be compromised.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

518: ONLINE SURVEY

Anonymous User:892293639

2021-06-08 21:50:08 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My request is for the minimum flow to be set at 1100 l/sec.

Why?...

The Manuherekia catchment as a whole has been preparing for the replacement of its deemed permits for many years. Irrigators have been working with experts in various fields to attempt to find a compromise that will be feasible as well as providing environmental gains. The river management plan that was lodged as part of the catchment-wide resource consent application process proposes a minimum flow of 1100 l/sec. My understanding is that the 1100 scenario should have been included in the options for public consultation. 1100 meets the requirements of the National Policy Statement and is an increase of 22% on the existing voluntary minimum flow of 900.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

At the Alexandra presentation it was quoted that to maintain a minimum flow of 3000 l/s in a dry year such as the 2014/15 season, an ADDITIONAL 10 million cubic metres of stored water would be required. Page 9 of the "Manuherekia Scenarios" consultation document quotes Falls Dam as holding 11 million total, so there is clearly insufficient water to maintain this scenario, Falls Dam would be completely emptied.

It was clear at the presentation that ORC intend to use the stored water in Falls Dam to provide for the minimum flow. It appears that the proposed minimum flows must therefore be higher than the "natural flow" of the river, because storage would not be needed under natural flow conditions.

In that Falls Dam was built by, and is owned and operated by irrigators, I would question whether ORC are entitled to use the water that has been captured for irrigation for a different purpose (ie artificially maintaining a higher flow than the natural state of the river)? Effectively the water stored in Falls Dam belongs to irrigators, who use the river channel as a means of transporting the water to various locations downstream.

Irrigation covers much more than farming. It would be wise to remember the many other uses of irrigation on which our community depends. Central Otago is literally world famous for our stone fruit and pinot noir. Our community has a wide variety of different uses of irrigation water and I believe it would be impossible

to find anyone who does not benefit from irrigation in some form... ultimately we all eat, and food production is impossible without water.

I am very concerned at the way the Manuhetikia has been portrayed in recent publications. Statements that swimming and fishing are not possible under the 1200 l/sec scenario are not true, because both fishing and swimming do occur even now with only 900 l/sec minimum flow. The comments on "nuisance algae" do not refer to the cyanobacteria which pose a health risk, but to periphyton which are actually a food source for aquatic animals. At the presentation it was acknowledged that the overall health of the river is actually very good.

Any change to the status quo is going to adversely affect irrigators, the higher the minimum flow the more severe the impact will be, but we all accept that we have a shared responsibility to care for our environment. Sudden drastic change is not good either for the natural world or for the people in our community, both of whom need time to adjust. I believe that 1100 l/sec minimum flow is a feasible compromise that will provide environmental gains without totally destroying our community.

Location: Manuhetikia

519: ONLINE SURVEY

Anonymous User:892327870 **2021-06-08 22:14:49 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Balance of values and economic impact

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

Location: Manuhetikia

520: ONLINE SURVEY

Anonymous User:884820499 **2021-06-08 22:43:13 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The sustainability of our awa must come first. Land owners in this area have known from the outset when existing water rights would end and that they do not have any guarantee of renewing them. Their irrigation had damaged the river and this needs to be rectified now.

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

Location:	Otago
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521: ONLINE SURVEY

Anonymous User:892535304 **2021-06-09 08:50:33 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

3000 is the absolute minimum required for the health of the river ecosystem and should even be more - it's disappointing you haven't given options above 3000 but anything less would be a disgrace to our obligation to look after the fish, birds and plants that rely on the river. Equally, continuing to allow more of it to be used to irrigate, which encourages more pollution of the river and the land by using fertilisers, is a morally unjustifiable option.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

See above

Location: Not specified

522: ONLINE SURVEY

Anonymous User:892546917 **2021-06-09 09:09:16 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river looks healthier

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

523: ONLINE SURVEY

Anonymous User:356575590 **2021-06-09 10:13:29 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is the only option which securely meets the NPS-FM.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The only water management in the Manuherekia in the past has been how to maximise take for irrigation without completely drying the river. Past water management appears to have completely ignored aquatic ecological function of the river and its tributaries.

Location: Central Otago District

524: ONLINE SURVEY

Anonymous User:892581459 **2021-06-09 10:27:45 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

During peak times it is essential that vineyards have access to adequate water for irrigation otherwise there will be less production and the vineyard operators and the community will receive less remuneration and this could undermine vineyard viability.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

525: ONLINE SURVEY

Anonymous User:892298567 **2021-06-09 11:02:57 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My preferred option for minimum residual flow in the Manuherekia River at Campground is not included in the ORC scenarios. My preferred option is 1,100 l/s at Campground.

The reasons for my preferred minimum flow of 1,100 l/s are as follows:

1) Any significant increase in residual flow above the current status quo (900 l/s) will have a significant effect on the operation and security of the Manuherekia Irrigation Scheme. This in turn will have a significant impact on the farming community in the Manuherekia catchment and a significant flow on effect to the local economy.

2) ORC investigations have shown that at any residual flow above the status quo (900 l/s) the water quality throughout the total catchment is generally very good and is NPSFW compliant. They also show that at the status quo flow, and consequently a residual flow of 1,100 l/s, the top two thirds of the river is in

excellent condition and provides excellent opportunities for mahika kai gathering, trout fishing, and more adventurous leisure activities such as rafting, kayaking and fast water swimming. At a minimum flow of 1,100 l/s mahika kai gathering, trout fishing and other leisure activities can still be carried out in the lower third of the river and may be preferred by younger and/or less experienced partakers.

3) It has been shown that there are environmental "hotspots". The existence of these hotspots should not be used as a lever to increase the minimum flow above a 1,100 l/s as a means of solving the issues by dilution. Instead the issues at these hotspots should be worked on to reduce their overall impact on the health of river. It is my understanding that this is already being undertaken to some degree. This should continue throughout the catchment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

1) The period for implementation of the preferred minimum flow, once it has been set, needs to be considered. There has been a long period of uncertainty within the community and this has had an effect on the community, mental health and expenditure. Implementation needs to be reasonably quick to provide certainty, but at the same time it needs to be a long enough period for actions to be undertaken in a reasonable manner. I believe that the implementation period should be 5-10 years. The cost of implementation and the issue of who will pay also needs to be considered.

2) There are significant difficulties in maintaining a minimum flow at the downstream end of a river when the contributing factors are not all controlled by a single entity and in some cases are reliant on nature. At the Manuherekia River the point of flow input is some distance upstream of the residual flow measurement site. This will add further difficulties. Any condition on minimum flow must be on a "reasonable endeavours" bases rather than a "best endeavours" bases.

3) If a residual flow of 1,100 l/s not the preferred option then consideration of any higher flow should only be considered as a flushing flow. eg a minimum residual flow of 1,100 l/s at Campground with a flushing flow, either manufactured or natural, of not less than 2,000 l/s for a period of not less than 24 hours in every colander month.

4) I am disappointed in the way the ORC's "Have your say" document has summarised and presented all the information. I am particularly disappointed because I believe that this is the only information that most people will read. My concern is that the "Have your say" document does little to explain the overall consequences of each scenario other than from an environmental or amenities point of view. Neither does it clearly identify that the river in its current state meets the NPSFW requirements or that the top two thirds of the river is in a very healthy condition regardless of the flow at Campground.

Location: Central Otago District

526: ONLINE SURVEY

Anonymous User:871222974 **2021-06-09 11:36:15 +1200**

Q1: Minimum flow preference

2,000 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

First rule should be "don't degrade the environment".... we've only got one world to live in. If your business can't survive without doing that, then it's not a good business. The river is more than just a source of water for irrigation.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

527: ONLINE SURVEY

Anonymous User:883877031 2021-06-09 12:02:38 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

As someone who works in Horticulture we rely on water to irrigate our crops and therefore our livelihood but I also want to preserve the river health and for future generations.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

528: ONLINE SURVEY

Anonymous User:892658634 2021-06-09 13:26:29 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I like to fish and swim in the river and enjoy the recreational aspects of a river with clean water in it.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

If the farmers who established a farm requiring high watering practices had been advised of the coming reviews, would they have started the business with that knowledge?

Location: Manuherekia

529: ONLINE SURVEY

Anonymous User:885090137 2021-06-09 14:27:17 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The higher water flow allows a better river ecology. If the farming fraternity are still that reliant for survival on a finite source, such as is the water, then they don't deserve to be farming. They have had how many years of warning not to rely on an infinite supply?? Better prepared and aware land owners have developed large irrigation ponds, evolved their pasture plants, feeding plans and stock numbers. Yes, the farms will be different but if they are not sustainable without an infinite irrigation take they never will be.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Look to all those making submissions, not just the noisy farming lobby. Much of the farming activity which will be threatened by a lower water take is a recent activity. Farmers should have done their due diligence before committing themselves to be dependent on a water supply that has never been guaranteed to them.

Location: Manuherekia

530: ONLINE SURVEY

Anonymous User:887542063 **2021-06-09 14:38:45 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Status quo. There needs to be more scientific information to support cases. As a good percentage of the water in the area is stored in dams im unsure how minimum flow requirements can be established in a hot dry environment. Science will provide depth and research rather than pulling figures from unknown and unreliable sources

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

531: ONLINE SURVEY

Anonymous User:892710483 **2021-06-09 14:53:40 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Minimal effect on farmers irrigation

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There are plenty of opportunities in other water catchments for recreational use. Examples are Clutha river, lake Dunstan, pool burn and manorburn dam, lake Onslow. There is no need to jeopardise the farmers wellbeing in the valley by cutting their irrational flows. Mental health is a large problem in the rural Community and stress like this will only make things worse.

Location: Manuherekia

532: ONLINE SURVEY

Anonymous User:892706604 **2021-06-09 15:41:55 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Having attended the discussion meeting and read the supplied information regarding the choices as in 1 above, I am disappointed that an extremely pertinent point that was addressed at the meeting by attendees was the less stressed detail that the top two thirds of the Manuherekia river is in very good condition. This area conforms to all the government and ORC obligations. To put it in another way it is only the bottom third of the Manuherekia that is showing data of concern. What was also brought into discussion by attendees but glossed over by the ORC staff is that this area has been subject to 2 lots of separate flooding over the sampling period (sampling points being downstream) which led to the Omakau township sewerage treatment plant to overflow and thus contaminate the river.

It would seem to me to be an overkill response to instigate the scenarios/ minimum flows that are outlined above to the whole river system to cleanup the bottom third. It seems more productive and prudent to spend the time and money on identifying the main contributors, and coming up with solutions to this lower river problem.

The Scenarios being promoted above, will end up having an enormous detrimental affect on all the communities involved. It is also important to note that if these higher flows are introduced, at least 2/3 of the river will not show any substantial change from its present state.

I believe the river should stay as it is currently, or at the most put up to a minimum flow of 1100 l/s at the campground as suggested by the Manuherekia Irrigation Co-Op Society Ltd .

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

533: ONLINE SURVEY

Anonymous User:890603748 **2021-06-09 16:23:06 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

From a river user point of view as a Kayaker it would be nice to have increased flow but I also understand rural needs and the effects upon irrigation. Increased flows would effectively result in Dams such as Falls running dry and ruin the livelihood of many farms and rural businesses. Protection of species in side streams such as Thompsons creek is vital and increased flows could result in non native fish species harming native species. I am in favour of an improved ecosystem but a balance must be maintained. I would be keen to know what was the historic average annual flow pre-Dam in the Manuhetikia?

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

See comment in 2

Location: Manuhetikia

534: ONLINE SURVEY

Anonymous User:737982323 2021-06-09 18:37:38 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Status Quo is preferred. It's shown in the abacusbio report that farming with irrigation is a struggle even at Status Quo.

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

We are making big changes to our farming systems to be more friendly to the environment. i.e. less nitrogen used, no acid fertilizers used, Regenerative Farming Systems used. i.e no cultivation, applications of lime, minerals, etc. to improve soil structure/biology. Tree planting, fencing off waterways and wet areas. All this will improve water quality and biodiversity. Our Nitrogen losses are less than 10 (Overseer).

the Manuhetikia River is recognised as a very good fishing River which means it is in good shape. We have Eels in our drains, native fish, the profitability of our farmers means a healthy, vibrant community.

Location: Manuhetikia

535: ONLINE SURVEY

Anonymous User:559753184 2021-06-09 20:05:43 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Prefer the status quo - not available above.

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

The river has looked good for many years - sometimes it gets a bit dry but usually the region itself is burnt like a crisp at this time. It seems the present management of the river works very well

Location: Manuherekia

536: ONLINE SURVEY

Anonymous User:559753184 2021-06-09 20:11:10 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

status quo preferred - in all the river flow pictures the river still looks good and is just right at the low level for taking my primary aged children for a play.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It seems that it is working well -with the river most times of the year flowing well. When it does drop we are all cooking with the heat in the area but I have always been able to take kids to cool down there

Location: Manuherekia

537: ONLINE SURVEY

Anonymous User:892849440 2021-06-09 20:18:38 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I prefer status quo and am appalled its not an option on the above list.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I accept this flow puts pressure on the river in dry spells, but to increase it puts more pressure on the people upstream especially their mental health and wellbeing. People come first!

Location: Central Otago District

538: ONLINE SURVEY

Anonymous User:892811051 2021-06-09 20:36:14 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

These levels are too high and unrealistic

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Reading your scenarios in the pamphlet, these minimum flow levels will be the end of Central Otago's viability

Location: Manuherekia

539: ONLINE SURVEY

Anonymous User:892920525 2021-06-09 23:02:19 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

River is healthy which is number one. We shouldn't be farming marginal country the way we are if it relies so heavily on irrigation to make it viable

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: New Zealand

540: ONLINE SURVEY

Anonymous User:893018555 2021-06-10 04:26:01 +1200

Q1: Minimum flow preference

900 - 1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't like any of the above scenarios, I prefer the minimum flow of 900l/s or the 1,100 l/s which is not mentioned on here but was part of the ORC evaluation of the impact on representative farm business's over the past 3 years of meetings with the farmers and the ORC this flow was agreed that it would work for everyone. Why is it not an option on this survey???

Trout/ leisure activities verse agricultural and pastoral land uses, I believe that if we were to stop irrigation for these business's it would be an economical disaster, farm values would drop considerably which farms with high debt levels may be forced to sell and lose their equity if any, also causing problems in the banking economics. Staff numbers may drop for all business's in the small towns, less numbers in the small schools and high schools, stopping irrigation on farmlands will contribute to poor mental health of business owners.

My kids and I, swim in the river between Lauder and Omakau and in Omakau, we have never had a problem with the water, I believe we have heaps of great swimming locations in central Otago, lakes, dams, local swimming pools.

We have had trout fisherman come through our land to fish and they appear to always be happy. My personal opinion is there is enough water flowing to keep our Galaxiits happy that keep our rivers clean I think that some of the old willows that are growing along the river especially coming into Alexandra need to be kept at bay as they tend to take over the river creating debris, maybe take some out, especially the old dying ones. I also am aware that the trout do eat these Galaxiits.

I also understand that if the flow is in-creased to a high rate that swimming in parts of the river for children may become dangerous.

This is a very serious situation that needs to be considered very carefully as it has a huge impact on a lot of peoples lively hoods, business's that they have worked very hard for and to loose these business's would be disastrous in so many ways. I'm sure that we can work as a team to make a solution that can make everyone happy.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I think the best solution going forward for the future of our rivers, our growing population and farming business's would be to increase the size of our catchment such as Fools Dam. I don't believe increasing the flow and cutting back irrigation is the most positive solution to manage this situation or the most fair.

Location: Manuherekia

541: ONLINE SURVEY

Anonymous User:893141148 2021-06-10 09:46:18 +1200

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Will not have a significantly adverse affect on farmers but will improve the quality of the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

542: ONLINE SURVEY

Anonymous User:883889210 2021-06-10 10:15:30 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Require minimum flow at campground to be set at 1,100 litres per second. This flow has been researched by the Manuhierikia Irrigation Schemes and others as NPSFW 2020 compliant AND designed to improve water flows at Campground. This minimum flow allows irrigation at reasonable reliability to maintain economic viability of primary industries, especially horticultural and viticultural activities. Established orchards and vineyards cannot be moved and without irrigation water the trees and vines could die. The 600 Ha (approx) of horticultural land in the Manuhierikia Rohe will be at risk (lower viability, lower business profits and lower land values) if the supply of irrigation water is significantly reduced or even stopped for extended periods, which is highly likely at higher minimum flow rates.

Q3: Do you have any other feedback on water management in the Manuhierikia Rohe?

- The material presented by the ORC (especially the chart titled "Manuhierikia River water management scenarios") seems to be heavily biased and uses subjective terms such as Okay, Good, Better for values inconsistently. Some values have no Okay or Good bar on the left side, such as swimming, visual amenity and Mana whenua. Other "Okay" bars seem to be too short, as the river (in it's current state) supports fishing, trout and invertebrates at the moment (maybe not always in the best state) but they do survive the natural highs and lows of a historically ephemeral river such as the Manuhierikia. This chart is also not indicative of the entire length of the Manuhierikia River and only seems to apply to a specific section of the river (at Campground). This is a misleading representation of the scenarios and values. At a quick glance, which is what most people will do, is to assume that the best management scenario has to intersect as many "values" as possible. This graph (which is superficial at best) seems to indicate that there are only two scenarios that intersect all the "values" which are 2,500 and 3,000 l/s. And only a flow of over 3,250 l/s intersects all the "values". This representation of the scenarios seems designed to achieve a particular outcome, especially if the left side of the bars are not accurately portrayed. And when using subjective terms such as okay, good and better, who is actually making these value judgements?
- The economic analysis carried out so far largely ignores the impact on horticultural, other than suggesting that more private on-site water storage will be required. This assumes that such operations actually have land area and access to capital to allow such construction or extension of existing facilities. Many horticultural business's in the Manuhierikia Rohe are on small properties where there is limited space and current profitability is very tight. The imposition of additional costs may not be able to be borne and could lead to the business have to cease trading. Such scenarios have NOT been addressed by the economic analysis to date.
- In addition quite a lot of horticultural activity requires water for frost fighting activities to protect their crop from damage. If water is not available for frost fighting at very high reliability rates (over 90%) then, in the worst case scenario, there could be extensive damage to the crops. Such crop failure could result in high un-employment and high economic losses. None of these things are even mentioned in the current economic analysis.
- Brochure has NOT been received in our letterbox, so how many other people also missed out of the communication / consultation process?

Location: Manuhierikia

543: ONLINE SURVEY

Anonymous User:893154549 **2021-06-10 10:19:59 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe that the case posed by Forest and Bird. The society recommends that the river needs a minimum flow of 3000 l/s

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

544: ONLINE SURVEY

Anonymous User:893154451 2021-06-10 10:20:34 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

For the sake of the wildlife, they will die if this plea is neglected and that will permanently diminish the beauty of conservation for this river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please listen. Noone wants to see a brown lifeless river

Location: New Zealand

545: ONLINE SURVEY

Anonymous User:893154715 2021-06-10 10:21:08 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because we need to give the species as much chance as possible and it appears to be the best option. Also important for making Kai Moana and respect for tangata whenua.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Don't be bullied by farmers. Have to make good decisions whilst in power.

Location: Dunedin District

546: ONLINE SURVEY

Anonymous User:893154651 2021-06-10 10:21:54 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's the best option for river quality and animal habitats. And research backs up that option.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

547: ONLINE SURVEY

Anonymous User:861356022 **2021-06-10 10:26:41 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Scenario 5 is the bare minimum for ensuring the ecological health of the Manuherekia River. I would like to see a more ambitious target with a minimum flow of 4,000 l/s.

This river is home to unique native freshwater fish, provides excellent habitat for birds, and is enjoyed by many for recreation.

There is clear science that the ecological health of this river suffers until there is at least 3,500 l/s of flow. For this river to be healthy, we need it to reach 4,000 l/s.

We must prioritise the long-term health of this river and the wider community who want to see their children enjoy it. This is more important than the strong vested interests who want to extract enormous amounts of water to irrigate their fields, resulting in more pollution from run-off.

Mō tātou, ā, mō kā uri ā muri ake nei – for us and our children after us.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

548: ONLINE SURVEY

Anonymous User:893158227 **2021-06-10 10:31:55 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because it allows the river to do what is intended to ensure a healthy future for nature.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

549: ONLINE SURVEY

Anonymous User:893159419 2021-06-10 10:34:18 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Of the options it best preserves an acceptable river flow for the total health of the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I am opposed to market forces dictating a position on a natural resource that is enjoyed by the wider population

Location: Dunedin District

550: ONLINE SURVEY

Anonymous User:893158843 2021-06-10 10:34:48 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

NZ has an opportunity to choose swimmable/fishable rivers, healthy ecosystems and climate resilience-providing a future with hope for generations to come. Taking the opposite approach and compromising for profit and personal/corporate gains is simply unadmissable.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

551: ONLINE SURVEY

Anonymous User:893157608 2021-06-10 10:34:50 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This river needs at a minimum 3000l/s flow to maintain a healthy fish and insect population. I am a very keen trout fisherman and have watched this river decline over the past 50 years. It needs at least 3000l/s flow, ideally more, to remain a healthy river system.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Increase the river flow please. The Manuherekia Valley is not a suitable area for intensive cattle farming! Irrigation takes need to be significantly decreased!

Location: Dunedin District

552: ONLINE SURVEY

Anonymous User:893160661 **2021-06-10 10:35:03 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

River health and a good river Environment is very important

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

553: ONLINE SURVEY

Anonymous User:825197402 **2021-06-10 10:39:17 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I support maximum health of environment and water life

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

554: ONLINE SURVEY

Anonymous User:893163993 2021-06-10 10:46:21 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I strongly believe that the health of the river and our increasingly fragile ecosystems should be prioritised well above farming. We have so few rivers that are healthy in NZ and we should optimise chances of recovery and health of the rivers at this time so the best flow for the river should be picked (although this may even be higher than 3000 l/s)

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

555: ONLINE SURVEY

Anonymous User:893166133 2021-06-10 10:47:56 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Keep enough water in the river for life to thrive and for recreation

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Holiday / Family / History

556: ONLINE SURVEY

Anonymous User:893164390 2021-06-10 10:47:58 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The need to support and protect the rivers lifeforms and amenity values must be paramount.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Farming must adapt new practices of dryland farming.

Location: Dunedin District

557: ONLINE SURVEY

Anonymous User:893156722 **2021-06-10 10:48:33 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The report description of the river projected state with a minimum flow of 3 cumecs says it all: a ecologically-healthy river with useful amenity values for the wider community.

The attendant reduction in irrigation reliability will nudge farming practices away from the ecologically stressful, high water demand, intensive methods appearing in this (and Taieri) catchment and back towards long used, low-intensity dry land practices more sustainable in the low moisture climate. NZ primary production industry has a long history of clever evolution so are capable of finding new techniques to profit while restoring and retaining a flourishing Manuhirikia (and Taieri).

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

558: ONLINE SURVEY

Anonymous User:893163050 **2021-06-10 10:50:00 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Prefer Status Quo as health of the river in other 2/3rds is healthy and irrigation is reliable which effects all food producers in the valley from meat, dairy, fruit, viticulture etc which then effects Alexandra and surrounding towns businesses, also schools and community's.

Also concern about the introduced species trout than worrying about native species?

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The management of the water flowing into the Manuhirikia is being well managed by the Raceman and Irrigators working together and cutting back when needed.

Location: Manuherekia

559: ONLINE SURVEY

Anonymous User:893165606 2021-06-10 10:51:37 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Ecological values, aesthetic values, recreational values, Treaty of Waitangi values

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The status quo is a terrible situation.

Location: Dunedin District

560: ONLINE SURVEY

Anonymous User:893168053 2021-06-10 10:53:36 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This represents the only option for sustainability of the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please listen to the wisdom of conservation and water quality experts as you make your decisions. We must not sacrifice our essential ecology.

Location: Dunedin District

561: ONLINE SURVEY

Anonymous User:893166981 2021-06-10 10:55:38 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because economically it more viable for the whole area

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The river as is is fine. We go fishing in summer and swimming.

Location: Manuherekia

562: ONLINE SURVEY

Anonymous User:893170663 **2021-06-10 10:59:48 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Any lower flow will cause further degradation of the river which is already under pressure because of low flow rates.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

563: ONLINE SURVEY

Anonymous User:893169635 **2021-06-10 11:00:48 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This would be the only way that the ecosystems can recover

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

564: ONLINE SURVEY

Anonymous User:852065565 **2021-06-10 11:02:07 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

565: ONLINE SURVEY

Anonymous User:893170252 **2021-06-10 11:02:25 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Part of what defines me as a New Zealander is the endemic species, be they small or large, and be they plant or animal. Scenario 5 gives the greatest protection to what the ecosystem.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Farming is essential, but the historic balance between production and preservation has been out of balance.

Location: Dunedin District

566: ONLINE SURVEY

Anonymous User:893171544 **2021-06-10 11:05:17 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

For the health of the river and the natural eco-system it sustains there needs to be a flow of at least 3000 l/s, if not a lot more actually. The river is much nicer to swim in and camp next to when it has a healthy flow.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I'm very worried that if more water is taken out for irrigation that we will also have farm pollution run-off ruining into this beautiful natural resource that we all want to enjoy. Obviously the extra run-off will be disastrous for the river's eco-system as I stated earlier.

Location: Dunedin District

567: ONLINE SURVEY

Anonymous User:893177266 **2021-06-10 11:15:21 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

River health is key

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

568: ONLINE SURVEY

Anonymous User:893177921 2021-06-10 11:18:16 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river and the ecosystem and not helping to prop up ill-conceived, damaging private businesses should be the ORC's priority.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

569: ONLINE SURVEY

Anonymous User:843129875 2021-06-10 11:21:13 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the only scenario that even comes close to providing enough water to preserve the riparian environment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It has been irresponsible for years and needs to change now.

Location: Not specified

570: ONLINE SURVEY

Anonymous User:893177051 2021-06-10 11:25:42 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

If the health of the river is supposed to be the priority then 3000 l/s must be the minimum. Even then the problem of algae will still occur. Given that the science also says that the number of dry periods with low flow will increase between 2020 and 2050 the need for caution re minimum flows can only increase.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

571: ONLINE SURVEY

Anonymous User:893181400 2021-06-10 11:30:34 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

To give the river the best chance at recovery

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

That's the point we haven't managed it. I am 74 years old and in my lifetime we have destroyed our rivers to the point we have to now take drastic action.

Location: Dunedin District

572: ONLINE SURVEY

Anonymous User:893185619 2021-06-10 11:35:03 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because the river flow needs to be conserved and not irrigated off onto farmland that doesn't necessarily belong at a high production industrial level in that area.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please stop taking massive quantities of water off rivers for upstream farmland irrigation.

Location: Dunedin District

573: ONLINE SURVEY

Anonymous User:877865021 2021-06-10 11:40:22 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the best of the scenarios because the science is clear - the health of the river and all the species that call it home rely on higher flows. This is the absolute minimum needed, the flow really needs to be greater. The ecological health of this river suffers until there is at least 3,500 l/s of flow. For this river to be healthy, we need it to reach 4,000 l/s.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Currently the flow is just 900 l/s on the river, we need to put the environment first and not irrigation which will lead to less flow and more pollution from farming. It's time to be "clean and green" for real.

Location: Dunedin District

574: ONLINE SURVEY

Anonymous User:893191302 2021-06-10 11:51:14 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Improve the health of the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

575: ONLINE SURVEY

Anonymous User:893188293 2021-06-10 11:51:19 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

For all the reasons given in the study

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

no

Location: Dunedin District

576: ONLINE SURVEY

Anonymous User:893195315 2021-06-10 11:59:52 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

To preserve the health of the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

577: ONLINE SURVEY

Anonymous User:887262303 2021-06-10 12:19:19 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Our preferred min flow is 1100 or less and our reasoning for this is that a greater flow will significantly impact on our farming community and the productivity of our country. As farmers and irrigators we support a huge number of businesses, who in turn employ and support further businesses in our country, so the flow on effect is going to be massive, increasing unemployment, social/health issues, business receiverships etc

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Any flow greater than 1100 will have a detrimental effect on all recreational users of the river. Visitors, communities and farming families alike all use and enjoy the river as it is, especially around the Omakau bridge, where children swim safely and fish successfully, supporting local businesses while they are there. A greater flow would mean children would not be able to swim safely, as the river would be too fast flowing and dangerous.

Location: Manuherekia

578: ONLINE SURVEY

Anonymous User:893204431 2021-06-10 12:24:53 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think this flow scenario will provide enough water to enable a healthy river and provide adequate water for irrigation

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

579: ONLINE SURVEY

Anonymous User:893204126 2021-06-10 12:25:50 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because the health of the river and wildlife should come before irritating fields for cows. Biodiversity should come before private profit.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It should actually be as minimum flow of 4000 l/s. 3000 l/s is still not good enough but it's the best of a bad bunch.

Location: Dunedin District

580: ONLINE SURVEY

Anonymous User:893209670 2021-06-10 12:35:26 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Better water quality, healthier environment for fish

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

581: ONLINE SURVEY

Anonymous User:893210910 **2021-06-10 12:38:03 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Healthiest alternative for the environment, people animals and NZ's future.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

582: ONLINE SURVEY

Anonymous User:893211427 **2021-06-10 12:46:15 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The higher flow keeps the river healthy. t

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We need to get better at farming sustainably in areas that can support the activity instead of relying on massive amounts of water to try and change an ecosystem to fit the activity at a huge environmental cost to natural ecosystems

Location: Dunedin District

583: ONLINE SURVEY

Anonymous User:893215973 **2021-06-10 12:48:59 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Should really be higher to maintain the health of our ecosystems. The type of farming this country does is inefficient and will be obsolete in under 30 years.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

584: ONLINE SURVEY

Anonymous User:893206583 **2021-06-10 13:00:57 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Would like to know more about the land use viability impacts. I want to see water quality improved definitely but also would like to know what types of crop/livestock farming will be impacted.

The problems in the Manuherekia area involve more than just irrigation practices but land management with pest control too.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

585: ONLINE SURVEY

Anonymous User:893222264 **2021-06-10 13:03:41 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Seems healthiest

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:	Dunedin District
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586: ONLINE SURVEY

Anonymous User:893237654 2021-06-10 13:42:38 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

to protect ecosystem health

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Waitaki District

587: ONLINE SURVEY

Anonymous User:893239074 2021-06-10 13:48:42 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would prefer an even higher flow rate. Flow rate is vital to the health of the ecosysrem.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Waitaki District

588: ONLINE SURVEY

Anonymous User:674322657 2021-06-10 13:59:32 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We only have one chance to protect special environments like the Manuherekia River, once it is gone there is no going back. Given that the future holds so much uncertainty around the effects of climate change on our weather patterns, it seems ridiculous to take more water and contribute to the ongoing destruction of our ONE planet Earth.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

589: ONLINE SURVEY

Anonymous User:893246097 **2021-06-10 14:07:36 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The science clearly says the health of the river improves once over 3,000 l/m. This should be the absolute minimum and ideally it should be much more.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Waitaki District

590: ONLINE SURVEY

Anonymous User:893245118 **2021-06-10 14:10:44 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

All our current understanding of sustainability says that you have to build your economy on a working environment. Your scenarios discuss stressed farming but this is business as we know it - it has to be rethought to give life back to the river. The Whanganui status should be the guiding principle for all rivers. I would suggest a phased introduction of new flow levels to give some time for adjustment - move to 1,500 l/s now, 2000 l/s in 2025 and 3000l/s by 2030

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Holiday / Family / History

591: ONLINE SURVEY

Anonymous User:893251426 **2021-06-10 14:14:54 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Essential that the maximum flow is maintained for the obvious health aspects of this pristine asset.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

See above comments.

Location: Dunedin District

592: ONLINE SURVEY

Anonymous User:893267023 2021-06-10 14:34:52 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Water is needed to sustain all life forms and we all need clean water. This water way needs as much flow as possible

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

593: ONLINE SURVEY

Anonymous User:893268469 2021-06-10 14:36:10 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It offers the best compromise between wildlife and irrigators

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

A river should look like one at all times and not a connected series of pools and low flows

Location: New Zealand

594: ONLINE SURVEY

Anonymous User:893278263 2021-06-10 14:48:57 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

For my whānau, the priority is the health of the river and the ecosystems it supports. We understand that there needs to be some compromise with local farming, hence scenario 4 and not 5.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Otago

595: ONLINE SURVEY

Anonymous User:893282454 2021-06-10 15:02:54 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

this would be the minimum flow to achieve a healthy river ecosystem

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Waitaki District

596: ONLINE SURVEY

Anonymous User:893291808 2021-06-10 15:21:05 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Far too much is being drawn off at the moment

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Yes the river needs to be kept healthy

Location:	Dunedin District
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597: ONLINE SURVEY

Anonymous User:893300108 **2021-06-10 15:35:33 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because it ensures the biodiversity of the river is safe.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

598: ONLINE SURVEY

Anonymous User:893299617 **2021-06-10 15:40:26 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Water quality has markedly declined. It is high time to address this and only the 3000 l/s flow will achieve this. The river water has been over allocated due to irrigation which is contributing to poor water quality. Central Otago is a known dry region; irrigation on large scale has no place there. It is crucial that decisions look beyond the immediate potentially negative effects on farmers; it is not farmers livelihood against more water but but today's short term private benefits against our children, grand children's future.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

599: ONLINE SURVEY

Anonymous User:893309450 **2021-06-10 15:59:52 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is best to save the river and it's wildlife.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Important for the future

Location: Dunedin District

600: ONLINE SURVEY

Anonymous User:893311712 2021-06-10 16:05:47 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the minimum flow to support ecological integrity.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

no

Location: Dunedin District

601: ONLINE SURVEY

Anonymous User:893312009 2021-06-10 16:07:25 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The natural environment must be protected or we will contaminate all our living things and lose the joy of being able to go into nature safely

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We should not be farming land if it is not a suitable type of land for farming

Location: Dunedin District

602: ONLINE SURVEY

Anonymous User:893318487 2021-06-10 16:32:35 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

For the health of the river and river users.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Compromise will have to be made between the rival factions but the agriculture sector have had it their own way for too long. The river is suffering and the river's health should come first.

Location: Manuherekia

603: ONLINE SURVEY

Anonymous User:893327965 2021-06-10 16:37:48 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river deserves a better life and we are the only ones that can do it. In memory of my father who loved it

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

604: ONLINE SURVEY

Anonymous User:893339809 2021-06-10 16:59:16 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

605: ONLINE SURVEY

Anonymous User:893205373 2021-06-10 16:59:20 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think farming is hugely important but I think taking water from rivers, in particular rivers like the Manuherekia is the wrong long term approach. Part of the necessity has been the change away from finewool sheep which thrive in a dry environment. Wanting to increase stocking rates and change to stock that need more water is not sensible in this climate.

The first step should involve increasing the humus and nutrient holding ability of all the tractable land. This increases the water holding ability so less irrigation is required.

Irrigation methods with high evaporation rates should be banned. Effectively they take from the native fish and native aquatic life and are too wasteful.

Another step is strategic plantings to reduce evaporation as a result of wind. Tussocks grow for a reason.

Anyway, you see the idea. Long term not short term.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It's my opinion that long term solutions are needed not short term expensive gains. Work with the natural environment not against it.

Location: Dunedin District

606: ONLINE SURVEY

Anonymous User:893343573 2021-06-10 17:04:36 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I want to save the river and the life it sustains from being exploited to extinction for profit. It's time regenerative farming was the normal

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This is the last chance we have to save this river, please make the decision to do so

Location: Waitaki District

607: ONLINE SURVEY

Anonymous User:893352548 2021-06-10 17:21:05 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I actually think it should be more like 5000l/s if we are trying to do what is best for the ecology of the river. However this option for some reason has not been proposed.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I think that irrigators should only have as much say in the minimum flows as is democratically due to them. Just because you have had use of the water for a number of years does not mean you own it or should be given any more say in its future distribution than anyone else.

Location: Dunedin District

608: ONLINE SURVEY

Anonymous User:893361995 **2021-06-10 17:34:27 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The science is clear. The health of the river and all the species that call it home rely on higher flows. The ecological health of this river suffers until there is at least 3,500 l/s of flow. For this river to be healthy, we need it to reach 4,000 l/s.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Dunedin District

609: ONLINE SURVEY

Anonymous User:893365509 **2021-06-10 18:13:33 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think the status quo is absolutely fine.
The river is resourced by the irrigation dams, built to store water for irrigation purposes.
There would not be a minimum flow in the hottest of summers without these dams and the river would go dry in situations.

The whole community whose economy revolves around irrigation in agriculture and horticulture would suffer if a minimum flow had to be higher as the resource would not last as long.

I am a farmer and fully rely of irrigation water. I use a pivot and hard hose system. For me my farming system would have to half my stock units without irrigation.

I would be fully be reliant on weather and dry land to make my winter supplements. If I did not have supplement for the winter my business would become uneconomic.

My family has been in the district and farming since 1950 and this would be a sorry situation if we were made to leave.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I think polluters need to be found and held to account.

But I think an increased minimum flow would have dramatic follow on effects for the whole community and its economy.

Location: Manuherekia

610: ONLINE SURVEY

Anonymous User:893380809 2021-06-10 18:13:50 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best for health of river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Otago

611: ONLINE SURVEY

Anonymous User:893399389 2021-06-10 18:50:44 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Taking into account environmental outcomes, it is important that we do our best to preserve and restore this precious treasure as close as its original state as possible.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

612: ONLINE SURVEY

Anonymous User:893407529 **2021-06-10 19:00:02 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Minimum flow necessary to preserve the integrity of the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Dunedin District

613: ONLINE SURVEY

Anonymous User:893410807 **2021-06-10 19:06:53 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I do not believe we should be subsidising dairy farming in the driest part of NZ

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

614: ONLINE SURVEY

Anonymous User:893402947 **2021-06-10 19:08:41 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Prefer minimum flow rate of 1,100 litres per second as this allows high irrigation reliability that is essential for the economic viability of our vineyard, which is our sole source of income.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Increasing the minimum flow will adversely affect the economics of our vineyard and lead to a reduction in the value of our business and property. Who is going to compensate the landowners, who have invested in business's in good faith, and who now face uncertainty and possible loss for "values" that have not been robustly evaluated, compared or ranked. Not all "values" listed have equal economic value and some "values" such as Irrigation are extremely important, as without reliable irrigation peoples livelihoods are at stake and is more important than visual amenity, fishing or swimming. Both fishing and swimming are discretionary activities that can be carried out in other locations, whereas once a vineyard is established it cannot be moved.

Location: Manuherekia

615: ONLINE SURVEY

Anonymous User:893393767 **2021-06-10 19:20:58 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the above as status quo is working well

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The communities, schools, jobs are doing well with the status quo but if it goes any higher then all the flow on industries,
including our farm, will start to struggle and then that leads to losses in bigger towns etc

Location: Manuherekia

616: ONLINE SURVEY

Anonymous User:893420459 **2021-06-10 19:33:44 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is clear that a minimum flow less than 3,000 l/s means many species, especially macro invertebrates, which are the basic food for trout and some birds when the insects emerge, are vulnerable..

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

617: ONLINE SURVEY

Anonymous User:893423131 **2021-06-10 19:36:50 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river is severely compromised if the flow is less than this minimum flow.

Q3: Do you have any other feedback on water management in the Manuharekia Rohe?

I have lived in Canterbury since the 1970's and have seen the death of the Selwyn River over this period. Fifty years of water extraction in its catchment has seen loss of stream flow over much of its course over the Canterbury Plains. The Selwyn, like the Manuharekia, is a small river and has shown its inability to cope with excessive water extraction. It would be tragic to see the Manuharekia suffer the same fate.

Location: Dunedin District

618: ONLINE SURVEY

Anonymous User:892492576 **2021-06-10 20:10:13 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Provides a balance between ecosystem health, recreation and irrigation reliability.

Q3: Do you have any other feedback on water management in the Manuharekia Rohe?

Encouraging more storage on farm and prioritizing water allocation to ensure good water use could help with the reduced irrigation reliability.

Location: Manuharekia

619: ONLINE SURVEY

Anonymous User:893441209 **2021-06-10 20:37:24 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The information you have provided shows that 3000 l/s is the bare minimum for many types of native river fauna - we have a responsibility to maintain Aotearoa's ecosystems. For recreation (and tourism) we need a decent river flow. Do you want to swim in a semi-stagnant trickle?

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Some farmers will suffer business losses from a minimum flow of 3000 l/s. But better to set that as a standard now, rather than keeping on plundering the river's water. Anyone who thinks it is possible to continue irrigation as it is at present is living in a fool's paradise. The amount of water available is only going to get more constrained as climate change bites. Sensible farmers are already reorganising their farming practices to use more appropriate drought-tolerant pasture and lower stocking rates.

Location: Dunedin District

620: ONLINE SURVEY

Anonymous User:893447372 **2021-06-10 20:55:04 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe that some of the higher flow scenarios are not relevant as they are not taking into account the real world and the economics which drive the local communities. Conservation values are important but there should be line between what conservation values are critical and what is not in a case by case basis, such as swimming which is important but should we be degrading farms and therefore farm values for the sake of a 'safer' swimming hole - I guess that is the communities decision so I will say well done on the consultation of the community.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

621: ONLINE SURVEY

Anonymous User:893457742 **2021-06-10 20:59:30 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river should be able to flow as close to its natural flow rate as possible to keep it in a healthy state.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

622: ONLINE SURVEY

Anonymous User:893456102 **2021-06-10 21:04:10 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 flow

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Yes if Doc controlled gorge, broom & willow trees between St Bathans & Alexandra I think they would be amazed at the transportation loss of litres per second from yesteryear!

Location: Manuherekia

623: ONLINE SURVEY

Anonymous User:893474041 **2021-06-10 21:47:27 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river is of primary importance to me

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: New Zealand

624: ONLINE SURVEY

Anonymous User:893551704 **2021-06-10 23:43:18 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river and all that lives in it relies on higher flows.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

More people will be able to enjoy the river if the flow is increased as it will encourage native fish and birds to return.

Location: Dunedin District

625: ONLINE SURVEY

Anonymous User:893610213 **2021-06-11 01:17:37 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because the health of our rivers should be protected.
We should be caretakers of our very fragile eco system, not suck the life out of our rivers.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Waitaki District

626: ONLINE SURVEY

Anonymous User:893696261 **2021-06-11 05:55:45 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because the Manuherekia is a river and rivers are supposed to have water in them! The individuals benefiting from the current plunder of this river need to realise that privatising their profit whilst socialising their losses (in this case the natural amenities of the Manuherekia) has never been acceptable. Farming in this region needs to be tailored to the environment, not contingent on the degradation of a river system.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

627: ONLINE SURVEY

Anonymous User:890273813 **2021-06-11 08:12:07 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would like to see the river return a better flow, it saddens me to see the river running so low especially in the summer.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Central Otago is a dry desert region with very little rain however The number of dairy farms in the region has been allowed to increase and the only place they can get the water from is our much beloved river,

Location: Manuherekia

628: ONLINE SURVEY

Anonymous User:893745484 **2021-06-11 08:25:41 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Environmental reasons, more important than farming.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please continue to offer well worded options like this which make it clear to the uninitiated.

Location: Dunedin District

629: ONLINE SURVEY

Anonymous User:893744374 **2021-06-11 08:27:44 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Provides reasonable river quality. Have to accept less farming in the area. Helps move towards NZ's sustainability goals.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

630: ONLINE SURVEY

Anonymous User:890677899 2021-06-11 08:32:57 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

From an ecological viewpoint, the river needs a higher minimum flow than the status quo. ORC has failed to provide information on how the minimum flows could be achieved, or sufficient information on how many days in irrigation season the flow would fall below each Scenario's minimum flow, so it is impossible to really tell how each scenario would impact on our horticultural business. ORC has the legal requirement to set an ecological minimum flow., Hopefully this can be set so that efficient irrigation operations can still be viable, whilst achieving improved ecological flow.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Council needs to develop a vision for the catchment and take the community with them, not hide behind the mantra that central government is 'making' them set minimum flows, creating the perception that the ORC would really rather do nothing. The uncertainty for all stakeholders is painful. Once the minimum flows have been set, all parties, especially landholders, can adapt their business around them, and future water consents can be correctly set.

Whichever minimum flow scenario is chosen, it will be higher than the status quo, so changes in the way landholders use irrigation water will be necessary. Suggestions:

1. ORC could provide information on:

- efficient irrigation methods
- water efficient land uses and farming systems
- Educating landholders to make their soils more resilient to drought and climatic extremes by increasing soil organic matter, water infiltration rates, water holding capacity etc. including regenerative agriculture techniques.

2. In lieu of, or in addition to, additional infrastructure, investigate purchase of high water use properties in sub-optimal climate and soil locations, or buy back of water rights. The water rights would be relinquished and put into supplementing river flow and made available to irrigators elsewhere. ORC can assist by investigating possible mechanisms for this, which may be through e.g.

- Collective purchase by irrigators
- Purchase by central/regional/local government and irrigators. As a community partnership, there is an opportunity for any public access and biodiversity values to be sorted out and protected prior to being on-sold as a dryland block.
- Protective covenants on private titles which preclude irrigation and lock in conservative land management practices in catchment zones.

3. ORC can explore alternative water reticulation methods, such as pressurized piping, which reduce water loss.

4. Storage of winter flows in on-farm dams may assist with spring/summer irrigation needs and take the pressure of the river's minimum flow but must be balanced against the impact of reducing natural autumn-winter river flows and flushes.

5. Stage increase in minimum flows. One option would be to set an interim increased minimum flow for the period over which water consents are initially granted, and then to raise to final increased minimum flow

next time round. This would give irrigators time to adopt irrigation systems/infrastructure or land use change, or other suggested measures, to take effect.

6. Government to consider purchase/other protection methods of hill/high country blocks and wetlands in the Manuherekia catchment that have significant water harvesting value to allow catchments to yield water more consistently as opposed to quick flushes after rainfall and snow melt.

7. It is difficult to make investments to increase irrigation efficiency and reliability as the future is uncertain. Not only do we not know what the minimum flow will be, but we have no idea as to how the new regime will be adapted to on a collective scale. For example, there is no point in investing in increased on-farm water storage and pumping capacity when these needs may be met through community initiatives such as raising Falls Dam/pressurizing pipe delivery.

As horticulturalists would prefer a scenario where irrigation supply is managed i.e. is supplied at reduced quantities throughout the season rather than an approach where maximum water is used in early summer and shut off completely in peak season.

In the face of climate change, should the capacity of Falls Dam be increased, this extra storage should be used to enhance irrigation reliability on the existing footprint, and to augment minimum river flows, rather than increasing the total land area under irrigation.

Location: Manuherekia

631: ONLINE SURVEY

Anonymous User:893754027 2021-06-11 08:53:04 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

because we see no reason to change as the result to the community will be far more reaching to the districts economy than a few people swimming,

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

632: ONLINE SURVEY

Anonymous User:893771250 2021-06-11 09:48:54 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The output is overwhelming the input/need to maintain the health and livelihood of the river, fish, plants and other species reliant on that system.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

633: ONLINE SURVEY

Anonymous User:881914298 **2021-06-11 10:56:16 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Everyone has to give a little.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Pollution from farming an issue.

Location: Central Otago District

634: ONLINE SURVEY

Anonymous User:893796850 **2021-06-11 10:56:16 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Scenario 5 is the best of a bad batch; I would prefer the river flowed at it's natural rate or a leased 4,000 l/s.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Improve the river's banks and eliminate pollution from farm run-off.

Location: Dunedin District

635: ONLINE SURVEY

Anonymous User:893799681 **2021-06-11 11:12:07 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Restore back to its natural flow.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

What river management? When the awa is dying of a slow death there is no awa management. Haven't you seen what happened to the Murray river in Australia. Irrigation sucked in dry

Location: Waitaki District

636: ONLINE SURVEY

Anonymous User:893810847 **2021-06-11 11:44:51 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The science is quite clear and I want to fish and swim in that river again.

Currently the flow is only 900 l/s which is far too little. In fact your suggested 3,000 l/s is barely enough. For this type of river ecological factors don't improve until there's at least 3,500 l/s flowing down the river.

There is another problem, that of run off. There's an enormous amount in the river because of excessive irrigation. And the current level of irrigation exacerbates the flooding problem.

I would like to see our unique freshwater fish, and aquatic plants return to the river as well as seeing the plants and native trees re-established along the riverside, making a habitat for birds. That will only happen when we stop treating water like a free resource and regard it as the precious liquid gold it is.

Please go with Scenario 5: Minimum flow of 3,000 l/s and your grandchildren will bless you.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please consider the science and increase the flow to 4,000 l/s

Location: Waitaki District

637: ONLINE SURVEY

Anonymous User:893820918 **2021-06-11 12:10:25 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I prefer a minimum flow of 1,100l/s, as I believe this would give the best balance between river health and community health.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There is an argument that the "natural" state of the river during a dry Summer which could be well below any of your scenarios, is actually likely to be best for the native galaxid fish in the river. Very low flows during Summer is exactly what they are adapted to, and would probably help them compete better against introduced fish species.

Location: Central Otago District

638: ONLINE SURVEY

Anonymous User:893159062 **2021-06-11 12:37:46 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The flow rate in scenario 5 is the only sensible option to actually clean up the river & secure its future from human degradation. Farming in nz needs to move away from irrigation, intensive stock numbers & chemical overuse in general. If the natural local environment doesn't support what is being produced, then it's time to reassess that product in that locality full stop. Cleaning up both our water & land use is not an option anymore, so get on with what needs to be done. None of the other scenarios have a good enough outcome for the environment, & "good enough" just isn't. Your own tables suggest that the best minimum flow would actually be around 3700 litres per second, so why is this not an option?

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Think the last comment covers this particular matter.

Location: Dunedin District

639: ONLINE SURVEY

Anonymous User:893895054 **2021-06-11 14:34:05 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think it is of utmost importance to restore the life into our rivers.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

640: ONLINE SURVEY

Anonymous User:893962643 **2021-06-11 16:42:06 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's best for the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

641: ONLINE SURVEY

Anonymous User:885794686 **2021-06-11 17:02:33 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Preference is for 1100 litres per second at Campground. The research suggests that this appropriate flow regime will improve the waterbody and instream values in some locations and will not impede on the water supplies currently have been receiving. The 1100 l/s is NPSFW 2020 compliant.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Having spent a significant amount of money on reticulating water onto our property any changes would severely impact our lifestyle and viability of our property. Management needs to be seen to be fair to all parties and include protecting environmental issues but not at a cost to people's livelihoods

Location: Manuherekia

642: ONLINE SURVEY

Anonymous User:759731751 **2021-06-11 17:03:05 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is time to become kaitiaki for our rivers for the sake of generations to come. There are farmers who work with the land and the conditions that prevail. We should be listening to them.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

643: ONLINE SURVEY

Anonymous User:893988467 **2021-06-11 17:40:11 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

the experts tell us that the ecological health of the river depends on the higher flow. Once the flow reduces and the ecology changes or is lost it becomes too late, native species are lost forever.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please take care of NZ's natural life forms as well as the people - and put profit further down the list of necessities.

Location: Otago

644: ONLINE SURVEY

Anonymous User:894012521 **2021-06-11 18:38:05 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Still enough water in river probably more than what there was before falls dam was built for irrigation

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Community meetings

Location: Manuherekia

645: ONLINE SURVEY

Anonymous User:894075201 2021-06-11 20:29:59 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The drinkability and swimmability for humans, and the liveability for plants and animals of the ecosystem

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The area around the Manuherekia is a dry dry land. Stop trying to make it suitable for cattle and other water-intensive crops.

Location: Holiday / Family / History

646: ONLINE SURVEY

Anonymous User:894079376 2021-06-11 20:40:21 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

seems the necessary amount to ensure healthy populations of plants and wildlife

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

647: ONLINE SURVEY

Anonymous User:894083078 2021-06-11 20:53:11 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This river, like many others in New Zealand has suffered with low flows due to other interests taking too much water from the river. It's time we look after the river with sustainable flows so everyone can enjoy what it has to offer. Farming g practices much change and adapt.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

648: ONLINE SURVEY

Anonymous User:894361891 **2021-06-12 08:37:15 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Only option that puts river health and flow the priority

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Water extraction or irrigation is far too high and not sustainable

Location: Central Otago District

649: ONLINE SURVEY

Anonymous User:894367693 **2021-06-12 08:38:20 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

good ecosystem and ability to swim

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

not sure of options for farmers?

Location: Dunedin District

650: ONLINE SURVEY

Anonymous User:894384552 **2021-06-12 09:17:13 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of these are acceptable, the status quo is what we want, we need the water for the land. Swimming/fishing etc can be done on any of our local lakes!!

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

651: ONLINE SURVEY

Anonymous User:894397026 **2021-06-12 09:47:04 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

New Zealanders need to value the health of our biome over the profits of a few. Our wildlife and plants are stressed to a point where many species will soon be extinct if we do not act. The river is a key part of the ecosystem, and it's health is one of the keys to the health of the whole ecosystem. Minimum flow of 3,000l/s is the lowest tolerable scenario for the health of the river. We should be opting for better than this. Lower than 3,000l/s is unthinkable.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Waitaki District

652: ONLINE SURVEY

Anonymous User:885496812 **2021-06-12 12:06:30 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

In my mind there has been nothing wrong with the status quo. Shouldn't of allowed milking of cows in valley get rid of alot of the self seeded willow trees along the banks, and i disagree with the idea of more efficient use of water using sprinklers there was nothing wrong with wild flood as in the end it kept the water table up and springs going on its way back into the river. IF NEED BE raise it to 1000l/s

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

653: ONLINE SURVEY

Anonymous User:894480644 2021-06-12 13:27:14 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Outcomes for everything other than irrigation/farming are either good or better. Irrigators must have known there was doubt over continuity of rights when they set up their irrigation systems, and the land is not suited in my opinion to dairy production. Orchard/viticulture might still be viable with reduced irrigation reliability.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The rivers and waterways are a public asset, and private profit from public assets needs to be paid for. Why do councils (the public) continually have to deal with the refuse (say plastic) left behind after private profit has been made from its use? Costs must be sheeted home to where the benefits derive, particularly in the case of public (free) goods being used for private gain. The rivers and waterways are exactly the same in principle.

Location: Holiday / Family / History

654: ONLINE SURVEY

Anonymous User:894609182 2021-06-12 18:43:49 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Irrigation for farming. The reason the dam was built in the first place

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

655: ONLINE SURVEY

Anonymous User:894621059 2021-06-12 19:19:29 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

656: ONLINE SURVEY

Anonymous User:863955961 **2021-06-12 19:54:36 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Essential for the ecology of the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

657: ONLINE SURVEY

Anonymous User:894641757 **2021-06-12 20:33:20 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This river has suffered long enough being exploited. Need to bringing back the freshwater fish, plants, and habitats for birds. The biodiversity of this river adds to the wellbeing of the whole community, not just the narrow perspective of those that exploit and make a profit from it. It is critical that environmental services needs to be valued much more than they have in the past.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

658: ONLINE SURVEY

Anonymous User:886182860 **2021-06-12 21:12:45 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

a fair scenario for all irrigators and recreational public.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We live near 1st Galloway Bridge and over summer see families regularly enjoying the river. So obviously at present most parts can be used recreationally. Been some poor reporting in papers .

Location: Manuherekia

659: ONLINE SURVEY

Anonymous User:886182860 2021-06-12 21:21:46 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

A fair option for all. Water for farmers, orchardists, vineyards right down the valley. plus public enjoyment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Not enough clear explanation showing river level scenarios until the Mayor spoke out at Omakau meeting. If wasn't for Irrigation company managing the flow thru Falls Dam some years the river would dry up completely. Little credit given to farmers commitment to improving water distribution ,away from flood irrigation to pivots.

Location: Manuherekia

660: ONLINE SURVEY

Anonymous User:894754057 2021-06-13 02:19:55 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We need to start putting a healthy ecosystem as a top priority and not just damage the natural world in the pursuit of profits and economic growth. Farm viability has to be better balanced with regard to sustainability of the natural environment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

661: ONLINE SURVEY

Anonymous User:894862429 2021-06-13 08:04:50 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Vital to retain good water flows to maintain a healthy river for both recreation and aesthetic appeal

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

662: ONLINE SURVEY

Anonymous User:894862429 2021-06-13 08:29:10 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Preservation of water flow in Manuherekia must be a priority for the region. We cannot continue to degrade our rivers by taking too much water

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

With global warming we cannot continue to rely on past rain fall weather patterns. Water is too valuable a resource to be taken for commercial purposes

Location: Queenstown Lakes District

663: ONLINE SURVEY

Anonymous User:894871498 2021-06-13 08:57:47 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We really enjoy swimming in the Manuherekia and would like future generations to be able to do this, when it is appealing, and would do some fishing if more fish. Ecosystem health very important to me - this has for too long been overridden across the country. Just let nature be.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

People wanting the irrigation around the Manuherekia, elsewhere in Otago, and NZ need to understand that taking this public resource is not a sure thing, that others want to use it in other ways, and that money, GDP, growth, employment is not all that matters to all people.

Location: Manuherekia

664: ONLINE SURVEY

Anonymous User:894871498 **2021-06-13 08:59:56 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

swimming, fishing, concerned for ecosystem sustainability

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

665: ONLINE SURVEY

Anonymous User:894894734 **2021-06-13 10:05:08 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is the best choice for the health of the river which is the health of all of us now and in the future.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Holiday / Family / History

666: ONLINE SURVEY

Anonymous User:893366990 **2021-06-13 11:02:22 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

For optimal river health I would support a higher minimum flow but that is not offered as an option unfortunately. Scenario 5 gives the river a chance to restore and ultimately enhance the natural environment which ultimately is a win win for everyone. Anything less is an abdication of responsibility by the ORC and shows a lack of strong leadership.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

When I read extensive scientific research describing the poor quality of this river's ecology/health as well as that of many others in Otago, and the reasons for this, I despair that so many individuals put their own greed first before the survival of our natural resources and our precious planet.

Location: Otago

667: ONLINE SURVEY

Anonymous User:894909738 **2021-06-13 11:24:10 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would like a minimum flow of 1100 L/S at campground. Anything higher than this will severely impact our orchard and livelihood. We depend on irrigation daily for our trees during spring / summer to produce fruit of saleable size. All other irrigation users will be similarly affected.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

668: ONLINE SURVEY

Anonymous User:893366990 **2021-06-13 11:29:26 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the minimum flow to allow the river to return to close to its natural flow. It may very well have an impact on farming and irrigation but that is the cost that needs to be borne. It would appear that this region of the country is unable to provide the irrigation that farmers want or need so it would appear that this way of farming over recent times is not sustainable.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This action requires significant leadership. Farmers will need to be compensated for any loss of livelihood that arises from any decision here as it may mean farmers will leave their farms. This area has been abused ecologically in recent times and can't continue with this finite resource.

Location: Otago

669: ONLINE SURVEY

Anonymous User:894905559 **2021-06-13 11:40:36 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

There is no scenario that suits me, I have a preferred minimum flow of 1100l/s.

A minimum flow higher than 1100 has a significant detrimental effect on the viability of our farm and the flow on effect to businesses that our farm supports, and to the greater Manuhierikia community including schools, sports clubs and service organisations.

The Community and Irrigators have worked together for years on a solution (for example: The Manuhierikia Strategy Group)

This was based on science and values and included environmental gains throughout the whole catchment. This information has been given to the ORC with our permit applications.

Q3: Do you have any other feedback on water management in the Manuhierikia Rohe?

Our farm is made up of hill country, rolling downs and irrigated flats. All the parts of the farm work together to produce a meat product that we are extremely proud of and is sought after by chefs around the world. Without irrigation to grow a specialty crop of chicory for our lambs we would be unable to supply this product to the world.

I have grown up and lived on our farm for most of my life, the Manuhierikia runs through the property and has been enjoyed by 4 generations. We swim in the river during summer, have camped beside the river, canoed and rafted down stretches of it.

The flow of the river has enabled us to do these activities and I fear a change to higher levels would make these activities unsafe for all ages to enjoy.

Location: Manuhierikia

670: ONLINE SURVEY

Anonymous User:628364658 **2021-06-13 11:40:38 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

There are no scenarios that suit me or my business.

A minimum flow of 1100l/s or less is backed by scientific studies that show improved in environmental gains throughout the entire catchment (and this information is with the ORC with our consent application).

The above proposals are only looking at the last 20% of the river, not the entire catchment, and the proposals above only describe the few months of the year (summer), not the entire season.

Our farm , through selling food products to the world supports businesses throughout the local community, and the wider Otago region. People we employ and employees of the supporting businesses are contributing to our community through spending locally, supporting local schools, sports clubs and community service groups.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Our family has lived in the area for over a century enjoying living beside a healthy river that all generations have swum in, fished, camped by and produced food from irrigation to support the family and community.

The community has been involved in this process through different groups (Stratergy Group, MRG, and TAG), and yet no Flow options mentioned above have assessed by TAG for environmental outcomes.

Location: Manuherekia

671: ONLINE SURVEY

Anonymous User:894934531 2021-06-13 12:29:28 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Should stay at 900 you will cripple the community

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Leave it how it is the orc is not capable of making the right decisions regarding this

Location: Manuherekia

672: ONLINE SURVEY

Anonymous User:888410289 2021-06-13 12:43:12 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

900 is perfectly fine as it is.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

673: ONLINE SURVEY

Anonymous User:894958689 **2021-06-13 13:52:36 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best outcome for native species while some types of farming will still be viable.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

674: ONLINE SURVEY

Anonymous User:894527168 **2021-06-13 14:46:08 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

In my 67 years of observation, trout and insect numbers are at an all time low in some Otago rivers. This is mostly due to sedimentation, inadequate depth, lack of cover and shade from poor river and land management.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

675: ONLINE SURVEY

Anonymous User:762946451 **2021-06-13 15:33:42 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I choose scenario 5, 3000l/sec as it gives the river the best chance of achieving health and vitality. Though it wasn't offered, a scenario of 3.5 would be preferable. I have walked the river at 900l/sec and at 2.5-3 l/sec, and I can attest to the degraded river at 900 l/sec. It was slimy, turbid, shallow, without energy. It was depressing to walk. It had no feeling of Te Mana oTe Wai. I believe we need to transition away from farming practices, especially those of intensive dairying developed over the last 20 years, to practices that use less water and less inputs, in able to live as part of a healthy functioning ecosystem that includes all of us. Farming practices that have become dependent on a rate of water and requiring inputs that degrade the river have no place in a society that is evolving towards the understanding of the importance of the natural world, especially if we are to mitigate climate change.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

When considering the needs of the river, we also need to consider the water-holding capacity needs of the soil. All elements of the natural environment possess a life force, and all forms of life are related.

The destruction of tussock lands and indigenous biodiversity and replacement with the monoculture of grass contributes to the dryness of land as it loses plants that help hold water. This loss of tussocks, native grasses and grey shrubs also contributes to the loss of soil into the streams and rivers. For instance, on the day of the Ashburton floods, when the Manuherekia was running high and brown, we travelled to Loop Rd Bridge, St Bathans, and the river was running clear at the bridge, as it came out of the high country, but the tributary streams coming from farm land were muddy brown, and the river under the bridge near Becks was no longer clear but muddy brown. Returning after three hours exploration, the water under Loops Rd Bridge was still running clear.

To improve the life force of the river, we need to look to the tributary streams and to the land around these streams as well as the river.

Irrigators, and the CODC through their economic assessment of the river flows, argue that to improve the health of the river through a higher minimum flow, especially a healthier flow at 3cumeecs, would mean the loss of millions of dollars in farming profits as well as job losses. But nowhere does it acknowledge, nor the irrigators acknowledge, that there are ways already available of changing farm practices, ie to regenerative practices that allow the soil to retain more water, to organic practices, that cut the pollution of nitrates and phosphates, and to changing crops to those that don't need irrigation or that need a much lesser amount, such as lucerne and hemp. The Oxford University (Britain) study on agriculture and climate change said that the best thing agriculture could do to limit carbon was to stop producing red meat. The recent Otago University(NZ) study backs this up, saying the best thing for our health and environment is to cut meat and dairy. The world will have to move in this direction. Irrigators who are not looking to the future will find their farming models obsolete. As well as the growing transition towards plant-based diets, international consumers are looking to see that the products they purchase are produced without harming the environment. Irrigators in Otago who believe that it is acceptable to farm for profit at the expense of the natural environment will find they are running against growing national and international awareness of such practices. I believe we were all let down by the ORC at the discussion meetings for this aspect of river flows not being discussed in detail. Irrigators need help advice and encouragement to transition towards crops that have a lighter carbon footprint and lighter need for water and chemicals. The time has gone that we can earn money at the expense of the environment. Farmers may not want to change but I believe that national and international concerns about what we eat and how it is produced will force change on farmers anyway.

In this document, dated 22 January, 2020, the authors looked at Diet Impacts on Climate and Health: New Zealand's Experience. They concluded "“The global food system is among the principal drivers behind this unprecedented planetary disruption, responsible for up to 29% of all anthropogenic greenhouse gas emissions (GHGs; Vermeulen et al. 2012), as well as significant soil degradation, deforestation, biodiversity loss, and nitrogen and phosphorous cycle disruption (Willett et al. 2019).

“ Irrespective of the setting or food system in question, policies that enable a transition toward diets that are predominantly plant-based appear likely to confer substantial climate and health co-benefits. (As a

general rule, the climate impact of animal-based foods tended to be substantially higher than that of plant-based foods. Meat products, particularly beef and lamb, were among those associated with the highest GHG emissions.) Our findings reinforce the message from the recent EAT-Lancet Commission that the global evidence base is sufficiently strong to justify urgent action among policymakers, and that further postponement poses a great risk to society (Willett et al. 2019).”

<https://ehp.niehs.nih.gov/doi/full/10.1289/EHP5996>

I would also like to point out, as re the Skelton Report, that most rivers in New Zealand have around 25% of the water taken for irrigation and on the Manuherekia irrigation takes up to 75% of the river. If that is not enough to help people realize that we need to change in Otago, I don't know what is. In 2021, the year which was set 30 years ago to have the river takes adjusted for the health of the river, I don't know how irrigators in Otago have come to the position of thinking their entitlement to the river can continue at historical levels, levels begun in the 1860s, when we didn't have the knowledge or understanding of the interconnectedness of ecosystems and how we all depend on a thriving natural world for our survival.

Location: Manuherekia

676: ONLINE SURVEY

Anonymous User:895006287 **2021-06-13 15:41:50 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The document is completely misleading. You mention the status quo but it is not an option.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It is only the bottom third of the river that has issues - by your own admission. Why do you then use emotive language to incorrectly portray that the whole river has a problem.

As for management of the river the irrigators (through the Irrigation CO's) carefully manage the flows 24/7 365 days a year so there is water for all. I do not believe the ORC has the capacity, nor skill to manage this river or her catchment without the irrigators.

Location: Manuherekia

677: ONLINE SURVEY

Anonymous User:895012095 **2021-06-13 15:56:34 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Recreational use of the resource needs to be at this level to maximise enjoyment. Etc trout are under less stress and have greater mayflies and caddis available to their diet.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

N/A

Location: Otago

678: ONLINE SURVEY

Anonymous User:895018237 **2021-06-13 16:16:39 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

A sensible compromise.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The waterways need to be protected and their management designed in such a way that ALL can benefit. If no pressure is put on those who withdraw water, there is no incentive for them to find different practises. Ultimately, an increase in flow will create this pressure, the farmers will change methods to better ones, and everyone will be better off.

Location: International

679: ONLINE SURVEY

Anonymous User:895033123 **2021-06-13 17:00:19 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The science is clear. The health of the river and all the species that call it home rely on higher flows. The ecological health of this river suffers until there is at least 3,500 l/s of flow. For this river to be healthy, we need it to reach 4,000 l/s.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

For the sake of bringing back the freshwater fish, plants, and habitats for birds we need to send a clear message to the Regional Council that 3,000 l/s is the absolute minimum amount of water the river needs.

Location: Dunedin District

680: ONLINE SURVEY

Anonymous User:862534271 2021-06-13 17:03:25 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's simply the best for the health of the River!

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Otago

681: ONLINE SURVEY

Anonymous User:895039020 2021-06-13 17:21:00 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river shouldn't be used to run farms

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It's been left to die thus far 📉😞

Location: Manuherekia

682: ONLINE SURVEY

Anonymous User:895056571 2021-06-13 18:29:01 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Wondering why the status quo is an issue when historically was ok. Maybe the method of irrigation is the issue. ie: flood v centre pivot. What percentage of water in a flood irrigation system returns as river flow as opposed to sprinklers and high evaporation rates?

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Historically ie: before humans what creatures inhabited the river assuming with lack of storage water flow would have been hit and miss? Not a lot me thinks.

Location: Manuherekia

683: ONLINE SURVEY

Anonymous User:895067805 **2021-06-13 18:54:35 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

the preferred min flow is 1100 or less.

A minimum flow higher than 1100 has a significant detrimental impact on the viability of farming and the rural community

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Farming families swim, fish, tramp, bike etc and enjoy the river as it is. The ORC's material makes no sense. Small rural towns like Ranfurly will struggle to survive if farmers take a serious hit in terms of irrigation and production.

The modeling assumes the same sharing and dam management regime would occur under the higher minimum flow scenarios as status quo – this is seriously flawed.

Location: Central Otago District

684: ONLINE SURVEY

Anonymous User:357998455 **2021-06-13 19:10:37 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because my familiarity with the river dates back to the 1950s when, as a teenager and keen fisher I relished the quality of the recreational and natural values that have been disappearing over the years ever since.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Regional and district councils having little regard for the natural and recreational values/qualities of the river.

Location:	Manuherekia
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685: ONLINE SURVEY

Anonymous User:895091670 2021-06-13 20:04:27 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

686: ONLINE SURVEY

Anonymous User:865635243 2021-06-13 20:35:56 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

All of the scenarios outlined above make one thing quite clear - the current range of land uses in the catchment are not compatible with a healthy waterway. The government now require that 'te mana o te wai' is the first priority within a hierarchy of needs, and only scenario 5 offers anything resembling giving 'te mana of te wai' to the Manuherekia.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

ORC needs to know work with CODC, the community, and Central Government to come up with a holistic plan and support package to enable a transition in landuse across the catchment, in order that te mana o te wai be recognised in the Manuherekia, alongside the needs of people. Our economics and land use are changeable, environmental limits are note, we must learn to live within them. Essentially this means learning to live within the economic and land use realities of scenario 5. This transition should, and could, have been happening for many years now, but because of mismanagement and delay the pressure is now on for a fast transition.

The CODC have had an economic assessment done on the different scenarios, the ORC should now have an assessment done investigating the water demands of different land uses currently, as well as the water demands of potential alternative land uses across the catchment.

ORC, supported by central government could investigate and implement further restoration of wetlands, removal of thirsty willows, and native revegetation as ways of increasing flow to the Manuherekia. As well as this, the buying-out of some of the largest irrigators, and transitioning that land back to dry land ecosystems, should be seriously considered in order to reduce water demand in the catchment.

Location: Manuherekia

687: ONLINE SURVEY**Anonymous User:895093488****2021-06-13 20:47:52 +1200****Q1: Minimum flow preference**

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

ORC's own data show that the river eco-system health only gets to a satisfactory level with a minimum flow of 3,000 l/s. However the ecosystem health would be better if the minimum flow was at the higher 4000 l/s. Having swum in the Manuherekia River many years back while cycling the rail trail I felt the water quality at the Poolburn Viaduct was good during summer but the flow was quite low. Now having grandchildren in the Alexandra area and viewing the water flow and quality at the Galloway Road we do not allow the children to swim in the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

For far too long ORC councillors have allowed excessive water takes from our rivers and groundwater so that irrigators and the agricultural sector profit at the expense of the environment.

Your own web site states :-

"Our environment is our most important asset. We work with the community to ensure the sustainable use of our natural resources. The future of our beautiful region starts with protecting and caring for it today."

Your current management of water resources is not sustainable and I do not consider that many of your councillors think that the environment is an important asset.

Agricultural intensification through irrigation leads to poor ecosystem outcomes especially in rivers with higher levels of nitrogen, phosphorous, e-coli, and sediment. Less irrigation, not more, will be beneficial for the Manuherekia River.

Location:

Clutha District

688: ONLINE SURVEY**Anonymous User:894615626****2021-06-13 20:52:58 +1200****Q1: Minimum flow preference**

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because this helps to protect the river the most and the biodiversity within it.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Option 5 is the only viable option, I'm really surprised to see options with such low water flow being consulted on.

Location:

Dunedin District

689: ONLINE SURVEY**Anonymous User:895103179****2021-06-13 21:16:00 +1200****Q1: Minimum flow preference**

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't agree with any of these scenarios. I prefer 1100L or less. Because the consultation doc lacks info in regards to the detrimental impact on farming and associated businesses, it lacks facts about the state of the whole river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I would suggest ORC refer to the work done on behalf of irrigators, that was delivered with the permit applications. A solution focused proposal that was based on science, values and environmental gains.

I believe we should be focusing on water quality not quantity, because where is the proof that quantity fixes quality, and we haven't investigated the - at what cost question in this discussion. Rates, job losses, regional product loss, inhibiting local food production etc.

I still want to know how it is Farming doesn't come into the second tier of Te Mana O Te Wai. The use of irrigation supports the health and wellbeing of humans by creating nutritious grass fed protein. We should not shoot ourselves in the foot.

Location:

Manuherekia

690: ONLINE SURVEY**Anonymous User:893412654****2021-06-13 21:23:17 +1200****Q1: Minimum flow preference**

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I vote to remain with the status quo as this is the only way to allow the farmers who are dependant on the water to continue irrigating in an economically sustainable way.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**Location:**

Manuherekia

691: ONLINE SURVEY**Anonymous User:893396683****2021-06-13 21:35:36 +1200****Q1: Minimum flow preference**

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Preferred minimum flow is 1100 or less.

Minimum flow higher than 1100 has a significant detrimental effect on the viability of farming and associated businesses and communities. As a local community group we are made up of members that are employed locally in agricultural based businesses, either on-farm or servicing farms or other community businesses.

The scenario process also had several contradictions and faults which makes it hard to make a well informed decision on something that will impact our livelihoods directly.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Members of our group already swim, fish and enjoy the river as it currently is. The material released by ORC does not make sense and does not correlate with how we view the river at the present time.

Agricultural businesses provide the majority of employment for the young community in the Manuherekia valley. Any detrimental effect on the viability of farming businesses will impact this community and the local businesses that they then support in return.

Location: Manuherekia

692: ONLINE SURVEY

Anonymous User:893396683

2021-06-13 21:52:40 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Preferred minimum flow is 1100 or less.

Minimum flow higher than 1100 has a significant detrimental effect on the viability of farming and associated businesses and communities. As a casual shepherd i am employed on a casual basis by farmers throughout the Manuherekia and Ida Valleys.

The scenario process also had several contradictions and faults which makes it hard to make a well informed decision on something that will impact my livelihood directly.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

i already swim, fish and enjoy the river as it currently is. The material released by ORC does not make sense and does not correlate with how i view the river at the present time.

Agricultural businesses provide the majority of employment for the young community in the Manuherekia valley. Any detrimental effect on the viability of farming businesses will impact this community and the local businesses that they then support in return.

Reduced irrigation will reduce stock units which will limit the amount of work i, and other casual contractors, get in both valleys. This hasn't been factored into the job losses.

Location: Manuherekia

693: ONLINE SURVEY

Anonymous User:895096099 **2021-06-13 22:38:31 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best for the river and the trout fishing.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It's time to give the river back its mauri.

Location: New Zealand

694: ONLINE SURVEY

Anonymous User:895175497 **2021-06-14 00:31:36 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

So that the river can be healthy with a thriving flora and fauna.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: International

695: ONLINE SURVEY

Anonymous User:895179502 **2021-06-14 00:51:48 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best for overall ecosystem health

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Suffers excessive water abstraction currently

Location: International

696: ONLINE SURVEY

Anonymous User:895290747 2021-06-14 07:00:16 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the best for the ecosystem, for swimming and recreation (walking, picnicking etc) and fishing. It is a very unique area that should be looked after for generations to come.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

20 years ago I watched huge development of dairy farms in the area. Farmland that had Merino sheep, turned to dairy cows and pivot steer irrigation. I used to drink the water. Within a few years I stopped drinking the water and have sadly watched the river deteriorate further. There used to be ropes hanging from willow trees where kids would swim, they have just about all gone now. The area is classified as semi arid (less than 250mm of rain per year), so is dairy farming a good option in a semi arid environment?

Location: Queenstown Lakes District

697: ONLINE SURVEY

Anonymous User:895296303 2021-06-14 07:02:03 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Flow is essential to maintain the natural values of the river, which I have helped survey multiple times. Compromising away natural values is no longer acceptable. The cumulative effect on habitats and ecosystems in New Zealand has been appalling, and mirrors the degradation of earth systems internationally. This is exactly the sharp end of environmental responsibility, where actions will be judged by future generations.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

698: ONLINE SURVEY

Anonymous User:882363553 2021-06-14 08:14:24 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

step in right direction and increase in say 5 yrs once users adapt to change.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Clutha District

699: ONLINE SURVEY

Anonymous User:895323097 2021-06-14 08:20:46 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We would like things to improve but we don't want our home to be devalued because of this change.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

700: ONLINE SURVEY

Anonymous User:895339306 2021-06-14 09:02:09 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the only safe flow to protect the flora and fauna of the river during the hot months. It should also also allow recreational events to be undertaken safely.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Much has been made regarding the livelihoods of a few dairy farmers. I believe this area is unsuitable for this activity and should be reserved for sheep and beef farming or for the growing of crops. These latter industries would also support a good number of livelihoods.

Location: Holiday / Family / History

701: ONLINE SURVEY

Anonymous User:891016961 **2021-06-14 09:02:16 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best for people who live in the district

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

702: ONLINE SURVEY

Anonymous User:845590701 **2021-06-14 09:02:49 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The science is quite clear that the health of the river and all the species that call it home rely on higher flows. Many of the ecological factors aren't good until there is 3,500 l/s flowing down the river with most not being met until the flow reaches 4,000 l/s. Yet the maximum the regional council is offering is 3,000 l/s. Currently, only 900 l/s flows down the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The health of the magnificent Manuherekia river is at a critical point and now we have a chance to improve it.

For decades now the river has been starved of water thanks to private profits being put ahead of native fish, habitats for birds, and the ability for people to enjoy the river. Now we have a chance to change that.

Location: Waitaki District

703: ONLINE SURVEY

Anonymous User:895347174 2021-06-14 09:24:25 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Dairy should never have been introduced to this area

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

704: ONLINE SURVEY

Anonymous User:895355807 2021-06-14 09:41:23 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None - Preference is for 1100 l/s at the Campground

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There needs to be a balance between irrigation and improvement of the waterbody. Without use of this irrigation asset, the area will suffer in terms of economic viability of primary industry and this has an impact on rural communities, including the towns that support these industries.

Location: Central Otago District

705: ONLINE SURVEY

Anonymous User:895356579 2021-06-14 10:10:28 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

900 L/s . I have lived in Poolburn for all My life, i will be the 4 generation of my family to have farmed our farm and the first women. All my life it has been drilled into me to protect the land as well as the waterways for the future. Every time the councils make a change it has consequences such as spray irrigation, peoples wells have been drying up, and farms had to intensify or change to dairy to make ends meet.

Having the minimum flow higher the Falls Dam would empty alot quicker and once the water gone its gone.

It also means less jobs, schools closing, business closing and our community gone.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The part of the Maniherika that needs a helping hand is near Alexandra. The Clyde river has a big flow just over the hill it has enough fall to pipe the water across it would be cheaper and a lot more efficient than making falls dam higher.

Location: Manuherekia

706: ONLINE SURVEY

Anonymous User:895356579 **2021-06-14 10:50:11 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

900 L/s. Ive been farming sheep, beef and crop for over 50 years, I have also had a contracting business. For those 50y I done my best to protect the waterways and land. Every action has a reaction, we have already seen this with spray irrigation depleting ground water levels. The low flow problem only applies for a short period of time in the summer so there for use the old saying "If I aint broke don't fix it".

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There is no need to change it, the complaints about the river are from people that have not lived here all their life, the low flow of river it is part of living in a dry climate. It is import to remember not to mess with nature.

Location: Manuherekia

707: ONLINE SURVEY

Anonymous User:895392650 **2021-06-14 11:36:49 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

While the agriculture activities in the region are important the climate of the area is not able to support what is happening at the moment. Dairy farming and intensive crop rotation is not possible in an area that receives about 400mm of rainfall annually.

We holiday in Galloway as a family and have been in the area for 30 years. It is essential that the health of the river is maintained for future generations to enjoy it. The stress of the surrounding area will only increase due to climate change so we should keep the flow as high as possible now.

Changes in catchment health or intake areas could happen quickly and in the future trying to alter the land to fix this or update legislation / land use rights will be difficult to do in an acceptable time-frame. This could mean that only a few dry years and the river could be put under extreme stress.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

no

Location: Dunedin District

708: ONLINE SURVEY

Anonymous User:895413507 2021-06-14 12:27:18 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would prefer the flow to be even higher - a minimum of 4,000l/s would be the minimum. Because the health of the river and the plants and animals that live in it depends on a high flow of water.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Waitaki District

709: ONLINE SURVEY

Anonymous User:895431965 2021-06-14 13:22:39 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't think we should be actively, knowingly harming the environment for the sake of a few farms. Rivers do not belong to farmers, they are part of our land and it's our responsibility as people of this land to take care of it - it's about kaitiakitanga.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

710: ONLINE SURVEY

Anonymous User:895447575 2021-06-14 14:02:38 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

3k L is bare minimum for ecological health of the river rohe - irrigation is not a natural solution for land use in this region

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

711: ONLINE SURVEY

Anonymous User:895447575 **2021-06-14 14:05:20 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Irrigation is not a natural land use

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

712: ONLINE SURVEY

Anonymous User:758699209 **2021-06-14 14:09:28 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

3,000 l/s appears to ensure that the river will remain healthy in periods of low flow/dry weather

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Your scenarios establish the reality that at times, there may be insufficient water to satisfy demand. Having established a minimum flow which will preserve the river health, there needs to be a community discussion focussed on how more water might be provided and/or how might we reduce the demands.

Location:	Manuherekia
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713: ONLINE SURVEY

Anonymous User:625218909 **2021-06-14 14:13:18 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This minimum flow will restore the river to what the river should be. It is degraded now due to low flows caused by irrigation so by increasing the minimum flow it will improve the habitats and ecosystem health.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Over irrigation and dairy farming in a naturally dry environment such as the manuherekia valley is crazy yet the ORC has allowed this to occur!

Location: Queenstown Lakes District

714: ONLINE SURVEY

Anonymous User:889296290 **2021-06-14 14:25:10 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think its fine where it is at the moment. Anything else will have huge impacts on the farmers and will in the end badly affect all of us in the community. I think the scariest thing is loss of jobs that will come from this.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

People already swim and fish in the river as it is now. Apart from the council issuing notices for the algae that kills dogs mid summer when the river is low, I haven't heard of any other complaints from locals.

Location: Manuherekia

715: ONLINE SURVEY

Anonymous User:889296290 **2021-06-14 14:40:14 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

There's nothing wrong with the river level where it is now. I take my kids swimming in the river all through summer. I'm worried that if the irrigators can't keep doing what they do now I'll be out of a job. If I have to look for a new job it won't be in Omakau and I guess we would be moving out of the area, and taking the kids out of the local school.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Has there been other readings and information on other parts of the river apart from the Alex camp ground part that is being put out to the public?

Location: Manuherekia

716: ONLINE SURVEY

Anonymous User:895472793 **2021-06-14 14:45:11 +1200**

Q1: Minimum flow preference**Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why**

These suggested flows will cripple farmers and horticulturists who rely on irrigation in the Manuherekia Valley

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Why can't people join existing schemes and have access to water that is allocated but unused? I have spoken to many life style block owners who have an allocation that they only use a small portion of yet as a horticulturist I can't get access to a scheme. This means a very expensive water & dam consents every 6 years. You are crippling business by assuming that allocation means use. Meter those with an allocation and distribute unused water. If ORC is insistent on altering the flow in the Manuherekia, then ORC should also take on the roll of funding the improvements to Falls Dam so that irrigation is possible at existing or enhanced levels.

Location: Manuherekia

717: ONLINE SURVEY

Anonymous User:889296290 **2021-06-14 14:57:04 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think the river is ok, as it is. I think the proposals are scaring the farmers and orchardists in Central and they will probably try to sell as soon as they can if they think there is a chance they won't get any irrigation. My family relies on the work the farmers and orchardists give to us and the thought of no work is very stressful. I will be forced to relocate with my family.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We go to the river all the time in summer and have dinner down there, my kid loves swimming in the river and going down there for bike rides, and my wife goes for walks down there.

Location: Manuherekia

718: ONLINE SURVEY

Anonymous User:895481719 **2021-06-14 14:58:01 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

For aquatic invertebrate, fish, and general river ecosystem health.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Falls Dam must not be raised. Alpine galaxid have no other habitat than the upper river. A raised water level above the dam would further reduce habitat for this species.

Location: Dunedin District

719: ONLINE SURVEY

Anonymous User:895484101 **2021-06-14 15:11:45 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

A minimum flow of 1100l/s would be preferred. This appears to be an achievable scenario for both the health of the river and for the farming community to continue to produce food for the health and wellbeing of the community

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The initial priority should be towards ensuring efficient irrigation systems are being used to distribute the water from the river.

Location: Manuherekia

720: ONLINE SURVEY

Anonymous User:889296290 2021-06-14 15:34:04 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Keep it the same as now. There's nothing wrong with it.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I hope you realise what raising the river minimum will do to the communities that are right beside the river. I'm worried about losing my job as a farm worker, and then me and the family will have to probably move away to find other work. I have kids in the school and play rugby for the local team and other sports.

Location: Not specified

721: ONLINE SURVEY

Anonymous User:895502566 2021-06-14 15:58:56 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I do not support any of the scenarios. I support a minimum flow of 1100 l/second. I believe that as well as being NPSFW 2020 compliant, this level (200 litres per second higher than the voluntary 900 l/sec) will maintain ecosystem health AND the level of primary industry needed to sustain the economic well being of our rural community.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Base the decisions on water management in the Manuherekia Catchment on proven science NOT vague and emotive language.

Location: Manuherekia

722: ONLINE SURVEY

Anonymous User:895539058 2021-06-14 17:25:14 +1200

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I like 1500 because it both improves the health of the river to some degree and doesn't harm the economic factors of Central Otago to too great a degree.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I think that in time, certainly in the vineyard industry we are going to have to learn to use water more sparingly. The rice industry of Asia has learned that rice does not need as much water as was believed for centuries!

Location: Manuherekia

723: ONLINE SURVEY

Anonymous User:713858555 2021-06-14 18:27:25 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

the evidence backs up the need for more water flow

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

724: ONLINE SURVEY

Anonymous User:895565209 2021-06-14 18:35:56 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 l/s this is an adequate minimum flow rate that will ensure the communities of central otago do not get ripped apart and would not cause any other issues with the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I think the current water management system is spectacular and always has been.

As far as the river goes nothing has changed with it at all.

All farmers in the area have recently spent millions on pivot irrigators and are using irrigation more efficiently than ever before.

If there was any change to the current system, ie some of these ludicrous scenarios that have been proposed, the impact to all Central Otago communities would be catastrophic, the damage to these communities would be evident for the rest of time.

Location: Manuherekia

725: ONLINE SURVEY

Anonymous User:895573227 2021-06-14 18:39:07 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Along with rest of valley my family make a income farming using water in summer ,our business has many people making a income off it through out the year

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

726: ONLINE SURVEY

Anonymous User:895580310 2021-06-14 18:56:35 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

There's no irrigation above 100 l/s and even then it's only considered ok. Also unsure if you could actually swim in a fast flowing river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There is no data here about the rest of the river only one spot

Location: Manuherekia

727: ONLINE SURVEY

Anonymous User:895586109 2021-06-14 19:10:30 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's workable for everyone

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The suggestion of increasing the flow is another decision made by people in an office who do not want to hear people in the community

Location: Manuherekia

728: ONLINE SURVEY

Anonymous User:895605299 **2021-06-14 19:40:36 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the best option for how I feel the river should be

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Your presentation of information was inadequate to truly allow people to be fully informed. It felt like you had an agenda for ORC desired outcome.

Location: Manuherekia

729: ONLINE SURVEY

Anonymous User:895609758 **2021-06-14 19:51:24 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't prefer any of these. I believe a Minimum Flow of 1,100l/s would be sufficient to satisfy the requirements of farmers/irrigators while maintaining river health. I don't find the evidence for anything higher than this to be convincing.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This needs to be evidence-based, and serve the wider interests of the whole community and not the 'lobby groups'.

Location: Manuherekia

730: ONLINE SURVEY

Anonymous User:895608346

2021-06-14 19:58:17 +1200

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Scenario two equally supports the increase in health of the river, including for galaxiids, the viability of swimming for adults and children (without being washed away) and some fishing, and also retains the economic viability of the valley, and associated social wellbeing of our rural areas.

I do not support flows of a higher rate - children would not be able to swim at Alexandra, too much emphasis is placed on "tourist fishing" (for an invasive species that eat our nationally endangered galaxias) and not enough consideration has been given to the social, community and cultural wellbeing that is tied into the economic viability of the valley. I also believe the health of the river as a whole is misrepresented in this consultation, which appears to focus on a small stretch near the township of Alexandra rather than the catchment as a whole.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Exceptionally poor communication with communities directly involved, absence of accurate, unbiased data, appears to contradict own and national policies at times

Location:

Manuherekia

731: ONLINE SURVEY

Anonymous User:895617887

2021-06-14 20:07:54 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The ecosystem must be a priority.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location:

New Zealand

732: ONLINE SURVEY

Anonymous User:895624878

2021-06-14 20:24:04 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

733: ONLINE SURVEY

Anonymous User:895612253 2021-06-14 20:30:37 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None - There are no scenarios above that suit my family farming business.

A Minimum flow higher than 1100 l/sec will have a significant effect on our farm income and viability which will only flow on to the rural businesses we support in Omakau and Alexandra. This will then affect local schools, sports clubs, retail and hospitality businesses. The cost will be huge to our business and therefore there will be nothing extra to spend in the central otago community.

We have been working for years spending thousands of dollars working towards a positive outcome for our precious Manuherekia valley - spending money utilising our water better than ever and measuring - to find a solution.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I have lived next to this river all my life as a child and more recently as an adult - we have always utilized the river through fishing for eels and trout along with swimming many times in the summer.

As per the meeting at Omakau recently many valid points were discussed about the ORC - their brochures are misleading there hydrological model and its outputs have not been peer reviewed. the ORC does not listen to the Manuherekia community . Only the bottom 20% of the river is described in the graphs and (which I would argue is much less than that) the rest of the river has been proven to be in good health and yet the ORC talks about the river in general is in poor health.

Location: Manuherekia

734: ONLINE SURVEY

Anonymous User:895626576 2021-06-14 20:31:52 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

That would be sufficient for a better waterbody but still maintain the reliance our farming community has on the flow rate. A flow of 1,100 l/s would even be more suitable.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The higher the set flow rate, the Hester the restriction and rationing of water, and the need for water in those crucial growing and harvesting months

Location: Manuherekia

735: ONLINE SURVEY

Anonymous User:758132184 2021-06-14 20:37:13 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't believe that any minimum flow should be set at the camping ground. Because the only way of achieving any of the above minimum flows would mean confiscating farmers' assets (being the falls dam). This to me would result in legal issues from farmers (rightly so) seeking compensation. ORC has failed to make the public aware of this...

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

If a minimum flow is unavoidable, then it should be measured before entering into the Falls dam and at any other points of take that affect the Manuherekia. It will be quickly established that in the peak of summer, none of the minimum flow options above are achievable without falls dam (farmer-owned asset)

Location: Manuherekia

736: ONLINE SURVEY

Anonymous User:895612253 2021-06-14 20:54:10 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None

There are no scenarios above that suit our business in the Manuherikia valley.

A minimum flow higher than 1100 Ltrs/sec will have a significant negative effect on the viability of our farm and therefore the businesses we support in Omakau, Poolburn, Ranfurly and Alexandra to name a few. This will flow onto local sports clubs and schools with jobs being lost and employees leaving the area to find employment.

We try our best to shop locally and use the services in Omakau and Alexandra,

The community and irrigators have formed groups and worked together for many years to find solutions based on science and values and includes environmental gains throughout the whole catchment and this proposal was lodged with the permit applications.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I have lived beside the Manuherekia river all my life initially the first 20 years at Springvale then Chatto creek and latterly at Becks enjoying fishing for eels and trout and swimming and walking beside the river in the summer time. We have lived and loved that river - it's precious we have always looked after it.

The ORC consultation brochures only tell one side of the story it does not give a fair story for individuals to make a educated choice.

Location: Manuherekia

737: ONLINE SURVEY

Anonymous User:649735454 **2021-06-14 21:05:21 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river should have a higher priority than for the few who have been using the water for financial gain.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I would hope there is a moratorium on demand for more water by industrial farmers. Our family holidayed in Ophir during the 60s and 70s and owned property there until about 2010. We became very familiar with the river in that area and the river is much degraded since those times.

Location: Waitaki District

738: ONLINE SURVEY

Anonymous User:895640183 **2021-06-14 21:05:23 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river should be above financial gain for the farming community

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The manuhetikia valley is not a suitable area for the type of industrial farming that takes place at present. Relying on such a fragile river system in such a dry area for irrigation is madness.

Location: Waitaki District

739: ONLINE SURVEY

Anonymous User:895638610 2021-06-14 21:10:45 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's a fragile river, which needs good flow to stay healthy.

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

The dairy farm where the cow's cross the river, using the bridge, is insane. The river flat's at that point, has very rich soils. The soil will be unable to support more nutrient added, which in turn will increase leaching. With low water flow, it will only exasperate the harm too the river.

Location: Holiday / Family / History

740: ONLINE SURVEY

Anonymous User:895093488 2021-06-14 21:12:04 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river must come first - too many of New Zealand's rivers have been degraded and this is a trend which must be reversed. The Manuhetikia river belongs to everyone including its native flora and fauna, not just one group of people who believe their rights are paramount because they convert the water into private dollars, much of which is paid to Australian banks to service debt.

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

At present there are at least 13 endangered native species relying on the Manuhetikia river. Once lost they are gone forever. Is this the legacy we wish to leave?

Location: Clutha District

741: ONLINE SURVEY

Anonymous User:882347842 2021-06-14 21:12:42 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of these above scenarios are workable due to the huge restrictions that will fall on the agriculture and horticultural businesses in our area. To restrict water to these areas that create huge employment and income to our town is nothing short of suicidal to our district.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The short sightedness of our ORC to limit water supply to the driest area of New Zealand is uncomprehensible. The water rights came from the government , what are they doing to compensate the agricultural community if these water rights are lost ? The face of farming is changing rapidly . Fast forward another 30 yrs and what could be grown in this valley has not been tested yet but what ever it might be , it will require water !! The social impact of generations of farming families , schools, shops, businesses will have devastating results if irrigation allocations are restricted . You cannot expect a town to survive where fish are more important than humans.

Location: Manuherekia

742: ONLINE SURVEY

Anonymous User:895663961 2021-06-14 21:57:06 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I feel we need to be more realistic about long term land use, and the suitability of what type of farming we are doing where. This scenario I feel will provide a benchmark and prove that as a couple try we are serious about protecting our waterways.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

743: ONLINE SURVEY

Anonymous User:858860120 2021-06-14 22:23:12 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Status quo, all others will have detrimental impacts on communities, horticulture, Agriculture and fish life in Falls Dam.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Raise Falls Dam. More water storage, with more storage you get reliable irrigation for the area, therefore good for locals mental well-being and economics.

Location: Manuherekia

744: ONLINE SURVEY

Anonymous User:882347842

2021-06-14 22:41:34 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Hi,

None of the above, they are unsustainable flows if you want the valley to have a community. Around a 1000l/s is doable.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Yes I do. The irrigators operating the river are doing a splendid job. 40 years ago all the water was taken at critical times, then run by a government department. Now run by irrigators, there is always a river flowing. I was born here and am still here and have swum in this river almost every year of my life and I don't see it any worse now than 60 years ago. The top two thirds of the river are recorded as being in good or very good condition. The only difference is at the bottom last few kilometres where the river is choked with gravels because of the Roxburgh dam and the whole of the river being choked with willows.

Historically thank goodness there were some forward thinking people and they built storage dams to make the valleys more sustainable and allow for diversification on the land.

Today we are being preached at about global warming and drier conditions and the ORC want to cut our water supply for a chunk of the irrigating season and that being the most critical period. There was 110 days of last years 200 day irrigation season when the campground flow was under 3000l/s. Minimum flows above 1100 l/s would be disastrous. And not just for the farmers but for the Otago community. I did my apprenticeship in a local Engineering workshop and a lot of our work was farming or horticultural based. Building new machinery or repairing old stuff. One small cog in a big world.

So how about doing some positive forward thinking. We all would like some more water in the river. Not to irrigate more but to guarantee a continuous flow all season. We get a lot of water cuts with the minimum campground flows now.

Build a dam for release at critical times. Brilliant. So so easy. Positive for the river and positive for the community of Otago.

Cheers. Being positive.

Location: Manuherekia

745: ONLINE SURVEY

Anonymous User:895693822 2021-06-14 23:16:53 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Leave it as it is

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

746: ONLINE SURVEY

Anonymous User:895863265 2021-06-15 07:31:22 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

because the health of manuherekia is so important. i would also like to feel comfortable swimming in it

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

no

Location: Manuherekia

747: ONLINE SURVEY

Anonymous User:881454716 2021-06-15 08:53:52 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Well fare of the community. Always start in small increments and not go to full hog especially with all the uncertainty.

Scenario 5 would be totally unsafe for swimming. The falls dam is not big enough to even sustain this flow or release it. It would decimate the rural sector, community and flow on business. The irrigation also helps the survival of wildlife that feed on crops and grass and the increased bug life especially in the winter .

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Most people have no idea what the proposed flow rates look like. There is no computer scenarios for people not in the know to judge. The flyer that was sent out was completely misleading by making the scenario 5 option stand out as a favorite when it is totally unviable and unsafe .

Location: Not specified

748: ONLINE SURVEY

Anonymous User:776770051 2021-06-15 10:06:02 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't prefer any of the options. But you have no option to put other. I want to see a 1100 l/s minimum flow at camp ground. 1100 l/s is based on robust science.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Values need to be linked with actual data collected not rely on modelling alone. Why is more research not taking place so we can fully understand the river. This survey is very generic and doesn't allow for options that don't fit in to the survey criteria.

Location: Manuherekia

749: ONLINE SURVEY

Anonymous User:895902338 2021-06-15 10:10:43 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I haven't chosen any of the above scenarios as our property is adjacent to the Manuherekia River and totally relies on it for irrigation, as we are one of the last users on the river for irrigation we need a lower minimum flow to irrigate for a longer season.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

My husband and I have resided in Alexandra all our lives and have lived beside the river for the last 30 years, during this time we and our children, friends etc have spent many hours swimming, and fishing in the river, it has always run low during the hot time of the year, yet the water quality seems to be dropping as the years progress, that to me is not the minimum flow that is the problem. If the minimum flow was to sit at the level ORC are suggesting I am imagining a whole lot of hardship from farms that rely on irrigation water from the Manuherekia, some of the farms have already invested in sprinkle irrigation to make better

use of their water. The river is generally not exceptionally low for long periods of time, so long as the irrigation companies and the ORC are working together I feel comfortable the Manuherekia river will continue to be a great source of growth and leisure!

Location: Manuherekia

750: ONLINE SURVEY

Anonymous User:895913878 **2021-06-15 10:14:57 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think the cut off for irrigation water from the river should be set high as the river may still drop further if there is an extended dry spell. I think it is important for good river flow to decrease algae and make it safer for swimming.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I think bore water should also be monitored closely too as depending on the intake this can decrease river flows significantly too. I don't like farmers to be negatively impacted but I think the land area being irrigated needs to be limited/reduced and for it to be done efficiently like irrigating at night to reduce evaporation.

If there was a way we could decrease the cost per unit of water for the farmers, to offset them having to be economically impacted by using less water or upgrading equipment.

Location: Dunedin District

751: ONLINE SURVEY

Anonymous User:893327049 **2021-06-15 10:28:43 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1200 provides some improved water quality while maintaining the economic benefit of farming to the region

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The second priority of the RMA is to maintain drinking water and domestic water supply's, all the documentation provided so far has not taken into account existing Drinking water supplies either Groundwater or supplied by race water. For example various water bores have already run dry due to reduction in flood irrigation around the region, this change already made has reduced access to safe drinking water.

Additionally a third priority is stock water

Please provide a report that addresses the changes to groundwater as well as how many drinking water supplies and or stock water will be effected by the change in water use and the increased flow in the river.

Location: Manuherekia

752: ONLINE SURVEY

Anonymous User:895916920 **2021-06-15 10:43:20 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

*I chose none of the flow options. The flow should be set at 1100 l/s as agreed by the community and which also meets obligations in terms of environmental standards.*The information put out to the community for consultation on the above flow scenarios is at best misleading and at worst plain wrong.

*Neither the ORC nor the community can make a decision of any sort which decimates the economy of their district and anything above 1100l/s will do just that.

*Minimum flows need to be established based on science and not simply guessed.The irrigation community is far ahead of the ORC on that.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

*The information circulated does not acknowledge that perceived problems with flows occur only from the "campground" onwards.

*The information circulated makes no reference to the environmental mitigation work already undertaken at significant cost to irrigators.

*There has not been any acknowledgement that irrigators are food producers.

*There is no acknowledgement of increased fire risk with no irrigated areas, an empty Falls Dam, and a river flow left worse off without stored water subsidising it. That creates a time bomb.

*The meeting presentation at Omakau was shameful. For an audience of that size a microphone and speakers should have been in place and visual displays were unreadable from the second row where I sat.

Location: Manuherekia

753: ONLINE SURVEY

Anonymous User:895910593 **2021-06-15 11:03:46 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't support any of the scenarios provided. I support what the water user representatives have offered given they own falls dam.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

So it is stated by ORC that the community has told you they want healthy rivers to swim in, kayak in and fish in. Firstly there is no question this is what we would all say we wanted, but it must be put in context. We certainly would not want our community to be decimated in order to achieve this. We are fortunate to have plenty of options in close proximity to enjoy in leisure activities already, and so the need for Manuherekia river to provide this in its entirety isn't necessary. This river provides an important economic tool for our region that in turn has created a thriving community for families and individuals.

I am more than disappointed that ORC have allowed this to go out for public submissions without highlighting to the community, that the water users own falls dam and the others named, and the proposed minimum flows can only be achieved with the use of these dams. This is theft of privately owned assets and will no doubt be challenged through the courts if pursued which I will be a supporter of (No I am not a user). The only way in my view to go head with these minimum flows is if the council puts the money forward to raise falls dam and/or others. Of course if it were put in this context, it wouldn't get community support if it meant further and possibly significant rate rises. I see this all as a waste of council/rate payers money and most probably the farmers money fighting this ridiculous proposal in its current form.

Location: Manuherekia

754: ONLINE SURVEY

Anonymous User:879343307 **2021-06-15 11:33:50 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Need to achieve a balance between irrigators and river health.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Need to use irrigation to create employment and value for the region.

Location: Manuherekia

755: ONLINE SURVEY

Anonymous User:883889454 **2021-06-15 11:38:57 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the above - it should be 1100 litres a second at the Campground.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The ORC should be ashamed of the way that they have handled the water management. You have painted the irrigators in the worst possible light in the media and to the public and you forget that without the irrigators building and maintaining the dam, the Manuherekia would have dried up years ago and the only reason it runs now is because of the water coming from the dam. It appears that the ORC is hell bent on destroying Central Otago farming and lifestyle blocks. The sad thing is that the ORC is not listening to any feedback or considering any of the other options, in the end you will just go with your favoured maximum flow option which will kill our community.

Location: Manuherekia

756: ONLINE SURVEY

Anonymous User:895951606 **2021-06-15 11:47:35 +1200**

Q1: Minimum flow preference**Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why**

There seems to be little or no regard given to those who take water to make a living, from farming, the flows set by the ORC are not realistic for the future of farming, Horticulture , Grape growing etc,

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Before the Falls dam was built during the depression, the river used to run dry on the odd occasion , its only the prudent management by the irrigators that keeps a flow in the river.

Location: Manuherekia

757: ONLINE SURVEY

Anonymous User:895954685 **2021-06-15 11:50:02 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We prefer a flow rate of 1100 l/sec at the Campground. This balances the needs of many 'stakeholders' with acceptable in stream flows and community lane economic considerations.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The Falls Dam in its current state we understand does not have the capacity to support the higher flows the scenarios above during day periods and this would significantly effect primary industry. We believe the date supports public use of waterways with flows less than 1500/1200/1100.

Location: Central Otago District

758: ONLINE SURVEY

Anonymous User:895951693 2021-06-15 11:55:42 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because the above are not sustainable in my view. Possibly Scenario 1 might be.

The river is fed by Falls Dam which is an irrigation dam that was built and paid for by farmers.

Prior to this dam being in place I have been advised by older people who lived in the valley that the river regularly dried up.

Since the dam was constructed the river has flowed continuously most years. There may have been the odd year where it stopped flowing for a short period due to a drought - I can remember us having severe drought in late 60's or 70's whereby in Ida Valley our bore very nearly dried up and the Idaburn only had a couple of spots with water. It is the nature of where we live.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

From what I have read and followed with regards to this, it appears that the ORC are not listening to any factual arguments put forward by the public and scheme irrigators which I find very disturbing. Surely there needs to be a satisfactory solution which will enable the irrigation scheme and farms and private water right holders to continue to be viable along with the flow of the river being adequate, which I thought it was at the current flow.

Obviously the number of people drawing off this scheme needs to be limited as does the take-off of water - I would think it is probably at capacity now, if not over. There needs to be a cap but I do think that priority should be shown to the commercial farmers who historically were the ones that put the dam in place in the first instance (or their predecessors).

The flow options suggested would appear to be totally unrealistic and should the ORC continue along this course, I would suggest that should the higher minimum flows be put in place you will more than likely find that the dam will be dry before you know it.

Location: Central Otago District

759: ONLINE SURVEY

Anonymous User:895958711 2021-06-15 12:00:17 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100L per second at Campground, the economic impact of increasing the minimum flow above this are quite serious

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

760: ONLINE SURVEY

Anonymous User:895942799 2021-06-15 12:01:51 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We do not agree with any of these options because there will be disastrous consequences for the Central Otago area if adequate water supplies are not available for irrigation. There has been a lot of discussion and consultation around what minimum flows will be required for farming sustainability in the region and this seems to have been ignored in the submission documents.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We believe that the area around Omakau is a first rate area for sheep, beef and dairy farming, with no sodden paddocks where stock are sinking in the mud - as happens elsewhere.

The area is not suitable for horticulture or forestry. Trees would grow very slowly and there are far better areas in NZ suitable for forestry. For any kind of farming in the area, adequate water supplies must be available so farms can run enough stock units to be financially sustainable. If farming becomes uneconomical, then the area will revert back to its natural state, and that means overrun by rabbits, goats, deer, pigs and the area, as well as NZ would be losing valuable export income.

Fire risk would most certainly become an important issue. If paddocks are not grazed or worked or irrigated, and water becomes scarce or an issue, then weeds and uncontrolled growth would take over and fire will become a problem. We have seen near Pukaki how quickly fire can spread and the damage it causes. I think it is completely irresponsible to interfere with traditional, time honoured ways of irrigating which will increase fire risks.

If you restrict the irrigation then you are not just affecting the farmers this has a flow on effect to local businesses and school rolls etc.

Location: Manuherekia

761: ONLINE SURVEY

Anonymous User:877329726 2021-06-15 12:20:46 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

As an environmental engineer, I believe the health of the overall ecosystem surrounding the Manuherekia River depends on a minimum flow of 3,000 l/s. The health of insects and invertebrates rely on cool, fast flowing water for survival and reproduction, influencing the health of fish and other organisms within the catchment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I understand scenario 5 may impact irrigation needs, but for too long irrigation needs have superseded the needs of a healthy ecosystem and a balance needs to be reached.

Location: Queenstown Lakes District

762: ONLINE SURVEY

Anonymous User:884034393 **2021-06-15 12:20:56 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

fair to all parties - can't ignore historic importance of the irrigation

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

not enough focus on economic importance of irrigation

Location: Manuherekia

763: ONLINE SURVEY

Anonymous User:879491568 **2021-06-15 12:30:52 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river health, fishing and swimming. More people can enjoy the river if it is healthier with a good constant flow

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It would be nice to have a good constant flow on the river. During mid summer there's barely any flow which leads to a very unhealthy river system

Location: Manuherekia

764: ONLINE SURVEY

Anonymous User:895971971 **2021-06-15 12:32:39 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

As your data has stated the ecosystem would have the chance to be in the best state. For the future of our tamariki we have no choice but to strive for this minimum flow

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Really think about the children's future here. We have to change it up now. Enough of unsustainable farming practices. We need to move towards less meat and dairy consumption. The wealth of the area is in domestic tourism in practices such as biking and walking. The health of our rivers is part of what is desperately required.

Location: Manuherekia

765: ONLINE SURVEY

Anonymous User:895988666 **2021-06-15 13:07:32 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the above

Prefer 1100 l/a at the campground

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

766: ONLINE SURVEY

Anonymous User:895989493 **2021-06-15 13:11:15 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the above as they will all have a negative economical impact on the district

A flow of 1,100 l/s is what I would like to see

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Manuherikia irrigation Scheme

Location: Manuherekia

767: ONLINE SURVEY

Anonymous User:895999289 **2021-06-15 13:38:27 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of these scenarios is preferred. A preference would be 1,100 l/sec or less.

These options are detrimental to farming systems, and the communities they support. Farming is vital to these communities.

At any rate the photos provided, studies and scenarios they describe are isolated to that lower length of the river and do not adequately represent the river and communities as a whole.

The data presented is narrow and therefore naturally biased, making it impossible to make an "informed" decision based on this data only.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Yes. The communities that enjoy the river upstream are not described, such as but not limited to those communities on and around the river; St Bathans, Becks, Lauder, Omakau, Poolburn etc etc.

There appears to be inadequate consideration of the service industries, farming, and employers affected by minimum flows.

Location: Manuherekia

768: ONLINE SURVEY

Anonymous User:896000346 **2021-06-15 13:40:35 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

769: ONLINE SURVEY**Anonymous User:896003635****2021-06-15 13:43:28 +1200****Q1: Minimum flow preference**

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None 1100l/s at camp ground.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Removal of willow and poplar trees in selected areas as these absorb a considerable amount of ground water (were once noxious plants).

Location:

Manuherekia

770: ONLINE SURVEY**Anonymous User:624433489****2021-06-15 13:45:52 +1200****Q1: Minimum flow preference**

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

As an irrigator I believe the river comes first or we lose our natural capital but we need to be sensible and make sure businesses are able to function.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**Location:**

Manuherekia

771: ONLINE SURVEY**Anonymous User:895356579****2021-06-15 14:00:53 +1200****Q1: Minimum flow preference**

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

900 L/s. The reason being this is the maximum that the dam storage can handle during the dry part of the year. Most years this low flow only applies for a few days hence fish are still prolific in the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The only logical solution would be to add 6 meters to the dam wall, as this was the original design. This would need to be a community, irrigator and government funded project.

Location: Manuherekia

772: ONLINE SURVEY

Anonymous User:896036137 **2021-06-15 14:38:55 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Can we not fuck all our rivers

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Waitaki District

773: ONLINE SURVEY

Anonymous User:896045304 **2021-06-15 14:49:53 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Minimum flow of 1,100 l/s at Campdown

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This will support the current primary industry with economic stability for local communities who have invested many millions in farming superstructure

Location: New Zealand

774: ONLINE SURVEY

Anonymous User:895029331 **2021-06-15 14:53:46 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river and the creatures that live in it and depend on it ,I believe we as humans being part of the ecosystem ourselves, should share it not continue to pillage with insufficient regard for it and them.

More of the same with regard to human activity is NOT ok.

We shouldn't have to wonder if it's safe to swim because of dairy farm and other activity runoff either.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

With various agendas and vested interests there are obviously hugely diverging opinions and difficult to cater for all. With regard to the emotive statement that communities will be destroyed , in these times more than ever hard decisions have to be made. In the future how would we answer those questioning that we didn't do the right thing and the opportunity to improve the situation has passed. There is potential for job creation in different ways because of the health of the river with changes to practices in farming and in industry and business,

Location: Manuherekia

775: ONLINE SURVEY

Anonymous User:896046265 **2021-06-15 15:08:35 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It's fine leave it alone

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Leave it the way it is

Location: Manuherekia

776: ONLINE SURVEY

Anonymous User:347934095 **2021-06-15 15:26:22 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Compromise for all users and communities

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Long term consenting needs to relate to value of production and employment per water used. Horticulture much better value for limited amount.

Location: Manuherekia

777: ONLINE SURVEY

Anonymous User:896074181 2021-06-15 15:55:45 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Recreation and river health

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Drastic improvements needed

Location: Manuherekia

778: ONLINE SURVEY

Anonymous User:896081600 2021-06-15 16:23:21 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

this is middle road with enough flow to maintain river health and provide water for farming in Central Otago. I dont believe intensive diary farming has a place in this arid area.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

779: ONLINE SURVEY

Anonymous User:896086004 2021-06-15 16:29:52 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I prefer a flow rate of 1100 litres/second at Campground. This level will be sustainable long term and is a healthy and equitable compromise between the environmental and industrial needs of the region. I strongly believe that this is the best option for all concerned.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No further comments.

Location: Manuherekia

780: ONLINE SURVEY

Anonymous User:896090001 **2021-06-15 16:41:19 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the above scenarios.

We prefer a flow rate of 1100 litres/second at Campground

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We believe 1100 l/sec at the Campground is an environmental improvement upon status quo. Science and modelling suggests 1100 l/sec balances the risk to instream values and community economic well-being (given current infrastructure etc).

Anything above 1100 l/sec has the incrementally unacceptable economic risk to abstractors and therefore a negative flow-on effect for our communities (businesses, schools, sports and other clubs/groups)

Research suggests that Falls Dam, in its current form, and being located near the top of the catchment, does not have the capacity to support the environmental flow scenarios listed, during dry periods, without a severe impact on primary industry.

People do swim, fish, etc at flows lower than 1500/1200/1100 l/sec.

Location: Manuherekia

781: ONLINE SURVEY

Anonymous User:896097542 **2021-06-15 16:54:04 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

People can enjoy the health river system

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Fishing improve

Location: Manuherekia

782: ONLINE SURVEY

Anonymous User:896107881 2021-06-15 17:09:50 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

For the health of the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

783: ONLINE SURVEY

Anonymous User:896084727 2021-06-15 17:12:34 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe it should be between scenario 3 and 4 and therefore have chosen 3 as I do understand the effects on farmers and businesses which rely on farming. However I believe we need to protect our waterways and grew up in Alexandra swimming at 1st Galloway, the camp & under the shaky bridge in summer and feel we need to protect this asset for our future generations. I also believe when farming impacts have been discussed people are only talking about current farming practices and not ways to better improve these or look to other farming methods or options for example growing oats for oat milk rather than dairy cows for cows milk. Change & innovation can be a good thing and different options may even create more jobs and opportunities in our communities. Tourism will return and if we better manage this river this could easily create opportunities for guided fishing, tubing down the river, kayak tours etc. We need to think about what our children & grandchildren will thank us for, and be positive about change.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

See above

Location: Manuherekia

784: ONLINE SURVEY

Anonymous User:896104584 **2021-06-15 17:32:53 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Often when there are competing interests the fairest solution is to divide whatever right down the middle which in this case is 2,000 l/s and for everyone affected to make the necessary adjustments.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Going forward certain activities should be banned. The Manuherekia/Maniototo is what is called a "dry farming" area and therefore certain high irrigation activities such as dairying should be banned.

Location: Manuherekia

785: ONLINE SURVEY

Anonymous User:896008969 **2021-06-15 18:16:09 +1200**

Q1: Minimum flow preference

700 - 900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

* The preferred minimum flow is 700 l/s

* A minimum flow higher than 700 l/s will destroy the viability of my farming system which is regenerative farming, but I still need water to make this extremely environmentally system work, and be viable, and being a 5th generation farmer, I know 1200 l/s would put us under severe pressure financially

* Your consultation documents don't accurately represent science values for the whole river. Why was, and still continuously today, only the bottom 20% of the river represented, and described in the graphs meant to show the health of the whole river, you are presenting the worst part of the river as the state of the whole river, 80% of the river ticks all the boxes environmentally, This persistent false image of distress and degradation is presented again and again by O.R.C. despite them being asked to publicly clarify the state of the whole river so the general public not directly involved in river issues may better understand what they are being asked to comment or vote on.

O.R.C. are repeatedly and persistently portraying a false impression, O.R.C. argument for not clarifying the situation of the Manuherekia as a whole is that people should do their own homework before they decide.

* Is it OK for the O.R.C. to force the destruction of the viability of local farms, then the community, and its associated businesses, so a few, fisherman, many of whom do not reside in these devastated communities, who desire to catch mostly introduced species of fish which are already there in good numbers under the status quo, not to mention the damage these introduced fish are doing to native habitats.

* Irrigators have been working for years on solutions that are based on good science and are actively working towards achieving common values regarding the environmental stability and gain of the rivers throughout the whole catchment, The irrigators proposal/solution was lodged with the permit applications and is there for anyone to read on request. Meanwhile the complete lack of understanding of the natural flow of the Manuherikia, as opposed to what people would like a river in their backyard to be for them, combined with the unprofessional and biased practice displayed by O.R.C. in their decision that unfinished science commissioned by them should be accepted as a base line, the hydrological model and its outputs have not been peer reviewed or signed off by the hydrological experts . O.R.C. has been a tardy participant presenting a proposal with comprehensive faults in its handling of the decision for minimum flows

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

*We enjoy the catchment as it is, we believe the current flows in the Manuherikia are our best sustainable option, we would rather see the river stay at the flows we have today as they are closer to the rivers natural state, rather than see it further artificially turned into something it could never achieve without man made infrastructure and interference. O.R.C. proposals turn the Manuherikia into something completely different to its natural state, the falls dam and the current agreed minimum flow already at times maintain the river at unnaturally high levels particularly in drought, when no farmers are irrigating, as we must turn our water into the river to maintain a flow it could never have naturally achieved in these conditions. If there was no irrigation then there would be no dam to regulate and maintain favorable flows for the Manuherikia in summer or drought conditions. Forcing farmers to turn off their irrigation for a minimum of 53 days in the middle of summer to keep the Manuherikia artificially inflated to 3,000l/s, if passed, would mean the dam would run dry in days, then there would be no reserve or minimum flow of any kind causing the river to behave as it did pre Falls Dam being built which included times it ran dry in a drought, as has been historically recorded in times before the dam existed. In a scenario like this everyone loses and our environment is truly compromised.

*The Manuherikia gets down to extremely low flows once every 5 years on average, If managed correctly under the status quo both the number of days without irrigation water, when farmers turn everything into the Manuherikia from the Falls Dam in favor of river health. and the days when the river cannot access minimum flows are minimised. Supporting the current minimum flow is beneficial for the river because a stable environment can be sustained for a longer period of time in a drought situation because the water is not being flushed away quickly which is what would happen under higher minimum flows, During severe drought events there are times minimum flows cant be maintained, not because of anything farmers have done, but because there is not enough water at all anywhere in the system, and has nothing to do with a myth that farmers are taking water.

Today the river is more protected and stable by not raising the minimum flow against the capacity of the Falls Dam. increasing minimum flows while denying farmers the chance to raise the Falls Dam to create more capacity for everyone's benefit just robs the whole community of an amazing asset both financially and aesthetically. raising minimum flows as the Falls Dam capacity is today will not change this scenario in a drought at all in, fact raising the minimum flow will just speed up the rate at which you empty the dam in a drought and prolong the devastation of no water in the system

*Further the scenarios O.R.C. presented do not address any values based flow regimes in the tributaries of the Manuherikia river instead tributary flows have been appointed pro-rata in the modeling.

*Swimming in the Manuherikia has also been promoted as desirable by interest groups and the O.R.C. yet it is the most dangerous way for people to swim locally, rivers come 3rd The national statistics for drownings in 2017 show that of the 92 accidental drownings in New Zealand 15 people drowned in rivers that year while 16 drowned at a beach and 19, the highest amount, died in offshore events , since it is not possible for the latter 2 to occur in Central Otago this makes swimming in local rivers the most dangerous form of swimming possible in the region. Rivers are unpatrolled and unpredictable which is why if you are going to raise and change the water course you bring in even more tree branches and root systems to catch people out under the surface as well as a swifter current that can seem deceptive on the surface yet be unexpectedly strong carting the unsuspecting swiftly away from safety.

A number of local swimmers have publicly stated, (as did Mr Peter Dymock in letters to the editor O.D.T 5th June 2021), that they are very happy with the state of the river they live by in Alexandra, happy to swim in it on a very regular basis and have no problem with its current level, they prefer the river under low flows as it's far safer to swim under this scenario, especially with younger children. Higher flows of 1200 l/s are a lot more dangerous to swimmers and Kayakers than the current minimum flows.

*O.R.C has not addressed the legal right farmers have via their water rites to irrigation water from the Falls Dam irrigation scheme, instead they have proposed in their 3 tier model of priority that our legal rights come last, behind any other opinion from anyone anywhere in New Zealand, this includes concepts by non local activists promoting personal ideals such as the rivers aesthetic appeal to sit beside, there is no agreed upon aesthetic of what is the most beautiful state of the Manuhirikia this is quite impossible to universally quantify

*Irrigators have worked with independent science experts and stakeholders to develop a proposal that is the sweet spot between environment and community wellbeing, As C.O.D.C. Mayor Tim Cadogan said at the Omakau meeting usually if no one is getting everything they want then you have it about right, our proposal is this compromise that works best for all.

*In their promotions of minimum flow options O.R.C. have not made it explicit that serious harm will be done to farmers, rural communities and their related services and businesses if the minimum flow is seriously raised in any way, instead they talk of transfer of industry to things like guiding rich foreigners for trout fishing, this is not a serious viable option, covid aside stopping tourism, there is neither enough demand or capacity for 100 odd farmers plus their workers and all secondary business owners and their staff to en mass turn their hand to this endeavor overnight or indeed ever, instead they promote opportunities as having the same financial returns for the whole community as farming no matter how improbable and downplay the destruction and hardship

*Raising the minimum flow is a deliberate and calculated way of forcing farmers to de stock by stealth, and is supported by Minister Parker who wants Agriculture to lower green house gas emissions, and see farmers as the primary cause of GHG. by voting to increase minimum flows which in turn reduces the water available to farmers they force us to cut our herd and flock numbers to suit their agender while not acknowledging our contribution to GDP and the survival of our communities and families.

Location: Manuherekia

786: ONLINE SURVEY

Anonymous User:896136337 2021-06-15 18:18:18 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

everyone can live with this

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

what is rohe?

Location: Manuherekia

787: ONLINE SURVEY**Anonymous User:896160607 2021-06-15 19:25:00 +1200****Q1: Minimum flow preference**

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Gives a compromise

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

A balance needs to be found for all

Location: Central Otago District**788: ONLINE SURVEY****Anonymous User:896168839 2021-06-15 19:37:23 +1200****Q1: Minimum flow preference**

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why**Q3: Do you have any other feedback on water management in the Manuherekia Rohe?****Location:** Not specified**789: ONLINE SURVEY****Anonymous User:896172445 2021-06-15 19:55:22 +1200****Q1: Minimum flow preference**

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We need to balance the needs of the community in financial with the needs of the river .Trout are an introduced fish and eat native fish and to high a flow minimum will bankrupt the irrigation scheme and the falls dam .Without the falls dam the river flow will drop to almost zero

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:	Manuherekia
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790: ONLINE SURVEY

Anonymous User:896183823 **2021-06-15 20:25:26 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The science I've read supports around 1100l/sec as a reasonable compromise

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It is important to maintain a balance between the ecological and economic impacts. A great river is wonderful but not if there is no one in central because the economic base has been destroyed. Both sides need to compromise.

Location: Manuherekia

791: ONLINE SURVEY

Anonymous User:896188547 **2021-06-15 20:43:38 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I have a preference of 1100litres per second at campground. This is an increased flow than at present, helping to improve water flow but will not have a detrimental on the valley's economy affecting the people living there. A good balance of improving our environment and maintaining livelihoods.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please listen to the experts, farmers and businesses affected here... they have minority numbers vs the wider community. Yet there livelihoods and the greater community is greatly affected by a flow that is not able to sustain business.

Location: Manuherekia

792: ONLINE SURVEY

Anonymous User:884068725 **2021-06-15 20:52:32 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It enhances water flows over the status quo supporting environmental values while still allowing for irrigation use within parameters that all but heavy irrigation users should be able to adjust to.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Central Otago District

793: ONLINE SURVEY

Anonymous User:896114891 **2021-06-15 21:27:00 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Status Quo

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Iurland has always been farmed. Farmers today have invested on new technologies to optimize water, mm are used more efficiently. Also insuring with dam that all rivers won't dry during hot central' summers. Dry rivers will leave us without healthy growing communities.

Location: Manuherekia

794: ONLINE SURVEY

Anonymous User:896209323 **2021-06-15 21:42:37 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

ecosystem health & swimming

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

795: ONLINE SURVEY**Anonymous User:896207476****2021-06-15 21:47:50 +1200****Q1: Minimum flow preference**

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

we prefer a flow rate of 1100 litres/second at campground

anything above 1100l/sec has incrementally unacceptable economic risk to abtactors and therefore a negative flow on effect for our communities (businesses,schools,sports and other clubs/groups)

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**Location:**

Manuherekia

796: ONLINE SURVEY**Anonymous User:387743022****2021-06-15 21:56:08 +1200****Q1: Minimum flow preference**

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None see letter attached

I have lived beside the Manuherikia River for the last seventy-two years. During this time, I have seen many floods and dry spells effect the river. I have even seen it freeze right across. The river is incredibly special to all of us who live in this valley, and we wish to see the river protected from degradation from algae and bacteria caused by the flows and fertilizer run off in its catchments. This is not a new phenomenon, as the land development, loans and stock incentives schemes of the 1970s to 1980s caused excessive build ups of nutrients in the river to the stage that we could not pump stock water without screening our intakes. The land development schemes while they were great for the country did cause the river to flood quicker and more violently down the valley at times of heavy rain.

In 1987 we experienced the 100-year flood which started the river damaging its banks and scouring its bed lower thus under running its protective trees. In 1995 we had the biggest one-day flood in European History when the river rose to 610 cumecs and was another 100-year flood! This did more damage to its banks. It did clean the river of all the nutrient fed slime and algae from its bed. This has never been a problem again to this day 26 years later.

I think the management of the flow in the river near Omakau has been extremely good in recent years and the river has never been dried right out in drought, like it was back in the 70s-80s due to the Ministry of Works having no incentive to monitor the flow like it is today.

While we would all like to see a better flow in the river at the Alexandra end, this would only come with extensive loss of income and land value to the families who farm this valley and the people who support them to achieve this. This also includes the many orchards and market garden type operations at the Alexandra end. If we must balance all these factors up, without good intervention, to supply more water for the river by supporting the building of either a bigger Dam at Falls Dam or more on farm storage filled by the excessive floods, we now see due to global warming. The cost of this would be no more than they must find to compensate the people of the valley with the four higher flows required to turn the river to a more natural flow at Alexandra. These flows 2-3,4or5 will turn the valley back to gold mining days of severe lack of water everywhere and rabbits taking a big chunk out of livelihoods. Land values could fall by 50% if nothing is done to compensate for the lack of water.

900per sec. may not be ideal but it is still a fairly good flow of water. I feel you must balance up the fact that irrigation keeps the biggest part of the river in reasonable condition and there is always a downside to any irrigation scheme. When you consider that this has been the norm for the last 100 years it seems a pity to have to change anything at all as it would only shift the problem elsewhere. Perhaps if we were to accept the 1200 litres per sec. flow this is very little but perhaps it would be more effective if the extra300 litres per sec were held back at the Falls Dam and let go in short flushes to clean the river below Galloway fortnightly this may make the river more acceptable to people swimming in it.

_____ 10/11/12/13

There is no easy fix for this on-going problem of low flows, but we all need to stick together and work towards being more efficient with our water takes and gradually improving things at our downgraded riverbed between Galloway and Alexandra.

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

see letter attached

Location: Manuherikia

797: ONLINE SURVEY**Anonymous User:896207476 2021-06-15 22:01:47 +1200****Q1: Minimum flow preference**

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Anything above 1100L/SEC has economic risk as I feel the Falls dam in current form, does not have the capacity to support the environment flow scenarios.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**Location:** Manuherekia**798: ONLINE SURVEY****Anonymous User:896218369 2021-06-15 22:35:30 +1200****Q1: Minimum flow preference**

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Don't like any of above ,but think the river flow below Alexandra camping ground should be 1100 lps .The irrigation companies have put a lot of effort to control the river and in times of low water inflow to the falls dam put irrigation restrictions in place to keep a flow in the river , however small to try and keep everyone happy, after all if there was no dam there would be no control of water, and the river could dry up at certain times. The irrigation companies also have had to pay for some improvements to help river flow,for other people to get use out of at times. Some of the suggested new flows may not be achieved all year round anyway, and it doesn't say where it is going to be measured or sited.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**Location:** Manuherekia**799: ONLINE SURVEY****Anonymous User:887304671 2021-06-15 23:22:32 +1200****Q1: Minimum flow preference**

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Status quo is preferred.

It is shown in the report that
farming with irrigation is a struggle even at status quo.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We are making big changes to our farming system to be more friendly to the environment.
Less nitrogen used, no acid fertilisers used and regenerative farming systems i.e. no cultivation, application of lime, minerals etc.
To improve structure/biology.
Tree planting, fencing off waterways and wet areas. All this will improve water quality and biodiversity.
Our nitrogen losses are less than 10 (overseer)

Location: Manuherekia

800: ONLINE SURVEY

Anonymous User:896238807 2021-06-15 23:30:02 +1200

Q1: Minimum flow preference

900 - 1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My preference is to maintain status quo or the limit of 1,100 l/s. Unfortunately, that is not an option available. The level of water at the particular location is not a significant concern for the wider community of the area. The overall river is in good health with the exception of the single stretch of the river, as appears acknowledged by ORC.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The current water management aligns with my expectations as a resident and user of the area.

Location: Central Otago District

801: ONLINE SURVEY

Anonymous User:896243325 2021-06-15 23:52:02 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I understand this will put pressure on the surrounding farm land but I think we need to make the health of our river a priority.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

802: ONLINE SURVEY

Anonymous User:896290382 **2021-06-16 01:34:22 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

River health is the utmost of importance.

Although irrigation is important a balance for all river users is the only solution.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

803: ONLINE SURVEY

Anonymous User:896402724 **2021-06-16 06:56:41 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Bring back river to original condition and healthy eco system and recreational use

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Important for people and ecosystem

Location: Central Otago District

804: ONLINE SURVEY

Anonymous User:896430269 **2021-06-16 08:16:03 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Balanced outcome

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Need river margin from dairy farms

Location: Manuherekia

805: ONLINE SURVEY

Anonymous User:896433290 2021-06-16 08:16:30 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe waterways belong to the New Zealand people. Their health and viability should not be compromised for the benefit of a small number of agricultural businesses.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

806: ONLINE SURVEY

Anonymous User:896439894 2021-06-16 08:38:51 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I am a trout fisherman and have enjoyed swimming in this river (when flows aren't too low) over many years. The current state the lower river gets to over the summer months is a disgrace.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I also disagree with the way the river is modified for water diversion. around Booth Rd

Location: Queenstown Lakes District

807: ONLINE SURVEY

Anonymous User:896448270 2021-06-16 09:00:17 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Preference is for 1100 litres per second at the campground for the health of the river and also viability for the irrigators.

The health of the river is paramount for us and our beliefs.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No, we have not had any firsthand experience to date as currently reside in Nelson but will be moving to Alexandra next year and will be gaining more experience in the future. It affects us and everyone in our community so is vitally important we get this right for the future.

Location: Manuherekia

808: ONLINE SURVEY

Anonymous User:896452747 2021-06-16 09:07:32 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 l per sec at Campground is NPSFW 2020 compliant. Sufficient for irrigation.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

809: ONLINE SURVEY

Anonymous User:896456692 2021-06-16 09:22:35 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Would prefer a flow rate of 1100/ltrs/sec at Campground

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The 5 scenarios listed by ORC would have a huge negative impact on primary industry, and the flow on effect from this will impact on the community and local economy. Falls dam currently would not have the

capacity to support the flow scenarios listed, especially during dry periods without again negatively impacting on businesses that rely on Manuherekia.

Location: Manuherekia

810: ONLINE SURVEY

Anonymous User:896456108 **2021-06-16 09:36:50 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 l/s or less is the only workable solution for sustainable food production.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Only the lower 20% of the river is marginally affected. With higher flows, the losses far exceed the gains and these flows can not be maintained. The result, valuable irrigation water flows out to sea, taking the local economy with it.

Location: Manuherekia

811: ONLINE SURVEY

Anonymous User:896451480 **2021-06-16 09:39:56 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Too much flow for it to be sustainable over the summer months. The river has survived very well under the current scenario. I have run the irrigation scheme for the last 20 years, quite successfully under the present regime. My preference is for 1100 litres a second at the campground

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

My suggestion with regard to water conservation in the area, is that the ORC look very closely at removing the willow trees from Ophir down to the confluence of Chatto Creek as the water take up for willows has been well documented. Brown and rainbow trout should be eliminated from the river because they are introduced species and are predating on the native species. If NZ is to be predator free by 2050 then those species will have to go. If irrigation is not maintained, then the whole valley will die, incl Alexandra

Location: Manuherekia

812: ONLINE SURVEY

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't support any of the scenarios as they don't make sense as presented in the public brochure. As explained at the recent public Omakau meeting, they don't match or even refer to the previously agreed 1100l/s resource consent values, the problems noted in the brochure relate to the lower third of the river but are presented as a total river problem. The information is misleading and should be reissued for comment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I don't like seeing pollution in the river and support any work that can help improve its quality, and if that means looking at flow rates as well then I understand that needs to be done. I am aware that there is work going on in the Thomson Creek catchment to address the known quality issues. I have concerns that the flow issues cannot be achieved as presented in the brochure. I understand from others that the Falls Dam is nearing its "due by date" and is too low to hold the volume of water needed to maintain the higher flows noted in the brochure. I have seen the photos of the campground area with the different flows. These are also misleading - people expect to see more water so they can swim but if that were the case they would be washed downstream to the Roxburgh Dam. The photos are also misleading if taken in isolation. People don't understand the nature of the river and the hydrology so their expectations are unrealistic. They don't understand or want to believe farmers in the area care about the environment - if they didn't they would not have good produce to sell at the market and would be out of business. I have huge concerns about the social and economic effects of calling farmers irrigators (as a user of the water). They don't irrigate just to irrigate. They produce food for the wider community and without water they cannot do this. I know the government has set a strange hierarchy which puts water before people - we need to get creative to protect people so they can continue caring for the water they need and that in turn protects the environment.

Location: Manuherekia

813: ONLINE SURVEY**Q1: Minimum flow preference**

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Would prefer 1100 lps at the Camping Ground

Even at that rate the irrigators wouldn't be happy nor the fishermen

As I said in my submission anything greater than that then you may as well shut down the economic power house of the Valley and all the down stream businesses in Alexandra

The repercussions will be horrendous

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

My belief is that some farmers may have a too big of a water consent for the size of their property
Has the council ever looked at that ?

Location: Holiday / Family / History

814: ONLINE SURVEY

Anonymous User:896483425 **2021-06-16 10:23:38 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Reducing farm water use will reduce pollution runoff. Improved recreation opportunities. Long term sustainability of water in the valley.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The availability of cheap water for farming has encouraged inappropriate farming practices. The intensification of farming systems has caused increasing run-off, and long-term is likely to pollute ground water.

Location: Manuherekia

815: ONLINE SURVEY

Anonymous User:896124534 **2021-06-16 10:35:15 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Prefer status quo; 900 LPS.

Reasons;

(A) Water tests show if there are water quality problems. This problem is then traced to its source, and remedial action is taken. Diluting the problem with increased water flow is not the solution.

(B) High water volumes increase the risk of drowning. This is why you see practical families camping and playing around the lower flows.

(C) Neither fish or knowing fishermen spend time where there is a lot of human activity.

(D) Oral history records that, pre irrigation and pre falls dam, in the drier parts of the year river flows at Alexandra became almost non existent. Also, Hocken library, past newspaper clips record, 'lack of current' - 'extremely low flows'.

(E) Irrigation reliability is not presented correctly in the 'status quo,' and that continues through to scenario 5.

Restrictions called for on all users 'average every 2nd year'. Those restrictions range from 25 to 75 % of 'USE', and last about 2 months.

(F) The well-being of the population of the Manuherekia catchment, and many from the wider community, are reliant on the fortunes produced from water of the Manuherekia.

To gloss over the full impacts to this community that will result from the various scenarios is reprehensible.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

(1) The Manuherekia portrayed in this survey is not as the vast majority of it is.

(2) The information presented is muddled, much of which has not been peer reviewed.

(3) A NATURALISED water flow at Campground cannot be 3900 LPS (+/-800)

It has be around the 900 LPS. The word naturalised is used incorrectly in many reports and 7 day MALF tables.

(4) Crack willow, a weed along the banks of the Manuherekia has a large water consumption. What is the program for their removal?

(5) At under 10 million cubic metres of water, Falls dam storage capacity is small. First dam drawdown on average begins in December. As minimum flow increases at Campground so do does the time and volume of storage drawdown. This drawdown is tied to each scenario.

At scenario 5 all available storage is used to achieve that flow at Campground.

How will these extra flows be physically got out of the dam?

Who does the storage belong to?

Who owns the dam?

Who pays all costs for the dam?

(5) In context of 'food from the river'.

Our family produce 500 thousand plates of food and 100 thousand garments every year. We are just one of many.

(6) The word priority is used as direction for the management of the Manuherekia.

However to apply the word 'priority' literally in this given context is erroneous and fatal.

All things that surround the Manuherekia river are inextricably connected.

They are part of the whole circle of this river.

Location: Manuherekia

816: ONLINE SURVEY

Anonymous User:892043397 2021-06-16 10:48:36 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Balance of ecology, recreation and animal needs.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Concern re dairy farming in area and impact on environment.

Why isn't water from The Poolburn & Manorburn dams flowing into the M River?

Location: Manuherekia

817: ONLINE SURVEY

Anonymous User:896509307 2021-06-16 11:27:29 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Flows of above 2500 best protect the environment and ecology of the river, and will restore the river to health.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There will undoubtedly be pressure on river and tributary water abstraction to maintain flows of this magnitude. I don't accept that a big dam (or raising Falls Dam) is the best cure to substantial over allocation of water resources from the river. On farm storage is a more palatable option and consideration of land use change. Water quality needs to be part of the discussion too.

Location: Dunedin District

818: ONLINE SURVEY

Anonymous User:885733319 2021-06-16 12:13:34 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It might be a level we can all live with. Anywhichway, a new Falls Dam is a 'must have' into which the whole of the Manuherekia Community must buy in. However a new Falls Dam might shape up could give an option to shoot for a higher minimum flow, but no question as far as I am concerned, this is the key to the way forward. Just think about it, the Ida Valley irrigators on the Upper Manorburn/Poolburn scheme have enjoyed relative certainty for decades, they get a decision at the START of every season as to the level of supply - the storage available allows that to happen.

No such certainty is currently available to current mainstream Manuherekia irrigators. Why? No storage; the current Falls dam is nothing better than a duckpond not to mention the fact that it is way past its use by date as well. At this point mainstream Manuherekia is really only a run of the river scheme. A new Falls Dam providing targeted manageable capacity, and its costs, is needed to back up the scenarios.

I assume minimum flows proposed are at Alexandra Campground recorder

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

And I assume the Omakau/Ophir domestic water supply, in the foreseeable future at least, still needs to come from the river

And it needs to be noted that Clutha-Mata-au river levels as manipulated by the Roxburgh Dam energy provider can back up the Manuherekia at least as far as the Alexandra Holiday Camp making for slack water and unimpressive still-water proliferation of river algae not to mention the ongoing build ups of Manuherekia river gravels and silts up to at least the first Galloway bridge

Location: Manuherekia

819: ONLINE SURVEY

Anonymous User:896539397 2021-06-16 12:31:07 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

none of above.1100l/s should be considered.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

community and economic values important

Location: Manuherekia

820: ONLINE SURVEY

Anonymous User:896539397 2021-06-16 12:36:12 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None.NOT sustainable in dry period

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

1100 l/s will make things difficult but manageable for current water users

Location: Manuherekia

821: ONLINE SURVEY

Anonymous User:896559825 2021-06-16 13:19:34 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My preference is for 1100 litres/sec or less at the Campground, anything over this could have severe repercussions on industry in the area, particularly viticulture and other crop farming

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The current system seems to be working very well, we acknowledge that there are times when water is not available, particularly during times of severe drought but otherwise the system has worked well and to my mind does not need tinkering with.

Location: New Zealand

822: ONLINE SURVEY

Anonymous User:896572253 2021-06-16 13:35:16 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best for aquatic life

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

no

Location: Central Otago District

823: ONLINE SURVEY

Anonymous User:896605347 2021-06-16 14:31:07 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I'm a small lifestyle block owner and currently suits the way it's done.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Manuherekia

824: ONLINE SURVEY

Anonymous User:881466362

2021-06-16 16:17:03 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The need to improve the water quality of the river and the Central Govt's requirements are noted. It is also noted that food production is critical and is second to the river. The various studies dismiss horticulture economics as too hard other than the Abacus report commenting that increased on farm storage would resolve the problem of reduced irrigation takes. Being the "cherry grower" identified I stated that if the grower needs to either remove trees or purchase additional land for increased storage the cost for the storage most likely makes the growing operation uneconomic but models have not been completed. Cherries have shorter season with harvest completed at the end Jan/early Feb and reduced demand (~0.5 x ET) until mid late March. Apples harvest continues to the end of April with full irrigation demand ceasing ~ early April. Significantly more storage will be required for this crop. But again no modelling (economic or storage) have been completed.

Central Otago has unique growing conditions (climate, topography, altitude and soils) which are not replicated in other NZ growing regions. These conditions have seen the development in Central Otago as the key stonefruit/Summerfruit production region in NZ. Central Otago dominates cherry and apricot production and late season nectarine/peach production. Apples from Central Otago are known to have improved colour and storage condition than those grown in other regions in NZ and are sort after for these regions.

Any reduction in irrigation supply reliability will see a reduction in production from those properties supplied via the Manuherekia Catchment. Any reduction will negatively affect the economics of the individual orchards.

Other than for the lower part (alex end) of the catchment there appears to be no problem with water quality (comment at meeting). If the willows are removed from the river in the lower catchment (assuming 400ha of willow) my calculation is that an additional 172l/sec in November, 238l/sec in December, and 243l/sec in January will be returned to the river. This is up to 20% of the 1200l/sec Scenario 1 flow and brings the 1200l/sec flow close to the Scenario 2 flow of 1500l/sec.

Crack willow is an unwanted organism under the Biosecurity Act 1993 and therefore should be removed from the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Further work must be completed to fully ascertain the impact on the Horticulture Industry and the impact of the willow population on the river flow at Alexandra

Introduction

1. The industry body representing fruit growers is Horticulture NZ. They were not informed of the consultation process and therefore have come in late to submit on behalf of affected growers. Growers have been disadvantaged because Hort NZ have been disadvantaged in working with their experts.
2. I have completed the online survey but wish to further submit regarding the proposed Manuharekia River water management scenarios to provide more detail to my survey comments and also in light of HortNZ's position. As outlined below I have considerable knowledge and have been in Central Otago fruit industry all my life (50+ years) but submit as a "GP" rather than as a specialist.
3. I work as an Independent Horticultural Consultant. I am the "prominent local cherry grower" referred to in the Abacus Bio economic report.
4. I hold a Diploma in Horticulture from Lincoln College granted in 1971.
5. I am a member of the International Society of Horticultural Science (ISHS) and the NZ Institute of Agricultural and Horticultural Science (NZIAHS) and was awarded the NZIAHS Agmardt Technology Transfer Award in 2011 for my technology transfer work in the Summerfruit industry.
6. I have attended ISHS Cherry Symposiums in USA (2001), Turkey (2005) Chile (2009), Spain (2013) and Japan (2017) and have attended ISHS Apricot Symposiums in Italy (2007) and Armenia (2011). I have attended International Fruit Tree Association (IFTA) workshops in USA, Canada, and Australia. The symposiums covered research on all facets of the crop identified.
7. I have previously been an elected board member of Summerfruit New Zealand representing all Summerfruit growers, and was chair of the research committee for ~18 years, relinquishing the position in June 2018. The industry's research programme covers pests, diseases, crop nutrition, crop physiology and growing systems.
8. I am a [REDACTED] Cherries Ltd which is located on Rock View Road in Springvale and is supplied with irrigation water by the Manuharekia Irrigation Company. The [REDACTED] growing operation includes a variety of stone and summer fruit:
 - (a) 34 hectares of cherries;
 - (b) 7 hectares of organic apples;

- (c) 3.5 hectares of apricots;
- (d) 5 hectares of nectarines; and
- (e) 5 hectares of peaches.

There is a further 5 hectares of undeveloped land

9. My wife and I have a 2ha planting of cherries at [REDACTED]. The planting has incorporated recent developments in growing systems, dripline irrigation, fertigation and rain covers. Our development costs for the 2ha planted are \$250,000 per ha (excluding land value). The Manuharekia Irrigation Co supplies irrigation water for the property.
10. None of the information supplied by the ORC includes an Economic analysis of the consequence of the proposed scenarios on horticultural operations affected by the proposed scenarios. In fact some explicitly exclude any analysis of the horticultural industry.
11. Abacus provides an analysis of the capital cost of extra water storage requirements but notes *"that where insufficient suitable space exists to build additional storage the option will be less palatable due to the high value of horticultural land in crop"*.

Fruit Production Market Requirements

12. Fruit production is managed to achieve quality standards expected by the targetted markets with the bulk of Central Otago's production aimed at various export markets. Apples and Cherry plantings are driven by export market demand. The crop must meet the importing countries Class 1 grade standards and those of the particular buyer. These export markets are highly competitive and there is no room for fruit that does not meet the required standards.
13. Any fruit that does not meet the importing countries standards will not have an export market opportunity and will remain in NZ and be sold fresh on the NZ market, processed, or dumped. The returns from these alternative option for Apples and Cherries are not economically viable because of oversupply to the fresh market and the need to compete with imported processed product with NZ processed products.
14. Peaches, nectarines, and to a large extent apricots do not have an export market opportunity and production has ramped down to a balance between supply and demand that generates a reasonable return to the producer. As for export production there is no room for inferior product on the NZ market. The NZ fresh market severely discounts out of grade product.
15. The area provides unique growing conditions for the production of stonefruit, known as Summerfruit (apricots, cherries, peaches, nectarines, plums) and Pip fruit (apples and pears)

16. Rainfall is low therefore Summerfruit crops especially cherries, are less exposed to rain damage which results in cosmetic marking, cracking and fruit softening. For both Summerfruit and Pipfruit the low rainfall reduces disease pressure such as Botrytis, Brown Rot, Black Spot.
17. The hot days and cold nights coming up to harvest provide a greater diurnal variation than other growing areas in NZ. This leads to firmer fruit.
18. Spring frost are not extreme therefore normal frost protection methods such as wind machines and overhead water are able to protect the crops.
19. The soils are free draining which allows for good management of the soil moisture levels. When trees are hardened off prior to winter it is possible to restrict the trees access to water.
20. Apples from the region are recognised as being denser and having better storage capacity than those grown in the other NZ production areas.
21. The cold winter and shorter growing season reduces the number of life cycles of pests and consequently the number of pesticides required. The growing conditions make the area highly suitable for certified organic production.
22. Over 90% of the cherries exported from NZ are grown in the region as a result of the favourable growing conditions. Cherries from the region are recognised as some the best in the world.
23. Over 90% of the apricots grown in NZ are grown in the region. All the export apricots are produced in the region. The growing conditions are ideal for apricots.
24. The region produces the major share of the late season peaches and nectarines for the NZ market as a result of the local growing conditions.

Consequence of Water Deprivation of Stone fruit (Summerfruit) and Pip Fruit crops

25. There is no relationship between livestock support with water to supporting fruit trees with water. With livestock, animals are able to be transported to other sites or nutrients are able to be transported to the animals and subsequently the value of the animal may be maintained or enhanced.
26. Trees are unable to be transported. Without water, nutrients are unable to be taken up by the tree in quantities required and depending on the extent of water deprivation the crop may be lost, the return crop may be lost and in the worst case the tree reduces its capacity to the point where it is uneconomic to be maintained and is unrecoverable.

27. There is no future for a grower to attempt to maintain a tree to keep it alive. The days of being able to sustain continuing losses in fruit production are well gone (if they ever existed). To produce quality fruit at yields that generate a sustainable surplus, there is no ability to reduce inputs into the orchard management systems. Any reduction will lead to inferior fruit and reduced yields.

28. The key impacts from water deprivation are¹:

- a. Fruit quality is compromised by a reduction in fruit size and therefore yield. Fruit size is a key quality requisite for all markets.
- b. Fruit firmness depending on the extent of water deprivation will be compromised particularly with cherries. Fruit firmness is a key quality indicator for all markets.
- c. Cherry stems will be more prone to drying out with water deprivation. Strong bright green stems are seen by buyers as an indicator as to the freshness and quality of the cherry. Any issue of dry stems will lead to the fruit being downgraded and unsuitable for export and the NZ market.
- d. Harvested fruit (apples) having little starch will not store well and will soften earlier than expected. The uptake of Calcium in apples will be reduced with water deprivation and consequently the fruit will develop storage disorders such as "Bitter Pit"
- e. A reduction in the initiation and development of floral buds for the following year's crop and a subsequent reduced or nil yield.
- f. A continuing deprivation of water will result in the tree producing no extension growth and reduced leaf canopy and therefore reduced photosynthetic activity in the tree. As extension growth is required for new replacement fruiting wood in the tree to maintain fruit quality an ongoing reduction in quality and yield will occur.
- g. Moving to extreme conditions the root zone decreases and therefore tree activity. To ramp the tree up from this point requires at least two seasons without compromised growing conditions.

¹ Sources

Drought Assistance for Tree Fruit Production North Carolina State Extension
Drought Water Management: An Australian perspective I Goodwin and MG O'Connell
Dept. of Economic Development, Jobs, Transport and Resources, Tatura, Australia
The Effect of Water Stress on Physiological Processes of Fruit Crops AN Lasko, Dept. of
Horticultural Science, NYS Agricultural Experiment Station, Geneva, New York, USA
Yield and Quality Responses of Deciduous Fruit Trees to Drought Strategies for its Mitigation
G Lopez, MH Behboudian, J Girona, J Marsal, Institut de Reserca i Tecnologia
Agroalimentaries (IRTA), Spain
Plant Responses to Drought Stress: From Morphological to Molecular Features edited by
Ricardo Aroca

20. The degree and timing of the tree water deprivation influences the impact on the tree, the immediate crop, and future crops. Amongst other factors the impact is further compounded by the crop type and variety, the growing system, the rootstock, and tree age.
21. Stonefruit has a double sigmoid growth curve (fig 1) whereas pipfruit has a single sigmoid growth curve. In both cases the biggest impact on fruit size is from water deprivation during the period of the greatest increase in fruit size.
22. Fruit size develops rapidly at Kc initial during the cell division stage and then rapid development occurs again at pre harvest (Kc mid – stage 3) where the greatest gains are made in fruit size.

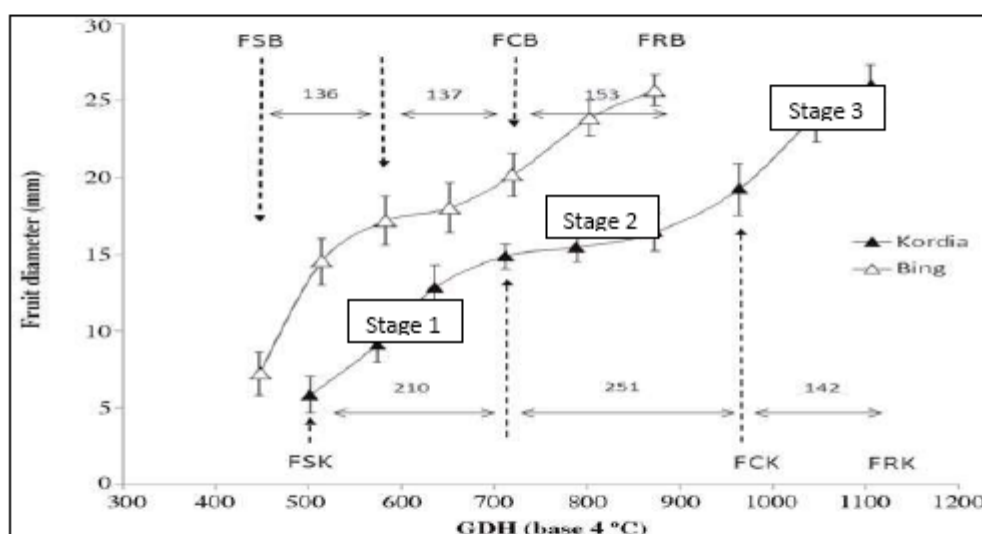


Figure 1 Typical fruit growth curve for cherries (Chilean Journal of Agricultural Science Vol 74)

20. Considering cherries, one quarter of the fruit's accumulated weight is gained in the week prior to harvest in stage 3 of the growth curve². Water deprivation at this stage would result in a fruit size reduction of 25% as well as a reduction in total yield. Returns on other fruit crops are also driven by fruit size.
21. Cherries have a significant price gain per fruit size increment. In the past season the returns per kg by size are shown in table 1

Fruit size (mm)	Return/kg (packhouse door)
-----------------	----------------------------

² Long Oregon State University, - Kupferman Washington State University

24	\$11.00
26	\$11.30
28	\$16.96
30	\$22.55
32	\$26.45
34	\$32.00

Table 1 Average return per kg by fruit size (2017/18 season)

20. A reduction in one fruit size is ~\$4.00/kg is a significant loss to the producer. But in fact the loss is greater as the fruit would be soft and therefore would not be saleable in the export market. If a market slot were available, the NZ market return would be \$7.00 to \$10.00 per kg.

Irrigation requirements

21. The Aqualinc report, "Guidelines for Reasonable Irrigation Water Requirements in the Otago Region" Project number C15000 dated 2017/07/24 and prepared for the ORC covers the water requirements for fruit crops in Otago. Some of the assumptions used by Aqualinc have been challenged and varied for consents granted.
22. When intensive growing systems such as UFO (Upright Fruiting Offshoots) have been considered higher water requirements have been consented. The UFO growing system has been designed to maximise light interception within the fruiting canopy and has tree densities of 2 to 3 times that of conventional growing systems (666 trees/ha³ v 2000 trees/ha⁴). However for this submission the Aqualinc values will be used.
23. Crop coefficients (Kc) are used to determine the tree and crop water requirements. These are matched against the prevailing Evapo transpiration (ET) rate to generate the tree plus crop water requirement. The Aqualinc report presents Kc requirements for cherries and apricots (table 2)

Crop	Kc initial	Kc mid	Kc end
Cherries	0.8	1.12	0.85
Apricots	0.8	1.15	0.85

Table 2 Crop Kc parameters for cherries and apricots Source Aqualinc Report C15000 2017/07/24

20. The Kc initial covers the early season development (stage 1 of the fruit growth curve - Fig 1), Kc mid is the mid-season water demand (Stage 3 of the fruit growth curve - Fig 1). Kc end accounts for the tree demand post-harvest.

³ Planting distance 5 metres x 3 metres

⁴ Planting distance 2 metres x 2.5 metres

21. Kc end supplies sufficient water to keep the tree "ticking over" after the extension growth has terminated. This appears to be close to the "keep the tree alive" scenario but at the point where there are no negative impacts on tree health or the following year's crop. If the Et during the period averaged 5.5mm/day the water requirement per ha would be 46.75 m³/ha/day⁵ (46,750 litres/ha/day)
22. Any reduction of water at the Kc mid stage (stage 3) would result in crop losses, diminished fruit quality and a reduction in floral buds for the following season. This is the critical stage for increasing fruit size.
23. Cited literature identifies a number of drought mitigation strategies that may be adopted to lessen the impact of tree water deprivation in drought situations. Some of these have been adopted locally as normal management practices and others may have a part to play. A number of those identified reduce the tree's demand for water but compromises the current and at times the future crop. Research would be required to determine if any of the strategies had a part to play in our growing conditions.

River Flow Scenarios

24. Arguably the fruit industry (and farming) fits into the second priority of the National Policy Statement for Freshwater Management as a provider of food meeting the requirement of the "health needs of people". Therefore consideration is required to maintain the sustainability of the industries.
25. The Manuhierikia Irrigation Society presently maintains a minimum flow of 900l/sec at the Alexandra camp. Increasing this to 1200l/sec immediately impacts on the ability to manage the crop to its required quality (size, firmness, Ca levels etc as per previous comments) as the irrigation supply becomes compromised.
26. Increasing "on-farm" storage has been suggested as the solution. This is accepted where there is sufficient land available to provide for this however if the requirement is to purchase additional land or remove productive land then this becomes less of an option. Some modelling is required on how much storage is required and the cost to put this in place considering the reduction in productive area.
27. As rough order of water requirement, if the irrigation supply were to cease on 31 December having been stepped down previously, the water storage requirement per ha to crop harvest would be 55m³/day. Through to the end of March these totals 5,500m³/ha.
28. On the premise of 5,500m³/ha, a 20ha (small to mid-size) block of apples will require 110,000m³ storage. At a depth of 3 metres, an area of 3.6ha of land is required or 18% of the land area that is being irrigated. When allowing for berms the area will in fact be greater and most likely the figure is 4ha for the dam footprint

⁵ 5.5mm x 85% x 10,000m²

being the equivalent of 20% of the planted area. Abacus estimate a cost of \$10/m³ to build additional storage. The cost for a 20ha apple block for 110.000m³ is therefore \$1.1M. Economically this is not sustainable.

29. As previously proposed by the Irrigators the best option is increased storage at Falls Dam. This should be a community project with irrigators, CODC, ORC, and the Crown in partnership to meet the needs of all water users. It seems such a simple solution.

Infestation of Willows on the River margins

30. There are estimates that willows occupy from 360ha to 500ha along the margins of the lower Manuhereki River. Willows are known as high consumer of water.
31. I have experience of an infestation of willows in the Conroys Creek gorge ~45 years ago where the willows were culled to limit the impact on the irrigation supply of 1.25 heads (1head=28l/sec). Removing (killing) the willows doubled the supply of water getting to the irrigators in the summer.
32. A University of Canterbury thesis study⁶ includes the below table which provides water uptake by Crack Willows data.

Table 5.9 Comparison of transpiration of crack willows, water equivalent of net radiation and PET

Month	Number of days	Monthly transpiration mm	Water equivalent of the net radiation mm	Ratio of transpiration and water equivalent of the net radiation	PET mm	Ratio of PET and water equivalent of the net radiation
Feb-08	29	236	192	1.2	114	0.6
Mar-08	31	178	152	1.2	83	0.5
Apr-08	27	83	106	0.8	48	0.5
Sep-08	20	49	114	0.4	48	0.4
Oct-08	31	154	175	0.9	109	0.6
Nov-08	30	192	187	1.0	130	0.7
Dec-08	31	272	232	1.2	168	0.7
Jan-09	31	315	258	1.2	186	0.7
Total	230	1477	1416	1.0	886	0.6

33. NIWA website has evapotranspiration data for Alexandra copied below.

⁶ The role of Crack Willow in the wetland water balance etc. Amaravathi (University of Canterbury)

Table 24. Penman calculated maximum, mean, and minimum monthly potential evapotranspiration (mm), and mean annual total potential evapotranspiration, for selected Otago locations.

Location		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Alexandra	Max	181	131	92	51	20	8	11	30	70	102	139	158	
	Mean	136	103	75	36	14	5	6	22	49	84	112	133	776
	Min	105	83	63	29	8	1	3	17	36	67	85	112	

34. Using 400ha as the area of Willows the volume of water that the willows are taking is shown in the below table.

Willow uptake from Manuherekia								
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Total litres/second for 400ha	30.2	112.9	172.8	238.4	243.7	204.4	134.4	44.4
Compared to 1200l/sec min flow	2.5%	9.4%	14.4%	19.9%	20.3%	17.0%	11.2%	3.7%

The table shows that at the peak in January the Willows extract the equivalent of 20% of the flow proposed in Scenario 1 (1200l/sec)

35. It is accepted that there are a lot of assumptions but if the loss to the willows is half of the calculations, then the removal of these must be considered. The ORC should ask an expert to review the water loss from Willows.
36. Crack willow which is the main willow specie growing on the river margin is also an unwanted organism under the Biosecurity Act 1993 given it is on the National Pest Plant Accord list of species banned from sale, propagation, distribution, or commercial display (copied from Marlborough District Council website).
37. Removing the willows would achieve two objectives:
- Increasing the water flow in the river.
 - Removing an unwanted organism.

Summary

38. HortNZ and their experts have not had an opportunity to submit on behalf of growers.
39. The area has unique growing conditions for the production of the various fruit crops grown.

40. There are no Economic models provided on the impact on the fruit growers impacted by the proposed scenarios.
41. The option for additional storage capacity to offset the reduced irrigation supply has not been thought through fully as it only considers cherries. The option is only suitable for cherry growers who have waste land sufficient for the required storage. For apple growers, the storage requirement is the equivalent to 20% of the planted area and is not economically viable.
42. The unwanted organism Crack Willow infests the river margins and appear to consume up to 243 l/sec of water from the river at the peak yet there is no work on this loss (or potential gain).
43. The simple fix is increased storage from Falls Dam provided by a partnership of all affected parties.
44. As much as people and communities are priority three as per the National Policy Statement the impact of the proposals and particularly Scenario 5 will be the demise of the farming communities in the catchment area including Alexandra as dryland farming becomes the only option and rabbits take over.



Location: Manuherekia

825: ONLINE SURVEY

Anonymous User:896681927 **2021-06-16 16:34:06 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Minimum flows need to be set at 900 l/s. The economic existence and viability of horticulture which is the lifeblood of the region must be part of the consideration .

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

water needs to be prioritised to those using the best economical use of

Location: Not specified

826: ONLINE SURVEY

Anonymous User:896717273 **2021-06-16 17:05:09 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Status quo or better flow for farmers, orchardists etc. Put money into say a higher falls dam, instead of spending money on surveys etc. Just do it don't muck around

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

As Above

Location: Manuherekia

827: ONLINE SURVEY

Anonymous User:893018555 2021-06-16 17:25:49 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The 1100 Scenario would mean an increase of water to the river without damaging the economics of farming and the local business's and schools.

The farmers pay money for water when they buy there land and then they are charged annually for the water as well, so then if they take water away from farming then will the farmers be reimbursed for the loss of equity and therefore who will be paying for this water???

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

If the other large catchments such as the Poolburn Dam and the Manorburn Dam and the Hawkdon irrigation scheme has minimum flows put onto them then it would increase the amount of water into the river taking some of the pressure off Falls Dam which is not large enough to cope with these larger Scenarios above. The Falls Dam was put in to supply drinking water and stock water and in high flow times irrigation. The only way to fix minimum flows is to increase the storage as it was done 100 years ago, now our communities have grown and will continue to increase this will ensure peoples drinking water, stock water and support the farming and other business's in central otago.

Location: Manuherekia

828: ONLINE SURVEY

Anonymous User:896752039 2021-06-16 17:50:53 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Further consultation with all users both urban & rural required who are a practicing conservation already. We need people making these regulations to be more practical in their approach.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Compliance at it worst

Location: Manuherekia

829: ONLINE SURVEY

Anonymous User:896748729 **2021-06-16 17:59:35 +1200**

Q1: Minimum flow preference

1,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1000 l/s is my preferred minimum flow level. Any higher than that and it makes the economics of converting from flood irrigation to spray very marginal.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

1000 l/s will provide an adequate environmental flow in the lower reaches of the river. It also provides a adequate flow at campground.

ORC is showing a very strong bias and is not playing a neutral role, the community should decide and the community is not Dunedin. The consultation process that the ORC is doing is deceptive and underhand.

Irrigation in this area is vital to the well being of the whole valley and to intentionally sabotage this is dirty to the extreme.

The economic reports that have been commissioned have been poorly done and clearly put together by people not evolved in irrigation and farming.

ORC should be putting what is good for the community first and not a introduced predator fish ahead of local people. The poetry club is not going to keep this community afloat. Neither is tourism, Otago needs farming wether Dunedin likes it or not.

Location: Manuherekia

830: ONLINE SURVEY

Anonymous User:896747017 **2021-06-16 18:13:37 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The status quo will preserve the continued well being of both the river and the Alexandra and Manaherekia communities . Both economically and socially . Why is there no choice for Status Quo at 900 above !

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The scenarios being put forward by the ORC are models which have not been scientifically peer reviewed. It is speculative at best that the environmental gains claimed by the Council would be achieved and could in fact result in a degradation of the recreational use of the river .

Location: Manuherekia

831: ONLINE SURVEY

Anonymous User:896766042 2021-06-16 18:24:14 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

A flow rate of 1100 litres per second at campground this would be the best scenario for the entire population in the community not just the fish the fishing tourists and swimming children

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

832: ONLINE SURVEY

Anonymous User:648890061 2021-06-16 18:24:29 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The National Policy Statement for Fresh Water cites Te Mana o Te Wai as the UNDERPINNING PRINCIPLE to any policy process and decision-making involving the Manuherekia Rohe from 2020 forward. It is stated clearly that there is a HIERARCHY OF PRIORITIES, beginning with the health and well being of water bodies and freshwater ecosystems. This is followed by the health needs of the people (eg.drinking water). Thirdly comes the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Referring to the evening meeting in Alexandra, at 7pm on May 27th,2021, I observed a sense of CONFUSION and BAFFLEMENT on the part of members of the Public, not an ideal climate for a successful consultation on one of the most important decisions of the decade. The mental picture needed for each minimum flow level was, practically speaking, beyond the understanding of even the brightest and most experienced in our audience...as an exercise, it was a failure. However, it did serve to emphasise people's natural ability to prioritise Te Mana o Te Wai above Andrew Newman's barely disguised preferences which favoured the interests of Irrigation. The MRG meetings, under the Chairmanship of Mr Newman, have been skewed towards an unacceptable political agenda, speaking against the aims of the NPSFW, at every opportunity---

to this end Management has lacked ethical Leadership, which has appeared to be unchecked by the Otago Regional Council.

In the light of present poor environmental outcomes(as supported amply by the data), and Climate Change, Water Management, through courageous leadership, has to bring about the paradigm shift desperately needed in the Manuhierikia Rohe, and continue the hard decision-making into the economic implications....that is what we expect our leaders to do.

Location: Central Otago District

833: ONLINE SURVEY

Anonymous User:896742865 **2021-06-16 18:57:17 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I do not support any of the above scenarios for river flow. As a fourth generation Lauder sheep and beef farmer I and my family believe the river is healthy and used by many for recreation at the current allocations for irrigation. As a mostly dry land sheep and beef farmer we only use water for irrigation when there is plenty available, in dry years we take none or very little for stock water. To grow food you need water we try not to waste any and use it as sustainably as possible. We put on no chemical fertilizers and are not over stocked . We try to farm as sustainably as possible caring for our land and our animals. We believe intensive farming using large amounts of chemical fertilizers and large amounts of animals will cause problems for the river and environment , ie, dairy farming and dairy grazing in Central Otago. There are already enough safe guards for the health of the river ,irrigation users reduce their takes when there is less water.

Q3: Do you have any other feedback on water management in the Manuhierikia Rohe?

Believe that the orc telling people to put on pivots has been expensive and caused them to intensify their farming practice. Flood irrigation on our property causes no harm to the environment and is the most efficient use of water in a dry climate. The water continues to feed springs for properties further down the valley , helping stock and house water supplies.

Location: Manuhierikia

834: ONLINE SURVEY

Anonymous User:896758179 **2021-06-16 19:09:06 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the above options are suitable.

My preferred minimum flow is 1000l/s.

Anything higher than this will cripple the Manuherekia valley, including Alexandra.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Let the irrigation companies manage the river.

The less the ORC has to do with it the better.

After releasing the brochure of flow options you have made it very clear how untrustworthy you are. All the information was put across to favour a higher minimum flow.

The recent meeting held in the Omakau hall summed up what a joke of a regional council you are.

You have quickly become one of the most untrustworthy and disrespected organization's around.

Location: Manuherekia

835: ONLINE SURVEY

Anonymous User:896836800 2021-06-16 19:21:37 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Seems like it is much better for the environment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Waitaki District

836: ONLINE SURVEY

Anonymous User:896841870 2021-06-16 19:29:47 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

good compromise between irrigation and save swimming and other users

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

837: ONLINE SURVEY**Anonymous User:896837726****2021-06-16 19:31:05 +1200****Q1: Minimum flow preference**

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I am aware that the Manuhierikia irrigation schemes and many private water right holders within the Manuhierikia catchment have been thru extensive catchment fact finding and consultation processes to prepare and lodge our water permit applications

The applications have an overarching Manuhierikia catchment flow management proposal for 1100 l/sec (vs the present voluntary 900 l/sec)

at Campground, with various residuals for the tributaries.

We understand that 1100 l/sec at Campground is NPSFW 2020 compliant.

The matter is extremely complex and it is unrealistic to expect that catchment irrigators could carry, by themselves, the burden of a set

minimum flow rate with any significant increase upon the current voluntary 900 l/s 1100 l/sec at Campground is an environmental improvement upon status quo

Our science and modelling suggests 1100 l/sec balances the risk to instream values and community economic well-being (given current infrastructure etc)

Anything above 1100 l/sec has incrementally unacceptable economic risk to abstractors and therefore a negative flow on effect for our communities (businesses, schools, sports and other clubs/groups)

Falls Dam in its current form, and being located near the top of the catchment, does not have the capacity to support the environmental flow scenarios listed, during dry periods, without a severe impact on primary industry.

People do swim, fish, etc at flows lower than 1500/1200/1100 l/sec.

Q3: Do you have any other feedback on water management in the Manuhierikia Rohe?**Location:**

Manuhierikia

838: ONLINE SURVEY**Anonymous User:896847714****2021-06-16 19:51:01 +1200****Q1: Minimum flow preference**

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I dont agree with any of the scenarios and my preferred minimum flow would be 1100 or less. If the flow was more than 1100 it would have a detrimental effect on business in the community i.e farming and associated businesses. As a diesel mechanic in the community i personally rely on farmers to be running at 100% effectiveness/productivity so i can make a living for my family. Furthermore my mental well being will be effected if my business cannot function, im sure this will be the same for effected businesses in the

wider community. E.g if i am not getting the work, i will not be ordering parts and supplies from other local businesses to carry out jobs as the jobs will be non existent.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

As for the councils feedback on the brochure, why have you not stated the business and mental implications each scenario will have on the community, not just river users purely for pleasure? Businesses are what keeps the community running and keeps us ALL in a job!!

Location: Manuherekia

839: ONLINE SURVEY

Anonymous User:896847714 **2021-06-16 19:58:46 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I do not agree with any of the above scenarios and my preferred minimum flow would be 1100 or less. Having a minimum flow above 1100 would have severe impact on not only the farmers, who seem to be targeted, but also the associating businesses, schools, community etc. In conjunction with this i believe there are going to be considerable rises in mental health issues with values of properties going down, no work coming in because no one has the money to spend and farmers not being able to feed their stock with supplements if irrigation water is cut and they cant grow grass. I ask that you look at the wider community and the domino effect it will have on other businesses.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Not only do the brochures not accurately represent the whole river system as tests only appear to be in the last 20%, but they also dont lie out the implications of the choices offered. We as farmers swim and fish too and enjoy the river AS IT IS! Raising the flows will not only effect the eco system, but will also probably make swimming in places more dangerous as the flow will be too much.

Location: Manuherekia

840: ONLINE SURVEY

Anonymous User:882270056 **2021-06-16 20:01:29 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Flow rate of 1100 litres/second at Campground

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

People do swim, fish, etc at flows lower than 1500/1200/1100 l/sec. (Graph is misleading). I do not support international guided fishing in New Zealand rivers for monetary gains.

Location: Manuherekia

841: ONLINE SURVEY

Anonymous User:896870527 2021-06-16 20:01:36 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would prefer 1,100 l/s to underpin a level of primary industry and community economic conditions that do not decimate our rural communities

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: New Zealand

842: ONLINE SURVEY

Anonymous User:886288396 2021-06-16 20:24:25 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe that a minimum flow set higher than this would be detrimental to the food producers in the area. I believe this flow will meet all the objectives in the NPS

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Communities should manage it

Location: Manuherekia

843: ONLINE SURVEY

Anonymous User:886288396 2021-06-16 20:27:50 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe that imposing a minimum flow will have a detrimental effect on those whose business relies on water within the area.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

844: ONLINE SURVEY

Anonymous User:866062216 2021-06-16 20:29:35 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It puts the river at the heart of the plan and not finance.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

845: ONLINE SURVEY

Anonymous User:896891220 2021-06-16 20:30:24 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe any more than this is a waste of precious water to our local economy and livelihoods

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

846: ONLINE SURVEY

Anonymous User:896890549 2021-06-16 20:31:59 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I use to swim here as a child, my children swan here as kids and I would like my grandchildren to be able to swim here in the future.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Can we not leave some of our water ways undamaged. Must you allow more to be sucked dry and become foul with minimum flow.

Location: Waitaki District

847: ONLINE SURVEY

Anonymous User:886918018 **2021-06-16 20:37:41 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would prefer a minimum flow of 1100 l/s.

At 1100l/s we can meet all the objectives of the NPS. All other proposed minimum flows will have a significant impact on the food producing businesses and all those businesses and communities associated with them.

Farmers are Food Producers...They are necessary for the Health of the People.

Water is a necessity for the production of Food and in our area, that means irrigation

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

In General, Farmers are active environmentalists...It is in our best interest to be so

Location: Manuherekia

848: ONLINE SURVEY

Anonymous User:896888955 **2021-06-16 20:42:35 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think that if the flow rate is set any higher than this rate then those who use the water to provide food and resources to the community would be poorly impacted and this would then effect the community as a whole

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Utilise those people that actually use the water to provide food and other resources to the community as information sources. There is not enough consultation with food suppliers, crop growers farmers etc.

Location: Central Otago District

849: ONLINE SURVEY

Anonymous User:885562066 2021-06-16 20:46:57 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My preferred minimum flow is 1,100 l/s or less. I do not like any of the above scenarios for many reasons including the consultation brochures do not accurately represent the values and science of the whole river system. Only the lower 20% of the river length in summer was described in the graphs presented in the brochure.

A minimum flow higher than 1100 l/s has a significant detrimental impact on the viability of farming in the district. This has a major impact on associated businesses, communities and schools.

Irrigators have been working for years on a solution that is based on science and values and includes environmental gains through out the whole catchment - is this work being taken into consideration?

And finally, if Falls Dam was not in operation, the natural water flow for the majority of the summer season would be at 1100 or less, so anything higher is artificial.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Many families and the wider community swim, fish, tramp, bike etc and enjoy the river as it is throughout the year at current levels.

The hydrological model presented by ORC and its outputs have not been peer reviewed or signed-off by the hydrological experts? How can we be assured it is correct modelling and one that such a important decision can be made on? And as a follow on from this, the scenarios presented do not address any values based flow regimes in the tributaries of the Manuherekia (tributary flows have been apportioned pro-rata in the modelling), again how can we rely on this modelling to make an informed and correct decision?

Location: Manuherekia

850: ONLINE SURVEY

Anonymous User:887557830 2021-06-16 20:48:12 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river is Okay at this flow but not perfect. I think that the farmers can adapt and invest on in farm storage so the river can flow in Summer. If flows are too low algae is more of a nuisance and the river struggles to flush at lower volumes.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Water allocation is a major issue. You cannot keep taking water in an over allocated catchment. Protect the side tributaries from over allocated irrigation permits and this will improve flows and ecosystems in the main stem.

Location: Manuherekia

851: ONLINE SURVEY

Anonymous User:896898620 **2021-06-16 20:51:35 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

none preferred. 1100l/s preferred. This flow satisfies most river health requirement without severe economic impacts.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Irrigation companies have a long history of managing this river.

Location: Manuherekia

852: ONLINE SURVEY

Anonymous User:885562066 **2021-06-16 20:53:51 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My preferred minimum flow is 1,100 l/s or less. I do not like any of the above scenarios for many reasons however a major one is the massive impact a minimum flow higher than 1100 l/s would have on the viability of farming in the district. This, then would have a major impact on associated businesses, communities and schools. Also, I feel the consultation brochure did not accurately represent the values and science of the whole river system, rather it just represents the lower approximately 20% of the system.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Many families and the wider community swim, fish, tramp, bike etc and enjoy the river as it is throughout the year at current levels.

Water users have been working for years on a solution to this ongoing issue. Many committee and groups have been formed and ideas explored that are a combination of science and environmental working through out the whole catchment - is this work being taken into consideration?

Location: Manuherekia

853: ONLINE SURVEY

Anonymous User:896898620 **2021-06-16 20:58:06 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None. 1100l/s preferred. Based on the work done by irrigators, this flow satisfies most river health conditions without severely damaging the health, well-being and economic stability of the whole Manuherekia community.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No.

Location: Manuherekia

854: ONLINE SURVEY

Anonymous User:886918018 **2021-06-16 21:07:00 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Our preferred flow is 1100 l/s. we feel this best meets the needs of the community. It is possible to meet the objectives of the NPS at this flow. The scenarios used by ORC are based on models only. Proper research needs to be done to make a good decision

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Communities should manage their rohes.

Location: Manuherekia

855: ONLINE SURVEY

Anonymous User:896905871 2021-06-16 21:11:57 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It meets the community needs. It also meets the NPS objectives if proper science is used

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Local communities should manage the rohe

Location: Manuherekia

856: ONLINE SURVEY

Anonymous User:887554687 2021-06-16 21:42:20 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Somewhere between 50% and 75% of MALF is a fair compromise. 80% is common in other regions

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Long transition times, say 25 years, are needed for irrigators who invested in good faith, and for the local economy to adjust. The overall flow regime needs consideration, not just low flow.

Location: Manuherekia

857: ONLINE SURVEY

Anonymous User:895356579 2021-06-16 22:22:27 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

900 Lt/per second has been proven to be a sufficient flow to maintain a balance between the rivers health and farming practices for more than one hundred and thirty years.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The Manuherekia river is a renowned fishing river in Central Otago. The fact that fish thrive must be a sign that the river is in good heart. Instead of blaming farming for pollution maybe people should take a closer look at how they contribute to rivers deterioration.

Location: Manuherekia

858: ONLINE SURVEY

Anonymous User:896750936

2021-06-16 22:38:40 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe that raising river flows beyond the status quo (900L per sec) will be damaging and not beneficial to our river and community.

We need to be realistic about our river situation and work on the things the community is already doing and has been for many years. There is no value in extreme decision making.

There is little trust in the ORC, whose actions and regulations over the years have been obviously uninformed, been costly, ineffective and dividing.

The current Central Government seems to be heading down the same path.

The minimum flow " river information" put out by the ORC is misleading - a big disconnect to the reality known to those who have lived by the river for many years.

The Manuherekia has always run low at the lower end, over the hot summer months. - more so before the Falls Dam supplemented flow.

Why should there be an expectation that it is changed now?

Why shouldn't this flow be embraced?

There is finite water/rainfall in the catchment. (16 inches annually). A small amount is captured by the Falls Dam and used through the dry months.

If higher flows are put down the river early, how is "no flow", when the Falls Dam is empty, beneficial to anyone.

The Falls Dam Company who have owned the dam for 30years and managed the river flow with restrictions to irrigators when levels are low. This has been positively embraced by all the irrigators over this time, with few problems.

Since more intensification (tenure review) (spray irrigation promoted by the ORC) in recent years, there has been an evolving situation of water quality/quantity issues in SOME parts of the river. To protect against this, farmers have formed "flow sharing agreements", are fencing waterways, riparian plantings, making ponds/water storage, making wetlands.

These positive actions need to be encouraged. An extravagant minimum flow at this time is not going to achieve anything.

Going forward.

- If testing identifies water quality problems, they should be rectified at the source. - flooding the whole river isn't the answer.
- if the Omakau waste water outlet needs upgrading this should be done urgently.
- Willows lining the river could be cut out.
- perhaps the whole community could contribute to a dam raising.

If the river needs to be improved (which it does in places) this should be done from the ground up - communities coming together, being robust and inclusive, with statutory bodies helping and being positive - not legislating against progress.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The profile/voice of "recreational fishing " should be kept real. Trout are introduced and are predators of indigenous fish. Many trout are not actually eaten by fishermen, just caught for sport.

Raised river flows, as advocated by Fish and Game, put indigenous fish populations under more pressure.

Fish and Game charge ordinary people an exorbitant amount to "get a licence"

- this before they can just go to fish or shoot their Kai from the river.

Fish and Game are given too much voice in our community without giving much back.

In relation to " Kai from the river", my family produces 100 thousand garments every year, along with 500 thousand plates of healthy, natural grass-fed protein. We are just one of many families that produce food in this valley from the water of the Manuherekia.

Location: Manuherekia

859: ONLINE SURVEY

Anonymous User:896436770 2021-06-17 06:38:27 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is time to bring the river back to life for recreational use.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Manuherekia

860: ONLINE SURVEY

Anonymous User:897188728 2021-06-17 08:14:00 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I think river health and being able to swim in the river is more important than irrigation for farming.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Dunedin District

861: ONLINE SURVEY

Anonymous User:897194666 2021-06-17 08:29:39 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We must protect our rivers. We lose our rivers, we lose our way of life. If we continue to take as we are, farmers will eventually see the negative impact anyway.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

862: ONLINE SURVEY

Anonymous User:883871680 2021-06-17 08:47:55 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None 1100 liters per second at camping ground.

The companies , that manage the irrigation schemes and private water rights people, have done extensive work to lodge the documents for the water permit, that is before you. I believe they have the knowledge and understanding of the health of the river and have addressed theses in the proposal.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

863: ONLINE SURVEY

Anonymous User:897200115 2021-06-17 08:55:40 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None

None of them accurately represent the values and science of the whole river system

Minimum flow higher than 1100 has a significant impact on all business/livelihoods/mental and emotional outcomes on all businesses and people in the rural and urban community.

Faults and unfinished science in the scenario process make it impossible to make a truly informed decision.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Life for all is hard at the moment...people can make changes to their respective livelihoods but too much on their plates is overpowering and destructive ..

Farming and the flow on businesses are facing huge changes/pressures financially and mentally. This also needs to be thought of when constructing the minimum flow.

Plus ...our whole country is in this together...the rural businesses (not just water users) helped the country get thru covid as we did...how much more 'change' can we take.

All rural people love their water too and protect it and do their very best to use it wisely and efficiently so why jeopardise our viability!

Location: Manuherekia

864: ONLINE SURVEY

Anonymous User:897218918 **2021-06-17 09:38:44 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't even prefer scenario 1 as it still has the capability to destroy the livelihoods of the long term residents of the Maniototo

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This is another attack on the landowners in the region. We are commercially pushed to deliver product in a competitive commercial environment. this cannot be done without consistent inputs water/labour etc.

Location: Manuherekia

865: ONLINE SURVEY

Anonymous User:897221625 **2021-06-17 09:51:01 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None . Minimum flow at 1,100 l/s . Would be fair for everyone. I think the economic impact on Agriculture and Horticulture is majorly underestimated.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Seems all the management of the Manukerehia Rohe goes back to the Falls Dam and the capacity of it is too small to satisfy everyone without being made bigger. We need more water storage.

Location: Manuherekia

866: ONLINE SURVEY

Anonymous User:772634303 2021-06-17 11:04:38 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

to maintain a better health in the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There are other options that are not mentioned. Water could be taken from Lake Dunstan to irrigate the lower catchment. It could just feed into the existing schemes ie Springvale and Galloway. But it could be much larger and open up land that currently does not have the benefit of irrigation. Why has this not been discussed?

Location: Manuherekia

867: ONLINE SURVEY

Anonymous User:879372111 2021-06-17 11:06:56 +1200

Q1: Minimum flow preference

2,500 l/s - 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I value improved ecosystem functioning and recreational values.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

868: ONLINE SURVEY

Anonymous User:871382655 **2021-06-17 11:22:08 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because we must have a guarantee of water flow that will look after our river long term. Alongside this we must look at what we can do to meet the business concerns - and do this in transformative ways. If that means providing funding to do this we need to see that happens - but it cannot be at a cost to the river. Some farming options cannot continue as they are - we need to find what are sustainable ways forward. The Climate Change Commission's recommendations must also be part of what drives the decisions making process

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Do some of the measures seem to let those nearer the source of the river off the hook a bit? Are some of the farmers further down the river being 'blamed' for the dirty water when it is the accumulation of toxic material from further up? Is enough being done from the source of the river about managing the environment as it should be done?

Location: Manuherekia

869: ONLINE SURVEY

Anonymous User:897283957 **2021-06-17 12:14:03 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would prefer a flow rate of 1100 litres/second at the campground. This is better than the status quo and I believe this is NPSFW compliant.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

870: ONLINE SURVEY

Anonymous User:895359265 **2021-06-17 12:18:43 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

More than the other scenarios it attempts to follow the first two most important points of the National Policy Statement on freshwater management.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Serious over-allocation of water for land based business at public expense and the resulting degradation of the health of the river and its tributaries.

Lack of monitoring of farm effluent and seepage into the waterways.

Poor access to rivers and streams discourages the public owners of the waterways from being able to walk, explore, picnic, fish or swim.

Low water levels and pollution prevent swimming and fishing and discourage enjoyment of these streams and rivers.

Location: Central Otago District

871: ONLINE SURVEY

Anonymous User:897283957 2021-06-17 12:18:59 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would like to see a minimum flow of 1100 litres/second at the camping ground. Anything above this will have a serious negative economic risk to irrigators and flow on effect to the wider community

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

872: ONLINE SURVEY

Anonymous User:897310115 2021-06-17 12:46:47 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe none of the options adequately address the need for clean water. The first 4 options favour the farming community (noting that is wider to include other production uses). Many of these persons feel a

'right' to indulge in use of the resource. The minimum acceptable option for clean water for the wider community now, and in the future, is Scenario 5.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Currently ORC don't have clear leadership or objectives. I hope this changes to ensure there is a plan with objectives to support the provision of clean water for community use - noting there is a hierarchy in that context, with human uses such as drinking and other activities at the top of that, moving down to animal use then to farming and other production uses below that.

Location: Central Otago District

873: ONLINE SURVEY

Anonymous User:897312218 **2021-06-17 12:50:09 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

With climate changing resulting in lower snow accumulation and changing rainfall patterns, a precautionary approach to main river health is wise. The river should be managed for all uses, without one compromising the other.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

874: ONLINE SURVEY

Anonymous User:878973873 **2021-06-17 13:05:40 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Leaving healthy river which has been degraded over generations. We cannot and do not expect to have scenario 4 tomorrow or within the next couple of years but start working towards it today. The Govt has just saved tens of millions with the Americas Cup so lets put some community, farmers, ORC, crowdfunding, CODC and power company money in to build a new wall below existing wall please. We need a great outcome and not the rhetoric that if nobody is happy, then the decision is about right.. If the current wall fails or is no longer compliant, what then...

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Only that this should have been a priority many many years ago by all. If we had taken proper ownership then our river would not need Govt intervention.

Location: Manuherekia

875: ONLINE SURVEY

Anonymous User:570354843

2021-06-17 13:30:29 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Lengthy comment herewith. Please contact if it appears some text is missing. Our formatting would have helped the reader, apologies not available.

Our preference is for NONE of the Q1 listed scenarios.

At the present time our preferred option is for a Manuherekia River main stem minimum flow of 1100 l/sec "at Campground" with set residual flows at the relevant confluence point of the main stem and larger tributaries.

- It is our opinion that ORC should be giving, (should have already given) serious consideration to this scenario
- We believe this scenario is feasible without introducing high risk economic shock and instability to catchment communities
- With community co-operation this scenario could be achieved on 01.10.2021.

We comment below on our reasons for 1100 l/sec as well as on the actual consultation process.

What is actually achievable, and at what social cost:-

NONE of the listed scenarios are currently achievable without causing serious incremental operational and financial distress to primary industry production; with resulting incremental negative implications for our communities.

(Refer AbacusBio Manuherekia Enterprise Model Methodology Key Findings Pge14.)

If you live in a community, the core of that is the individuals who make up the society. It is environment plus people, not one at the exclusivity of the other.

This round of ORC consultation focuses on a single blunt regulatory instrument, ie: a minimum flow rate at Campground during summer. The objective is to meet conditions that protect various catchment values, which by definition, creates tension where the flow rate for a specific value is not necessarily compatible with another specific value.

If abstraction and land use are the cause of diminished conditions for other values, then given the level of abstraction authorized and exercised in this catchment for the last century, and the importance of primary production to our rural communities, current considerations for improving any other specific catchment value, by way of an increased minimum flow rate during drier periods, (ie: greater than voluntary 900 l/sec,) needs to identify and describe the altered operating conditions that be will be brought to those abstracting.

There needs to be consideration of how impacts could be dealt with. So, within the entire catchment, exactly what are the problems with specific values, where are the problems, why are they occurring, should/can improvement be made, what can be done to effect improvement, who can do this, when, and how is this to be facilitated/funded?

That is one very full can that is being kicked down the planning road for some other time, to become a shoulder-shrugging conundrum, while citing one previously set regulatory limit (Refer Consultation document Para 7 Pge 37 Mitigating consequences.)

Who we are and why we are submitting:-

The Manuherikia Irrigation Co-operative Society operates the Manuherikia irrigation scheme, a community co-operative and significant abstractor from the lower section of the Manuherikia River.

We supply irrigation, frost-fighting, fruit-cooling and stock drinking water to approx 400 shareholders. Property sizes range from larger pastoral farms to small lifestyle blocks. Land use activities include sheep, cattle and deer farming, commercial horticulture and viticulture, lifestyle ventures, an equestrian centre.

We serve a diverse rural community and care about our wider catchment community, including our environment.

The scheme administrator has for the last 30 years been on the front-line, immersed in the day to day administrative and operational functions of our irrigation scheme.

We are well aware our nation is on a mission, with some urgency, to make adjustments in an attempt to combat impacts derived from environmental, social and economic issues.

It is deeply disappointing to us that this current round of planning "consultation" is unfolding in a manner that appears to be hasty, fraught with conflict, simply adding to the on-going saga of the last 10 years.

We don't intend to be antagonistic, ignorant or arrogant, we are simply telling you how it is from our perspective, developed from a lengthy period of incremental experiences.

Firstly, the consultation pamphlet:-

In an attempt to inform readers on a subject of critical importance, in a complex catchment, ORC has released a public consultation pamphlet which is so simplistic it has been rendered seriously inadequate and misleading.

By now likely you will have read ad infinitum about the pamphlet graphic (also Consultation document Fig 6 Pge 23) and its glaring, misleading inadequacies. The more one looks at that graphic the more it resembles abstract art. Suffice to say it is ludicrous to suggest that swimming, fishing, floating etc does not occur at flows below 1500 l/sec!!

Herding the public:-

In effect, the pamphlet and survey form sets out to herd the public down a path of choosing from a range of minimum flows, upon which many people will not be adequately equipped to provide informed comment, nor will they become so. (This is a reality, despite ORC providing a number of reports linked with the webpage, and a discussion document which is overall, well-constructed for public consultation.)

So, regardless of the path ORC themselves may be herded down, let's not pretend that a critical base figure for environmental regulation can be chosen by way of a public consultation poll.

Back to the pamphlet:-

It turns out, after sitting in on the ORC presentations, that the pamphlet is actually referring to a flow rate for Campground (although it doesn't say so) and is depicting only the lower section of the main stem, we assume from the Galloway irrigation scheme intake to Campground (although it doesn't say so.)

So, the pamphlet is not all-encompassing of the science and values for the entire main stem or the tributaries (ie: the catchment as a whole.) It misleads the public, when a simple sentence could have covered off several very pertinent points.

And, unless one reads the DRAFT Hydrology model report (Scenarios) which was not posted to the website until 28.05.2021, being a bit late for those attending the two consultation meetings 27.05.21 and 28.05.21.... then many people would have little idea of the complexity of the catchment, or the degree of integration needing to be considered.

With the scenario choice range starting at 1200 l/sec, the pamphlet reader can only conclude that ORC are signaling 1200 l/sec is the lowest figure ORC are prepared to consider.

ORC Question to Consider:- Are there other scenarios we think ORC should be considering?

As stated above, yes, particularly 1100 l/sec.

1. It is our understanding that the Manuherikia Reference Group is minuted as having agreed that the 1100 l/sec option would be included as a scenario in the consultation document. However ORC decided not to run this scenario. Why not?

2. The Manuherikia catchment collective Deemed Permit applications are prefaced by an Overview document that recommends 1100 l/sec at Campground (plus tributary residuals.) The figures in that document did not come from a public poll. They came from a combination of science, modelling and experience; trying to find a balance given the reality of our world (environment + people) ie: not exclusivity of one or the other.

The figure of 1100 l/sec provides a gain to the environment, and we believe is NPSFM 2020 compliant.

It is also our opinion that the risk being taken to achieve this minimum flow rate is at the higher end of what can be borne by primary industry producers, given current infrastructure constraints.

The AbacusBio Farm Economics Report Appendix 1 states that, nearing the conclusion of the their farm economics evaluation project, they were requested by ORC to undertake extra work, ie: for a further nominated flow rate, below the initial lowest figure modelled of 1500 l/sec.

Presumably this request was due to it becoming known there were very significant economic impacts to farming operations for flows at 1500 l/sec and above. (Pge 13.) Hence, the subsequent reporting on the analysis of an additional scenario requested by ORC, ie: 1200 l/sec. AbacusBio have recorded that “due in part to time constraints the impact of a 1200 l/sec regime was determined by a different process.”

It is further reported by AbacusBio, in relation to the work modeled for 1200 l/sec “We understand that the approach taken underestimates the potential dry season impact but should give a reasonable representation of mean EBIT impact.” We ask, how helpful is this when this entire exercise has a focus on dry seasons? The Lewis Tucker Manuherikia Catchment Economics document then comments on the matter (Pge 2) saying the 1200 l/sec flow scenario is “not included in Lewis Tucker’s analysis due to the limited incremental impact when compared with Status Quo.” Really? Try telling that to a primary producer.

For ORC to ignore an MRG recommendation/request and not provide a 1100 l/sec scenario to the public, as an option run through the hydrology and economic models, is an arrogant disregard, of both the MRG stakeholder group and the catchment irrigators ... irrigators who have spent a number of years collaborating, genuinely, trying to obtain information and facts and piece together a workable, holistic solution for the entire catchment.

Irrigators have been here before, in a similar way, via the MCWSG. A decision made by higher authorities applying some sort of political appeasement ruler. (Unrealistic, shoot for the stars, pie in the sky clap trap.) It was unhelpful. Wasted much time and money. Didn’t provide or enable a workable solution. And here we go again?

Science, Facts, Truth and Reality:-

Robust science and facts should be used to focus the discussion for decisions upon flow rates that are within the range of reality, rather than fanciful. If the vision is fanciful, finding an aligning solution will always be problematic.

An example of presenting false/misleading data is contained within the Longitudinal Flow schematic Figure 3 (Allibone (2021), (Refer Pge 10 of the Consultation document.) This graph depicts a significant error (overstatement estimated at approx 500 l/sec) in the flow being drawn at the Manuherikia scheme intake in the Ophir Gorge.

It begs the question how/why did someone regarded as an expert consultant get this wrong? And is this particular “assumption” used anywhere else in the consultant’s considerations and recommendations; such that it distorts the reality being portrayed to those relying on factual information for decision making? This sort of basic error undermines confidence (ours and any enquiring mind) in the credibility of data being provided.

Such errors need to be urgently, publicly corrected so as not to perpetuate myths as being the gospel according to

The Hydrological Model, Reports and Assumptions:-

The 3 DRAFT Hydrology Model reports contain statements about their purpose which indicate they have not yet been reviewed or approved by the Hydro Group, and that a further Hydrological Model report has yet to be commissioned.

While the calibration report contains some degree of comfort about the accuracy of results, we would implore ORC to stay the course and ensure this vital tool is sanctioned by the Hydrology Group as being fit for purpose, along with commissioning, receiving and releasing the final report, before singing the model's praises to the community at large.

The inputs into this hydrological model are critical and for transparency we would like to see (check the accuracy of) the irrigated area maps that ORC provided as the basis for the input irrigated area figure, along with what was actually input into the model.

We know that national maps drawn up (desktop?) in the later part of the 2010-2020 decade contained significant errors for our scheme area. We have reason to believe ORC started with these national maps as base documents. We would be concerned if the Hydro Group have been fed invalid data in the first instance.

Additionally there is an assumption within the modelling that under each of the scenarios the existing flow sharing agreement and dam augmentation arrangement would apply. While this may have been the instruction given to the Hydro Group, it is a highly questionable assumption for any of those higher flow scenarios. With the dismantling of a century old system of catchment order (priorities,) then as an abstractor residing at the lower end of a complex catchment, it is not a comfortable geographical location. There is no certainty that assumed parameters will actually exist beyond 01.10.2021.

For an informed discussion for each scenario the Manuhierikia community needs to know from the hydrology model how often, when and how long irrigators would be under abstraction restriction, or abstraction halt. For each scenario we are given estimated reliability figures, but we are not provided with specific information. What do these % figures mean for actual in-the-field experience.

In looking to the future, and in considering a key decision that will direct river management, it may help significantly if the entire community were provided with an opportunity via ORC, for Ian Lloyd to conduct a workshop on the hydrological model. Explain the various scenarios, especially the finer points of the impact of each scenario.

Frankly we would have considered this to have been a critical part of the community consultation, and for an 1100 l/sec scenario to be included. We wonder why such a workshop has not been facilitated. Is this because the Hydro Group's work is unfinished, ie; still in DRAFT, has not been approved, or reviewed? What is the plan?

Falls Dam:-

The existing dam will not provide the catchment with a fairy godmother solution for a significant environmental flow beyond status quo. The current Falls Dam is a junior assistant. Vital in the present team equation but comes with limited extra capability, without major upgrade.

Those who think that the existing dam, near the head of the catchment, can somehow magic up significant extra volume during drier periods, bolstering flows at the lower end of the catchment for an extended period of time, demonstrate a complete lack of understanding of the catchment dynamics.

How it actually is for those of us at the sharp end of a drier period:-

As a catchment, considering a Falls Dam wall raise, for increased storage capacity, we have looked at various minimum flow scenarios (under the original GoldSim model, designed specifically for that purpose.) So we are aware of the detrimental impact upon primary industry operations that starts to "bite" beyond an increased minimum flow of 900/1000 l/sec at Campground, when conditions are dry.

From time to time we actually have to live it, day by day at our desks, in the field, on the farm, keeping multiple daily checks on the recorded flows along the length of the main stem, and within the schemes, noting the daily draw down from Falls Dam, acutely aware of weather conditions, weather forecasts, making decisions for the river, for the schemes and of course on-farm. It is a stressful time. We have lived

it. We know what it means, physically, mentally, environmentally, financially. This wealth of knowledge should be harnessed, not sidelined or ignored, which many of us feel has been the case to date.

Taking the cut:-

ORC states the obvious. To make in-stream environmental improvements when water is short, and without increased storage, it is primary industry that has to take the cut. The questions are, by how much, and how is that sliced and diced throughout the catchment, who or what gets to pick the winners and losers, who funds and maintains the infrastructure required for those who are left with the role of producing food, beverage and fibre on irrigated land, why and how?

Primary industries and the communities in this catchment have evolved and developed through the grace of the NZ Govt (1910 to 1940) and then partnership between the Crown and the people whose livelihoods are derived from the land. Historically, the sudden decline of national economic wealth from gold needed to be replaced by the promotion of wealth from primary industry. It is unrealistic to expect that current primary industry producers can somehow fund a significant catchment reset in terms of affordability, and without land use consequences or community disruption. So what is the plan?

Actual active steps taken by our scheme towards environmental improvement:-

As an irrigation scheme, we have been looking for catchment solutions since February 2000. Over a 20 year period we have been involved in 3 different major pre-feasibility or feasibility studies. Solutions do not come easily for a variety of reasons. During the last four years we experimented with, and made infrastructure and operational changes, which enabled us to positively contribute to improvements in catchment flows by 2021.

The changes made by our scheme enabled us to cease our abstraction from two small tributaries and one larger tributary, with an estimated gain to the main stem of at least 150 l/sec during drier periods. We have done this voluntarily and without fanfare.

Horticulture and viticulture hung out to dry (who was the ostrich here?):-

Horticulture and viticulture operations, their requirements and contribution to our community have either been excluded from, or given broad-brush reference in the Consultation document (Refer Para 2.3: no ref to horticulture) and the hydrological model and the economic reports.

(Refer Manuhierikia Catchment Economics Discussion Document Lewis Tucker Pge 2: "in Lewis Tucker's view the most significant limitation is the exclusion of earnings from horticultural land ... likely to have a material contribution to Catchment earnings due to per-Ha profitability.)

In 2021 we would consider this exclusion a serious flaw, particularly given the desire or need for diversity towards higher value crops along with appropriate land use coupled with appropriate soil and climate conditions.

Recent developments (last 20 years) in the lower part of the catchment mean the catchment is not all about pasture and livestock, as is evidenced by our shareholders which include the McArthur Ridge Group (commercial viticulture,) Leaning Rock Cherries Ltd and others (commercial export horticulture, including organic.)

With modern day hort/viti ventures framed around the production of top quality export fruit/beverage, it is acknowledged these activities need 100% irrigation/frost-fighting reliability. The statement that hort/viti producers can and will provide on-property storage to cover off the need for 100% reliability can only be made through ignorance or arrogance. (Refer Consultation document 5.4 pge 19.)

We implore ORC to delve much deeper into this matter, become familiar with, understand, and accept the need to include and support these land use activities, both immediately and long term.

It is a simple sum or it is not done (Minimum flow + Allocation blocks):-

With ref to the Consultation document 5.3, the critical partner in this discussion, allocation blocks, has yet to be addressed. Allocation blocks go hand in hand with minimum flows. In our opinion finalizing a minimum flow cannot be separated from setting minimum flow rates. The two need to be considered in tandem. What is the plan?

Other factors influencing low flows in the lower main stem:-

Where is the mention of factors, other than irrigation abstraction, that are effecting flow and conditions in the lower catchment; the influence of Lake Roxburgh and the dams at Roxburgh and Clyde:-

- the gravel build up near the confluence
- the underground flows
- the silt deposition
- the proliferation of willows along the river bank (thirsty suckers)
- the fact that the river is not a pipe

It needs to be understood that the fact that the river is not a pipe, an additional xxx litres per second input at a particular location during dry conditions does not equate to xxx litres per second at Campground. Xxx becomes something less, can be much less, depending on the weather conditions and the source of the extra flow.

So when the chips are really down, there is the consideration does “robbing Peter to pay Paul,” in order to achieve a specific enhanced environmental outcome near the confluence with the Clutha, become justifiable overall?

Degraded or Graded (Okay, Good, and Better):-

So ORC, it is with dismay we conclude that so far, this minimum flow process for the Manuhierikia catchment is half baked again you have come out to the public in haste, bobbing and blundering about, DRAFT reports here, work not complete there, a glossy meaningless brochure, crook graphics, some new and obviously genuine staff trying hard to put this puzzle together, let down by what? questionable timelines? we wouldn't really know, but to date this is NOT Okay, it is way less than Okay, The collective we (all stakeholders) need ORC to do Better.

Why? Despite the blinkered perception of some stakeholders or participants in this debate, many of the irrigators within the catchment have worked extremely hard over the last few years to try to set a better course for our freshwater resources. And despite the current planning processes eroding patience and goodwill, we need to keep up the momentum of increased knowledge, awareness and enthusiasm to effect positive changes.

Therefore we need ORC to perform its role in an open and transparent manner, in genuine collaboration, with diligence, common sense and thoroughness, without political or personal agenda influence.

Currently a minimum flow rate at Campground, greater than 1100 l/sec fails the economic test for the health and well-being of our rural communities.

We recommend ORC take a look at the river management proposal which has been filed with ORC accompanying the suite of Manuhierikia catchment resource consent applications waiting to be processed.

We suggest this comprehensive body of work, (covering off all the regulatory “lever” provisions listed in the Consultation document Para 5) would assist to set a pragmatic path for us all to move towards a better tomorrow.

Q3: Do you have any other feedback on water management in the Manuhierikia Rohe?

Not today. The above is enough for now!

Location: Manuhierikia

876: ONLINE SURVEY

Anonymous User:897348640

2021-06-17 14:00:39 +1200

Q1: Minimum flow preference

900 - 1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Why is the STATUS QUO not an option -900- irrigators are willing to give back water to the river , they have paid for a lot of scientific work to show 1,100 l/s is a good option ,irrigation water is the LIFE BLOOD of our community without water our community will wither and starve

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

please take notice of the above .

Location: Manuherekia

877: ONLINE SURVEY

Anonymous User:897353661 2021-06-17 14:04:37 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The preferred minimum flow is 1100 or less.

A minimum flow higher than 1100 has a significant detrimental impact on the viability of our community. Farming is the core of our community and the effects of raising the minimum flow will effect associated businesses and the mental health of our community. This is in no way good.

The consultation brochures do not accurately represent the values and science of the whole river system. Only the bottom 20% of the river length in summer was described in the graphss.

Irrigators have been working for years on a solution that is bases on science and values and includes environmental gains through out the whole catchment.

The comprehensive faults and unfinished science in the scenario process make it impossible to make an informed decision.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Families in our community swim, fish and enjoy the river as it is.

Irrigators have worked with independent science experts and stakeholders to develop a proposal that is the sweet spot between environment and community wellbeing. Even 1100 is not an easy minimum flow to deliver.

The scenarios presented do not address any values based flow regimes in the tributaries of the Manuherekia (tributary flows have been apportioned pro-rata in the modelling)

Location: Manuherekia

878: ONLINE SURVEY

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I prefer none of the scenarios offered.

I believe 1100 l/sec at campground is the best option.

Under recently lodged replacement resource consent applications the catchment has a proposal for flow management for the Manuherekia of 1100 l/sec at campground. I am surprised that the technical advisory group didn't ask for this scenario to be included.

I understand that the 1100 l/sec at campground is NPSFW 2020 compliant and fulfils Te Mana o te Wai.

This flow would be suitable for much of the ecosystem esp. Tuna/eels, galaxiids, upland bully.

It would be sustainable economically for the area. This would supply sufficient for irrigation to be reliable and viable.

Swimming and amenity values would be covered at this level as these are already suitable at the 900 l/sec voluntary flow. It must also be remembered these are minimum flows, so for a large part of the year the flows are much higher.

For trout fishing this level would also be suitable because as often touted the Manuherekia is an important brown trout resource and this is at the existing 900 l/sec.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I would like to comment on the ORC's so called "information pamphlet" that was put out to the community and the information at the community meetings.

There appears to be a lot of information lacking through omission by accident or intent.

For example there was no assessment for the upland bully (an indigenous fish), was this because it didn't fit with the predetermined scenarios in that it favours a lower flow. Eels also thrive at lower flows so surely this would support Mahika Kai.

Trout play no part in Mahika Kai as an introduced species and in that they predate on native species.

The "economic modelling" is I'm sorry to say laughable. The first two assumptions the model used are perfect examples

First assumption. Horticultural enterprises will increase storage to achieve 100% water reliability.

Is this even feasible? Having talked to several orchardists, it seems unlikely. They don't have the area on farm to increase storage. Also by assuming they will have 100% reliability this conveniently removes the large scale effect reduced irrigation reliability will have on horticulture and their downstream employment and economic benefit. Why was there no analysis done on this?

Second assumption. Farmers will buy in feed to offset reduction in irrigation.

This shows little knowledge of real-life farming. Under some scenarios there could be 30 days plus of "no" irrigation. Where would these supplements come from? This year is a good example with a drought in the eastern part of the South Island. The only supplement available would be palm kernel and I don't believe that would be sustainable or acceptable. Ironically irrigated land is the best source of supplement in dry years, therefore a reduction in irrigation would effect other parts of Otago with shortages of supplements.

Under high flow scenarios there will be a large number of days of severe restrictions or even no irrigation. Feed crops such as kale, fodderbeet will die, orchard trees could die or at the very least have severe crop reduction.

As for the effect on employment under some of the higher flow scenarios, the economic modelling shows a potential loss of 2 jobs and a gain of 3 jobs in dry years..... This leaves me speechless.

The poor people who had to peer review this rubbish! I realise there has been a peer review which didn't exactly agree with AbacusBio, but how about highlighting this adequately. High flow scenarios will have a devastating effect on employment in the area.

I commend the CODC for their economic impact report which shows a considerably higher level of job loss with 180 direct jobs and a further 125 downstream jobs at high flows.

Overall I feel the ORC has been misleading and biased with the information it has delivered to the community. We were told at the community meetings that the scenarios were only that "scenarios" and not set in stone, then we are asked in the survey which one we prefer. ORC hasn't given us the full story, they knew the catchment had come up with a river management plan at 1100l/sec at campground but did not show this option.

Location: Manuherekia

879: ONLINE SURVEY

Anonymous User:897308936 2021-06-17 15:28:46 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe this flow rate should be implemented to create a base line for ongoing management. It will slightly increase river health while still maintaining economic viability within the surrounding district.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I have lived in the Manuherekia district for close to 60 years. In that time I have never known any family to rely on this river as its main food source. A bit of summer sport fishing and most times a fish can be caught. I have seen years with little or no water in the Manuherekia and only stock water being used in the ministry race.

Location: Manuherekia

880: ONLINE SURVEY

Anonymous User:897409218 2021-06-17 15:34:27 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I'm 78 years of age and went to the Omakau School in the 1940's.

The river ceased flowing during the summer .

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Yes please ! Why do you persist in promoting these options on there own ? When will you offer the public the obvious solution,

“ Build a reservoir/dam in the headwaters to collect spring flushes and flood excesses “ It's been long established 90% of the river flow is left to flow into the Clutha River. This leaves a huge 90% for further harvesting in a dam for irrigation, recreation and slow release for environmental river biology. ?

Gary Kelliher is absolutely correct , it's inconceivable the ORC. doesn't promote the DAM option .

Location: Central Otago District

881: ONLINE SURVEY

Anonymous User:882097981

2021-06-17 15:35:42 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My preference is for a Minimum Flow on the Manuherekia River of 1100 litres per second at the Camp Ground.

I believe that this minimum flow will allow for an improvement of the ecosystem, recreational opportunities and reliable commercial activities throughout the entire catchment.

I understand that this flow level is NPSFW 2020 compliant.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

There is evidence and opinion that the Manuherekia is, in places , in good health. We have healthy native fish populations and there is an irony that Fish and Game promotes this river catchment as an excellent fishing resource.

I have been concerned at quality of information supplied to stakeholders during this and previous community consultations. It was obvious at the Alexandra community consultation meeting, that many found the distributed publicity material quite misleading. The visual presentation of the value outcomes at each flow level were downright wrong and gave the clear impression that “more is better”. I believe that more is not always superior as there are fish species which thrive at lower flow levels and I would argue that many swimming values are not achieved at higher river flows.

I found it unbelievable that fishing was rated as a higher value than recreation and irrigation reliability. The Brown and Rainbow Trout do not deserve high ranking and are not required to indicate river health.

In regard to the visual presentation of the various flow rate scenarios, the small grey inconspicuous bar at the bottom of the table misrepresented the effects of higher minimum flow will have on irrigation. With a casual look at the table, you would hardly notice it at all. I would have suggested a that an increasingly bright red line would have given a better indication of the adverse effects on irrigation reliability.

At the Alexandra community meeting background reports were presented as mostly peer reviewed. This gave the impression that all was fine with these reports, however, further reading showed that the AbacusBio economic modelling was not supported by the Compass peer review. The AbacusBio report was very disappointing and did make me wonder if they were in touch with Central Otago farming systems. Their assumptions of farmer behaviour at the various flow rates gave no confidence in their overall economic model.

Thank goodness that the CODC stepped up and produced an alternative economic analysis. As important as the river health is, I think that decision makers have to recognise that high minimum flows will have huge effects on the wide community.

On a personal note, our farming partnership has worked hard and invested an awful lot of money in order to comply with expectations from both the ORC and the wider community, for the efficient and economic use of the water we are allowed to take. It is disappointing that some members of the community would prefer to see the demise of local businesses, rather than acknowledge and celebrate the improvements that rural communities have made. It is unfortunate that some partners in this discussion are so entrenched in their position, that they cannot accept that irrigators can care about the health of our river, the ecosystem and the Central Otago community.

Water users in the Manuherekia catchment have worked diligently in the past to improve the health of the river. We are the first to acknowledge that there remain a few "water quality hot-spots" and I feel that these should be dealt with on a case-by-case manner. The whole catchment should not be penalised because of a perceived rather than actual river health problem.

Location: Manuherekia

882: ONLINE SURVEY

Anonymous User:897308936 2021-06-17 15:37:24 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Taking a baby step approach will allow all parties to look for a measured river improvement rate . Our rural communities should not be given an unworkable option that will not sustain economic stability..

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The river is a living entity and it changes constantly with climate and usage. Perhaps the type of farming the valley can sustain will need to be looked at in the future.

Location: Manuherekia

883: ONLINE SURVEY

Anonymous User:897417400 2021-06-17 15:40:39 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Having consulted with one of New Zealand's leading waterways experts I have come to the conclusion that the information provided in this survey is very misleading and if you make decisions based on the survey as presented, it will serve no one, and especially the environment, well

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

884: ONLINE SURVEY

Anonymous User:885097296 2021-06-17 16:30:46 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Scenario 5 is hardly radical - it is minimal. The Manuherekia River needs to be brought back to life. It has almost been brought to the brink of death. The current state of it leaves our ecosystem bereft of native fauna (as if Aotearoa NZ, and especially Otago can afford that).

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The mistake of allowing the high nitrogen and phosphorus

levels of recent years must not be allowed to continue into the future. I understand the difficulties of changing this now, but someone (ORC?) dropped a very big ball. I was concerned at the meeting's facilitator's "anecdotal" statements which had little fact behind them. The past mistakes and these meetings showed that we have a very real potential of neighbour against neighbour. The community needs to be brought together with appropriate work that could help all the parties (for example, on the invasive willows, native plantings).

In our Otago region in fact - there has been a serious level of neglect re our native flora and fauna (a shameful impact on native galaxids, and numbers of native trees) - the worst of all regions in Aotearoa NZ - that's quite a record to have.

The meeting facilitator referred to tailings being the cause of silt build up as if it was fact. Silt is always an issue of rivers emanating, even if not directly, from the Southern Alps. Has there been some research on that - a natural phenomenon

that we cannot ignore as if it wasn't there - it means we have to keep the rivers in, not just good health, but in excellent health?

The statement from one of the older "producers" at the meeting had never seen food gathering on the river in his lifetime - of course not - degradation due to practices has destroyed that ability - starting in the 60s.

I have returned to Central Otago after time away - the colour of the Nicolson "BLUE" lake is a shock.

Our farmers have been expressing concern about their wellbeing - having a land devoid of water and therefore devoid of life, would have a huge impact on mental health. They too need the beauty of nature that has not been spoiled to this degree.

If not now, when? What is the price for our tamariki and mokopuna?.

Aotearoa NZ, and especially Otago is an unforgiving landscape; we cannot leave it until there is no going back.

Location: Manuherekia

885: ONLINE SURVEY

Anonymous User:897434273 2021-06-17 16:54:55 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Sacrificing a river purely for the benefit of farmers to make a profit is abhorrent. How this has been allowed to happen in the first place is beyond me. All we are asking is that you allowed the river to live, rather than murdering it!

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

A blind person can see that this river has been raped and pillaged for many years to the point it's hard to consider it a river anymore. The current river is a disgusting mess, purely through human greed. How can anyone stand by and allow the river to continue to be sucked dry and become a toxic sludge mess as it does every summer.

Location: Queenstown Lakes District

886: ONLINE SURVEY

Anonymous User:897461208 2021-06-17 17:02:53 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river has been like this for many years and it has not been a problem!

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

To keep communities it must stay at scenario 1 and there has been no issues with river flow before now so why change what's actually working!

Location: Manuherekia

887: ONLINE SURVEY

Anonymous User:897461794 2021-06-17 17:07:14 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because the river has been like this ever since the Falls dam was built. Simply the river wouldn't support these higher minimum flow rates which would lead to high erosion rates degrading the water quality e.g the erosion already at the Omakau bridge

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Listen to the people whose lives are directly impacted by the river eg farmers, rural business. Not to someone who won't be impacted by any of the scenarios. The river is the lifeblood of the Manuherekia and Ida Valleys communities and with the higher flows will results in these communities dying, simple as that.

Location: Manuherekia

888: ONLINE SURVEY

Anonymous User:897467684 **2021-06-17 17:15:02 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The health of the river needs to be maximized for species living in the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

better management is needed. Manuherekia is live in a dry area so any take is not ideal for the natural ecosystem. It also worries me that such important decisions are determined by public opinion. Is there not resource management acts to protect waterways?

Location: Queenstown Lakes District

889: ONLINE SURVEY

Anonymous User:897452574 **2021-06-17 17:16:53 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I choose none of them, over recent years the Manuherikia irrigation scheme with numerous water right holders ,within the catchment have been through extensive fact finding processes to prepare and lodge our

water permit applications. This is an appropriate flow regime to take account of the need to improve the waterbody instream values in some locations.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No

Location: Manuherekia

890: ONLINE SURVEY

Anonymous User:559753184 2021-06-17 17:28:23 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would like the status quo maintained. This low flow is for a short period of time usually and the river recovers quickly once some well needed rain has come. If people want to swim and fish every day of the year they have unreasonable expectations of a river in Central Otago in the height of the summer.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The irrigators in this area spent considerable money developing a River Management Plan with the result being the water left at the Camping Ground to be 1100 l/s. This has been scientifically supported. At this level, we as irrigators, will have less water for irrigation but have agreed at this level to do our bit for the environment and the river by putting more back into the river.

At 1200 l/s this is 300 l/s more than at present which in your scenarios you say irrigation is ok. It is not ok.

There has been no irrigation quota given to any irrigator since the scheme was handed over from the MOW. Therefore the river has operated for more than 50 years with the existing irrigation and the river is still a great river. It was said at the Omakau meeting by ORC staff that the river was in good shape - so why does a higher minimum flow need to happen.

Its time for the ORC to stand up and say to the public and government we have a great river that is being well managed and leave it how it is

We have taken water for so long that it would almost be our customary right to take the existing water.

Location: Manuherekia

891: ONLINE SURVEY

Anonymous User:897479812 2021-06-17 17:51:58 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is the only one that comes close to restoring the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

A catchment as massive as this must be able to support the highest minimum flow scenario. Historic photos of the valley support this view.

Also irrigators have had thirty years to sort this issue. Instead they have put their collective heads in the sand.

Putting modern industrial farming ahead of the environment is destroying future.

Time for the Council to act.

Location: Central Otago District

892: ONLINE SURVEY

Anonymous User:897495281

2021-06-17 18:34:55 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None. There are no minimum flows that suit us as farmers, irrigators and being part of our local rural community. The consultation brochure produced is not accurate. Only the bottom third of the river length in summer was provided for in the graphs. Our local representative, Gary Kelliher has not been listed to, after 2 years of hard work by the TAG and MWG, it feels like a waste of time. A minimum flow of higher than 1100 (which he was proposing on our behalf) has a detrimental affect on the viability of farming business, not to mention the flow on effect of businesses in the rural area and down into Alexandra and surrounds as well. Farming as well as with these flows affecting the local economy, business, schools, sports and recreation clubs.

The irrigators have been working hard to come at terms suitable to everyone. As farmers our families want to swim and fish etc in the river just like anyone else. The proposal we have put forward is available for everyone to read.

This scenario you have provided has many faults and unfinished science making it impossible for anyone to make an informed decision

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The brochure does not provide any information on how these different scenarios will affect the local economy and rural community. We will basically be stuffed. As a farming family that is now onto their 6th generation (with a new baby on the scene in the Manuherekia Valley we invite any of you councillors to come and see all the hard work we have put in to come at a compromise for all concerned. ORC seems only to see it from one point of view.

We have come up with a suggestion of 1100 which is not ideal but we are prepared to move in that direction to gain common ground. The hydrological model presented even had our Race Manager struggling to understand where it had come from along with members of TAG so how is anyone else meant to understand it. You say the well being of the river, fish etc comes out on top, what about all the farming families who are food producers, where does that come into it in this document. No flow options have

been assed for ecological outcome collectively by TAG. We go back to the fact that irrigation in the way it has operated controls the river in the best way. We, as farmers and irrigators were the ones who put the minimum flow on the river. Our grandad tells stories of the Manuherekia drying up before the Falls Dam was there. Irrigators have the interests of the river at heart and have looked after it so well since taking over from the Ministry of Works scheme back in the 1980's. Let's hope the community has faith in the farmers into the future in doing what is best for the river. When the river reaches a minimum level now we all cut back on irrigating. Even though this can be very tough, there are never any qualms about it as everyone realises we are looking after ther vier and therefore our best interests.

Location: Manuherekia

893: ONLINE SURVEY

Anonymous User:686993018 **2021-06-17 19:14:02 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Want our grandchildren to enjoy the river opportunity we had for food and leisure

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

894: ONLINE SURVEY

Anonymous User:893309680 **2021-06-17 19:16:32 +1200**

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The above scenarios are based on computer modelling which I feel is not a true and accurate representation of facts. In order to show a true factual picture of different flow regimes and their consequences, scientific evidence should be presented and used, which can only be gathered with a fact based scientific approach.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It appears that the only interest group which has science based evidence of the hydrology and ecological health of the Rohe are the Food Producers of the Manuherekia catchment.

Location: Manuherekia

895: ONLINE SURVEY

Anonymous User:897488236 **2021-06-17 19:24:46 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Prefer the Staus Quo senario of 900 litres per second. Oral history (pre irrigation)

shows that very limited amounts of water is carried in this river in most summer flow conditions so how will the above flow rates up to 3000 l/s be maintained. It is totally impossible. The water catchment does not yield sufficient water to do this with an average rainfall of about 16 inches.

The well being of the whole population in this catchment is dependant on the irrigation water from the Falls dam and the effect of no or limited irrigation would be huge.

The falls dam irrigation water actually is benefical to the river now as it travels down the river to the various farm takes.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I have worked in this area for 5 years and seen the large positive effect irrigation has on the farming output and this community. To limit or stop irrigation would have a drastic negative effect on the area. I regularly swim in this river during the summer months with no adverse effects and can catch and release fish. Is the river damaged? This river is typical of alot of south Island rivers with limited flows but are still healthy. This river is one of them.

Location:

Manuherekia

896: ONLINE SURVEY

Anonymous User:897510065

2021-06-17 19:27:43 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the above

The Manuherekia Catchment Group has proposed a minimum flow at Campground of 1,100 l/s and this has not been included in this survey.

The Manuherkia Group applications to renew our water permits that were lodged in February this year included a proposed minimum flow of 1,100 l/s.

The proposed minimum flow of 1,100 l/s at Campground along with residual flows for the main tributaries of the Manuherekia (Dunstan Ck, Lauder Ck, Thomsons Ck, Chatto Ck) promotes environmental gains for the catchment compared to the current river management regime of a voluntary minimum flow of 900 l/s at Campground.

The proposed minimum flow of 1,100 l/s is based on an 80% habitat retention for indigenous species (eel and galaxiid), relative to the habitat at a MALF of 3,900 l/s, which complies with the values set out in the National Policy Statement for Fresh Water (2020)

Irrigators have worked with independent science experts and stakeholders to develop a proposal that is the sweet spot between environment and community wellbeing.

During a dry period the stored water in Falls Dam is used to supply the irrigation schemes and this results in higher flows in the upper three quarters of the catchment. Only the lower 20% section of the river from the lower Ophir gorge to the Clutha experiences the low flows. From our studies a minimum flow of 1,100 l/s will maintain the values in the lower catchment.

If the minimum flow is set at higher level (> 1,100 l/s) then the stored water in Falls dam runs out sooner and we potentially have a situation with even lower

Minimum flows higher than 1,100 l/s have an increasing detrimental impact on the viability of farming and associated businesses in the catchment. (add in your own words how higher min flows may affect your farming business or farming support business.....)

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

How about considering the Birdlife and wild life that do not live in the river bed areas and make there home around dams and headraces etc.

Also lets consider the trees etc that help provide shelter to wildlife and stock, all forms of irrigation helps the land sustain wild life and domestic life.

Its not just for swimming or fishing

Location: Manuherekia

897: ONLINE SURVEY

Anonymous User:893309680 2021-06-17 19:28:13 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the above

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Allow the Manuherekia whakapapa to move forward with a collaborative and co-operative values based approach. The outcome, magical for all.

Waihi i te toipoto, kaua i te, toiroa (Let us keep close together, not far apart)

Location: Manuherekia

898: ONLINE SURVEY

Anonymous User:897520158 2021-06-17 19:28:13 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Our river is not and will not be running at that minimum flow all the time it flows plenty more with winter snow melt and rains, if there was no Falls Dam in dry times there would be no Manuherekia river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

irrigation is important for the Valley for lots of reasons but methods do need to change to maintain river health.

Location: Manuherekia

899: ONLINE SURVEY

Anonymous User:897526867 2021-06-17 19:30:26 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We need to leave an environmental legacy for our children

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

900: ONLINE SURVEY

Anonymous User:897527625 2021-06-17 19:37:54 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The Preferred minimum flow should be 1100l/s

- The Manuherekia Group applications to renew our water permits that were lodged in February this year included a proposed minimum flow of 1,100 l/s.
- The proposed minimum flow of 1,100 l/s at Campground along with residual flows for the main tributaries of the Manuherekia (Dunstan Creek, Lauder Creek, Thomsons Creek, Chatto Creek) promotes environmental gains for the catchment compared to the current river management regime of a voluntary minimum flow of 900 l/s at Campground.
- The proposed minimum flow of 1,100 l/s is based on an 80% habitat retention for indigenous species (eel and galaxiid), relative to the habitat at a MALF of 3,900 l/s, which complies with the values set out in the National Policy Statement for Fresh Water (2020)
- Irrigators have worked with independent science experts and stakeholders to develop a proposal that is the sweet spot between environment and community wellbeing.

- During a dry period the stored water in Falls Dam is used to supply the irrigation schemes and this results in higher flows in the upper three quarters of the catchment. Only the lower 20% section of the river from the lower Ophir gorge to the Clutha experiences the low flows. From our studies a minimum flow of 1,100 l/s will maintain the values in the lower catchment.
- If the minimum flow is set at higher level (> 1,100 l/s) then the stored water in Falls dam runs out sooner and we potentially have a situation with even lower

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

- The consultation brochures do not accurately represent the values and science of the whole river system. Only the bottom lower 20% of the river length in summer was described in the graphs.
- The consultation brochures do not explain the context of the flow scenarios in regard to what complies with the National Policy Statement FreshWater 2020.
- The scenarios presented do not address any values based flow regimes in the tributaries of the Manuherekia (tributary flows have been apportioned pro-rata in the modeling)
- The modeling assumes the same sharing and dam management regime would occur under the higher minimum flow scenarios as status quo – this is seriously flawed.
- The flow options presented in the Survey have not been assessed for ecological outcomes, by the ORC TAG group (TAG = the ORC "Technical Advisory Group" for the Manuherekia). This assessment should have happened before this round of consultation proceeded.
- The ecological thresholds used in the consultation brochure and public meeting are not consistent with other Otago rivers nor are they reflective of best practice habitat modeling.

Location: Manuherekia

901: ONLINE SURVEY

Anonymous User:880147376 2021-06-17 19:41:34 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Minimum flows higher than 1,100 l/s have an increasing detrimental impact on the viability of farming and associated businesses in the catchment. These will impact my land and lifestyle

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The ecological thresholds used in the consultation brochure and public meeting are not consistent with other Otago rivers nor are they reflective of best practice habitat modeling.

Location: Manuherekia

902: ONLINE SURVEY

Anonymous User:897535255 2021-06-17 19:57:51 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Healthy rivers are good for all recreational uses

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

903: ONLINE SURVEY

Anonymous User:897535051 2021-06-17 20:12:36 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Prefer 1100 litres per second. Flows above will have an adverse economic effect on the district.

Income and employment depend on a regular flow rate,

NO WATER or LOW FLOW in the summer peak will mean failing businesses .

High flows can only be achieved until the Falls dam runs dry, then the flow will be unmanageable, maybe a lot lower than 1100l/sec.

Decisions have to practicabe.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

People are worried high flow will dramatically effect the viability of their businesses

Location: Manuherekia

904: ONLINE SURVEY

Anonymous User:834913945 2021-06-17 20:20:22 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The community should decide the level of the minimum flow

Location: Manuherekia

905: ONLINE SURVEY

Anonymous User:758612495 **2021-06-17 20:26:26 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

If 1,200 l/s is the lowest flow that gives effect to Te Mana o te Wai then I prefer that, if 1,100 l/s still gives effect to Te Mana o te Wai then that is my preferred option

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The management of the Manuherekia Rohe should be decided by those that live and earn a living in the area itself. As a previous submitter and attendee at many consultations in the past I am very disappointed that I did not receive an email when these scenarios were released but instead had to find out through Facebook

Location: Manuherekia

906: ONLINE SURVEY

Anonymous User:897549081 **2021-06-17 20:38:45 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

trying to find a balance between the community and the environment - I feel that the people are important but that more could be achieved by encouraging less intensive farming and alternative farming methods that don't rely on heavy use of fertilisers.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I think it's a shame that the whole debate has been so divisive. I see programmes like Cane Changers in Queensland and Thriving Southland which appear to have outlined clear outcomes and yet found a way to work towards solutions together. Here we seem to have defensive reactions to decisions being made in isolation on both sides of the argument.

Location:	Manuherekia
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907: ONLINE SURVEY

Participant	2021-06-17 20:40:01 +1200
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Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The preferred min flow is 1100 l/s or less.

My reasons for this include the fact that the consultation brochures do not accurately represent the values and science of the whole river system. Only the bottom 20% of the river length in summer was described in the graphs, which presents a skewed view on the river and its quality. It is misleading and unfair to present information in this way.

A minimum flow higher than 1100 l/s has a significant detrimental impact on the viability of farming and associated businesses in this area as well as for communities and local schools. The knock on effect from higher minimum flows will be detrimental to the local economy as well as others across the the Otago Region and outlying areas.

The irrigators in this area have been working for years on a solution that is based on science and values and includes environmental gains through out the whole catchment.

The comprehensive faults and unfinished science in the scenario process make it impossible to make an informed decision.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The consultation brochures do not cover the implications of the choices offered -therefore providing incomplete information, making it impossible to make an informed decision for anyone wanting to comment and have their say.

Farming families swim, fish, tramp, bike etc and enjoy the river as it is. We live right by the river and would not be able to enjoy the same activities that we do now at a higher minimum flow rate. The ORC's material makes no sense and only focus on one area of the river, which if we actually had 3000l/s flowing in that area -you would be swept into the Clutha at Roxburgh before you knew it making swimming impossible and dangerous in the Alexandra area.

Irrigators have worked with independent science experts and stakeholders to develop a proposal that is the sweet spot between environment and community wellbeing. Even 1100 l/s is not an easy minimum flow to deliver.

The hydrological model and its outputs have not been peer reviewed or signed-off by the hydrological experts.

The scenarios presented do not address any values based flow regimes in the tributaries of the Manuherekia (tributary flows have been apportioned pro-rata in the modeling). The modeling assumes the same sharing and dam management regime would occur under the higher minimum flow scenarios as status quo – this is seriously flawed.

Allocation was not assessed or presented appropriately.

No flow options have been assessed for ecological outcome collectively by TAG.

Overall this has been poorly managed and lacks local knowledge of the area. It does not provide enough information for those who do not understand what minimum flow looks like and how that would impact their lives based around the river.

Location: Manuherekia

908: ONLINE SURVEY

Anonymous User:883947355 2021-06-17 20:48:10 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1,100 l/s at Campground which is NPSFW 2020 Compliant is the best option to serve all needs. It is an appropriate flow rate to improve water quality. It has been managed well at 900 l/s for many years.

Anything higher than 1,100 l/s will devastate vineyards, orchards, other horticultural and farming industries leading to the destruction of the economy and our rural community.

Along with improving water quality, 1,100 l/s will support safe areas for family swimming and other recreational uses.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Since the process began to find a suitable arrangement for the use of the water of the Manuherekia River I believe the ORC has already decided what it will allow without any concern of ALL uses and users of the water and that the needs of ALL will not really be considered.

I do hope I am wrong but it certainly feels this way to me.

I wonder if the ORC is basing the process on coastal Otago's climate and not considering the Central Otago desert like climate.

NIWA states that Central Otago is the driest area of New Zealand receiving UNDER 400mm annually.

Research on Alexandra township states that it has an annual average rainfall of 340mm.

Research on Dunedin states it has 800mm average annual rainfall.

Location: Manuherekia

909: ONLINE SURVEY

Anonymous User:897551584 2021-06-17 20:55:17 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Overall the river's health is good and weighing up the options I believe it provides better benefits for a broader cross-section of the involved/affected communities by providing water for primary industry.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Potentially prioritising end users of water based on economic use. Understandably the rural sector is the higher consumer, however there does appear to be a lot of water consumed for lifestyle benefit rather than economic/productive primary industry.

Location: Manuherekia

910: ONLINE SURVEY

Participant 2021-06-17 21:01:28 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

A minimum flow higher than 1100 will have a huge impact on the farming and businesses Otago wide. My job will directly be affected as less intensive farms, lower stocking rates less lambs being fattened.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We live down Keddell Rd and regularly take our 3 kids down to the river and swim and fish in it. I often wonder how bad the floods at New Year would have been if a higher minimum flow was in place

Location: Manuherekia

911: ONLINE SURVEY

Anonymous User:897563542 2021-06-17 21:10:00 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The natural environment is best preserved for all waterbourne species. The river is a special swimming place personally and for families

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

912: ONLINE SURVEY

Anonymous User:570354843 2021-06-17 21:10:17 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the above, I find the above river scenarios graph totally misleading, and any one uninformed about how important our river system is to our community, and how precious the small flow of water actually available in peak summer periods is. People are totally misled by this, and would vote for 3 to 5000 Liters per second minimum flow thinking that would be helpful.

People would not realize that those amounts of water are just not there, and not have a clue of the social and economic cost to our community, because it is not explained by ORC and basically brushed over.

To suggest that 2000 lps is a better experience for swimming, when people have been happily swimming for years, is certainly a great waste of water, and of little value.

Less algae at 3700 lps think about it, what value is that while our valley runs dry.

May fly, midges, and caddis all requiring 3-4000 lps to improve trout fishing, ?.

Trout fishing is already reasonable but only for those who buy a licence.

To tip this amount of water into the river, even if it was available to improve trout fishing in one of the driest catchments in NZ, where water is absolutely precious to those who live off the land, and the supporting community, this is absolutely ridiculous, there are so many places to catch trout in Central Otago. I am a fisherman myself for more than 60 years, but not at a massive social cost to my community.

Mahinga kai Manawhenua, what ever this is, I suppose food gathering, ?

well there are eels surviving ok under the 900 lps status quo, according to the above graph, even though the Roxburgh dam prevents their migration and breeding program.

What other food is collected or would be collected, if more water was in the river? I suggest very little. In 39 years of living here I do not believe I have seen any Mahinga kai in action on the river.

I suggest very little food is gathered by any one from the Manuherikia river, and a small amount of that precious water put on a family vegetable garden would make hugely more productive food gathering.

And more important to our survival, the water is needed by all those who produce of the land, farming, horticulture and viticulture etc.

If people want more water down the river for making so called environmental gains, the people then need a large storage dam to make that possible, and they need to be prepared to pay their share of the cost of it, not just presume the farmers will do it for them.

Its very easy to be an environmentalist if you have no skin in the game. and leave all the costs to someone else.

Lets improve the water quality in the Manuherikia river which is already starting to happen, and live with 1100 liters per second measured at the camp ground in Alexandra in peak dry periods, and I suggest that our valley will still be a great environment to live in for the next 100 years.

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

Is a Rohe actually helpful, or just some feel good terminology ?

Location:

Central Otago District

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We prefer a flow of 1100l/s this would improve the the quality of the water in the lower third of the river and maintain the current use of irrigation water to the farming community and would enable a more effect flow in dry spells

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We presently farm 10 hectares most of which is irrigated via k-lines and ex orchard overhead sprinklers and we also lease several other small blocks totaling almost 36 hectares. We run a small Merino Stud of 100 sheep.

I have read all the available information and attended the meeting held at Omakau.

Generally the published information is totally confusing, for example when trying to interpret your management scenarios that you produced no where can I related them to how it affects our operation personally.

As a land owner I need to know and understand how each different option my effects my operation and 5 year planning.

I need to know that between the months of September and April

- (a) How many days would we likely have reduced flow in a dry year
- (b) Would we have days without water

My understanding is the perceived flow is managed at 900 l/s that a farming group has had discussions with ORC about maintaining a flow of 1100 l/s and were working towards that.

So why do we get presented with 4 different options that are above that figure and what happens to the farming community and all its supporting industry and towns if the flow is dramatically increased and the farmers cannot longer use their irrigation and all their on site investment.

If for example they flow level was set at say 2000l/s as in your option 3 would it be safe for children to swim in the lower reaches as they do at present or would they become a Health and Safety risk or maybe end up heading for Roxburgh.

Location:

Manuherekia

914: ONLINE SURVEY**Q1: Minimum flow preference**

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe a flow of 1,100 L/Sec would be the best flow for the central otago region. It is a flow that is based by science. It will support a habitat for the native fish, provide some water for irrigation which supports the local community and its economy. High flows will result in the Galaxids becoming wiped out of the Rohe. Landowners in the Rohe are making great gains on improving water quality, through increased fencing of water ways, on farm practices and riparian planting. These improvements will all help to improve the water quality.

Higher flows in the lower reaches would negatively effect the experiences of families enjoying swimming in the river.

Higher flows will result in job losses from the Central Otago community.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This must be backed by science.

The information for this process has been terribly skewed by ORC staff. The main graphic still does not indicate that it represents only 18% of the river. It is driven heavily toward the habitat for trout, at the detriment of our native species. The reports from MRG to council are not a consensus of the group but what ever the MRG staff feel like writing. The local community needs to know the effects of changing flows, like how; school roles will drop, how sports clubs will fold, how jobs will be lost, how services will move away, how business that support tourism wont survive winter periods without a thriving community.

The information must be accurate, it must not be skewed and it must be backed by science.

We must leave this community in a better shape for our children.

Location: Manuherekia

915: ONLINE SURVEY

Anonymous User:897562794 2021-06-17 21:11:17 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Keeping an eco system healthy is best outcome for everyone and everything!!

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

916: ONLINE SURVEY

Anonymous User:897562978 2021-06-17 21:13:55 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Healthy functioning ecosystem, as well as providing food. Takes into account manawhenua values

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Land use should ensure freshwater values are not degraded

Location: Queenstown Lakes District

917: ONLINE SURVEY

Anonymous User:897551950 2021-06-17 21:15:07 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

i like the status quo 900l/s, if i want to fish or swim i go to the pool or hydro lake.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

i believe there is a lot of misconception and propaganda around the health of our rivers, i have never been afraid to drink from our local Manuherekia waterways except during extreme flood events when boil water notices are issued due to human waste overflows. i believe river health is not due to farming practices as is being alluded to, but by inconsistent and inaccurate data sets and understanding of our catchment, therefore i would be happy to choose a realistic scenario when time is put into that process, which would include a full analysis of the actual economic impacts of the unrealistic scenarios you offered as choices.

Location: Manuherekia

918: ONLINE SURVEY

Anonymous User:897561164 2021-06-17 21:22:25 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

THE TRUE COST of taking water is never considered or calculated. The impact is far reaching.
Waterways should not to be casualty. It is a backward step in wellbeing of the whenua.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:	Otago
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919: ONLINE SURVEY

Anonymous User:897571938 **2021-06-17 21:36:54 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The science clearly points to the most ideal river health at the 3000 l/s level. I'm also an avid fly fisherman and want to see this river return to healthy flow throughout the year.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This is a quality recreational river and important habitat for trout and native fishes and invertebrates. There should be no compromise on how it is managed. Even 3000 l/s is at the low range of ideal. Please restore this river to historical flows before irrigation water takings caused the current damage.

Location: Queenstown Lakes District

920: ONLINE SURVEY

Anonymous User:897573820 **2021-06-17 21:38:56 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because water quality and the health of the ecosystem are most important to me. If farms are not viable with the reduction of irrigation at this level then perhaps other farming strategies are needed.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Dunedin District

921: ONLINE SURVEY

Anonymous User:897572006 **2021-06-17 21:40:46 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Stick to the 900l/s, if I want to swim or fish I go to the lake

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Stop misleading the townies saying it's shit and degraded when it's not and blaming farmers coz of your inconsistent data.

Location: Manuherekia

922: ONLINE SURVEY

Anonymous User:603021948 2021-06-17 21:42:31 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Equitable for all water users

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

A proper plan to progress raising the height of Falls Dam. This will enable environmental flows year round

Location: Central Otago District

923: ONLINE SURVEY

Anonymous User:897594994 2021-06-17 22:43:59 +1200

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

River more important than money, use smart science and smart farming to solve irrigation issues.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

924: ONLINE SURVEY

Anonymous User:879401112 2021-06-17 23:11:34 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I have kids attached to me who swim in the Manuhereikia river. I fish in the Manuhereikia. I often wade in the Manuhereikia. I eat fish from the Manuhereikia.

Q3: Do you have any other feedback on water management in the Manuhereikia Rohe?

Flow levels below three meters per second are compromising my interaction with the resource to the detriment. I am a sufferer of psoriasis and I often have skin fractures on my legs. I fear that wading in low flow conditions on this river are a threat to my health so I avoid doing it.

Location: Manuhereikia

925: ONLINE SURVEY

Anonymous User:775903878 **2021-06-17 23:17:10 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because out of all the scenarios it is Scenario 5 that best supports the natural values of the river.
I note that the values are described as 'good'
I would support a higher minimum flow.

Q3: Do you have any other feedback on water management in the Manuhereikia Rohe?

It is a game changer to prioritize the principles of Te Mana o te Wai.
Previously Economic values were given priority which resulted in poor outcomes for the ecosystem, mahika kai, swimming and sport fishing.

Location: Central Otago District

926: ONLINE SURVEY

Anonymous User:569699327 **2021-06-17 23:50:50 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My absolute preference is status quo at 900 l/s which this survey has wrongly not given as an option .

The simple reality is that at 900 l/s , all the objectives of this discussion process are already viable . People can and do swim , fish , use water for irrigation , as well as supplies town drinking water , right now . And they have done so more successfully especially since the Falls Dam was built and used to help control and supplement the river flows as required .

It's critically important to acknowledge , 900 l/s is the minimum flow and not the permanent, year round flow of the river . This is something the critics of using the river for irrigation seemingly fail to want to understand

Further , the river runs at different levels across the length of the river . It is totally wrong to think that if the river is at 900 l/s at the camping ground , it is the same level upstream . It is almost always higher to much higher and this is something the critics fail to give any acknowledgement of either .

It is an undeniable fact that the current 900 l/s minimum , does already sustain aquatic life , recreational opportunities , town water and meet irrigation needs . It is a well managed position , that any decision to increase the minimum flows , will unbalance .

I believe the river is successfully kept in a balance during the irrigation season that deserves credit , not criticism .

With respect to fish numbers in the river , I would ask , how many reports are there of fish “ in poor condition ”, that the river needs higher minimum flows to cater for ??? It is a smaller river than the Clutha so obviously there will be fewer fish , but I would argue the population is right for the size of the river as it is .

In considering any of the proposed greater minimum flow options , the more un-balanced the outcomes become to the producers reliant on irrigation . To the point that especially at 2500 l/s and higher , the greater the economic damage to not just the farming and the viticultural community, but all those who rely on those businesses as well . This impact needs far greater consideration and priority than the “hierarchy “ model ORC have adopted that sees river aesthetics prioritised on top , and values economic and social aspects as equals . This is a deeply flawed approach and needs reconsidered giving more weight to the benefits generated from the wealth produced off our land .

Any negative decision impacting farming and viticulture will see up to 305 jobs at risk as quoted CODC Mayor (CO News 17/6/21) and will come with huge rates reduction to CODC and ORC itself , to help fund their respective operations.

The greater the lifting of the minimum flow , the greater the economic harm to our community as we currently and historically know it . It will almost certainly cause social displacement as businesses face laying off staff or closure . Schools will see rolls fall as families likely move out of the district . Sports teams and almost every social club will lose members as a consequence from lifting of the minimum flow

I am 5th generation in this district . My family and many like mine have contributed to the economic and social well being of this district for well over a century . Any decision to increase the minimum flow could make utter waste of this history .

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

1 - With respect I believe the ORC are under pressure to deliver an outcome somewhat influenced from Wellington. The outcomes being considered don't seem to be interested in the history of the river in improving the many lives across our wider community.

I believe the current management of the river has advanced to a highly developed position that has continued to be built on since the building of the Falls Dam . More recently strategies around irrigation rosters replacing “on demand “ quota systems and the technology allowing greater monitoring and control

of the irrigation takes , all contribute to the greatest overall outcomes including recreational, town and irrigation.

I believe the management of the river as developed over the decades since Falls Dam was built , is the best system to continue with into the future

2- I believe the real reason driving the changes comes from Central Government. This has put the ORC under time pressure and this has impacted on what seems incomplete data being used in decision making process . Some of it is not even peer reviewed . It is foolish to rush in and make any decisions based on expediency rather than finishing the research first . There are too many incomplete studies that make an informed decision both impossible and unwise at this very moment.

The river is not as “ broken” as some people claim .

3 - Many farms , vineyards have invested heavily in modern irrigation technologies . I believe due to increased awareness and smarter fertiliser use , any water quality issues identified, will slowly improve with time . It is not something that can be sped up or fixed over night .

However there are other factors influencing water quality that I would suggest are not receiving same level of scrutiny as farming operations. I refer to large duck and/or geese populations . These wild populations are uncontrolled and seem to be in the too hard basket when considering how to manage water quality. Nor can human factors be ignored in the higher populated areas as the river gets closer to Alexandra.

4 - In considering calls for higher river flows , the only solutions put forward are for farmers and vineyards to be stripped of some , or a lot of their legally recognised share in the waters making up the Manuherekia .

As already stated , the river already is protected by a minimum flow to ensure recreational, town supply and economic opportunities can co- exist .

Any potential increase in storage to meet calls for higher flows should be paid for by those groups wanting this change .

5 - If we genuinely accept climate change brings risks to low lying islands and coastal areas , then in reality the river can / should be managed in a way to see less rather than more water reaching the coast.

Location: Manuherekia

927: ONLINE SURVEY

Anonymous User:897770091 2021-06-18 06:58:22 +1200

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because it's not any good to have a healthy river if we can no longer afford to live in our community because of the damage it will cause to farms and there potential for employment and income spent in our town stores and businesses

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Yes I would like to remind council members just who pay their wages and to be more transparent and honest.

Location: Central Otago District

928: ONLINE SURVEY

Anonymous User:883953866 **2021-06-18 07:00:49 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None, as the scenarios will decimate rural communities with increased restrictions on access to water. It does not take into account that much of the river water quality is good to very good with some areas identified as a problem and needing remedial action. The proposed scenarios take a sledgehammer approach to water management in the area. Our preference is for Minimum flow of 1,100 l/s at the Campground. I understand that this is NPSFW 2020 compliant.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

929: ONLINE SURVEY

Anonymous User:897782688 **2021-06-18 07:27:50 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Change without being to extreme, is needed

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

930: ONLINE SURVEY

Anonymous User:893414971 **2021-06-18 07:39:12 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the above. These scenarios will have a huge negative effect on the future of my family farm. Changing the current flow will have an impact on the future of my job working in the agriculture industry. Leave the river as it is.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

No leave it as it is

Location: Manuherekia

931: ONLINE SURVEY

Anonymous User:897790757 **2021-06-18 07:56:33 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Flow rate of 1100 litres/second at Campground because this flow rate is NPSPW 2020 compliant. This flow rate is an environmental improvement upon status quo. Falls Dam in its current form does not have the capacity to support the environmental flow scenarios listed above during dry periods, unless this has a severe impact on primary industry in our area and subsequent economic wellbeing of our community.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Serious consideration to be given to expansion of Falls Dam infrastructure to increase capacity as part of long term plan to support river health and economic prosperity.

Location: Manuherekia

932: ONLINE SURVEY

Anonymous User:897805568 **2021-06-18 08:28:42 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

If the irrigators had not built a dam, the Manuherekia would dry up in the summer. This is clearly its natural state.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

933: ONLINE SURVEY

Anonymous User:897348640

2021-06-18 08:29:07 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

i think the minimum flows should stay the same ,because if they are increased i may not have a job ,as it will not be profitable for my firm to employ the 5 workers we do at present.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I have no problem with the river as it is ,and take our family swimming there on hot summer days .

Location:

Manuherekia

934: ONLINE SURVEY

Anonymous User:897808658

2021-06-18 08:40:39 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None status quo should remain for not only the farming community but the whole community.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It is a waterway that belongs to us all and should be used to work for our community as a whole

Location:

Manuherekia

935: ONLINE SURVEY

Anonymous User:897808507

2021-06-18 08:43:19 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would rather it stays as is because with out the water my place is bugged

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The river use to run dry before the dam was put in so it would run dry if you use the dam water any faster

Location: Manuherekia

936: ONLINE SURVEY

Anonymous User:897812893 **2021-06-18 08:47:56 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is the healthiest scenario. It is good for the river and for the general public. The river can be enjoyed by many. It is not depleted to serve the financial interest of the few. In this way, we are taking care of the environment, the one thing New Zealand is lauded for. This is sustainable.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

937: ONLINE SURVEY

Anonymous User:897812209 **2021-06-18 08:48:17 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None status quo should remain the river should be to

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The river should be there to service the community in the best economic way possible or it will be the whole community that will suffer, not just the farmers but the towns

Location: Manuherekia

938: ONLINE SURVEY

Anonymous User:712972923 **2021-06-18 08:51:59 +1200**

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

939: ONLINE SURVEY

Anonymous User:884881732 **2021-06-18 08:57:29 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I support 1100l/s. The reports we have seen and advice we have been given tells us that the state of the river is good from Falls Dam to the intake at Ophir Gorge so we are not dealing with a whole river problem. Surely there are ways to mitigate the problems at the bottom end of the river that would not destroy livelihoods and communities. 1100l/s would be an improvement on the voluntary 900l/s that is in place at present and is NPSFW 2020 compliant.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I love this river and like most people want to see it healthy. I am concerned by the contradictory information we have been presented with at times. It is difficult to make decisions when it is clear that widely diverse points of view are at the table and the information the lay person is receiving may be tainted by a particular point of view. At present I feel guilty for wanting to save enterprise along the river and am not confident in any of the scenarios. Sadly it seems that the best thing for the river is the demise of all human activity along it except for fishing. That won't sustain our communities. If we were to go for this option what would be the status of the Falls Dam. I assume it would be deconstructed as an unnatural barrier to a once wild river. If it is needed to maintain water flows in dry periods then the natural state of the river is already compromised.

Location: Manuherekia

940: ONLINE SURVEY

Anonymous User:897809846 **2021-06-18 09:00:27 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Preference for 1100 l/sec at Campground

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Appropriate flow regime to: improve waterbody and instream values at this location and to underpin a level of primary and community economic conditions that do not decimate the rural communities.

Location: New Zealand

941: ONLINE SURVEY

Anonymous User:897820945 2021-06-18 09:17:10 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The status quo is viable as pre irrigation dams summer flow was nil, because of our low rain fall.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Some deserts get more rain, we try to maintain water holes and creeks with potable water when possible. Being frequently subject to droughts makes this sometimes an impossibility. Irrigation and dams is the only way to counteract this. So i vote we leave the minimum flow at the status quo.

Location: Manuherekia

942: ONLINE SURVEY

Anonymous User:897868750 2021-06-18 10:26:32 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It is absolutely imperative that the status quo remains. The impacts on the local community are huge for anything other than the minimum flow that is already used. The way this process has been conducted by the ORC is a joke and full of misinformation with an aim to mislead the public. Economic and social impacts to all in the community are not being listened to. Wake up ORC.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The personnel you have are not experienced enough or do not have the correct scientific information to make these crucial decisions. They are unwilling to listen to reason.

Location: Manuherekia

943: ONLINE SURVEY

Anonymous User:897868750 2021-06-18 10:31:28 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't want a major impact on the community by raising minimum flow to unworkable levels for the benefit of so few. Farmers, horticulturists, small business owners, schools will all be negatively impacted by this move. Banks will not lend for development restricting spending and affecting the wider business community.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Its is poor the current minimum flow was not an option above.

Location: Manuherekia

944: ONLINE SURVEY

Anonymous User:897543747 **2021-06-18 10:35:24 +1200**

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because this is indicative of when the river was in good health and supplied exisiting irrigators their adequate quota

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The water health and flow is in good shape still it gets to Ophir at times the river runs nearly dry at an intake near chatto creek snd is refilled again by tributaries and manor burn dam run off - before it gets to the shaky bridge . Giving the illusion that there is a consistent flow between Ophir and shaky bridge . We need a new water measuring device at chatto creek railway bridge - then we can accurately gauge the decrease in flow and illegal taking of water via the intake near chatto creek. Water thefts are a huge issue . Planting along the river banks to restore fish habitat and keep the river cool will help recover the river and prevent algael blooms . Also the allocation of water from dairy creek given to manuharikia in the 80s needs to be up taken to recover water taken for irrigation as this allocation was designed to do . Please progress this allocation to the manuharikia as is rightfully ours

Location: Manuherekia

945: ONLINE SURVEY

Anonymous User:897812893 **2021-06-18 10:35:52 +1200**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This scenario supports the health of the environment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

946: ONLINE SURVEY

Anonymous User:897880574 2021-06-18 10:58:13 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This will contribute to the optimum health of the Manuherekia. I have not swum in the river for the past two years because of the state of it.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Limit dairy. Dairy belongs in the Waikato. Especially centre pivot irrigation. The practice of cutting down trees and installing unsightly irrigation is both short sighted and environmentally wrong. In the not too distant future we will be replanting. The Manuherekia valley at night is now plagued with flashing centre pivot lights. The choice needs to be made as to whether we support the personal wealth of farmers who are destroying the environment or implementing a minimum flow of 3000 l/s which will have far reaching benefits for everyone. At present our river and the Manuherekia Rohe is suffering.

Location: Manuherekia

947: ONLINE SURVEY

Anonymous User:897812893 2021-06-18 11:15:27 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I have just read the article in the newspaper and it really irks me that its okay for farmers to take and take and take from the river without regard to its impact to the environment and river health. It is not okay NOT to have a guideline on the minimum flow allowable and a framework on which farming has to work within. I appreciate that irrigation is important but it should not be taken at the expense of river health. It may serve the interest of the farming community now but this is not sustainable and would mean a certain death and deterioration to the river over the course of time. What would it mean to us, to our children, to the general public in the next 5, 10, 20 years. Whatever we do to the environment will ultimately affect us

albeit not immediately. This is not even the most ideal scenario but it will suffice. River health takes precedence and the economic impact suffered by farming will be offset by economic gains in other areas as brought on by a healthy river, healthy fisheries and the beauty of nature that attracts anglers, tourists, cyclists, families and locals to the area and the ability to share and enjoy this resource that is not solely intended for the benefit of the farming community but for everyone.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

948: ONLINE SURVEY

Anonymous User:570354843

2021-06-18 11:33:23 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My preference is for NONE of the listed scenarios.

At the present time my preferred option is for a Manuherekia River main stem minimum flow of 1100 l/second "at Campground" with set residual flows at the relevant confluence point of the main stem and larger tributaries.

- It is my opinion that ORC should be giving, (should have already given) serious consideration to this scenario
- This scenario is feasible without introducing high risk economic shock and instability to primary producers and catchment communities
- This scenario provides an environmental (in-stream) improvement
- With community co-operation this scenario could be achieved on 01.10.2021, however one of the issues the catchment is facing, come 01.10.2021, is that with the expiry of Deemed Permits dismantling the system of priority order (as the basis for the legal abstraction in times of low flow) the catchment is left with no order. That is a very uncomfortable place to be for anyone who is downstream of another abstractor.

I comment below on my reasons for 1100 l/sec vs other scenarios, as well as on the actual consultation process.

These comments are based upon my 30 year experience as an irrigation scheme administrator, at the "front-line" when it comes to main stem river flows, fully immersed in the day to day administration and operation of the Manuherekia irrigation scheme, which is a significant abstractor from the lower end of the Manuherekia catchment.

I am well aware our nation is on a mission, with some urgency, to make adjustments in an attempt to combat impacts derived from environmental, social and economic issues.

It is deeply disappointing to me that this current round of planning "consultation" is unfolding in a manner that appears to be hasty, fraught with conflict, politics and personal agendas, simply adding to the on-going saga of the last 10 years.

I do not intend to be antagonistic, ignorant or arrogant. I am simply telling you how it is from my perspective, developed from a lengthy period of incremental experiences (in the field and at the desk.)

NONE of the listed scenarios are currently achievable without causing serious incremental operational and financial distress to primary industry production; with resulting incremental negative implications for our communities. (Refer AbacusBio Manuherikia Enterprise Model Methodology Key Findings Pge14.)

Communities are environment plus people, they cannot be considered in isolation, regardless of lofty planning ideals.

This round of ORC consultation focuses on a single blunt regulatory instrument, ie: a minimum flow rate at Campground during summer. The objective is to meet conditions that protect various catchment values, which by definition, creates tension where the flow rate for a specific value is not necessarily compatible with another specific value.

If abstraction and land use are the cause of diminished conditions for other values, then given the level of abstraction authorized and exercised in this catchment for the last century, and the importance of primary production to our rural communities, current considerations for improving any other specific catchment value, by way of an increased minimum flow rate during drier periods, (ie: greater than voluntary 900 l/sec,) needs to identify and describe the altered operating conditions that be will be brought to abstractors.

There then needs to be consideration of how impacts could be dealt with. So, within the entire catchment, exactly what are the problems with specific values, where are the problems, why are they occurring, should/can improvement be made, what can be done to effect improvement, who can do this, when, and how is this to be facilitated/funded?

In looking to set one regulatory lever, there is one very full can that is being kicked down the planning road for some other time, to become a shoulder-shrugging conundrum, accompanied by the citation of one previously set regulatory limit (Refer Consultation document Para 7 Pge 37 Mitigating consequences.)

Firstly, the consultation pamphlet:-

In an attempt to inform readers on a subject of critical importance, in a complex catchment, ORC has released a public consultation pamphlet which is so simplistic it has been rendered seriously inadequate and misleading.

By now likely you will have read ad infinitum about the pamphlet graphic (also Consultation document Fig 6 Pge 23) and its glaring, misleading inadequacies. The more one looks at that graphic the more it resembles abstract art. Suffice to say it is ludicrous to suggest that swimming, fishing, floating etc does not occur at flows below 1500 l/sec!!

Herding the public:-

In effect, the pamphlet and survey form sets out to herd the public down a path of choosing from a range of minimum flows, upon which many people will not be adequately equipped to provide informed comment, nor will they become so. (This is a reality, despite ORC providing a number of reports linked with the webpage, and a discussion document which is overall, well-constructed for public consultation.)

So, regardless of the path ORC themselves may be herded down, let's not pretend that a critical base figure for environmental regulation can be chosen by way of a public consultation poll.

Back to the pamphlet:-

It turns out, after sitting in on the ORC presentations, that the pamphlet is actually referring to a flow rate for Campground (although it doesn't say so) and is depicting only the lower section of the main stem, we assume from the Galloway irrigation scheme intake to Campground (although it doesn't say so.)

So, the pamphlet is not all-encompassing of the science and values for the entire main stem or the tributaries (ie: the catchment as a whole.) It misleads the public, when a simple sentence could have covered off several very pertinent points.

And, unless one reads the DRAFT Hydrology model report (Scenarios) which was not posted to the website until 28.05.2021, being a bit late for those attending the two consultation meetings 27.05.21 and 28.05.21.... then many people would have little idea of the complexity of the catchment, or the degree of integration needing to be considered.

With the scenario choice range starting at 1200 l/sec, the pamphlet reader can only conclude that ORC are signaling 1200 l/sec is the lowest figure ORC are prepared to consider.

ORC Question to Consider: Are there other scenarios we think ORC should be considering?:-

As stated above, yes, particularly 1100 l/sec.

1. It is our understanding that the Manuherikia Reference Group is minuted as having agreed that the 1100 l/sec option would be included as a scenario in the consultation document. However ORC decided not to run this scenario. Why not?

2. The Manuherikia catchment collective Deemed Permit applications are prefaced by an Overview document that recommends 1100 l/sec at Campground (plus tributary residuals.) The figures in that document did not come from a public poll. They came from a combination of science, modelling and experience; trying to find a balance given the reality of our world (environment + people) ie: not exclusivity of one or the other.

The figure of 1100 l/sec provides a gain to the environment, and we believe is NPSFM 2020 compliant.

It is also our opinion that the risk being taken to achieve this minimum flow rate is at the higher end of what can be borne by primary industry producers, given current infrastructure constraints.

The AbacusBio Farm Economics Report Appendix 1 states that, nearing the conclusion of the their farm economics evaluation project, they were requested by ORC to undertake extra work, ie: for a further nominated flow rate, below the initial lowest figure modelled of 1500 l/sec.

Presumably this request was due to it becoming known there were very significant economic impacts to farming operations for flows at 1500 l/sec and above. (Pge 13.) Hence, the subsequent reporting on the analysis of an additional scenario requested by ORC, ie: 1200 l/sec. AbacusBio have recorded that “due in part to time constraints the impact of a 1200 l/sec regime was determined by a different process.”

It is further reported by AbacusBio, in relation to the work modelled for 1200 l/sec “We understand that the approach taken underestimates the potential dry season impact but should give a reasonable representation of mean EBIT impact.” We ask, how helpful is this when this entire exercise has a focus on dry seasons? The Lewis Tucker Manuherikia Catchment Economics document then comments on the matter (Pge 2) saying the 1200 l/sec flow scenario is “not included in Lewis Tucker’s analysis due to the limited incremental impact when compared with Status Quo.” Really? Try telling that to a primary producer.

For ORC to ignore an MRG recommendation/request and not provide a 1100 l/sec scenario to the public, as an option run through the hydrology and economic models, is an arrogant disregard, of both the MRG stakeholder group and the catchment irrigators ... irrigators who have spent a number of years collaborating, genuinely trying to obtain information and facts and piece together a workable, holistic solution for the entire catchment.

Irrigators have been here before, in a similar way, via the MCWSG. A decision made by higher authorities applying some sort of political appeasement ruler. (Unrealistic, shoot for the stars, pie in the sky clap trap.) It was unhelpful. Wasted much time and money. Didn’t provide or enable a workable solution. And here we go again?

Science, Facts, Truth and Reality:-

Robust science and facts should be used to focus the discussion for decisions upon flow rates that are within the range of reality, rather than fanciful.

We all can have lofty visions and dreams, but the realities of achieving those becomes sobering if you are charged with planning an executing projects to achieve those visions, or are directly facing the impact of levers being pulled to achieve those visions.

An example of presenting false/misleading data is contained within the Longitudinal Flow schematic Figure 3 (Allibone (2021), (Refer Pge 10 of the Consultation document.) This graph depicts a significant error (overstatement estimated at approx 500 l/sec) in the flow being drawn at the Manuherikia scheme intake in the Ophir Gorge.

It begs the question how/why did someone regarded as an expert consultant get this wrong? And is this particular “assumption” used anywhere else in the consultant’s considerations and recommendations; such that it distorts the reality being portrayed to those relying on factual information for decision making? This

sort of basic error undermines confidence (ours and any enquiring mind) in the credibility of data being provided.

Such errors need to be urgently, publically corrected so as not to perpetuate myths as being the gospel according to

The Hydrological Model, Reports and Assumptions:-

The 3 DRAFT Hydrology Model reports contain statements about their purpose which indicate they have not yet been reviewed or approved by the Hydro Group, and that a further Hydrological Model report has yet to be commissioned.

While the calibration report contains some degree of comfort about the accuracy of results, we would implore ORC to stay the course and ensure this vital tool is sanctioned by the Hydrology Group as being fit for purpose, along with commissioning, receiving and releasing the final report, before singing the model's praises to the community at large.

There is an assumption within the modelling that under each of the scenarios the existing flow sharing agreement and dam augmentation arrangement would apply. While this may have been the instruction given to the Hydro Group, it is a highly questionable assumption for any of those higher flow scenarios.

River management is dynamic, not static. Models are models, working with specified framework.

With the dismantling of a century old system of catchment order (priorities,) then as an abstractor residing at the lower end of a complex catchment, it is not a comfortable geographical location. There is no certainty that assumed parameters will actually exist beyond 01.10.2021.

In looking to the future, and in considering a key decision that will direct river management, it may help significantly if the entire community were provided with an opportunity via ORC, for Ian Lloyd to conduct a workshop on the hydrological model. Explain the various scenarios, especially the finer points of the impact of each scenario. Frankly we would have considered this to have been a critical part of the community consultation, and for an 1100 l/sec scenario to be included. We wonder why such a workshop has not been facilitated. Is this because the Hydro Group's work is unfinished, ie; still in DRAFT, has not been approved, or reviewed? What is the plan?

Falls Dam:-

The existing dam will not provide the catchment with a fairy godmother solution for a significant environmental flow beyond status quo. The current Falls Dam is a junior assistant. Vital in the present team equation but comes with limited extra capability, without major upgrade.

Those who think that the existing dam, near the head of the catchment, can somehow magic up significant extra volume during drier periods, bolstering flows at the lower end of the catchment for an extended period of time, demonstrate a complete lack of understanding of the catchment dynamics.

How it actually is for those of us at the sharp end of a drier period:-

As a catchment, considering a Falls Dam wall raise, for increased storage capacity, we have looked at various minimum flow scenarios (under the original GoldSim model, designed specifically for that purpose.) So we are aware of the detrimental impact upon primary industry operations that starts to "bite" beyond an increased minimum flow of 900/1000 l/sec at Campground, when conditions are dry.

From time to time we actually have to live it, day by day at our desks, in the field, on the farm, keeping multiple daily checks on the recorded flows along the length of the main stem, and within the schemes, noting the daily draw down from Falls Dam, acutely aware of weather conditions, weather forecasts, making decisions for the river, for the schemes and of course on-farm. It is a stressful time. We have lived it. We know what it means, physically, mentally, environmentally, financially.

This wealth of knowledge should be harnessed, not sidelined or ignored, which many of us feel has been the case to date, regardless of the spin put on the role of the Manuherikia Reference Group (MRG)

Harnessing the knowledge/Manuherikia Reference Group (MRG) Consultation document 1.3 Pge 5:-

Given the Manuherikia Catchment Water Strategy Group experience, I seriously doubt that MRG, as a group of diverse stakeholders was able to be effective, and so sadly, became a token or pawn in this process. I do not doubt the sincerity of the individual group members, rather it was the group structure and their working conditions which would have been problematic in executing their role effectively.

Taking the cut:-

ORC states the obvious. To make instream environmental improvements when water is short, and without increased storage, it is primary industry that has to take the cut. The questions are, by how much, and how is that sliced and diced throughout the catchment, who or what gets to pick the winners and losers, who funds and maintains the infrastructure required for those who are left with the role of producing food, beverage and fibre on irrigated land, why and how?

Primary industries and the communities in this catchment have evolved and developed through the grace of the NZ Govt (1910 to 1940) and then partnership between the Crown and the people whose livelihoods are derived from the land. Historically, the sudden decline of national economic wealth from gold needed to be replaced by the promotion of wealth from primary industry. It is unrealistic to expect that current primary industry producers can somehow fund a significant catchment reset in terms of affordability, and without land use consequences or community disruption. So what is the plan?

Actual active steps taken by our scheme towards environmental improvement:-

As an irrigation scheme, the Manuherikia Irrigation Co-operative Society Ltd have been looking for catchment solutions since February 2000. Over a 20 year period we have been involved in 3 different major prefeasibility or feasibility studies. Solutions do not come easily for a variety of reasons.

During the last four years we experimented with, and made infrastructure and operational changes, which enabled us to positively contribute to improvements in catchment flows by 2021.

The changes made by our scheme enabled us to cease our abstraction from two small tributaries and one larger tributary, with an estimated gain to the main stem of at least 150 l/sec during drier periods. We have done this voluntarily and without fanfare. Actual action, not just talk.

Horticulture and viticulture hung out to dry (who was the ostrich here?):-

Horticulture and viticulture operations, their requirements and contribution to our community have either been excluded from, or given broad-brush reference in the Consultation document (Refer Para 2.3: no ref to horticulture) and the hydrological model and the economic reports.

(Refer Manuherikia Catchment Economics Discussion Document Lewis Tucker Pge 2: "in Lewis Tucker's view the most significant limitation is the exclusion of earnings from horticultural land ... likely to have a material contribution to Catchment earnings due to per-Ha profitability.)

In 2021 we would consider this exclusion a serious flaw, particularly given the desire or need for primary production diversity towards higher value crops along with appropriate land use coupled with appropriate soil and climate conditions.

Recent developments (last 20 years) in the lower part of the catchment mean the catchment is not all about pasture and livestock, as is evidenced by our shareholders which include the McArthur Ridge Group (commercial viticulture,) Leaning Rock Cherries Ltd and others (commercial export horticulture, including organic.)

With modern day hort/viti ventures framed around the production of top quality export fruit/beverage, it is acknowledged these activities need 100% irrigation/frost-fighting reliability.

The statement that hort/viti producers can and will provide on-property storage to cover off the need for 100% reliability can only be made through ignorance or arrogance. (Refer Consultation document 5.4 pge 19.)

We implore ORC to delve much deeper into this matter, become familiar with, understand, and accept the need to include and support these land use activities, both immediately and long term.

It is a simple sum or it is not done (Minimum flow + Allocation blocks):-

With ref to the Consultation document 5.3, the critical partner in this discussion, allocation blocks, has yet to be addressed. Allocation blocks go hand in hand with minimum flows. In our opinion finalizing a minimum flow cannot be separated from setting minimum flow rates. The two need to be considered in tandem. What is the plan?

Other factors influencing low flows in the lower main stem:-

Where is the mention of factors, other than irrigation abstraction, that are effecting flow and conditions in the lower catchment; the influence of Lake Roxburgh and the dams at Roxburgh and Clyde:-

- the gravel build up near the confluence
- the underground flows
- the silt deposition
- the proliferation of willows along the river bank (thirsty suckers)
- the fact that the river is not a pipe

It needs to be understood that the fact that the river is not a pipe, an additional xxx litres per second input at a particular location during dry conditions does not equate to xxx litres per second at Campground. Xxx becomes something less, can be much less, depending on the conditions and the source of the extra flow.

So when the chips are really down, there is the consideration does “robbing Peter to pay Paul,” in order to attempt to achieve a specific enhanced environmental outcome near the confluence with the Clutha become justifiable overall?

Degraded or Graded (Okay, Good, and Better):-

So ORC, it is with dismay I conclude that so far, this minimum flow process for the Manuherikia catchment is half baked again you have come out to the public in haste, bobbing and blundering about, DRAFT reports here, work not complete there, a glossy meaningless brochure, crook graphics, some new and obviously genuine staff trying hard to put this puzzle together, let down by what? questionable timelines? we wouldn't really know, but to date this is NOT Okay, it is way less than Okay,

The collective we (all stakeholders) need ORC to do Better

Why? Despite the blinkered perception of some stakeholders or participants in this debate, many of the irrigators within the catchment have worked extremely hard over the last few years to try to set a better course for our freshwater resources. And despite the current planning processes eroding patience and goodwill, we need to keep up the momentum of increased knowledge, awareness and enthusiasm to effect positive changes.

Therefore we need ORC to perform its role in an open and transparent manner, in genuine collaboration, with diligence, common sense and thoroughness, without political or personal agenda influence

The solution we can offer right now:-

Currently a minimum flow rate at Campground, greater than 1100 l/sec fails the economic test for the health and well being of our primary producers, therefore our rural communities.

I recommend that a wide group of ORC staff and Councilors take a look at and consider the river management proposal which has been filed with ORC ie: accompanying the suite of Manuherikia catchment resource consent applications waiting to be processed.

I suggest this comprehensive body of work, (covering off all the regulatory “lever” provisions listed in the Consultation document Para 5) would assist to set a pragmatic path for us all to move towards a better tomorrow.

Any other solutions, without creating significant shock and disruption to our rural communities can only come after all the other pieces of the puzzle are known and then able to be considered together with a long term strategy, likely requiring shared funding, subsidy or compensation, underpinned by certainty of outcome.

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

For the last 30 years the Manuherikia main stem, during times of lower flows, has been micro-managed by two individuals, in consultation with the Falls Dam Board and irrigation schemes Boards/Managers. Given my role I know that these two individuals have undertaken that very large responsibility with diligence, They have done their best, under the current regime and with the tools available to them at the time ... ie: a

dam with 9-10Mm3 effective storage, dam level information, strategic river location flow information, automated control, and weather forecasts to balance abstraction rates with ecological and recreational needs of the river near the lower end. Whatever the future brings, these two should be respected and applauded for their significant contribution towards responsible main stem flow management.

Location: Manuherekia

949: ONLINE SURVEY

Anonymous User:897904642 **2021-06-18 11:37:17 +1200**

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't like any of them because the farmers in this area really need reliable irrigation especially in the Summer.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

no

Location: New Zealand

950: ONLINE SURVEY

Anonymous User:896627886 **2021-06-18 11:38:04 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

prefer 1100/litres a second at the camp grounds

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

By maintaining the flow as above it will help employment as the orchardists, farmers etc will be able to irrigate. The river is there to be enjoyed by all.

Location: Manuherekia

951: ONLINE SURVEY

Anonymous User:897887179 **2021-06-18 11:38:36 +1200**

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Yes. Please see written submission sent via email from Mandy Dalziel @ ORC 18-06-2021.

Location: Central Otago District

952: ONLINE SURVEY

Anonymous User:897891102 2021-06-18 12:01:09 +1200

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

At this rate, there seems to be a good balance between ecosystem health and farm viability and irrigation. We should ensure that we will be able to benefit from the resources coming from the Manuherekia river for years to come and also ensure that we are not putting too much stress on the river by having its level down very low. Everyone has a right to enjoy use of the river and its resources.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

953: ONLINE SURVEY

Anonymous User:897920499 2021-06-18 12:17:51 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I do not like any of this scenarios however if one has to be chosen then i feel that scenario one covers all basis fairly. A minimum flow of higher than 1100 has detrimental effects on the viability of farming and its associated businesses which in turn decreases the viability of small towns and schools and also decreases the quality of life of the people living in these areas. If the minimum flow is to high then even swimming in the river becomes hazardous as well.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The river is enjoyed immensely how it is now with swimming, fishing, hikers etc even with irrigation water being part of that. I feel that the brochures have grossly misrepresented the data of the river and has never shown that most of the river is extremely healthy and only a smaller percentage needs addressing. These issues were also not made clear during the drop in sessions either.

Location: Manuherekia

954: ONLINE SURVEY

Anonymous User:897871106 2021-06-18 12:18:45 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

there is no balance between people the economy and the environment. Cant ORC try to find a win/win solution for our land users and the river integrity? I understand it is approximately 30% of the river that is degraded. What options have been investigated to ameliorate this situation?

This Govt seems to have an agenda to convert farmland to horticulture. Where is the planned new infrastructure to support land use change and improve water outcomes which will protect the ecology of the river.

Prudent use of the water from the river is another issue. It is heartbreaking to see water running down the gully at the Dunstan Road outlet when water is not taken up by irrigator and the sight of massive flood waters racing out to the sea beggars belief.

Extra water storage is desperately needed to take the pressure off the river to enable its full recovery for the continued use of all.

Are funds earmarked to compensate farmers/growers for the projected significant decrease in land values and productivity if any of the options (2 -5) are taken up by ORC.

This feels like a "quick fix" option to just get the job done!!!! and therefore we could miss the opportunity to identify the best strategic outcomes that could have benefits for all interested parties.A

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

955: ONLINE SURVEY

Anonymous User:897920499 2021-06-18 12:26:24 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I do not agree with scenario one but there is no "none" option. I feel that these scenarios are absolutely unachievable for the area we live in. One good drought and you will not meet any of these flows. Even the current flow is hard to maintain in drier years.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Irrigators have worked for a long time with independent experts and users of the river to find a solution that is acceptable to all that use it and addresses environmental and community well being while being

viable to farming and businesses that rely on farming to survive. I feel like the information in the brochures and delivered at the drop in centres was misrepresented and no effort was made by the council to explain it. I am disgusted with how this is being handled especially when a lot of work has been done by the irrigators to find a decent solution.

Location: Manuherekia

956: ONLINE SURVEY

Anonymous User:897852933 **2021-06-18 12:31:23 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The community and irrigators have been working for years on a proposed solution, providing well gathered science to back up the proposal to raise minimum flows to 1100. This proposal is a far better option than the 5 offered above as it strikes a balance between the needs of the farming community and the wants of others. Not only will it improve the river, but also because it has had significant community input and negotiation, as well as buy in from the irrigators it is far more likely to succeed and sooner.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The consultation brochures do not accurately represent the values and science of the whole river system. Only the bottom 20% of the river length in summer was described in the graphs. The brochure in the mail came across as clearly having an objective of the higher rates through the use of language and did not appear to be neutrally presenting the facts.

Location: Manuherekia

957: ONLINE SURVEY

Anonymous User:897920499 **2021-06-18 12:34:23 +1200**

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of these are any good. Ive been farming here all my life and when it gets dry you will not be able to maintain any of these flows.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Listen to the farmers, they know what they are doing, they care for the land and water as its how they make their income. They have no business and will lose their way of life if they don't take care of the land w]and water. If the minimum flows are set too high then farming becomes unviable and people will leave the area. This will also have a flow on effect to business supported by farms and also small towns and schools which are supported by farming.

Location:	Manuherekia
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958: ONLINE SURVEY

Anonymous User:897920499 **2021-06-18 12:40:43 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Most of these scenarios are fairy tales and I don't agree with any of them. Any scenario above scenario 1 is very unachievable for this area, even with a minimum flow of 1100 is hard to maintain

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I'm concerned that if the minimum flows are set to high then farming will become unviable, therefore small businesses that rely on farming will also suffer and it will result in the death of small towns and schools that are currently lived in and enjoyed in this area. It will mean the decline in revenue generated in this area for the whole region.

Location: Manuherekia

959: ONLINE SURVEY

Anonymous User:897852933 **2021-06-18 12:43:54 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I prefer to go with the proposed flow of 1100 that we have spent many years and resources working towards, finding the balance between river health and our ability to continue farming. The comprehensive faults and unfinished science in these proposed scenarios make it impossible to make an informed decision.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The modeling assumes the same sharing and dam management regime would occur under the higher minimum flow scenarios as status quo – this is seriously flawed. This whole scenario process has treated farmers as if they are not interested in a healthy river, yet we are part of the community that swims in it, fish in it and tramp and bike round it. We do very much care for it but the media around it and even the brochure wording treats us as though we don't.

Location: Manuherekia

960: ONLINE SURVEY

Anonymous User:880416443 **2021-06-18 12:47:14 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't like any of the options, as it is pretty much saying stop farming or you will have poor quality of water, we live in NZ with agriculture being a big part of who we are, we have done it for years. I think the big question really should be what do we want for central Otago, do we want to accommodate the dairy sector or are we happy to have 80% of the population sell and farm elsewhere, a subsidy could be provided to them to encourage sheep farming, or other potential options should be provided to them instead of pretty much putting a proposal out to the public threatening farmers' livelihoods if the vote goes the other way.

Q3: Do you have any other feedback on water management in the Manuhereki Rohe?

Location: Central Otago District

961: ONLINE SURVEY

Anonymous User:897888788

2021-06-18 12:48:29 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Stick with the status quo. Every scenario will cause economic pain across the Manuhereki Valley. Use water storage and improve irrigation schemes so that both minimum flow can increase and more land can be irrigated.

Q3: Do you have any other feedback on water management in the Manuhereki Rohe?

I've lived in the Manuhereki Valley for the majority of my life. With any of these scenarios other people will not be able to take advantage of the same opportunities I have. I've lived alongside the river, swam in it and drank from it. I do have a spiritual connection with the river, but with these scenarios less people will be able to live in the Manuhereki Valley.

I think the CODC analysis of the job losses from each of the scenarios is seriously under-estimating the impacts. If three hundred jobs are lost, those people will need to find work elsewhere. A few will be able to find jobs in the region. But over three hundred people (including partners and children) will need to move from Central Otago to find work. The impact of people leaving will distort the property market meaning that both ORC and CODC income from rates will decrease.

Seasonal water storage is the key here. If the larger flows in spring and autumn can be stored, the minimum flow targets are easier to meet. The obvious solution is Falls Dam, but there are possibilities for other storage schemes. With proper planning and the correct safety structures in place they could also be used for public amenities- swimming, water sports, perhaps even fishing.

At the public meeting, ORC representatives revealed that it was only the bottom 30% that was "degraded." Omakau wastewater needs to be pumped away from the Manuhereki River. Yes, a large capital cost, but the resulting environmental benefits would be enormous. Also Alexandra stormwater could be stored and released into the river. Currently it simply flows from a culvert on the north side of Little Valley Road, straight into the river- making the river rise when the level is already elevated by rainfall.

Downstream of the Galloway Bridge, a significant portion of the West Bank is uninsurable land due to flood risk. It is only used for cattle grazing and a firewood yard, with a significant mass of exotic willow growth. Surely this area could be utilised in a much better way. Perhaps there could even be underground storage facilities for water and the land level could be raised. Certainly a group needs to be formed to care for the banks of the river between the Galloway Bridge and the confluence with the Clutha River. With the Rail Trail on the East Bank, maybe even a cycle trail on the West Bank to create a loop. At the very least there needs to be better management of the trees. Crack willow is a noxious weed in some jurisdictions, so managing that infestation, while preserving native vegetation and deciduous trees that produce the well-known autumn effect Central Otago is famous for is needed.

And lastly, in Alexandra I have talked to a number of people about the scenarios. Many were unaware of the significant economic cost that every one of the scenarios would have without significant capital investment in water storage. Many while wanting an increased flow and quality are not wanting job losses or a decrease in irrigated area. But one comment that was made repeatedly was is the Manuherekia Valley really appropriate to have dairy cows? It would be a real shame if the outcome of this process would be an increase in dairying at the expense of sheep, beef, horticulture and viticulture.

Location: Manuherekia

962: ONLINE SURVEY

Anonymous User:892663828 **2021-06-18 12:50:00 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of above. Prefer Status quo of 900 l/s.

Our family has farmed this land for over 100 years. Water has been an integral part of the property throughout history. We are privileged to have approximately 11km of mainstem Manuherekia river flowing through our property as well as several tributaries. We farm both above and below Falls Dam so know well the fluctuations in river flow (both low and high) and the role the dam currently plays in augmenting downstream river flows. We utilize the river for domestic supply, recreation, stock drinking water and irrigation.

We DO love the Manuherekia – we live here, we drink it, swim in it and are reliant upon it all year round. A point we wish to note is the stretch of river between the Omakau Irrigation intake and the confluence of the Dunstan Creek has been identified as an area of concern – this section is our preferred choice to swim in and use for our recreational activities due to the lower flows – it is safe and enjoyable for our young children and ourselves.

In reference to Table 2 – Manuherekia at Blackstone: please note there is a large clay slip (2-3ha in size) on Williamson's Hill that is sliding into the river, directly above the Blackstone irrigation intake. It has moved considerably over the last few years and there are also numerous clay cliffs on the riverbank as well as Muddy Creek which has already been identified as a likely source of sedimentation. Sedimentation in this area is a naturally occurring process and cannot be considered when assessing river health.

Our farming business has invested heavily in spray irrigation infrastructure – (as advised from ORC); and this has become a significant portion of our business. Our farming business produces fibre for approximately 100,000 garments and meat for over 500,000 plates each year.

Our farming business supports 3 generations of our family, we employ 6 staff and provide directly for over 18 individuals with many others who are or have been partially provided for by the business. There are also many other local businesses and contractors we work with – garage, engineering, fencing, shearing, animal health and management, transport, spraying, silage making, supply stores, etc. If our business did not have

the irrigation, we believe the labour requirement would be a maximum of 2 staff and obviously nothing like as much work for supporting businesses (or other community groups, sports clubs, schools, etc.).

This seriously brings into question the accuracy and validity of the report on the regional economic modelling. To suggest that only 2 jobs would be lost from the entire region (in a dry year, & 3000l/s) is completely ridiculous – when the AbacusBio report states a large proportion of farms will become financially unviable under these conditions. The economic impacts report produced by the CODC appears much closer to reality with over 200 job losses. It is very disappointing the public are being misled by the absolute nonsense put in the consultation document.

Farmers are continually investing in measures to improve environmental outcomes, such as – strategic fertilizer placement, spray irrigation infrastructure, on-farm water storage, fencing off waterways, riparian plantings, grazing management improvements and highly significantly, the introduction of and adherence to voluntary minimum flows. The documentation has not provided data showing these recent improvements, but many farmers have been measuring water quality and macroinvertebrate populations over time and would happily share their findings. If the minimum flow is increased and irrigation reliability is reduced there WILL be a significant reduction in farmers' incomes and their ability to invest in many of these measures.

The native species, such as galaxiids should be an extremely high priority when considering flow scenarios as they are native and threatened species. Trout are an introduced and predatory species – providing an environment for the trout to flourish is contrary to the goal of ensuring the survival of the threatened native species.

The MALF in the documentation is incorrect. Using a naturalized MALF is misleading; if the Falls Dam is included so to must be irrigation - the river, the dam and irrigation are all linked together. You cannot pick and choose to include one naturalized feature but not the other. Therefore, the naturalized MALF at campground must be 900l/s as this is the current maintained minimum flow. As stated in point 5.1 paragraph 5 – the water stored in the dam is used in the model to augment the minimum flow.

The effect of this is, when looking at ecosystem health, no comparison is possible with what would be the NATURAL flow (without any storage or irrigation). Oral history and articles sourced from the Hocken Library written in the 1860's – pre-irrigation and pre-Falls Dam - provide evidence of natural low flows in the Manuherekia River. Also, there is no data in Table 2 on macroinvertebrates at the Forks which is the best measure of the river in its natural state – what is the reason for this?

Without the dam or irrigation, flow fluctuations would be much more extreme with massive flood events and prolonged periods of extremely low flows – none of this appears to have been modelled – either regarding flows or ecosystem health. It also makes using average flows very misleading. Is the intent to have ecosystem health at a level it would be at if the river were in its NATURAL state? Or is the intent to create an optimum environment for the species of interest? We strongly believe the status quo of 900 l/s must be preferable to what would be the natural state.

Increasing minimum flow is not a good tool to improve water quality; the best fix is to address the source of the problem. For example: 1) the recent sewage system upgrade at Omakau – this will aid in improving quality tests below Ophir; 2) creation of artificial wetlands prior to water reentering the mainstem. Allowing for innovation is essential to protecting the values we all hold dear to ourselves, the river and the community. DRACONIAL RULES DON'T HELP.

We wish to emphasise part of the fundamental concept of Te Mana o te Wai is “restoring and preserving the balance between the water, the wider environment and the community” – would this be achieved through the scenarios proposed?

A side comment - Fish and Game openly promote their intentions in their mission statement “Fish & Game manages, maintains and enhances sports fish and game birds, and their habitats, in the best long-term interests of present and future generations of anglers and hunters”. The needs of introduced predator and pest species should not be considered more important than the needs of native species. Nor are fish and game advocating for overall benefit to the community – they charge a not inconsiderable sum of \$133 (for an adult) just to fish. This “license fee” puts the activity out of financial reach for many low-income earners and does not provide a cost-effective option to put food on the tables of such families instead creating an elitist activity – likely to be made worse with higher flows with further promotion of the fishing tourism trade which provides little or no benefit to the local community.

If minimum flows are to be placed on tributaries in the catchment, then they should be placed on all tributaries in the entire catchment (this would include the Ida Valley and water taken from above the Falls Dam by the Mt Ida Race.)

For any option other than status quo – significant investment from government, regional and district councils towards increasing water storage in the catchment would be essential.

We would be happy to further discuss any of these points.

The outcome of this decision will have a significant impact on our wellbeing - as individuals, as a family, as a business and as a community.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This is mostly covered above.

Since the farmers took over management of the river network through the Falls Dam company there has been a voluntary minimum of flow adhered to and everyone has worked together collaboratively to ensure this.

Any change to the way the river network is currently managed (in particular, allocation and minimum flows) needs to be shared fairly throughout the entire catchment - so there aren't major winners and major losers.

Water users need to be included and listened to in these decision making processes.

Location: Manuherekia

963: ONLINE SURVEY

Anonymous User:897940298 **2021-06-18 12:52:25 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1000 or 1200

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Please listen to the community and think about the effects on people

Location: Manuherekia

964: ONLINE SURVEY

Anonymous User:897940743 **2021-06-18 13:00:11 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because it's the lowest option even though it's still a shit one, as this is really going to effect our lively hood either way. Really disappointed there wasn't a lower reasonable option, especially when farming is the back bone to so much

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

965: ONLINE SURVEY

Anonymous User:897927984 **2021-06-18 13:04:06 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

NONE

The Manuherekia Catchment Group has proposed a minimum flow of 1,100 l/s at the Camping Ground and this has not been included.

Minimum flow of 1,100l/s plus flow from tributaries promotes environmental gains, esp indigenous species i.e. eel and galaxiid.

If flow set higher than 1,100l/s then stored water in Falls Dam runs out sooner and there would be potential for lower river le are not consistant with other vels.

Higher minimum flows, above 1,100 l/s, would increase the risk of damage to the surrounding areas, caused by flooding during high rainfall in the catchment of the tributaries

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The river needs to be considered as a whole. The consultation brochures only show the bottom 20% of the river length in summer as described in the graphs.

The ecological thresholds used in the consultation brochure and public meetings are not consistent with other Otago rivers, nor are they reflective of best practice habitat modeling.

With global warming comes irregular weather patterns including a higher rainfall in the Manuherekia Rohe. The higher minimum flows, above the 1,100 l/s would increase the risk of damage to the areas surrounding the river, caused by flooding in the catchment of the tributaries.

Location: Manuherekia

966: ONLINE SURVEY

Anonymous User:897941879 **2021-06-18 13:04:39 +1200**

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The minimum flow is unrealistic to be maintained re summer and being dry. I took this photo on 31st May from the Galloway bridge and was running at 1400 cumecs

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

967: ONLINE SURVEY

Anonymous User:897930843 2021-06-18 13:06:28 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Please note that I am an irrigation company shareholder (lifestyle block) and a recreational user of the Manuherekia catchment.

I do not support any of the proposed scenarios.

I feel the information provided by the ORC has been misleading and/or lacking in certain areas.

It was not made clear in the information provided that the area of concern is only the river below the irrigation take-off at Omakau. The fact that the area above Omakau to Falls Dam has benefited greatly from the management of water from Falls Dam has not been mentioned. There has also not been any information supplied as to what the flows would naturally be like in the river if Falls Dam didn't exist. My understanding is that the river had been very low in times of drought prior to Falls Dam being in existence, far lower than the 900 l/s that the irrigation company ensures as a voluntary minimum flow at the Campground site.

The valley has been farmed with water from the river system providing valuable irrigation to ensure productivity, and therefore the economic viability, of the area to benefit the whole of Central Otago. To not maintain access to this water would be a severe hardship to farmers and therefore community.

If it is decided that higher minimum flows are required I feel the whole community should be involved in providing financial support to improve the holding capacity of Falls Dam if that is required to maintain the viability of farming in the valley. The ORC need to be actively involved in promoting that.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I think it has been managed well by the irrigation company

Location: Manuherekia

968: ONLINE SURVEY

Anonymous User:897946084 2021-06-18 13:13:16 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I'd prefer 1100 litres per second at Campground as already proposed and lodged for with our permit applications. To get to this number we went through thorough consultation and robust scientific fact finding to come to this number that balances our need to look after our river but also our need to look after our community, as ultimately this area is currently thriving, despite global circumstances, because of our agriculture and supporting industry.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Our family has been here for generations and always have tried to be science led in our approach to farming. The process for the 5 scenarios presented was flawed and lacking in scientific clout, which was a stark comparison to the water schemes work in getting to 1100 as a workable number for our permits.

Location: Manuherekia

969: ONLINE SURVEY

Anonymous User:897946084 **2021-06-18 13:23:51 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I'd prefer 1100 litres per second at Campground as already proposed and lodged for with our permit applications. Based on a lot of fact finding and lots of consultation, this number is far more achievable in the immediate term, and looks after both the river and the people.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The brochures produced were very pointed and ignore completely the farming communities desire to see a healthy river also. Without our farmers, who also swim and fish and enjoy our rivers, there would be no community or industry here. Hence why it is so important that we get this right and find an achievable minimum flow that both improves the health of the river without destroying the community that enjoys it. The proposed 1100 for permits is the best option.

Location: Manuherekia

970: ONLINE SURVEY

Anonymous User:892663828 **2021-06-18 13:23:52 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of above. Prefer status quo of 900l/s

Like the low flow as safe for grandchildren to swim/play in.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Farmers are doing a great job of making the minimum flow work and improving water quality

Location: Manuherekia

971: ONLINE SURVEY

Anonymous User:892663828 **2021-06-18 13:31:30 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of above. Prefer status quo of 900 l/s

There is nothing wrong with current situation.

Like having my grandchildren in the district. If farm they are on cannot irrigate effectively it could have to be sold.

There is a real lack of understanding regarding the sedimentation in the Manuherekia - there is a lack of knowledge around the contribution of Muddy Creek, the slip on Williamsons Hill and the clay cliffs and back flow of the Clutha. Increasing flows could make this worse not better.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Listen to the people whose lives are dependent on the river, they know it best.

Location: Manuherekia

972: ONLINE SURVEY

Anonymous User:897955700 **2021-06-18 13:35:55 +1200**

Q1: Minimum flow preference

2,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The intensification of farming in the Manuherekia and Ida valleys has an inevitable effect on the river increasing nitrogen and bacteria levels. A higher river level dilutes this runoff.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

What is a Rohe?

Location:	Manuherekia
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973: ONLINE SURVEY

Anonymous User:897954973 **2021-06-18 13:37:08 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The science undertaken by the Manuherekia catchment groups (using independent experts) and the agreed river management plan put forward to ORC has been ignored by those groups who have not been involved in the carefull managemnt of the river.

Their public statements are emotive and non scienced based and therefore not considered .

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

yes .The manuherekia river is just fine the way it is and should be left as it has been managed for decades .

Location: Manuherekia

974: ONLINE SURVEY

Anonymous User:897956808 **2021-06-18 13:48:59 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None of the scenarios here will ensure the continuation of irrigation for farmers - and this will drastically change the livelihood of so many families, including my own!

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Our family farm backs on the the manuherekia - behind lauder - and for as long as I can remember we have been swimming every year at a swimming hole. The water is fresh and there are trout in that part of the river. I would rather the river stays as is and my family be able to continue farming - meaning that my 8 week old son will one day be able to swim in the same spot - than cut farmers livelihoods for the good of tourist fisherman and people who have no connection to the awa!

Location: Manuherekia

975: ONLINE SURVEY

Anonymous User:897964219 **2021-06-18 13:56:22 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Any of the other scenarios would make it extremely difficult to carry on farming economically on our 1700ha property near Becks. Even the 1,200l/s would negatively affect farm irrigation and associated export income. Think of what would happen to Omakau following a severe reduction in farm incomes.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

We use the river now for recreational purposes. Much of what you are proposing has not been scientifically evaluated and makes dangerous assumptions about such factors as the Falls Dam management.

Location: Manuherekia

976: ONLINE SURVEY

Anonymous User:897963504 2021-06-18 14:07:28 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We need to restore the health of this river. Apart from the natural degradation due to lower rainfall and higher evaporation rates, we are seeing much increased uptake for commercial productivity. It was evident, to even a lay person, such as myself, more than ten years ago when farmers were seen to be investing in higher intensity practices, that these practices were non sustainable and therefore had a limited lifespan. The time has now come to this realisation. Every farmer, and the ORC, would have been well aware of this, and now must adjust their practices to operate at a more sustainable productivity level.

I love to swim in this river, but my last swim there, earlier this year, was not pleasant.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

977: ONLINE SURVEY

Anonymous User:893159160 2021-06-18 14:08:00 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None - The above minimum flow rates do not suit the irrigators or the community. The preferred min flow is 1,100 l/s.

Minimum flows higher than 1,100 l/s have an increasing detrimental impact on the viability of farming and the associated businesses in the catchment. Personally it would reduce my income as I would need to lower my stock numbers due to the lack of feed that can be grown such as grass, hay, etc.

If the minimum flow is set higher than 1,100 l/s then the stored water in Falls dam WILL run out sooner and we will potentially have major water shortage situations.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The consultation brochures do not accurately represent the values and science of the whole river system. Only the bottom lower 20% of the river length in summer was described in the graphs.

The modeling assumes the same sharing and dam management regime would occur under the higher minimum flow scenarios as status quo - this is seriously flawed.

the hydrological model and its outputs have not been peer reviewed or signed-off by the hydrological experts.

The expansion of the Alexandra area, local businesses, services and community activities all are dependent on the farming in this area and will all suffer if the minimum flow is set above 1,100 l/s.

I farm along the river bank, I have campers that come every year to stay in paddocks, they swim, fish and drink out of the river, they are all happy how it is and do not want it to change. Local fishers from Alexandra come out and enjoy the peaceful fishing spots along the river bed on my property, they too do not want it to change.

Location: Manuherekia

978: ONLINE SURVEY

Anonymous User:897964219 **2021-06-18 14:10:50 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

For continuation of farming in the valley, scenario 1 would be the best of a bad choice. I say 'bad' because you are making decisions without detailed scientific study having been performed. Indeed on parts of the river I understand almost no research has been done at all. In fact, the unfinished science makes it very difficult to make any informed decision at all.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Irrigation methods have been improved significantly over time in the Manuherekia Valley, eg by the replacement of flood irrigation with K-line, fed from private catchment dams built at farmers' expense. The scenarios presented do not allow for any values-based flows in the Manuherekia tributaries.

Location: Manuherekia

979: ONLINE SURVEY

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Preferred minimum flow 1,100 l/s or less.

Only the lower third of the river is shown on the graphs in the ORC presentation, the upper two thirds are a much more positive representation of the health of the river. This has given an unfair representation of the river and irrigation.

Irrigators have been working to a voluntary minimum flow of 900 l/sec and have proposed a flow of 1,100 l/s lodged in their combined permit applications.

Irrigators have worked with science experts, stakeholders, on tributaries and mainstem, with the residuals and sharing regimes to care for the environment and irrigators. Irrigators work with what is available not what is on paper as an allocation.

Seasons rule, then the minimum flow, residuals and sharing is how irrigators work with the water available.

Falls Dam is important for the management of the minimum flow of 900 l/sec at Campground with reducing flows and sharing throughout the catchment: at low flow times it is a balancing act managed by a very special raceman. The higher flow scenarios rely on the dam and it will run out - the river will suffer and there will be no irrigation!

Irrigation is a small proportion of the farms, it allows us to winter proof and drought proof our farms in an area of extreme climate. It gives security to those that work on the farms, the children that go to the schools, the businesses and industry that support the farming community.

Uncertainty for the future is scary when there is so much more that can be achieved. Please read the Proposal/Solutions lodged with the permit applications: there has been a lot of work done for many years by people who care about the community and environment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

At the meeting at Omakau we were told that the scenarios had not been peer reviewed or signed off by hydrological experts. No flow options have been assessed for hydrological outcome collectively by TAG.

Minimum flows are the river is managed and will be marginally higher, the residuals and sharing allow the community to work to it.

We know that if it drops we will have to stop irrigating immediately. There needs to be trust not negativity. We do care.

We want to have good drinking water, stockwater and food for all.

Location:

Central Otago District

Q1: Minimum flow preference**Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why**

None of these are good outcomes. The choice seems to be ongoing poor river health, or putting farmers out of business. Only the highest flow levels result in significant improvement in river health. marginal improvements do little, but at great cost.

I don't think any farmers want to cause harm to the catchment, and council policy has allowed the extraction of water and this situation to develop. And now, as is so often the case, citizens are polarised by win/lose decisions.

I'm sure everyone would like the highest minimum flow to be adopted, but with no impact on irrigation. So my challenge to our council is what action have you put in place so that preferred outcome can that be achieved?

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I don't think there has been freshwater management, if there had been effective management we wouldn't be in this position.

Location: Manuherekia

981: ONLINE SURVEY

Anonymous User:897975454 2021-06-18 14:24:57 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 or less. It has scientific backing and proven to be the best for economic social and environmental well-being

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

water has been very well managed in the past to go through the biggest droughts central otago has to offer and still never have run the falls dam completely out of water while maintaining the voluntary status quo minimum flow is something management should be awarded for.

Location: Manuherekia

982: ONLINE SURVEY

Anonymous User:893159160 2021-06-18 14:32:26 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None. The minimum flow is preferred at 1,100 l/s or less. At the current voluntary flow rate of 900 l/s the river is used by both farmers for irrigation and local families. Farmers in this catchment area have always been careful and respectful of the water use. As everyone knows the issues that we in Central Otago would face without it in the middle of summer. Farmers would suffer but more importantly to them, their stock would suffer.

My family have lived in the Manuherekia Valley for most of our lives and for the last 7 Years lived right next to the river. I take my young children camping, fishing and swimming down at the river throughout the summer, I also often have a drink from the river when needed. None of my family have ever experienced any health effects from our river activities. Not only will the high flow rates effect our daily income from the farm, we as a family would not be able to enjoy the benefits of that quality relaxing family time at the river due to safety.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Common sense and the truth must prevail. Common sense that the farming community is key to this area and all the local businesses. With the flow rates the council is wanting, many farms will not be viable to continue, will sell and leave the area, those that can continue will do with reducing stock numbers resulting in less income and less money to spend in the community, or less money to spend to ensure that the environmental regulations on the farm is met - that money would need to be spent in other areas of the farm operation.

Truth in the sense that the consultation brochures do not accurately present all the information and are very misleading for people not involved in the farm process to actually understand the effect this will have on THEIR community.

Location: Manuherekia

983: ONLINE SURVEY

Anonymous User:893159160 **2021-06-18 14:41:28 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None - preferred minimum flow is 1,100 l/s or LESS.

A minimum flow higher than this would have a significant detrimental impact on the viability of farming and associated businesses, communities and schools. Farmers rely on water from irrigation for the care of their stock and land. Not only do sheep etc need to eat grass - which needs water to grow in the Central Otago climate! With out that vegetation cover, farmers would need to decrease stock numbers and the other issue they would face would be the massive rabbit explosion which is already bad enough. With bare soil that will be the end of the few farmers left who managed to survive the high flow rate of the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The brochures does not state the implications of the choices offered. Families already swim, fish, tramp, bike etc and enjoy the river as it is. Nominate some locations which are different to the camp ground.

Location: Manuherekia

984: ONLINE SURVEY

Anonymous User:897987551 **2021-06-18 14:42:26 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My concern is the economic impact these scenarios will have on the region, I often swim and fish in the Manuherekia river and have never had any issues, I think more effort should go into cleaning up the effluent that goes into the river downstream from Omakau. Modelling has been done which shows 1100 litres per second is sufficient to look after the river and reduce the economic harm to the region.

Also I wonder what impact higher flows will have for swimmers in the River, particularly kids.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I would suggest that the focus should be on the 30% of the river that is degraded,
Also is any work being done regarding additional water storage?

Location: Manuherekia

985: ONLINE SURVEY

Anonymous User:880186402 **2021-06-18 14:46:09 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I want a healthy river and from this flows all else (excuse pun).

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I believe that we need to be honouring Te Tiriti o Waitangi in everything that we do in Aotearoa/New Zealand. It has to start somewhere sometime with regard to rivers. This is a good place to start, even though agricultural-based enterprises may have to tighten their belts. I believe that spiritual, emotional, physical, financial and family values/needs are all important and that we can find a way to balance - although there may be some pain along the way.

Location: Manuherekia

986: ONLINE SURVEY

Anonymous User:898006728 **2021-06-18 14:56:36 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1,100 l/s would be more preferable.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

987: ONLINE SURVEY

Anonymous User:886293788

2021-06-18 14:58:30 +1200

Q1: Minimum flow preference**Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why**

The evidence supporting each of the scenarios is flakey to say the least. The whole report has been poorly prepared and the material provided to the interested stakeholders has been totally inadequate. There is an obvious bias towards higher minimum flows with a complete disregard for existing land users in the area, particularly in the lower reaches of the Manuherekia.

The upper reaches of the Manuherekia are already in a healthy state. The area is already an internationally recognized trout fishery. These fish are not endemic to this country so no more importance should be heaped upon an activity that benefits a few wealthy tourists at the expense of the local communities.

It is difficult to believe that the writers of this report can seriously believe that high minimum water flows are going to benefit recreation in the Manuherekia. Surely high minimum flows will be detrimental to aqua sport, particularly swimming. High water flows mean swift flows and the unlikeliness that safe 'swimming holes' will ever form for the enjoyment of river users.

It is interesting to note that the main health problems with the river occur in the lower reaches, that is from Omakau down to the confluence with the Clutha/Mata-Au. The ORC and CODC should be looking at the processes that have enabled the degradation of the Manuherekia from Omakau downstream to the confluence.

We all want a healthy river system. However, it is not reasonable to expect that that comes of at the expense of existing land users who also provide most of the economic benefits for the area. If the farming community has it's irrigation allocation curtailed too severely the spinoff for the entire community will be disastrous. Service industries, the local schools, local sports clubs, etc. will all suffer and decline. People will move away from the district. All to save an exotic trout fishery for wealthy overseas tourists. I don't think so!

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The Manuherekia Irrigation Company has investigated the possibility of raising the level of Falls Dam as an insurance policy against years of low water flow and to ensure an adequate supply of water to its irrigators. In the end the cost was prohibitive for the few stakeholders who would have been asked to finance the scheme. However, the idea is still a sound one and one that should be supported by the whole community. The whole community, not just the farming community, would benefit from a stable healthy water supply from a healthy source.

Location: Manuherekia

988: ONLINE SURVEY

Anonymous User:898003483 **2021-06-18 14:58:41 +1200**

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It seems it is at this level that most of the recreational, natural and visual values start to become obvious and the overall health of the river is maintained

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Rivers are the arteries of the land and must be allowed to flow as closely to their natural level as possible. For too long economic interests have dominated the conversation, allowing gradual degradation of rivers such as the Manuherekia and the Lindis. Consents for intensive dairying in these fragile catchments should never have been allowed.

Location: Queenstown Lakes District

989: ONLINE SURVEY

Anonymous User:896846308 **2021-06-18 14:58:43 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100. Any higher than this and it will take a huge toll on the rural and urban communities, not just farms will be impacted but peoples businesses, jobs, schools, sports etc.

Why was 1100 not an option in question 1?

Alexandra is already struggling to keep business and shops open on the Main Street, it will end up looking like a ghost town.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It is disheartening and extremely frustrating to be painted as the bad guys in the media through the lack of knowledge and incorrect information being supplied, which in turn is creating more of an urban and rural divide. Should we not be all working together?!

Location: Central Otago District

990: ONLINE SURVEY**Anonymous User:776738187 2021-06-18 15:08:47 +1200****Q1: Minimum flow preference****Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why**

None of the Above. I have eMailed my submission directly to policy@orc.govt.nz

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**Location:** Manuherekia**991: ONLINE SURVEY****Anonymous User:898013321 2021-06-18 15:13:32 +1200****Q1: Minimum flow preference**

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

If you take the water, it's not only going to effect farmers, it is going to effect our community. Their will be no jobs no school no sports clubs. Farmers mental well-being are hugely effected

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The river is fine the way it is. Any more water in it then it will become dangerous

Location: Manuherekia**992: ONLINE SURVEY****Anonymous User:897993165 2021-06-18 15:20:23 +1200****Q1: Minimum flow preference**

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Minimum flow 1100 or less

A flow higher than 1100 l/sec will have a significant effect on the viability of farming in the Manuherekia Catchment: with further detrimental impact on associated businesses. Community groups and schools will be affected by the loss of work and income.

The permit applications for the Manuhetikia Catchment that have been lodged, show the work that has been done by the irrigators to provide proposals and solutions based on science and values that includes environmental gains throughout the catchment.

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

Understanding of water quality and its importance is part of our irrigation management.

Our families enjoy fishing , swimming in the river, picnics and time to relax together.

The higher minimum flows rely on Falls Dam to supplement the higher flow scenarios. Where will the extra capacity needed come from? In dry seasons, the raceman looks after the 900 l/sec voluntary minimum flow at campground first, and the irrigators ration and share the rest. With higher minimum flows there may not be enough water to maintain the river and what about drinking water and stock water, no irrigation.

Location: Central Otago District

993: ONLINE SURVEY

Anonymous User:893393767 **2021-06-18 15:51:21 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100 l/sec is our preferred option. Because we want to protect our galaxiids and upland bullies and other native fish. Because we want to be able to swim in the river like we always have.

Q3: Do you have any other feedback on water management in the Manuhetikia Rohe?

management of the river must be community driven

Location: Manuhetikia

994: ONLINE SURVEY

Anonymous User:893393767 **2021-06-18 15:55:13 +1200**

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My preferred option is 1100 L/sec because this flow supports our community. because i like to swim in the river at omakau, and this flow will protect our native species in the tributaries

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

community must be the river managers

Location: Manuherekia

995: ONLINE SURVEY

Anonymous User:898024933

2021-06-18 15:57:40 +1200

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

At this stage, the Otago Conservation Board has chosen not to indicate a preferred minimum flow scenario.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The Otago Conservation Board is appointed by the Minister of Conservation and mandated by the Conservation Act 1987. With direct relation to this submission, the role of the Board is to represent the interests of the public in advocating for the protection of terrestrial and freshwater biodiversity, recreational opportunities, and the conservation of natural and historic resources throughout Otago.

The Board has a responsibility to highlight the Otago Regional Council's obligation under Te Mana o te Wai and the National Policy Statement on Freshwater. Te Mana o te Wai imposes a hierarchy of obligations. This hierarchy means prioritising the health and well-being of water first. The second priority is the health needs of people (such as drinking water) and the third is the ability of people and communities to provide for their social, economic and cultural well-being.

The Otago Regional Council must give effect to Te Mana o te Wai by actioning the five key requirements and must apply the hierarchy of obligations when implementing the NPS-FM 2020. The Board questions why the ORC has not used this hierarchy when presenting minimum flow options for consultation. Instead, it describes 'on and even playing field' the biodiversity, recreational and economic considerations without highlighting the ORC's statutory obligations in this regard.

At this stage, the OCB has chosen not to indicate a preference for a minimum flow regime. Instead, we urge the ORC to consider the following:

The Manuherekia Catchment contains unique and, in some cases, threatened native species including 11 of the 23 species of non-migratory galaxiids. The streams that flow into the Manuherekia River are the only place on earth some of these fish species can be found. Galaxiids have highly fragmented populations with a number of local extinctions in Otago have been confirmed in recent years. This is largely a result of reduction of habitat loss and invasive species predation. Galaxiid populations as well as other species in the river rely on adequate river flows to survive.

We urge the ORC to include flows within tributaries in your modelling and particularly the associated conservation values that may be impacted by these flows – noting that many of the threatened galaxiid species inhabit the tributaries of the catchment. Setting just a minimum flow just at the Alexandra camping ground site risks oversimplifying the issue and not delivering on intended outcomes.

Science indicates that the biodiversity health of the river requires a higher minimum flow than the 1200 litres per second supported by many irrigators. We acknowledge that by increasing the minimum flow it will put economic pressures on the region. Accordingly, we urge the ORC to work collaboratively with irrigators to identify a programme of initiatives that will over time, allow both the river and the economy to flourish.

Supporting and incentivising irrigators to transition their farming practices to a new flow regime is important as is exploring how the catchment can be better managed to optimise water yield. Support for

landowners to protect, enhance and recreate wetlands in the catchment could result in significant water harvesting value and allow the catchment to yield water more consistently as opposed to quick flushes after rainfall and snow melt. Such an initiative would also yield positive biodiversity outcomes.

The Board notes however that allowing natural flushes and floods in winter is also important for river ecology. While winter water capture to augment summer flow may aid the management of flows, on a landscape ecology scale, the river needs to be able to carry sediment downstream through flushing and flooding as well.

In summary, we urge the ORC to take heed to its statutory responsibilities under Te Mana o te Wai to put the health of the river and biodiversity values first as well as put resource and focus into supporting initiatives that will allow, over time, ensure that both the river and the communities within the catchment to thrive.

Location: Manuherekia

996: ONLINE SURVEY

Anonymous User:774589259 2021-06-18 16:12:35 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

My preferred flow scenario is 1100 L/sec which is the Manuherekia Catchment Group proposed minimum flow.

The consultation information does not accurately reflect the current situation in the river, there are a large number of inaccuracies within the information, from the main graph reflecting only 18% of the river, to Galaxiids now being on the Mahika kai list. This is yet again sloppy ORC work that is not acceptable for the implications that it may have.

A minimum flow higher than 1100L/se will cost our business upwards of \$200,000k every year which is money that is spent within this community keeping other business such as garage, engineers, contractors all running.

With every incremental increase in minimum flow there will be increased impact on the community, with people working off farm, children moving to town schools where parents will have to work in town, however even this is questionable as where will the jobs be??

Irrigators have been working cohesively for 10 years to formulate a river management plan, and we have one that ORC is choosing to ignore.

ORC's lack of peer reviewed completed science work means essentially they are no further ahead than they were July 2018,

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Management of water in the rohe should be by the community that LIVE in the rohe

Allocation has not been assessed or presented appropriately.

Location: Manuherekia

997: ONLINE SURVEY**Anonymous User:898039219****2021-06-18 16:14:46 +1200****Q1: Minimum flow preference**

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why**Q3: Do you have any other feedback on water management in the Manuherekia Rohe?****Location:**

Not specified

998: ONLINE SURVEY**Anonymous User:881691561****2021-06-18 16:17:21 +1200****Q1: Minimum flow preference**

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1100l/s Improves minimum flow from present minimum and allows all activities to take place. Any further increases should be phased in over a number of years to allow time for adjustment .

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The above will give a balance between community wellbeing and the environment and avoid worse minimum flow levels in a very dry year when water in Falls Dam could run out.

Location:

Manuherekia

999: ONLINE SURVEY**Anonymous User:898004296****2021-06-18 16:22:57 +1200****Q1: Minimum flow preference**

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I would prefer a Minimum Flow of 1,100 l/s as I understand that this level of flow is NPSFW 2020 compliant. I understand also that the historical minimum flow, as per your diagram, is about 500 l/s and the status quo is 900 l/s. So increasing the minimum to 1,100 l/s represents an increase of 22% which is reasonably significant.

The Manuherikia River has for many years supported an enormous number of users along the way and this has contributed to the economic vibrancy experienced in all communities in the catchment area. To in any way reduce the amount of water available to catchment irrigators would affect the viability & sustainability of a significant number of farming, horticultural and related businesses, impacting on the lives of 1000's of Central Otago residents.

The only sensible & indeed practical way of increasing the minimum flow above say 1,100 l/s is to increase the height of Falls Dam to provide certainty of supply in future years. Without Govt & ORC support this option seems to have disappeared, so a balance is required between the current demands being made by vested interests.

What is also interesting to note is that my understanding is that prior to the Falls Dam being in place the Manuherikia River would often dry up completely in a dry summer, thereby depriving the catchment of any flow at all. So the foresight, hard work and sacrifice made by Central Otago Pioneers in the past has provided the ability to at least have a minimum flow at all. And to suggest that the minimum should be up as high as 3,000 to 4,000 l/s is farcical as the Dam would not be able to support a release of water at this level during the summer season.

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

Sensible management of the Rohe needs to be agreed at a practical level and also based on science and modelling that maintains the economic well being of all affected communities. More pressure needs to be applied to secure both consent and funding to increase the storage capacity of Falls Dam, which in turn would allow for higher minimum flows on a sustainable basis.

Location: Manuherikia

1000: ONLINE SURVEY

Anonymous User:878770789

2021-06-18 16:41:32 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The ONLY flow agreed should be a 'natural flow' and then all other adjustments should be from excess water flows or storage. Compromise is not an option when dealing with environmental function.

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

This consultation document has polarised all sides of the community by failure to reflect the MRGs decisions. The failure to inform many parties of the basis of the discussion - the requirements of the NPSFM to begin with Te Mana o te Wai before minimum flows. The questions are based on an abstractive assumption and do NOT ask for preferred level of ecological protection, recreational value or natural character value.

Much of the consultation document is buried in details that are NOT summarised in an accessible manner. Confusion is easy because of the multitude of scales/ units used to describe flow, volumes, levels and impacts. Some unity is required. I do not agree with the supposed ecological status indicators used for the health of the wai.

Why are some natural flows excluded because of lack of measurement, because they end up in another catchment, or PERHAPS return to the river because of overland flow paths.

The 'status quo' has been set by collaboration in the past and this still needs to be the case, even if there are many more participants in the decision. Our community does not need division and dispute set up by this so called consultation. It needs a leader to develop a compromise.

The health of the river is NOT just jobs and money, but these are required to be considered AFTER the mahika kai and ecological values.

Location: Manuherekia

1001: ONLINE SURVEY

Anonymous User:898030939

2021-06-18 16:48:41 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It appears that I can't tick my preferred scenario, while I question this and wonder how one sided the data being presented to the public is. I am simply going to comment that my preferred scenario is that the river runs at 1100 l/s.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The Falls Dam was built by the government to encourage development within the valley. They wanted more people to live there and the land to be more profitable. To date this has been achieved.

Increasing the minimum flow to anything over 1100 l/s would have a significant impact on the socioeconomic status of Otago and at a wider context New Zealand as a whole.

Looking at Maslow's hierarchy of needs, with a minimum flow of anything over 1100 l/s whanau would not be able to meet the basic needs within the physiological and safety domains. Belonging would be seriously compromised and self actualization would just be a pipe dream.

<https://www.simplypsychology.org/maslow.html>

The Manuherekia water users need water to be profitable, and to contribute to the local economy..... If your local farmer wasn't to irrigate, he couldn't run the required amount of stock to make his mortgage repayments to the bank or pay his bills at the local garage. The follow on effect will be wide spread and felt by all.

The impact of this could be significant if decisions are not made carefully.

Do we really want to live in deprivation to allow people to go fishing and swimming? - do we not have swimming pools which are able to be accessed by all.

Anything more than 1100 l/s may improve the health of the river but is the hauora of our community not more important?

What saddens me the most is the stand off that has become apparent between the people in the Manuherekia Valley and the Otago Regional Council. The farming community are simply guardians of the land for the next generation, not too dissimilar from what the Otago Regional Council are trying to achieve.

Location: Manuherekia

1002: ONLINE SURVEY

Anonymous User:868658926

2021-06-18 16:55:38 +1200

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This flow is best for a healthy river and the freshwater ecosystem, which has been over-exploited for too long.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Our natural waterways deserve higher priority. The lower the flow, the less healthy is the river. The wider freshwater ecosystem will also be improved at higher flows. Our waterways are the life blood of our environment. It is sad and unfortunate how irrigation expanded greatly in the catchment over the past 30 years despite the finite timeline of historical deed permits. Agriculture is incredibly important, as are all communities, but we need to build a future that looks after the environment for all, not just a few.

Location:

Dunedin District

1003: ONLINE SURVEY

Anonymous User:898059982

2021-06-18 16:57:21 +1200

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None as there is no option for 1100 or less. A minimum flow higher than 1100 has a significant detrimental impact on the viability of farming, viticulture, fruit growers and associated businesses (Garages, Transport Firms, Shearing contractors etc) also communities and schools.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

If the flow was higher than 1100 then in drier years this would lower the storage in the Falls dam and therefore flows would not be able to be kept up to required levels. Higher levels may mean in a dry year you would be lucky to get any water at camp ground. It is at the moment being well managed by the irrigation company's and Raceman as they are here on the ground living in the area and seeing what is going on.

Location:

Manuherekia

1004: ONLINE SURVEY

Anonymous User:898069187

2021-06-18 16:59:04 +1200

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

There needs to be a balance between productive land and recreational use, as a local of 30+ years in the Central Otago region I understand the current status quo river flows is sufficient for the health of the river and currently strikes the ideal balance.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Utilisation of the water is important, viable opportunities for expansion of productive land rely on this water. Increasing flow just to wash it out to the ocean doesn't seem logical.

Location: Central Otago District

1005: ONLINE SURVEY

Anonymous User:898062976 **2021-06-18 17:00:49 +1200**

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

do you prefer this/these scenarios? Or if you don't like any, please say why.
This flow allows for improvement from the present situation at the camp

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

What is the effect of sewage from Omakau? Is that and dairy effluent measured before and after they enter the river,?

Location: Manuherekia

1006: ONLINE SURVEY

Anonymous User:897941879 **2021-06-18 17:04:20 +1200**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

900 is a better minimum flow than 1200 l/s This allows for use of water for everyone, anglers, swimmers and irrigators.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

1007: ONLINE SURVEY

Anonymous User:898071314 2021-06-18 17:25:29 +1200

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

All these scenario's have to high a flow of litre`s per second . This is Central Otago and rain catchment is much less to river systems . It is only storage dams that keep flows in rivers . 850 to 900 l/s is more than is needed in the river.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Central Otago is a unique area regarding water and should be left to and managed by experienced local knowledge and not government departments or ngo`s .

Location: Manuherekia

1008: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Really see ourselves caretakers for future generations - must find ways to manage the polarities and where necessary be strong enough to make sure the land use is appropriate for this environment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Continue to engage with us. Such meetings also allow us to hear other voices and educate ourselves so that we can make more informed decisions. Am very impressed with how much thining has already gone into hearing those very dissonant views and finding as many viable environmentally sustainable ways forward.

Teach your colleagues in CODC how to hold such informative sessions where you are seen to embrace both conflict and connection / true collaboration!

Location: Manuherekia

1009: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Best for environment

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

[can read writing] to river and in (?) options for farmers and orchardists

Location: Manuherekia

1010: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

900 l/s - 1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Would much rather current levels stayed the same and Falls Dam storage was increased.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

A more consultative approach NOT combative / technocratic

Location: Manuherekia

1011: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Why isn't status quo on the list of scenarios.

Isn't the water in Falls dam the irrigators water, they (irrigators) can use it for irrigation not on minimum flow.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The graph showing different scenarios is misleading in that at low flows there is no or very little fish, and other insects. But at present there is fish, swimming and other insects. Also this minimum flow is for a very small portion of the river, upstream there will be higher flows that will support fish.

Location: Manuherekia

1012: HAND WRITTEN SURVEY

Community session - form **2021-05-28**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Status quo.

In its natural state with no water storage this river would run dry as was proved in the summer of 2017/18, when it was supplemented by Falls Dam.

Fix water quality by fixing waste water @ Ophir

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Didymo is not farming problem.

Surely more people will be fed by irrigating existing farmland rather than catching trout??

Location: Manuherekia

1013: HAND WRITTEN SURVEY

Community session - form **2021-05-28**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

No, status quo preferred option

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

1014: HAND WRITTEN SURVEY

Community session - form	2021-05-28
Q1: Minimum flow preference 900 l/s	
Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why Status quo currently satisfies the Mana o te Wai requirements and other parameters (people, culture, economic) as the river is currently managed to 900 l/s rather than let it dry out completely during summer, as it would if the Falls Dam did not exist.	
Q3: Do you have any other feedback on water management in the Manuherekia Rohe? This process is taking much too long and is not being properly advertised, so people are not being engaged or involved in solution.	
Location:	Manuherekia

1015: HAND WRITTEN SURVEY

Community session - form	2021-05-28
Q1: Minimum flow preference 900 l/s	
Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why Level Z (?)	
Q3: Do you have any other feedback on water management in the Manuherekia Rohe? access to water effects livelihoods - orchard horticulture, farming. These businesses spend money in Alex, hence jobs. The current system is working.	
Location:	Manuherekia

1016: HAND WRITTEN SURVEY

Community session - form	2021-05-28
Q1: Minimum flow preference 900 l/s	
Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why Hate the lot	

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Status quo - with your proposal there will be no farms or community

Location: Manuherekia

1017: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Because that is the only one we can sustainably farm under without making us go broke and the river and environment are well looked after. These low flows only happen for less than a month of the year during only the driest of years.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Farmers have employed the best hydrologist to back their cause. Listen to them.

Location: Manuherekia

1018: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why**Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**

Location: Manuherekia

1019: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The farming sector would be hamstrung under all the other scenarios which will affect a huge number of other business in surrounding urban areas.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

To increase the water flow a significant dam should be built and other gov. agencies should help to fund this including the urban public.

Location: Manuherekia

1020: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Security of irrigation water supply

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

1021: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Maintains te mana o te wai, without making trout more important than the regional well being

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

start again = modelling is inaccurate

Location: Not specified

1022: HAND WRITTEN SURVEY

Community session - form	2021-05-28
Q1: Minimum flow preference 1,200 l/s	
Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why 1 is better	
Q3: Do you have any other feedback on water management in the Manuherekia Rohe?	
Location:	Manuherekia

1023: HAND WRITTEN SURVEY

Community session - form	2021-05-28
Q1: Minimum flow preference 1,200 l/s	
Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why Incremental increase is economically viable but a big move is economically crippling	
Q3: Do you have any other feedback on water management in the Manuherekia Rohe?	
Location:	Manuherekia

1024: HAND WRITTEN SURVEY

Community session - form	2021-05-28
Q1: Minimum flow preference 1,200 l/s	
Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why Good	
Q3: Do you have any other feedback on water management in the Manuherekia Rohe? Process is very poor	
Location:	Manuherekia

1025: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Be fair and reasonable to all stakeholder

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

W.M.G. should be formed ASAP

Location: Central Otago District

1026: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

1027: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

1028: HAND WRITTEN SURVEY

Community session - form	2021-05-28
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Community session - form	2021-05-28
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Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Are you trying to wreck our valley!!

1. Photo of water levels on website and local news papers.
2. Label graph so town folk realise this is at Alexandra - rest of the river ok.

Next tour have microphone and place screen on stage. "very poor" preparation.

Location: Manuherekia

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Are you trying to wreck our valley!!

1. Photo of water levels on website and local news papers.
2. Label graph so town folk realise this is at Alexandra - rest of the river ok.

Next tour have microphone and place screen on stage. "very poor" preparation.

Location: Manuherekia

- Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**
- Are you trying to wreck our valley!!
1. Photo of water levels on website and local news papers.
 2. Label graph so town folk realise this is at Alexandra - rest of the river ok.
- Next tour have microphone and place screen on stage. "very poor" preparation.
- Location:** Manuherekia

1029: HAND WRITTEN SURVEY

1029: HAND WRITTEN SURVEY

1029: HAND WRITTEN SURVEY

Community session - form	2021-05-28
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Community session - form	2021-05-28
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Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Very poor set up. Screen too small. No mic.

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Very poor set up. Screen too small. No mic.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

1030: HAND WRITTEN SURVEY

1030: HAND WRITTEN SURVEY

1030: HAND WRITTEN SURVEY

Community session - form	2021-05-28
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Community session - form	2021-05-28
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Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

To me its fair to both parties

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

To me its fair to both parties

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

It was my playground in the 50s and 60s etc. The days they had speedboats racing on it. The gravel bottom has risen so much. I see very little number of people fishing in it now. Same with the swimming. Water quality in those days and with sewer running into it was terrible.

Location: Manuherekia

1031: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The river flow has varied for the last + amount of years controlled by the irrigation Falls Dam. Have fished it for the last 50 years fish numbers at the moment are the best they have ever been both numbers and fish size. Without irrigation the river flow is vary a lot more than it does now, eg flows will be very low in dry years

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

1032: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

See below

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Any restriction on water allocation may see civil disobedience like has not been seen for generations. Water is the lifeblood of the people, the land the local economy and the national economy.

Location:

1033: HAND WRITTEN SURVEY

Community session - form 2021-05-28

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Think we all agree on the priority of the "life of the river", just arguing / negotiating about implementation

Location: Central Otago District

1034: HAND WRITTEN SURVEY

Community session - WQ 2021-05-28

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Constructed wetlands and riparian planting important where intensive farms and farms that use a lot of fertiliser.

Less intensive land use.

Location: Not specified

1035: HAND WRITTEN SURVEY

Community session - WQ 2021-05-28

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Fix waste water at Omakau

Location: Not specified

1036: HAND WRITTEN SURVEY

Community session - WQ 2021-05-28

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Flushing flows to move sediment and contaminants

Location: Not specified

1037: HAND WRITTEN SURVEY

Community session - WQ 2021-05-28

Q1: Minimum flow preference**Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why****Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**

Riparian planting - effective for water quality or low volume critical source (ag). Not effective but aesthetic with stormwater infrastructure collecting run off from roads and industrial sites.

Constructed wetlands for rural and small municipal settlements.

Less restrictions on inputs - as science improves can get land owner to monitor and manage outputs.

Already implementing grazing strategies but challenge is matching best science with natural behaviour of animals they naturally want to graze uphill.

Target municipal sources - Auckland Regional Council one of least catchments (?)

Location: Not specified

1038: HAND WRITTEN SURVEY

Community session - WQ 2021-05-28

Q1: Minimum flow preference**Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why****Q3: Do you have any other feedback on water management in the Manuherekia Rohe?**

Riparian planting

Stop the runoff from Omakau Sewage into the river - capture the stormwater runoff in urban areas.

Location: Not specified

1039: HAND WRITTEN SURVEY

Community session - WQ 2021-05-28

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Not riparian planting because most of Manuherekia is extensively grazed. Very little is intensively grazed.

Wetlands - Thomsons Creek proposed site only.

Listen to farmers they know best.

Location: Not specified

1040: HAND WRITTEN SURVEY

Community session - WQ 2021-05-28

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Riparian planting

Location: Not specified

1041: HAND WRITTEN SURVEY

Email - form 2021-05-31

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Having attended the public meeting on 27th May, I realised the scenarios have confused people. My question is.... Is it possible to satisfy a) the government's requirements b) the many people interests? How much water is needed? Climate change has an impact and has to be considered. Do we need more water storage, if so - private or more Falls Dams? Who pays? Do we need to consider land use?

We need food for export and us - thus land and water. Dairying has its negative and positive feedback but does not always offer good prices. Bad idea for all eggs in 1 or 2 baskets. So fewer cows needs less water. Quinoa requires little water and good prices I would think. Alternatives for land use, but for food, should be considered perhaps.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I have read that historic and interim water permits could be non-complying and could be issued for as far away as 35 years. I spoke to a regional councillor who assured me it was all subject to the amount of water running which is metred on every farm. Then I read that one farmer draws 400,000 litre per hour which he is legally entitled to do. Why does he need this - dairying. This needs re-thinking.

I remain unassured. So I need the ORC to issue more information about these historic water rates. It is difficult or impossible to make decisions when all the information is not at our fingertips.

In conclusion, I cannot give a scenario. It seems to me.... if consideration had been given to planting, wetlands, water storage in past years, we would be in a much better positions to know how much water we had (within reason) and therefore what flow could be.

Riparian plantng needed along all waterways. Individusal farmers are already doing this. it makes so much sense. The plants capture c02 as well.

Constructed wetlands Like Thomsons stream as inidcated at the meeting. Apparently NZ has decimated 90% of our wetlands so lets reconstruct lots - don't know the land well enough to be specific.

Central Otago does not support dairying without lots of water. We need to consider a variety of uses of providing food from the land, thus less use / need of water.

Sheep - meat and wool. I believe there is a better furtuer for wool. I am not a farmer so can't answer what works or could work well. But I believe some change is required.

"Loud" - "in your face" constant education of townies - how we need to treat our precious resource.

Sewerage - probably worse than animal nitrates!

Location: Manuherekia

1042: HAND WRITTEN SURVEY

Post - form 2021-06-08

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None. Presented extremely poorly by ORC staff. Basically it was misleading people re: the state of the Manuherekia River and needs to be retracted and explained carefully where river maintenance is needed.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Manage the degraded systems where they are, not the whole river.

Riparian planting where the river has degradation problems.

Constructed wetlands where the river has problems i.e. the lower third of the river.

Flushing - nature does a very good job of doing this.

Explain what is meant by put on or comes off the land - is this people, fertiliser or stock or vegetation?

Start being a bit more proactive in the necessary areas and not paint the whole river as being degraded when you have publicly declared it is not.

Location: Manuherekia

1043: HAND WRITTEN SURVEY

Post - form

2021-06-17

Q1: Minimum flow preference

2,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This is the least flow in the Manuherekia River to restore and rebuild the river ecosystems. This flow needs to apply from top of the catchment down to the confluence with the Mata-au (Clutha). In times of low flow and high demand no intake on the river or its 9 tributaries should take all the flow.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Minimum flow at bottom of river (Campground) is a failed management tool. A sustaining flow should be established (i.e. 2,500 cumecs) and this water should remain in the river from way above and irrigation takes, right down through the course of the river all the way to the Mata-au (Clutha). Each and every tributary, 9 in all should contribute to this flow.

Riparian planting - everywhere agriculture or horticultural land use is adjacent or abuts onto the river and its tributaries. Riparian plantings to be most successful should be grown from remnant indigenous river bank vegetation in the catchment.

Constructed wetlands - need to be reinstated where a tributary or water course flows from land, in particular agriculture and horticulture land use, into the river. Any wetland would need to be circled in riparian plantings.

Flood flows in the river bed and its tributaries will perform their natural function. Any flushing of effluent and contaminants into the river off agriculture, horticulture and urban areas should be carefully controlled and holding areas (wetlands) be adequate to hold and decontaminate these waters.

It would be very easy to prevent nitrates from entering our river merely by encouraging and legislating for organic land use and best practice. No more use of soluble nitrogen and phosphate fertilisers.

Any water taken out of the river for irrigation should not be allowed back into the river until the water quality is as good or better than the river water quality at points of discharge back into the river.

The water quality at the point of entry (9 tributaries) is very high. Its quality should be maintained throughout the reach of the river and its tributaries. This can be achieved by adjusting the allocation at each intake to ensure a portion of the high quality water is left to flow down to the Mata-au.

Location:

Manuherekia

1044: HAND WRITTEN SURVEY

Post - form

2021-06-17

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

It leaves enough water for irrigators. Any of the others kills the district. More water would make it too cold for swimming. I see plenty of fish in river at Shakey Bridge at current flows. And I cross over it often. All winter stored water is for irrigators and/or power. The river is fine the way it is, leave it alone. Except for the high dam

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Yes, build the high dam wall at Falls, store water for power generation instead of Onslow large dame. Would enable the odd flush down the Manuherekia. This also reduce the flood levels down the river and the gravel deposited at the junction of the Clutha River and having to be dredged.

Location: Manuherekia

1045: HAND WRITTEN SURVEY

Post - form 2021-06-17

Q1: Minimum flow preference

1,200 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I believe it's not about the quantity of water it's the quality.

Riparian planting and constructed wetlands should happen near dairy farms in particular.

Flushing flows by having other dams to release water.

Farmers and orchardists should have their own water storage (dams) that can be filled during high water flows.

Location: Manuherekia

1046: HAND WRITTEN SURVEY

Post - form 2021-06-17

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I don't support any of the listed scenarios. My understanding is that 1100 l/s should have been an option and this I support as it is fair to irrigators and the environment.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Again my understanding is that the catchment is being well managed. Farmers are already doing a lot to mitigate any detrimental issues, and given the opportunity and support they deserve will continue to do this.

MANUHAREKIA SUBMISSION

Having attended the Omakau consultation meeting, I am concerned that the ORC discussion document is so biased against the farming community. Even the promotion of the consultation meetings was heavily skewed.

My understanding is that the Manuharekia Reference Group proposed a minimum flow of 1100 l/s as a scenario, and that this figure is also referenced in consent applications. Why then is this option not given. It seems unlikely that more, or larger water takes will ever be consented, and as further more efficient irrigation methods are instigated, there is potential for extra water to remain in the catchment.

The consultation document does not acknowledge that the farming community is already doing a great deal to ensure that both quantity and quality of water is acceptable, yet this community is subject to continual uninformed and unjustifiable criticism. Voluntary water sharing agreements, voluntary minimum flows adhered to, and flow management practices implemented to maintain quantity and quality in the river. Indeed the ORC's own figures show that the Manuharekia is nowhere near the crisis claimed by Fish & Game. I recognise there are sometimes spikes in some areas. Surely the wellbeing of people is far more important than introduced fish, which Fish and Game appears to want to eat the native fish.

The management of water in the Manuharekia extends back a very long time, and seasonal flow patterns have long been established. The river and the life it supports have adapted to these patterns and survived. Such things as periphyton growth in Autumn are a natural occurrence in many streams, and not in themselves indicative of degraded water. How many people are told this?

My understanding is that the river is currently well managed within agreed parameters, and there is widespread cooperation from irrigators. Surely it is time for ORC to get alongside water users in a collaborative way, rather than the heavy handed regulatory manner, which has more and more been their approach.

Riparian plantings, wetland re-creation, and modern irrigation systems, are all voluntarily playing a role in better environmental management. ORC should be encouraging water harvesting and storage, including some funding. In that way the whole community can support better management. At the moment the huge cost of the desires of others, some of who seem hell bent on destroying all

agriculture, fall directly on our farmers. Why should Fish and Game, Forest and Bird, COES, Kai Tahu, and ORC itself, want to do this, by spreading half-truths and emotional misinformation.

The ORC must adopt Te Mana o Te Wai as the whole vision, without dictated hierarchy obligations. Wellbeing of water, people and social and economic values are integrated and need to be considered together in a sensible and reasoned manner. The timetable must be a minimum of 30 years if not 50 years.

The current ORC culture of dictate and regulate has resulted in a total loss of trust from many of us, and has only been exacerbated by the anti farm bias evident in the Manuherekia Scenarios document. Getting back to a relationship of good faith should surely be the No. 1 priority of ORC. Because of the importance of agriculture, I suggest that in future, documents treat farmers as the first concern. Impacts of rules and regulations on farming communities should be at the top of considerations, as these are the basis of most of Central Otago life. If farmers are treated in a proper way, I suggest all the other things will fall into place in due course. There is no way we can go back 150 years, but we can identify where mistakes have occurred and remedy them. We need to be sure we are not trying to "fix" something that isn't broken. We should not be putting fishing and hunting, kayaking and such, ahead of people's lives and livelihoods. Flocks of geese, ducks and seagulls do produce e-coli too. Animal colic are not a major danger, but human colic are far more concerning. Do the tests differentiate ?

So the scenario I prefer is not on your list. It is 1100 l/s. At this stage there are no other scenarios we should be considering. I believe 1100 l/s at camping ground is a perfectly feasible and sensible point at which to start, and good outcomes for everyone will be achieved. I suggest not only that this scenario will show considerable progress in 5-10 years, if not sooner with ORC cooperation, but also that it will be NPSFM compliant.

Location: Central Otago District

1047: HAND WRITTEN SURVEY

Post - form 2021-06-17

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Yes [poem attached]

Location: Central Otago District

1048: HAND WRITTEN SURVEY

Email - form no date

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

All other scenarios do not have enough water flow to sustain river and are detrimental to the overall health of the river

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

I have been swimming and using the Manuherekia Awa for 60 years. I have never seen the river in such a sad state. The amount of water being taken from the river is not sustainable. The amount of water taken in the summer time is increasing the temperature to a level that is promoting algae growth. This algae smothers the river bed impacting on the nymph and other insects that fish survive on. Also the low river water levels slow down the flow which does not allow the river to flush. Also there it creates a small and risks becoming stagnant. I am Maori and view the Manuherekia as a living entity that produces life and sustains life. The Council need to put Kaitiakitanga at the forefront in managing the Manuherekia, to destroy a living resource for profit is genocide of the Manuherekia. I am very concerned and upset at the way the Manuherekia is being treated. And if things are not changed it will become another polluted and destroyed Taonga (treasure) like so many other awas in Aotearoa. I have 5 years of photos of water levels.

Location: Manuherekia

1049: HAND WRITTEN SURVEY

Email - form

no date

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

"NONE".

I don't agree with any of the scenarios and my preferred minimum flow would be 1100 or less. If the flow was more than 1100 it would have a detrimental to businesses in community i.e farming and associated business. As a diesel mechanic in the community I personally rely on farmers to be running at 100% effectiveness / productivity, so I can make living for my family. Furthermore my mental wellbeing will be affected if business cannot function. I'm sure this will be same for affected business in the wider community.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

As for the council's feedback on the brochure, why have you not stated the business and mental implications each scenario will have on the community "not just river users" for pleasure? Business is what keeps this community running and keeps us all in a JOB!!

Location: Manuherekia

1050: EMAIL

Email

2021-06-14

Q1: Minimum flow preference

I do not support any of the scenarios.

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Please find below my submission. Before I start I would like to make some comments about the process and in particular the leaflet circulated to some residents.

Firstly, the leaflet was not delivered to some, possibly many people. This could result in some people not making a submission potentially skewing the feedback.

The on-line survey is anonymous. This means that people could make multiple responses potentially giving the impression that a particular view is held by many. The severely weakens the survey. All responses should have names or contact emails – without this, the survey is largely meaningless.

The on-line survey is over-simplified to provide a “tick the box” format. It is not very receptive of presenting a different view or scenario. If you wanted to offer a scenario other than one of the ones presented, you would have to leave all boxes unticked. What happens in these cases – could the whole survey be voided and ignored? Most well-developed surveys would have a “Other” option with a text box to write details about your idea. This survey does not have the look of a professionally assembled survey.

In my view, the leaflet itself was heavily biased. I will explain some of these below, but firstly, I believe the Otago Regional Council (ORC) should maintain a neutral position throughout the consultation stage. ORC is largely funded by rates and rate payers should expect neutrality from ORC in presenting options/scenarios. ORC's role should be to collect opinions not present them.

Many people will form their opinion from reading the leaflet only so any bias carries the risk of swaying the responses.

ORC has stressed many times that the scenarios presented are scenarios and not options. I'm not sure what the difference is between an option and a scenario and I am sure that many people will view these as options. Most will pick one rather than try to present an alternative view – it's just easier and people are busy.

The first example of a glaring bias is in the front page of the leaflet. It is headed *Do you love the Manuherekiā*? This is emotive and suggests that only those who *love* the river should respond. Why not head it *Do you rely on the Manuherekiā for your livelihood*? Or if you wanted to maintain a totally neutral stance you could have used *The Manuherekiā and the Future* or any number of headings that are not emotive or show bias.

The status quo was not presented as a scenario. The present de facto minimum flow has been 900l/s at the Camping Ground – surely this should have been presented as a means of comparisons. You do after-all show it on the chart.

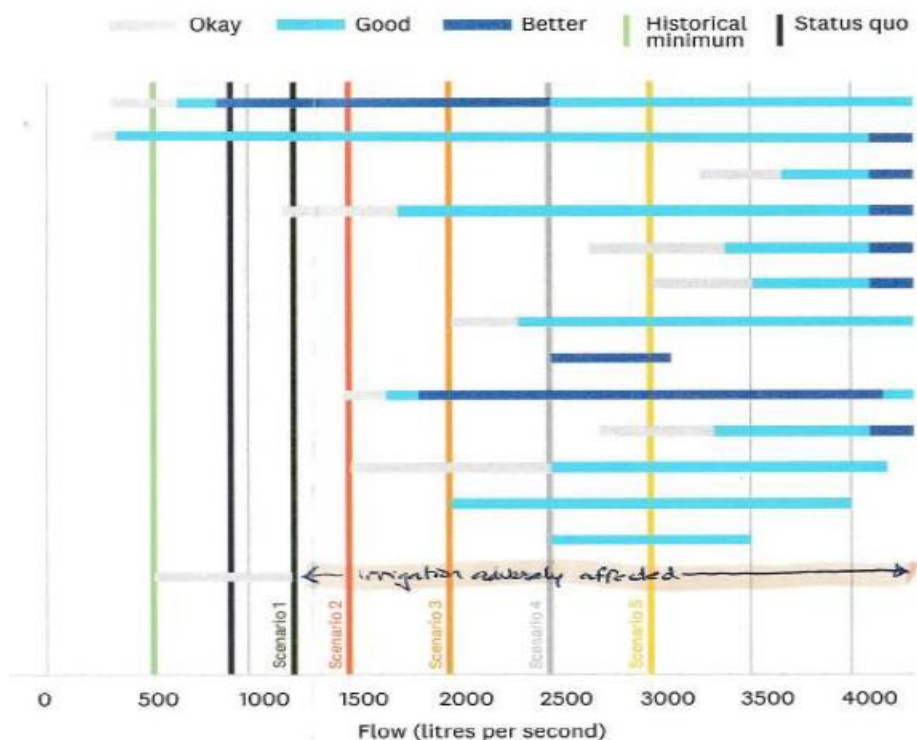
The economic impact of the scenarios has not been included. I understand this has been done by others, but awareness of the economic impacts would have been greater if they had been presented with the scenarios.

The chart on the leaflet gives the impression that the comparisons show the impact on the whole river. At the presentations in Alexandra and Omakau, ORC made the point that the water quality for most of the river was very good to good, with a few noted hotspots. The chart does not demonstrate this at all. In fact, it implies that the comparisons made apply to the whole river – this is a clear case of biased mis-information.

A further comment about the chart is that as irrigation only appears for flows below Scenario 1, some people might interpret this as saying that irrigation would not be impacted at high flow scenarios. This is not

what the graph shows – granted, but I feel many will interpret it this way. It would have been clearer if at all higher flow scenarios, the words irrigation adversely affected were inserted. See below:

cenarios



The photos in the leaflet show a fisherman and a bit of the rail trail. What has the rail trail got to do with the management of the river? Why not show a shot of farming, horticulture or viticulture – things that are the life-blood of the Manuhereikia Valley. This is a further example of bias.

ORC has not presented any information about the storage available at Falls Dam and how long this storage would last in a dry year at the higher flow scenarios. This very relevant piece of information has been left out.

In your survey you ask a number of questions about occupation, age, gender, ethnicity. While I am happy to answer these and I understand that I don't have to answer them, I do question why you are even asking. I am struggling to understand how this information could be relevant to the issues.

What you don't ask for a return email address so you could send back collated information or other feedback. This is normal for most surveys I have responded to. In fact, many offer incentives for you to leave your contact details. It is almost as if ORC wants this to be a one-way process – i.e., get the survey responses, analyse them with whatever bias you want and then not be required to respond personally to respondents.

From the tone of my response, you will understand that I like many others have a high level of distrust for the ORC. The ORC needs to understand that it is the servant of the rate payers not the master. It is the rate payer who funds ORC and they deserve to be treated fairly and for the ORC to hold a neutral position and present all the facts in a fair way. It is really disappointing that people think this of the ORC and it must be quite distressing for the staff and elected councillors that people hold this opinion.

I have raised a number of points in my submission and asked a number of questions. I am left wondering if any will be answered.

I have many reasons for not supporting any of the scenarios. Some of these have been discussed in my preamble. Specifically:

- ORC bias in presenting information (heading of leaflet, photos)

- Economic impacts not considered.
- Data in chart misleading.
- Chart glosses over impact on irrigation on chart.
- Difficult to trust ORC when information that should be presented neutrally is so biased. You can't make an informed decision using tainted information.

My preferred scenario is for 1100l/s at the Camping Ground.

My reason for this flow is: Over many years the irrigators have amassed a lot of knowledge in preparation for the deemed permits replacements process. They have recently lodged with the ORC replacement resource consent applications. The applications have a catchment flow management proposal for 1100 l/sec (compared to the present voluntary 900 l/sec) at Campground. This is flow takes account of the need to improve the waterbody and instream values in some locations, and to maintain a level of primary industry and community economic activity so as to minimise the risk of the destruction of our rural communities. (There has been recent publicity about this from businesses and others in the community). The irrigators believe that 1100 l/sec at Campground is NPSFW 2020 compliant. Any flows higher than this will place a severe economic burden on the irrigators and the flow-on effects of this could be devastating on the communities in the Valley.

Many of those who want higher flows are unaware or simply do not care about the enormous impact on the welfare of the community, both in economic and social terms. Some of them might not even live in the region. It is easy to impose restrictions on the Manuherekia residents from your armchair in Auckland.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

The irrigators have built up many years of data and experience on how to use the river in a sustainable way. This knowledge appears to have been largely ignored with significant weight put behind people driven by utopian wants without any connection to reality. My information is that the irrigators have already recognized these environmental issues and lodged a catchment flow management proposal containing remedial action. The supporters of higher flows just want the maximum flows without any regard for making the Falls Dam storage last in a dry season.

Location: Manuherekia

1051: EMAIL

Email 2021-06-14

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Apparently Australian farmers are required to provide their own water and are not allowed to take water from rivers for irrigation. They have lived with drought much longer than we have but this is our future. I understand it is expensive but that is their lot. so why have we not started to instigated this here in NZ and particularly central otago. Any reason why it should not happen now? There needs to be much more storage looked at for our future. The Falls Dam just is not adequate now.

Location: Not specified

1052: EMAIL

Email

2021-06-15

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Hi,

I would like to make a personal submission regarding the optimum river flow of the Manuherekia.

My wife and I live in Queenstown and love travelling over to enjoy days out on the river. I fish and my wife swims! However, in recent years the river is too low and full of algae during the summer months.

We would love the river to have a minimum flow of 3000 cumecs to safeguard these precious resource for future generations.

Yours hopefully,

[name deleted]

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:

Queenstown Lakes District

1053: EMAIL

Email

2021-06-16

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Hello,

I am a resident within Otago and I recreate on the Manuherekia often. Fishing and swimming are the main activities I love to do on the river. In the past, when temperatures rise and irrigation needs increase, the river suffers. During the heat of summer, when river levels are low and the fish are stressed, I avoid the river, spending time and money elsewhere. I believe the minimum flow of the river should be increased to 3,000 l/s (Scenario 5) to help ensure the river remains healthy throughout the year and the community can recreate on the resource at all times of the year. I understand that farming requires a high demand for irrigation, but for too long we have let our rivers suffer under the banner of progress. New technologies and irrigation techniques can be implemented to take less water, while meeting irrigation needs. Allowing the farming community to continue to take more water than is healthy for the river's ecosystem is not acceptable. I support Scenario 5, minimum flow of 3,000 l/s, and it is my hope that ORC makes the decision based on science and the betterment of the wider community, and not only the farming interest's. Thank you.

[name deleted]

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Holiday / Family / History

1054: EMAIL

email 2021-06-16

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Dear Otago Regional Council Members,

I am writing to you as a concerned fly fisherman about the average low summer flows on the Manuherekia River. I emigrated to New Zealand with my wife and daughter in July of 2018, from Portland, Oregon, USA, where I fished many rivers for many years. One of the most endearing things about New Zealand is the amazing trout fishing opportunities that are available. As a resident of Wanaka, when I go fish locally, I try to make my drive from Wanaka no longer than two hours. Those rivers include the Mataura, Ahurri, Makarora, Clutha, Lindas, the rivers around Twizel, and the Manuherekia. It is a blessing to these amazing options available, and with the opening of the borders eventually, we need as many rivers to choose from as individual fisherman and woman compete with guides and overseas tourist looking for a place to fish. Our rivers and the fish in them are not only negatively impacted by low summer flows, but also by high angler pressure.

When I first came to New Zealand in December of 2017 to see where my family and I would move, I hired Ayato Otsubo of River Talk Guiding out of Queenstown, and he took me to the Manuherekia River. I have very fond memories of this river as that is where I caught my very first brown trout on the Southern Island. After I moved here, I took a few trips to that river later in the season and was saddened by the lack of water quality, low rivers levels, lack of fish, and high amounts of algae.

I am hoping that you all will support higher water flows during the fishing season. That river is a great resource for not only local anglers, but also for professional fishing guides in the area, and for overseas anglers.

I thank you for your time.

Warmest Regards,

[name deleted]

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

1055: EMAIL

Email 2021-06-16

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

This submission is presented on behalf of a substantial family enterprise situated in the Manuherekia Catchment

Why does the ORC persist in putting its credibility at risk by promulgating Manuherekia River management scenarios in an option paper that could- at best be described as misleading- at worst dishonest?

Why is the 900l/s scenario not presented with a pro and con option as with the others?

Why is there no mention of the role the Falls Dam plays in the flows of the river?

Why is there no mention of the fact the majority of the river is in excellent health?

We appear to be continually submitting to council with little avail

How does council consider the submissions -for example- Is a submission from a school pupil yet to experience real life given the same weight as a submitter with a stake in the valley?

The stored water in the Falls Dam is vital to the economic well being and life in the valley-

is it the intention of council for this water to be used to maintain an extravagant minimum flow to the determinant of all else- and what happens when the dam is empty?

Have the councillors -whom we assume will be making the decision, undertaken, and fully considered and understood all the reports which have been presented in relation to flows etc - and not be reliant on staff members to make a recommendation?

Is it the council's intention to totally upset the balance existing in the valley which has been in place for in excess of a hundred years-latterly a system has been evolved where judicious control of the Falls Dam has created an environment acceptable to the majority of residents in the valley?

We are all aware of central Government's approach with rules, where one size fits all and then dropping the whole process on to local councils to sort out

Some of the community and the council are far too amenable to accepting the whims of central government

We should not be afraid to challenge these rules where they are impracticable and unachievable

There is absolutely no awareness by Central Govt of the complexities of the situation in the Manuherekia Catchment

It is our contention that our representatives- the elected members must consider all the issues in the catchment and make the decision which is appropriate giving serious consideration to the complexities - regardless of directives from Wellington

It is our view that reality must prevail and any minimum flow greater than 1100 l/s is totally unacceptable
We wish to be heard in support of this submission

[name deleted]

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

1056: EMAIL

Email 2021-06-17

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

NZ is still dealing today with the after effects of people losing their land through colonisation. One group of people usurped land from others, believing they had a right to do so because of opinions then held of superior knowledge, structures and strength.

Although the situation is somewhat different with regards to the Manuherikia, some aspects are similar. We have one group – containing the ORC and other people and bodies, who are convinced they have the right to intervene in the lawful and established enterprises of people and in effect dispossess them should the ORC's ideas of what is "right" be adopted. Many of the enterprises have spent large sums of money to install efficient irrigation systems, and are efficient and careful users of the water resource. Farmers have heeded the call to fence off creeks and streams.

It does not appear that the ORC has put any systems of compensation in place, or that there are even discussions on compensation. The people affected by the ORC scenarios do not believe that what the ORC puts forward as "solutions" for the flow of the Manuherikia will allow them to keep their farms etc. in a profitable manner. This will affect not just the farmers – beef, dairy, sheep etc. , but also the supporting industries in the small towns.

Central Otago has large rivers and lakes. We have been here before – with the Clyde High Dam displacing all the orchards from the Cromwell Gorge, as well as displacing people and businesses in Cromwell. It should be noted that out of the 11 fruitgrowing families in the Cromwell Gorge, only 2 managed to make a go of resettling elsewhere. If the supposed "rescue" of the Manuherikia is all important even costing the livelihoods of others in the area, then a discussion needs to take place urgently about the following:

1. Compensation, or the Crown buys the properties outright that are adversely affected and uses them in any way they see fit
2. Water is taken from either Lake Dunstan or the Clutha and pumped to the affected area, which might then negate some or most of the need for Manuherikia water to be used for farming purposes – this to be paid for by the Province or State as replacement of existing irrigation – an extremely expensive solution
3. The ORC starts to negotiate in good faith looking for real solutions and understands that they cannot act as the "coloniser" displacing, dispossessing or negatively affecting the present population without making good.

I would further suggest that the Paris Climate Change Agreement does not want to see food production threatened. There is a clear understanding that with the increasing world population, food supplies must be protected – which puts the ORC under an obligation to take this seriously.

[name deleted]

Location: Not specified

1057: EMAIL

Email 2021-06-18

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

Submission for the Otago Regional Council.

Prior to the Falls Dam being built the river would have been seasonally dry during the summer months. Without the dam the river flow at the Shaky bridge would have been minimal at best and regularly dry in summer. The main function of the dam was to irrigate farms and orchards that lay in the extensive catchment below. It was built by the Public Works for the benefit of the wider community.

Scenario 5 of 3000ltr would not be achievable without more storage being made available by raising the capacity of the dam. There is not sufficient water in the catchment and the present dam capacity to fill this demand. The 2500ltr option may well be too high for the same reason.

If option 3, 4 and 5 were set then a higher dam would be needed to which all ratepayers would have to contribute, own and govern. At present the scheme is owned by the farm based irrigation committee having been sold on by the Ministry of Works. Option 2 would create some difficulty for the farming community where the present allocation of water is higher than the scheme can maintain in its present form.

Allocations of water for irrigation (water rights) to be set at those existing when the MOW administered the schemes. Encourage winter river water to be taken to supplement on site dams where provision can be made.

[name deleted]

Location: Not specified

1058: EMAIL

Email 2021-06-18

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

None indicated.

Recreational activities such as swimming and fishing (which can be carried out in other areas very close to the lower Manuherikia) should not be prioritise over the needs of those who are economically dependent on the water.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Hello,

Please pass this on to the ORC Councillors and Management team as well as the relevant staff working on the Manuherikia River. Please also acknowledge that you will do this.

We own a small vineyard on Letts Gully Road, which has been in operation since 2002. We rely entirely on irrigation water for frost fighting and for growing grapes that is made in some of the best Central Otago Pinot Noir. Our wines have won 4 Gold medals, 11 Silver medals, 24 Bronze medals and has been tasted by people from all around the world. We also run a small accommodation business and a local Cellar Door, with both an Off-License and an On-License.

Our annual income is entirely derived from the vineyard and having reliable irrigation supply is essential to our way of life. Without reliable irrigation water the value of our home, land, vineyard and business would be affected. We have been adversely affected by the global COVID-19 pandemic event and would not like to see yet more adverse affects.

While we appreciate the Manuherikia River for it's beauty and natural aspects, it is a valuable and essential resource for the local people who derive their income entirely from the land and water. Recreational activities such as swimming and fishing (which can be carried out in other areas very close to the lower Manuherikia) should not be prioritise over the needs of those who are economically dependent on the water.

Below are some comments and thoughts on some of the aspects of the consultation process to date. This is not a complete or exhaustive list but are important points all the same.

- The material presented by the ORC (especially the chart titled "Manukerekia River water management scenarios") seems to be heavily biased and uses subjective terms such as Okay, Good, Better for values inconsistently. Some values have no Okay or Good bar on the left side, such as swimming, visual amenity and Mana whenua. Other "Okay" bars seem to be too short, as the river (in its current state) supports fishing, trout and invertebrates at the moment (maybe not always in the best state) but they do survive the natural highs and lows of a historically ephemeral river such as the Manuherikia. This chart is also not indicative of the entire length of the Manuherikia River and only seems to apply to a specific section of the river (at Campground). This is a misleading representation of the scenarios and values. At a quick glance, which is what most people will do, is to assume that the best management scenario has to intersect as many "values" as possible. This graph (which is superficial at best) seems to indicate that there are only two scenarios that intersect all the "values" which are 2,500 and 3,000 l/s. And only a flow of over 3,250 l/s intersects all the "values". This representation of the scenarios seems designed to achieve a particular outcome, especially if the left side of the bars are not accurately portrayed or omitted. And when using subjective terms such as okay, good and better, who is actually making these value judgements? This use of emotive language seems designed to achieve a particular outcome, that is a higher minimum flow.

- The economic analysis carried out so far largely ignores the impact on horticulture, other than suggesting that more private on-site water storage will be required. This assumes that such operations have available land area and access to capital to allow such construction new storage or the extension of existing storage. Many horticultural business's in the Manuherikia Rohe are on small properties where there is limited space for increased or new water storage. In the current economic climate profitability has already been reduced for many of these operations. The imposition of additional costs to increase storage may not be able to be financed and could lead to the business have to cease trading. Such scenarios have NOT been addressed by the economic analysis to date.

- In addition quite a lot of horticultural activity requires water for frost fighting activities to protect their crop from damage. If water is not available for frost fighting at very high reliability rates (over 90%) then, in the worst case scenario, there could be extensive frost damage to the crops. Such crop failure could result in high un-employment during a season and high economic losses. While most frost fighting is carried out in early Spring when river flows are historically high, under the high minimum flow management scenarios and if a dry year event occurs there could be a situation when no irrigation water is available for frost fighting. This is not even mentioned in the current economic analysis and could be severe to catastrophic. Our annual income is entirely derived from the irrigation water.

- Brochure has NOT been received in our letterbox, so how many other people also missed out of the communication / consultation process? Also how is the survey being managed to prevent multiple submissions from the same people or from people who do not live in the Rohe? Surely only people who are directly affected and have "skin in the game" should be surveyed? For instance, allowing any activist in the North Island to make submissions is unfair and could lead to a skewed result. Such a loose consultation process is an abuse of the process and is using 'democracy' against the irrigators.

- The "Manuherikia Management Scenarios Consultation Document" has a section on Land Use that appears to be written without any detailed knowledge of the area. Horticultural and viticultural activities have not just started in the last decade, as stated in the report. There are many orchards and vineyards that were established in the early 1990's and some even earlier than this. Experts at the ORC or CODC should know the exact dates, as you have access to the land records. To state that such activities only started in the last decade is a weak attempt to trivialise such economically important activities.

- The entire process so far has not researched the historically ephemeral nature of the Manuherikia River. There is oral history amongst the long term residents of the Rohe that the river dried up completely on many occasions prior to the construction of the Falls Dam, due to lack of rainfall in the area. We all know that the Manuherikia basin is the driest area in New Zealand with a rainfall that is only a few inches more than a desert (defined as an area with less than 10 inches of rain annually). The Manuherikia rainfall is usually between 12 and 14 inches per year. The original ephemeral nature of the Manuherikia must be recognised. The ORC must also recognise that it is not responsible to keep the Maunherikia River flowing if

the climatic conditions are such that the River would naturally cease to flow (as it is historically an ephemeral river anyway). While the Falls Dam was introduced to manage irrigation, there has never been any intention to intervene in Nature to such an extent as to completely eliminate natural events such as the drying up of an ephemeral river. The ORC might be legally responsible for the management of the river, but they cannot stop natural events from occurring.

- The language of the scenarios indicates that abstraction of water for irrigation must stop below the minimum flow rate. However this language ignores the facts of the situation. Water is Abstracted from the Natural River Flow (which needs to be a defined term – the river flow from natural sources such as rainfall, snowmelt, natural springs or groundwater movement). The Abstracted water is stored in a storage facility (Dam) and then used at a later date for irrigation when the Natural River Flow is low (or non-existent). Also the Manuherikia River has always been used as an irrigation race within the river (Irrigation Race, In-River or IR-IR) to transport the Abstracted water down the IR-IR to the relevant irrigation offtake points. This is commonly known as Augmentation. The ORC reports seem to ignore the Common Law of Capture regarding the Abstracted water. While no-one owns water when it falls as rain or snow or when it is in a natural water course, the water is owned once it has been Abstracted. It's exactly the same with a fish, rabbit or deer. No-one owns the fish, rabbit or deer, but once legally captured it is yours. It's the same with Abstracted water – it is owned by the Irrigators. If you take a cup of water from the river, it's yours, and you would not appreciate it if someone just came up and took it! If the ORC is saying that the Common Law of Capture does not apply, then please advise the fishermen and hunters that anyone can come along and take the fish and game that they catch. Once water has been legally Abstracted it no longer belongs to the Natural River Flow. If the water had not been Abstracted it would have flowed down the river to the ocean within a few days as part of the natural hydrological cycle. This water would then be lost to the Natural Flow of the Manuherikia River and cannot be added to the Natural Flow at a later stage. Therefore Abstracted water that is Augmented to the river (via IR-IR) at a later date cannot be considered Natural River Flow. Such Augmented water cannot be counted within the Minimum Flow Rate and is therefore still available to the Irrigators for their use. This reality needs to be clearly outlined, which to-date, seem to have been ignored.

- One of the issues noted is "nuisance algae" – this appears to be didymo which is an algae that was introduced by the activities of one of the groups advocating for a higher minimum flow rate, partly to manage the nuisance algae. This seems a bizarre situation where the irrigators are being asked to mitigate one of the problems introduced by the anglers in the first place. Surely the nuisance algae management costs should be entirely borne by the creators of the problem? Also they are almost entirely catching introduced fish species that have decimated the native fish species.

We hope that the ORC takes these points into consideration and changes the necessary reports to bring balance back into this issue.

Regards,

[name deleted]

Location: Manuherekia

1059: EMAIL

Email 2021-06-29

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

This submission is on behalf of [name deleted], as owners of a private property located at [address deleted].

The property is unique in that a section of the Manuherekia's Eastern riverbank, and river, are within our legal boundary; and the property is in close proximity to the confluence of the Clutha Matu-Au and Manuherekia rivers. Given our location, we are vulnerable to surface flooding and waterborne debris from increased flow volumes and river levels.

Two significant points of contention for anglers, swimmers and kayakers have been the frequent overwhelming of the Manuherekia River by gravel, and evidence of treated effluent back-flowing, when the Clutha River levels are high. Given this, the Clutha River's effects (on the Manuherekia) should be considered under the Manuherekia Rohe section of ORC's plan and not just when the Main Stem is reviewed.

It also needs to be determined, how the five scenarios will impact Contact Energy's current obligations for flood mitigation activities in the Manuherekia River. We note that frequent/permanent surface flooding to our property may place Contact Energy in breach of an easement they hold over a section of our property.

Like many in the community, we are keen to see the Manuherekia Rohe restored to being a healthy and reliable water source. To support this, we are actively working to restore riverside plantings and associated eco systems.

We are concerned however, that likely increases in flow levels may further impact a particular section of riverbank that suffered significant destabilisation and decay (islanding) stemming from the 2019 flooding of the Manuherekia River. As a result, it is now difficult to collect mahika kai from this area and it is presently a danger to swimmers and kayakers.

Of the scenarios provided by ORC, we believe the status quo will not achieve desired environmental outcomes. However, until we see predictions of flood zone plains for each scenario, we cannot make an informed decision on which of the proposed scenarios to support.

We seek assurances from ORC that, whichever scenario is adopted, it will not prove to be directly detrimental to our property - in terms of increased surface flooding and riverbank erosion of the Eastern verge. We would expect that flood zone modelling will precede any final decisions made by ORC and that affected landowners will be notified accordingly.

Location: Manuherekia

1060: EMAIL

Email no date

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I believe it is our responsibility to protect the natural quality of this river for the generations to come and it is my opinion that a minimum flow of 3,000l/s will help to achieve that.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Hi,

I would like the following email to be considered as a formal submission regarding the minimum flows for the Manuherekia River.

My name is [name deleted] and I am an angler, outdoors enthusiast, father and fly fishing guide residing in Otago and I wish it to be known how much I value a healthy, flowing Manuherekia river. Over the better part of a decade I have spent many days walking the banks of the river with a fly rod in my hand. The river is at its best in the spring and autumn seasons when it has its most regular flows. From an angling perspective,

the river is one of the most consistent, well populated (trout), scenic and easily accessed rivers in the region when it has a healthy flow running through it.

I have made the attempt to replicate these early and late season experiences during the height of summer many times over the years and am always disappointed. As the extraction and low summer flows begin the fish populations reduce to a fraction of their typical numbers and for the fish that do remain, it becomes a risk to their survival to practice catch and release fishing as they do not recover well in the un-oxygenated, warm water temperatures that come with the low flows. Therefore, I sadly I avoid the river over the summer months. Aside from the fishing, the river becomes a mere gravel pit that is used as a highway for 4x4 drivers in some sections. It is unsightly and has an accompanying odour which indicates poor health and is no longer a pleasant place to be.

On the days I have walked the river in the summer I often see children on the river swimming in what remains of the deep pools and I often wonder how clean the water actually is and for how long generations to come will be able to enjoy these same simple childhood pleasures. I wonder if my own son will be able to have the same experiences and create the same fond memories of walking the banks of the Manuherekia as I have.

I am a fly fishing guide and I am fortunate enough to make a living by sharing these experiences and places of significant natural value with guests from around the country and the world. People value a healthy river and travel huge distances and stimulate the local economy to enjoy these places. I have guided and fished both personally and professionally in many locations around the globe and healthy, free flowing rural river ways (like the Manuherekia could be with a healthy minimum flow) are becoming increasingly less common. I believe it is our responsibility to protect the natural quality of this river for the generations to come and it is my opinion that a minimum flow of 3,000l/s will help to achieve that.

Thank you very much for your time and consideration.

All the best,

[name deleted]

Location: Queenstown Lakes District

1061: LETTER - HANDWRITTEN

Post - letter

2021-06-09

Q1: Minimum flow preference

1,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Submission on minimum flow Manuherekia River.

I have a farm that races for the Manuherekia irrigation scheme pass through. During the Christmas holidays when there had been rain and the Manuherekia was carrying a greater flow of water I would have people who were total strangers to me arrive and ask is they could enter my property and let their children swim in the race because they didn't feel they were safe in the river. I think this may have occurred because I knew the [name deleted] who at that time ran the holiday park, who at that time ran the holiday park. I believe that a flow of 1000 litres per second would be adequate. It will be only for a comparatively short distance as the Falls Dam will be used to maintain the flow to the Galloway irrigation intake.

Yours faithfully

[name deleted]

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location:	Manuherekia
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1062: LETTER

Post - letter **2021-06-10**

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

During the 1980s irrigation debate, leading up to Central Otago Irrigation schemes being taken over from the Government by irrigators under the 1 Sept 1990 Irrigation Act. A great number of hours was spent to discuss the future well being of the Manuherekia River. The conclusion was Government GRANTED a big block of water from Dairy Creek to the Manuherekia Irrigation Scheme more than double the amount of water as what Manuherekia Irrigation Scheme got from the River (their water right from the River is 100 heads). The 100 heads of water was going to be replaced by Government Dairy Creek (Dunstan Lake) water. Granted The same scenario took place at Earnsclough Irrigation with great success and put in place very quickly in order to bring the Farsar River back to Life.

The 100 heads of water from the Manuherekia River was planned to put the river back into good health. Everyone around the Meeting Table was happy with the final result; Except a few Manuherekia Big property owners who were not going to have one bar of it; and refused to discuss the proposal with the Government they had their own self interest up front.

All I read in today's papers is ONE Manuherekia irrigator ignoring all good the River needs in order to survive.

The control of the Manuherekia Irrigation Comp. River their "River Intake" should be taken away by Higher Authority. The 1990 Government Grant of a big block of water be forced unto the Manuherekia Irrigation Scheme.

[name and address deleted]

Location: Manuherekia

1063: LETTER

Email - letter **2021-06-12**

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We propose maintaining the Status Quo for the Manuherikia River for the following reasons.

- 1 Irrigation was forced onto the community under the Public Works Act in the 1910 – 15 era, and the Crown has received massive return on investment in the form of Capital Expenditure in the hundreds of millions of dollars and the dramatic increase in land values in the ensuing 100 plus years. Both direct and indirect taxation has contributed significantly to Government Coffers and the Regional Council and District Councils ability to rate.
- 2 Agricultural production will already be declining in the lower reaches of the catchment as irrigators subdivide into lifestyle blocks as they fear the consequences of water restrictions will severely impede their ability to function economically in a restrained water availability regime.
- 3 Water efficiencies i.e. spray irrigation, will lead to less flows in the river as it does not allow the aquifer to replenish which in turn contributes to the flows in a lot of the smaller tributary streams. Council's own studies show evaporation of up to 18mm per day, with spray applications only able to effectively apply 12mm per day if weather conditions allow. In the extremely hot and dry summer period that is shown on your graphs depicting water quality in the lower reaches, I strongly believe that water quality will become even more compromised by this so called efficiency.
- 4 Questionable water quality in the lower reaches in the timeframe used for your graphs could be attributed to the leaking Omakau Sewage Plant plus contributions from septic tanks in intensified population areas such as Galloway, Lower Manorburn and Letts Gully areas with seepage into the aquifer. Rainfall records I believe would show a correlation of water quality relative to the lack of rain at various times.
- 5 Water flow depletion is contributed to by significant vegetation invasion, i.e. Willows on the river banks; photographic evidence to support this claim is shown in a shot taken in 1865 by a Joseph Perry, showing what I believe to be a section of the river in the Springvale/Chatto Creek area, a river devoid of any vegetation on its banks compared to the present time. It is a known fact that approximately 10 per cent of a hundred head flow "disappears" between Falls Dam and the Ophir intake of the Manuherikia Scheme in summer. Given that the Falls Dam is owned by the irrigators of the Omakau area and operated for the benefit of the whole valley how does the Regional Council intend to supplement the low flows as per your charts and proposals in a dry period when you theoretically will only be able to utilise the natural inflow of the catchment and NOT stored water. N.b. MOW records historically showed inflows of 11 heads entering the Falls Dam in the dry period of late 70's early 80's. There is anecdotal evidence of the river running dry pre irrigation.
- 6 The value of the river as a Trout fishery should be ignored as they are an introduced species. However, "good" fisherman inform me that the river holds significant fish stocks even when the river is running at minimum flow (900L per second). In 41 years of living beside the river I have only seen 1 dead fish. The value of the tourist fishery to the local/national economy is totally insignificant compared to the reduction in agricultural/horticultural production caused by reducing irrigation availability. The building of the Roxburgh Dam in the 50's will have contributed significantly to the decline in eel and fish numbers in the river and its tributaries by impeding their migratory habits. Also the commercial sanctioning of Eeling was and is a factor. I do not believe the Maori's utilised this water way to any great extent as

I can not recollect any Taonga having ever been discovered. The river will I believe maintain its present status as a fishery under the current regime.

- 7 Leave the BLOODY thing alone and leave it to the people who know how to run it and look after it. No one wants to see the river degraded.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

1064: LETTER

Email - letter

2021-06-14

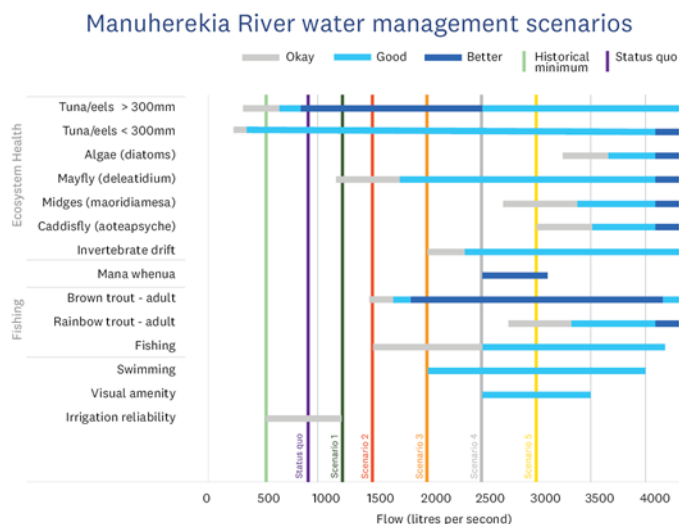
Q1: Minimum flow preference

> 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I'm a resident of Oturehua, from which the Ida Burn eventually finds its way to the Manuherekia River. As someone who has lived in many areas of New Zealand, I'm regularly astonished at the laissez-faire attitude regarding the degradation and over-allocation of a major waterway. These comments are in response to the public consultation on the Manuherekia as instituted by the Otago Regional Council, and its subsidiary the Manuherekia Reference Group. I have no financial interest in the outcomes of such consultation.

1. In many of the materials that are presented for public discussion, there is a perception that the health of the river is to be weighed against the economic viability of agricultural and horticultural enterprises. This is a false dichotomy, given the hierarchy of values spelled out by the NPS-FW 2020.
2. In that document which is binding on all local authorities, Te Mana o te Wai establishes that the health, vitality, and wairua of the river is paramount over all other considerations. Commercial operations depending on the river are the hindmost of the three engagements
3. When this is taken into account, it is clear that the only thing to be established by ORC is what is best for the Manuherekia and its life-giving flow.



The figure above shows a summary of preferred flows for values against minimum flow scenarios at Campground water monitoring site.

4. The above diagram as included with the Manuherekia Scenarios document is particularly revealing in regards to the health of the river. The only flow which is consistently good across all factors is that 4000 l/s.
5. That being the case, and in the light of Te Mana o te Wai, no more discussion is necessary. The only option which falls within the ORC's statutory responsibility is to do what it can to establish a flow which is at least 4,000 l/s, whenever that is possible.

6. All other options transgress the principles of Te Mana o te Wai.
7. While this might seem harsh to the various groups of irrigators, it is plain that they have had at least 30 years to contemplate the end of their goldmining water permits, which were supposed to expire in 2021. Thirty years is adequate notice of change.
8. I therefore submit that under its remit, ORC has only one path of action to follow that adheres to the principles of NPS-FW 2020, and that is to guarantee the highest flow in the Manuherekia that is possible given the rohe.

[name deleted]

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

1065: LETTER

Email - letter 2021-06-16

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

SUBMISSION ON : PC 7 & MANUHERIKIA RIVER WATER LEVEL & QUALITY

The problem is: The low rainfall for the catchment area is too little for the environment. Summer and extended dry periods make for low river levels causing fish, eels and aquatic species to move into the river braids and deeper water holes.

The Saviour is: The Clutha River runs by this area and if miniscule amounts of water, (instead of running straight out to sea) was to be siphoned off from Dairy Creek and run down a pipe to the Manuherekia River, the problem would be solved.

The siphon would run energy free. A larger sized pipe/penstock could power a generator, thereby giving a larger river flow. Where the tailrace water from the generator enters the river will decide the riverbed area, regenerated by having more volume and depth downstream and back into the Clutha again.

These pipes could have tee-offs for irrigating orchards, vineyards or crops along their length.

The generator size could be run by one of the local power companies and have the revenue for managing it. The Government is backing electric cars etc. and predicts 20% more power will be needed in 5yrs. The cost of a micro power station wouldn't be a big stretch.

The more water there is to run in the river is not only good for bathers, fish & eels but the whole ecology will take the changes of the seasons less harshly.

Water is important to farmers as it can dictate the water-take of each farmer in summer, droughts or low flow conditions.

This proposed fix would be a boost to farmers and help the economy of the district.

Location: Central Otago District

1066: LETTER

Email - letter 2021-06-17

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why



2 Ree Crescent
Cromwell 9342
cluthafisheriestrust@gmail.com

17 June 2021

Otago Regional Council
DUNEDIN
policy@orc.govt.nz

Response on Manuherekia Management Scenarios Document

1. Introduction

Clutha Fisheries Trust was established as mitigation for the adverse impacts of the Clyde Dam on sports fisheries. The Trust's objective is the protection and enhancement of sports fisheries and conservation values in the Clutha Catchment for the benefit of the people of New Zealand. The Trust's primary focus is on Lake Dunstan and tributaries, the Clutha Catchment upstream from Lake Dunstan and the Clutha River and tributaries down to Lake Roxburgh. The Manuherekia Catchment is within the Trust's core area of activity.

Work undertaken within the catchment has included surveys on water quality, fisheries and invertebrates, investigations on public access issues and support for University of Otago research on land use intensity impacts on fisheries.

2. Manuherekia Catchment

While the aim of the Manuherekia discussion document is to seek feedback on minimum flows scenarios for the river at the campground flow recorder the wider context must be considered:

- Catchment water is heavily overallocated to out of stream uses, primarily irrigation as a result of century old mining privileges which expire in October this year.
- Water quality is adversely impacted by agricultural land use and is intermittently unfit for contact recreation.
- Land use for agriculture and horticulture within the catchment is intensifying and irrigated area is expanding. This can be expected to worsen impacts of land use on water quality and increase irrigator demand for high levels of security of supply.
- Current water take infrastructure and practices result in depleted or dewatered reaches of the mainstem and tributaries.
- Water take infrastructure can pose a physical barrier to fish migration and result in entrainment of fish into race systems.
- Multiple stressors on aquatic ecosystems and fisheries can magnify adverse environmental effects

3. Recommended Flow Scenario

Given the river's important ecosystem and amenity values the Trust supports Scenario 5, a minimum flow of 3000 l/s at Campground along with the proposed flows for tributaries (Dunstan, Lauder, Thompsons and Chatto Creeks).

All parts of the catchment should contribute equally to the campground minimum flow. The Ida Burn Poolburn and Manorburn catchments should also have specified contributions.

It is important to also define primary and supplementary allocation levels so that the overall flow regime provides for flow variability and avoids flat lining

4. Ecosystem and Recreation Values and NPSFM Priorities

The Manuharekia River, its tributaries and catchment wetlands provide habitat for a broad range of aquatic life including valued introduced species such as brown and rainbow trout, introduced and indigenous waterfowl, indigenous wildlife, fishes and invertebrates.

The Trust does not agree with the document's relegation of valued introduced species such as trout into the third priority category under 'fishing' along with other recreational activity. The rationale for this is not explained. Clearly trout are a common component of the river ecosystem and are valued by the community as part of nature, as an indicator of good water quality, as well as for recreation. Their presence supports the case for meaningful flow restoration throughout the catchment and they should be recognised as part of a healthy ecosystem unless there are specific species interaction issues that threaten biodiversity.

The Trust is also concerned that public water-based recreation is lumped into the third priority category along with consumptive commercial uses of water. Recreational amenity values of waterways in our view contribute to meeting the health needs of people and so should be included as a second priority matter. The Manuharekia River deserves to be seen as a of high importance for a range of recreational activities with flow preferences identified which are mostly above the scenarios on offer. Its proximity to centres of population means that it is readily accessible as a valued recreational resource by swimmers, anglers, picnickers, kayakers, walkers and hunters

The conservation needs of threatened non migratory galaxiids in the river above Falls Dam and in various locations within tributaries require careful consideration in order to secure and enhance those discrete populations. Actions to achieve those ends should be left to the statutory agencies responsible – DOC, ORC and Fish and Game.

5. Economic Effects of Flow Restoration

In considering economic impacts it is important to remember that the decision to phase out mining privileges was made in 1991 with the passage of the RMA and that irrigators were given a thirty-year lead time to transition to modern water management standards. In effect mining privilege holders have already been compensated for the loss of their historic water rights.

While much has been made in the media of the dire economic effects on primary production of flow restoration to higher levels these do not seem to be supported by ORC's economic study. The gulf between environmental and amenity flow needs and irrigation demand should not be met through a search for middle ground. It is important to provide first for a healthy, productive and resilient river environment, and then allocate available water for irrigation. The search for a solution through greater water transport or use efficiency, increased water storage, or securing alternative sources is very much the responsibility of irrigators.

The Trust supports measures proposed to mitigate economic effects by providing a staged movement to a new minimum flow level over a given period of time in the short to medium term.

6. Conclusion

In the Trust's view there is a compelling case for the restoration of minimum flows in the Manuherekia to meaningful levels more in line with minimum flow standards across the country

In our view a flow at Campground of 3000 l/s is an appropriate minimum which will provide for ecosystem health, recreational amenity and landscape as well as meeting the underpinning principle of Te Mana o te Wai.

It is important that in conjunction with the minimum flow ORC sets water allocation limits to ensure river flow variability and addresses the catchment's capacity to support intensive agriculture while sustaining high quality water. This requires identification of catchment limits on nutrient leaching and sediment discharge.

Yours sincerely



Ian Cole
Chair

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

1067: LETTER

Email - letter

2021-06-18

Q1: Minimum flow preference

> 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Increase water flow on Manuherekia River

To: Otago Regional Council

We, the undersigned, request the Otago Regional Council implement a minimum flow of 4000 litres per second on the Manuherekia River. This minimum flow rate was not presented as an option by the Otago Regional Council. We note that the Cawthron Institute states that a minimum flow rate of 2300 l/ps is indicative of ecological stress. The Manuherekia currently has a voluntary minimum flow rate of 900 l/ps. In the absence of a best scenario for optimum river health, we support Scenario 5 of 3000 l/ps. (<https://www.odt.co.nz/rural-life/rural-life-other/dismay-flow-rate-options>)

Why is this important?

New Zealand law stipulates a responsibility to protect and improve the health of our waterways. The role of the Otago Regional Council is to implement this policy.

For too long, private profit-driven imperatives have exploited our fresh waterways, including the Manuherikia River. These have taken precedence over environmental guardianship and the legacy we leave to future generations. This has led to extreme degradation of the river including loss of biodiversity and habitat due to river levels dropping to the extreme, largely due to agricultural and horticultural irrigation through water allocations and the exploitation of water rights attached to historical gold-mining permits.

We are well aware of the contribution farming makes to New Zealand's economy. However, we are also well aware that the financial costs of environmental degradation caused by predominant farming practices, are never included in the financial equation. These costs will be borne by our children and grandchildren. (Mike Joy <https://www.rnz.co.nz/news/on-the-inside/440120/pollutedwaterways-why-are-we-subsidising-environmental-harm>)

Rather than posing river health and farming in an adversarial context, the better question to ask and explore is: what forms of farming are best aligned to optimum river health? Examples abound here in New Zealand and overseas (particularly Australia/see Charles Massy) of low input farming practices suited to dry land, drought-prone regions which are both sustainable and profitable, that maintain and improve soil health and structure, leading to improved water holding capacity, a decrease in soil erosion, and minimising the need for irrigation. (see also Alan Savory, James Rebanks, Bill Mollison, Masanobu Fukuoka to name a few). Such regenerative and organic approaches to land and resource management prove that environmental guardianship is entirely possible and can be compatible with agriculture and horticulture.

The predominant extractive farming model is not sustainable in the short-term, and certainly not in the long-term. As responsible citizens, we must acknowledge that nature has limits, but within those limits, there is an abundance of space for innovative, visionary and long-term practical land and water use.

This submission will be delivered to the Otago Regional Council on 18 June, by email and in person.

Signed by 144 people: [names deleted]

Location: Dunedin District

1068: LETTER

Email - letter

2021-06-18

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why



18 June 2021
Otago Regional Council
Private Bag 1954
Dunedin, 9054
policy@orc.govt.nz

Submission on Manuherehia Choices Document

This feedback is provided on behalf of the Otago Fish and Game Council (Fish and Game). For additional information please contact Nigel Paragreen using the details below.

Submitter Details

Submitter: The Otago Fish and Game Council
Contact person: Nigel Paragreen, Environmental Officer
Email: nparagreen@fishandgame.org.nz
Office phone: 03 477 9076
Postal address: PO Box 76, Dunedin 9016

A handwritten signature in black ink, reading 'N. Paragreen', followed by a horizontal dotted line.

18 June 2021

Introduction

- [1] Fish and Game is the statutory manager of sports fish and game bird resources within Otago. It holds functions and responsibilities set out in the Conservation Act 1987. The organisation's functions include managing, maintaining and enhancing the sports fish and game resources of Otago in the recreational interests of anglers and hunters; representing the interests and aspirations of anglers and hunters in the statutory planning process; and advocating the interests of the Council, including its interests in habitats. This submission has been developed in line with these functions.
- [2] As required by the Conservation Act 1987, Fish and Game has prepared a Sports Fish and Game Management Plan for Otago¹ (SFGMP), approved by the Minister of Conservation, which has guided the development of this submission. This document describes the sports fish and game bird resources in the region and outlines issues, objectives and policies for management over the period. Appendix 1 details provisions relevant to Manuherehia fisheries.

¹ Otago Fish and Game Council. 2015. *Sports Fish and Game Management Plan for Otago Fish and Game Region 2015 - 2025*. Dunedin: Otago Fish and Game Council.

Statutory managers of freshwater sports fish, game birds and their habitat

Otago Fish & Game Council

Cnr Harrow & Hanover Sts, PO Box 76, Dunedin, New Zealand. P: (03) 477 9076 E: otago@fishandgame.org.nz

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Te Mana o te Wai

- [3] The concept of Te Mana o te Wai (TMOTW) was strengthened in the National Policy Statement for Freshwater Management 2020 (NPS-FM), such that it is the fundamental concept. The hierarchy of obligations forms the basis of the single objective in the policy. This places the health and well-being of water bodies and freshwater ecosystems at the top of a priority list. It also imbues responsibilities and duties upon all New Zealanders to care for and respect freshwater.
- [4] TMOTW in its most current form represents a paradigm shift. For Fish and Game, the concept has been roughly distilled down to: 'the river comes first'. This is the way Fish and Game and acclimatisation societies have been operating in Otago for decades – often advocating for rivers and wetlands when few others would. With the policy concept requiring substantial weight, Fish and Game anticipates that degradation of the past will begin to be reversed.
- [5] Fish and Game notes that the policy concept offers scope for interpretation, and that the NPS-FM requires regional councils, in consultation with communities and mana whenua, to interpret the concept in a regional context. For this consultation, this is difficult as key documents which would otherwise guide that interpretation are yet to be written. Principally, these are the Regional Policy Statement and regional provisions of the Otago Land and Water Regional Plan.
- [6] In this submission, Fish and Game provides reasoning and justification for its scenario preference. This is heavily influenced by the concept of TMOTW. The scenario preference is provisional at this stage, due to the uncertain context of this consultation.
- [7] One area to be mindful of when interpreting TMOTW is on which priority tier values within the catchment sit. Fish and Game notes that many parties have differing views on where values sit within the hierarchy of obligations, and that those views have been rapidly changing over time. The authoritative tone in which the issue is discussed in the consultation document is not representative of the wide and diverging views on the subject.
- [8] For example, Fish and Game consider salmonids to sit as an ecosystem health value, being part of the aquatic life biophysical component; human health needs as fishing is a contact recreation; and social/cultural well-being as fishing is a part of NZ culture. Therefore, salmonids, or harvesting salmonids, are represented at each tier of the hierarchy of obligations. Fish and Game sees no reason in the NPS-FM why values can't be recognised at multiple levels. This has been communicated by Fish and Game staff at the MRG. However, this nuance is not recognised in the consultation document.

Key Issues

- [9] Through previous submissions and feedback, including at the Manuharekia Reference Group (MRG) and the Technical Advisory Group, Fish and Game staff and Councillors have identified serious issues in the Manuharekia. These issues combine to limit the resilience and productivity of Manuharekia catchment ecosystems and deplete the catchment's waterbodies, causing environmental degradation; loss of amenity to recreational users; and negative impacts for sports fish and game populations.
- [10] A non-exhaustive list includes:

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- a. extreme levels of water allocation for abstraction in the catchment far exceeding recommended limits;²
- b. low flows for extended periods (or flatlining) due to abstraction and damming (also exceeding recommended limits³) – particularly in the lower main stem during summer but also in other areas and times of the year, such as around Blackstone;
- c. discontinuous flows in tributaries;
- d. barriers to fish passage in tributaries and the main stem;
- e. land-use change affecting wetlands and tussock land, which play a key role in determining the hydrology of the catchment;
- f. water quality issues, particularly sedimentation, nutrient leaching and excessive periphyton growth; and
- g. species interaction between sports fish and non-migratory galaxiids in discrete parts of the catchment.

[11] Through the consultation period, an argument has arisen that only one third of the river is degraded. The implication of which is that there is no issue, as two thirds of the river is in good health. Fish and Game disputes this argument because:

- a. Issues of various types present in more places than just the lower river. Water quality and/or sedimentation issues are present in tributaries, particularly those flowing off the Dunstan Range. Low flows are also seen directly below Falls Dam and the Blackstone take, as excessive amounts of water is abstracted or impounded.
- b. Priority cannot be given to the health and well-being of the water body and freshwater ecosystems in the catchment if a portion of those entities are to be left in a degraded state. A reasonable interpretation of TMOTW would suggest that it is not acceptable to sacrifice one part of the river for another.

[12] Fish and Game seeks that the general degraded nature of the catchment is addressed by restoring flows in the catchment, reducing allocation for out of stream uses, resolving water quality issues and regulating land use. Doing so would improve the health and well-being of the catchments water bodies and freshwater ecosystems and benefit the public, by restoring amenity and recreational opportunities.

Species Interaction

[13] Interactions between non-migratory galaxiids and species which prey⁴ upon them is a serious issue in the Manuherekia. Fish and Game is seeking to work with other parties to identify and implement long term conservation measures. This is necessary as the status quo approach of using low flow barriers to separate populations during summer is not working, as evidenced by the continued loss of non-migratory galaxiid populations over time in Otago.

² Hayes, J., Hay, J., Gabrielsson, R., Goodwin, E., Jellyman, P., Booker, D., . . . Thompson, M. (2018). *Review of the rationale for assessing fish flow requirements and setting ecological flow and allocation limits for them in New Zealand - with particular reference to trout*. Nelson: Cawthron Institute.

³ Ibid.

⁴ In the Manuherekia, these species predominantly include salmonids and eels.

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- [14] In addition to being ineffective in the long term, this approach has severe impacts on the health and well-being of water bodies and freshwater ecosystems downstream.
- [15] A working group including DOC, ORC and Fish and Game has been established to progress species interaction work. Fish and Game expects this work will continue after the work of the MRG is complete.

Limitations of the consultation

- [16] Fish and Game notes the limited scope of the consultation, in that it does not address any factors outside of a minimum flow. Fish and Game expects that regulation in the catchment, through the Freshwater Management Unit process and/or region wide provisions in the Land and Water Regional Plan, will ultimately need to include at least:
 - a. limits on allocation, a definition of over-allocation and a mechanism to phase out over-allocation;
 - b. water quality and quantity bottom lines for all water bodies in the catchments, including minimum environmental flows⁵ and allocation limits⁶;
 - c. prescriptive limits or limits on activities relating to land use – both urban and rural;
 - d. limits for discharges; and
 - e. direction on large infrastructure in the catchment, such as dams.
- [17] As the ORC has not provided clear direction on at least factors, Fish and Game's preference in this consultation process should be considered provisional. Fish and Game's opinion remains open to new information as it becomes available.

Environmental outcomes

- [18] Fish and Game strongly disputes the aspirational environmental outcomes listed in Table 1 of the *Manuhurekia Management Scenarios Consultation Document*. Section 3.2.2 of document refers to these as being drafted by the MRG. The description gives the impression that the work is finalised and agreed upon by the MRG.
- [19] That is incorrect. The MRG discussed objectives of the same nature, which were referred to by many names through the process, but this was highly contentious and was never completed. The MRG was assured at its August 2020 meeting these objectives would be discussed again but that did not occur. Many objectives were not fully discussed and the MRG was far from consensus on objectives which were discussed.
- [20] For these reasons, Fish and Game representatives on the MRG have raised issue with the inclusion of these objectives in the consultation document multiple times with ORC staff. In this context, the misrepresentation of the MRG is wilful. When the decision to include Table

⁵ Set for each water body, as distinct from a minimum flow which manages the catchment from a single or a small number of points.

⁶ Decisions on allocation limits must include allocation which has already been set in long term consents. Such as a water taken off tributaries of the Hawkdun Range and transported out of catchment.

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Otago Fish & Game Council

Cnr Harrow & Hanover Sts, PO Box 78, Dunedin, New Zealand. P: (03) 477 9078 E: otago@fishandgame.org.nz

www.fishandgame.org.nz

this

1 and Section 3.2.2 was made, it was done with knowledge that it was against the expressed advice of MRG representatives.

- [21] It is outrageous for the ORC to misconstrue the MRG's discussions. The inclusion of this table in public consultation is disrespectful to the MRG and its representatives. It is at best an abuse of process and at worst a bold faced lie to the public.
- [22] The suggestion that this work is complete, with a consensus reached, sets expectations in the community of a certain direction of travel, led by the MRG. In reality, that direction is far from certain and the MRG is not at the helm.

Preferred scenario

- [23] Notwithstanding the above, Fish and Game support the 5th scenario of 3m³/s for the minimum flow. Based on the information presented by the ORC and supporting research, this scenario:
 - a. best supports the health and well-being of water bodies and freshwater ecosystems;
 - b. will also benefit recreational amenity, which Fish and Game considers to be a second-tier priority within the hierarchy of obligations and covers contact recreation, including swimming and angling; and
 - c. is consistent with recommendations from mana whenua.
- [24] To be clear, Fish and Game considers the first priority within the hierarchy of obligations to have two distinct but related concepts in water bodies and freshwater ecosystems. The health and well-being of both need to be prioritised. Fish and Game's logic in preferring the 3m³/s scenario in this regard is below:
 - a. Water bodies: Water bodies with flows that are low, flatlined and/or subject to impoundment of water by dams will be less healthy or well than flows in a less altered state, as the river is changed anthropogenically by ongoing decisions. The lower the scenario flow, the less effectively the health and well-being of water bodies in the catchment is prioritised.
 - b. Freshwater ecosystems: are a part of water bodies, for which a great amount of information has been collected for this consultation. Based on this research, outcomes for freshwater ecosystems are improved at higher flows – particularly for algae; invertebrates; invertebrate drift; brown and rainbow trout; and eels.⁷ In many cases, flows higher than 3m³/s would be better; however, flows approaching 4m³/s would leave little to no water for out of stream uses.
- [25] The above preference reflects the scenario which best meets policy direction; TMOTW; provides for a productive and resilient ecosystem; and supports recreational amenity and landscape values. However, it is also critical to recognise that the invertebrate drift study⁸

⁷ Within the assessment for eels, Fish and Game note that while habitat decreases for eels >300mm above 2.5m³/s the likely increase in abundance of invertebrates and sports fish will lead to an increased abundance of food and a more resilient and productive population.

⁸ Hayes, J., Shearer, K., & Casanovas, P. (2021). *The Relationship Between Invertebrate Drift and Flow in the Manuherikia River: Revised analysis and implications for setting minimum flow and allocation limits*. Nelson: Cawthron Institute.

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authors concluded that flows observed in their study below 2.3m³/s showed signs of a stressed ecosystem. That in itself is an environmental bottom line because a stressed ecosystem can never be considered to have prioritised the health and well-being of water bodies and freshwater ecosystems.

Methods of supporting a transition

- [26] Fish and Game acknowledges that the preferred flow scenario prioritises environmental concerns over economic and will impose a burden on the irrigation industry. This should be expected by industry in the catchment, as much of the allocation in the Manuhereikia is authorised by deemed permits which expire in October 2021. The cessation of deemed permits was intended to restore balance between the environment and human use. Due to a range of political, economic and social drivers, this outcome has not yet eventuated via the deemed permit process.
- [27] The degree of the economic burden from a 3m³/s flow is uncertain, with economic estimates from the Otago Regional Council⁹ and Central Otago District Council¹⁰ suggesting wildly different outcomes, particularly for projected job losses.
- [28] Fish and Game prefers catchment management to involve de-intensification of land use in the catchment, so that water use itself is reduced. Fish and Game acknowledges that the irrigation industry would benefit from support for this transition. The preferred method to achieve this is to create a stepped timeframe for implementation. This will require the prior identification of interim stages and outcomes, which should be met along the way.
- [29] Consideration of additional water storage or water supply piping infrastructure is very much an irrigation industry responsibility given the overallocated nature of the catchment and the impacts of overallocation on the environment. Fish and Game believes additional time to resolve the issue is a significant concession by the public given that a 30 year transition was supposed to be complete by 2021.

Conclusion

- [30] On a provisional basis, Fish and Game:
 - a. supports a 3m³/s flow scenario;
 - b. identifies that flow scenarios less than 2.3m³/s cannot support TMOTW; and
 - c. acknowledges an extended timeframe for implementation may assist the irrigation industry in transitioning to outcomes which support TMOTW.

⁹ McDonald, N., & Yang, A. (2021). *Economy-wide Impacts of Proposed Policy Options for the Manuhereikia Catchment*. Dunedin: Otago Regional Council.

¹⁰ Patterson, B. (2021). *Economic Impacts of Minimum Flows in the Manuhereikia Catchment*. Alexandra: Central Otago District Council. Retrieved May 31, 2021, from <https://www.codc.govt.nz/services/economic-development/economic-impacts>

Statutory managers of freshwater sports fish, game birds and their habitat

Otago Fish & Game Council

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www.fishandgame.org.nz

Appendix 1: SFGMP provisions relevant to the Manuherekia¹¹

Entry in SFGMP Appendix 5: Sports Fish and Game Resource Significance

Manuherekia River

A regionally important trout fishery.

The upper reaches of this river have backcountry characteristics. [Internal assessment by OFGC]

Recreational Opportunity Spectrum Setting: rural, backcountry (for the upper river)

Activities: fly, spin, bait, hunt

Users: Local, regional, junior, commercial

Dunstan Creek

A regionally important trout fishery [Internal assessment by OFGC]

Recreational Opportunity Spectrum Setting: backcountry

Activities: fly, spin, bait, hunt

Users: Local, regional, national, junior, commercial

Manorburn Reservoir

A regionally important sports fishery [Teirney et al 1984, p 106]

Recreational Opportunity Spectrum Setting: natural

Activities: fly, spin, bait, troll

Users: Local, regional, national, junior, commercial

Poolburn Reservoir

A regionally important sports fishery [Teirney et al 1984, p 106]

Recreational Opportunity Spectrum Setting: natural

Activities: fly, spin, bait, troll

Users: Local, regional, national, junior, commercial

Issues

6.2.1 Non-point source pollution and sediment is a serious issue affecting water and habitat quality. Of particular concern are the more intensive agricultural land uses, particularly unconstrained and poorly managed dairying and intensive sheep and beef operations.

6.2.2 Wetlands in Otago have been lost or degraded through accelerated eutrophication, sedimentation, drainage, damage from stock, and vegetation modification. Sedimentation primarily comes from the human or animal disturbance of soil without adequate buffers to trap the sediment between the land use activity and the waterway.

6.2.3 River management activities have degraded fish and game habitats in the past and may degrade or enhance habitats and associated recreational amenity in the future depending upon the management regime employed. Management of riparian areas on waterways is of major strategic importance in the protection and enhancement of fish and game habitats and recreational amenity.

6.2.4 Development of rivers for the generation of hydro electricity or water storage for irrigation has the potential to seriously impact on rivers, river fisheries and angling opportunity in Otago, but well-

¹¹ Please note, the common spelling of 'Manuherekia' has changed in recent years based on feedback from Rūnanga. Being approved in 2015, the SFGMP uses the spelling 'Manuherekia'.

designed water storage schemes have the potential to improve water storage, reduce run of river irrigation takes, and increase downstream flows in rivers. Existing hydro-electric dams at Hawea outlet, Roxburgh, Clyde, Mahinerangi, Teviot and Paerau have ongoing effects on fish and game resources and associated recreational use. Dams and weirs block fish passage both up and down stream and flows fluctuate unnaturally downstream from dams.

6.2.5 These multiple stressors on waterways are exacerbated by the many and often conflicting systems for resource administration that exist, such as different types of resource consent, subsequent minimum flow provisions, and differing interpretations on existing resource consents. There is an urgent need for a holistic consideration of catchments.

6.2.7 Some rivers in Otago are fully or over allocated in terms of water abstraction for out of stream uses, resulting in degradation of aquatic habitats. Examples include the Shag, Manuherikia, Cardrona and Lindis Rivers and the Sowburn, Pigburn and Kyeburn. Mining privileges in Central Otago give owners secure property rights over water, however these expire in 2021. In several cases their use for irrigation has serious adverse effects on aquatic ecosystems in some river reaches and their existence constrains sustainable water resource management.

6.2.8 The transition from mining privileges to RMA resource consents poses significant challenges to Otago Fish and Game and Otago Regional Council for some Central Otago catchments. A strategic and hands on approach to managing water allocation in these catchments if instream values are to be satisfactorily restored.

6.2.9 Climate change may alter the hydrological patterns across Otago and consideration for the effects of climate change needs to be built into decision making.

6.2.10 Some hydro generation and irrigation reservoirs in Otago provide important angling amenity. Examples include Lake Dunstan, Lake Onslow, Falls Dam, Poolburn Dam, Manorburn Dam, and Loganburn Dam. There are active proposals to increase the height of both Falls Dam and the Loganburn Dam.

6.2.11 There is a demand amongst anglers and hunters, and within the community, to restore degraded fish and game habitats and to create new habitats, especially close to centres of population.

Objectives

5.3.1 To manage sports fisheries and game resources having regard to sustainability to meet the interests and recreational needs of present and future generations of anglers and hunters.

5.3.2 To primarily focus sports fisheries management on wild, self sustaining fish populations.

5.3.3 To optimise angling and hunting opportunity and maintain or improve the recreational fishing opportunity spectrum available in Otago.

5.3.4 To manage sports fisheries and game populations in Otago within their existing ranges except where a risk assessment shows there is no significant effect from extending the distribution on indigenous biodiversity and Kāi Tahu values. Consultation with interested parties, including Te Rūnanga o Ngāi Tahu, Kāi Tahu ki Otago and DOC, will be undertaken as part of the process for approval under the Freshwater Fisheries Regulations 1983 and similar laws.

Statutory managers of freshwater sports fish, game birds and their habitat

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6.3.1 To protect, maintain and enhance the quality and extent of fish and game habitats in Otago as a priority, with advocacy as the primary tool.

6.3.2 To restore or create fish and game habitat where the opportunity arises and it is practical to do so.

6.3.3 To actively promote targets for habitat quality and quantity, and where necessary, actively defend these targets.

Policies

5.4.5 Protect the significant sports fishing characteristics of Otago's remote and backcountry fisheries.

5.4.6 Actively manage the risks of fish or game projects which extend the range of sports fish or game species within the region.

5.4.8 Respond appropriately to reports of adverse effects arising from fish and game management projects on other natural resources or resource users. This may include discussions with landholders and/or their representatives.

6.4.1 Priority is to be given to achieving outcomes through RMA planning processes and focussing in the first instance on habitat areas identified as nationally or regionally significant in section 5.6 and 5.7 of this plan or those at risk from a specific threat.

6.4.12 Advocate and support the restoration of headwater wetlands where they have been damaged or drained in the past.

6.4.19 Place a priority on resolving over allocation issues in Central Otago rivers relating to deemed permits in order to restore habitats for sports fish. The potential of on-farm water storage should be considered in resolving over-allocation issues.

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Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Otago

1069: LETTER

Email - letter

2021-06-18

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Forest & Bird Submission on Manuherekia Management Scenarios Consultation

18 May 2021

Submitted to policy@orc.govt.nz

From:
Forest & Bird

Contact:
Rick Zwaan
Regional Conservation Manager Otago Southland
r.zwaan@forestandbird.org.nz
021 845 587
PO Box 6230, Dunedin North, Dunedin 9059



Introduction:

1. Forest & Bird is New Zealand's leading independent conservation organisation, which has played an important role in preserving New Zealand's environment and native species since 1923. We are independently funded by private subscription, donations, and bequests. Our mission is to protect New Zealand's unique ecological values, flora and fauna, and natural habitat through the sustainable management of indigenous biodiversity, natural landscapes, rivers, lakes, and coastal environments.
2. Forest & Bird has long been concerned about the serious issues facing the Manuherekia with the catchment under high ecological stress due to significant over allocation and extraction of water, low flows and flatlining, dry reaches occurring periodically, structures impeding fish migration, loss of in river and river margin habitat for native species, weed invasion, run off, nutrient loading, sedimentation, and pollution affecting the health of the water.
3. We note that this consultation is largely limited to minimum flows. Restoring river flows will go some way to addressing the above issues however additional measures (such as to reduce allocation, set bottom lines for water quality and quantity, and address land use effects) will be needed in the FMU and/or the region wide provisions of the Regional Land and Water Plan to give effect to the NPS FM 2020. We would like to stress the need for flow variability requirements in addition to minimum flows.

4. We understand the rationale for using the flows at the campground in the document for simplicity and will refer to these in our submission. Yet we note the importance of looking at the whole catchment and setting flows and take limits on tributaries too.
5. Forest & Bird supports flow scenarios of at least 3000l/s or above and considers anything less does will not meet the objective and policies of the NPS FM 2020.
6. It is clear from the consultation document and associated research that the fifth (3000l/s) flow scenario best meets the health and well-being of waterbodies and freshwater ecosystems and is consistent with recommendations from mana whenua

Minimum flows need to meet the NPS FM 2020

7. The fundamental concept, Te Mana o te Wai, and the objective of the NPS both clearly require a hierarchy of obligations¹:
 - (a) first, the health and well-being of water bodies and freshwater ecosystems*
 - (b) second, the health needs of people (such as drinking water)*
 - (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.*
8. The NPS requires long-term visions to have goals which are 'ambitious but reasonable (that is difficult to achieve but not impossible)'²
9. Clause 3.16 of the NPS sets out the requirements for environmental flows and levels which:
 - a. *Must be set at a level that achieves the environmental outcomes for the values relating to the FMU or relevant part of the FMU and all relevant long-term visions*

¹ c 1.3 5), c2.1, NPS FM 2020

² 3.3 2b), NPS FM 2020

10. Appendix 1A of the NPS sets out the compulsory values which apply to all FMUs and identifies five biophysical components that contribute to freshwater ecosystem health:
 - a. Water Quality
 - b. Water quantity
 - c. Habitat
 - d. Aquatic life
 - e. Ecological processes
11. Taken together, the NPS clearly lays out the need to focus first and foremost on the health and wellbeing of waterbodies and freshwater ecosystems and in stressed catchments like the Manuherekia the FMU process is to 'rebalance' the use of water in favor of those above other uses.
12. The NPS means that any flow regime must first and foremost prioritise the health of the river and ensure it meets the ecological indicators. It makes it explicit that any use of water for economical outcomes must be within ecological limits. Most of the options proposed clearly do not do this.
13. Forest & Bird does not consider any flow scenarios below 3000l/s meet the requirements of the NPS. Additional flows above that will better provide for and ensure the health of the catchment.
14. There are two distinct aspects, waterbodies and freshwater ecosystems of the first priority considerations.
 - a. Waterbodies with low flows, flatlined flows, and flows restricted by barriers and structures will be unable "to sustain the indigenous aquatic life expected" as pointed out by the need for all five biophysical components to be present to meet Compulsory Value number 1 (Ecosystem Health) of the NPS FM 2020. The closer the flow is to a natural state the closer the balance of the five components can enable meeting the value that the Council is required to provide for in each FMU. Hence, only flows of 3,000 l/s or above are acceptable.
 - b. Freshwater ecosystem health has a greater amount of information available to assess. The indicators reported in the consultation document highlight that higher flows improve the ecosystem health particularly for

invertebrates, invertebrate drift, algae, and eels. For many of these attributes flows above 3000l/s get closer to 'good status' status.

15. Critically, the invertebrate drift study concluded that flows of less than 2,300 l/s demonstrated signs of a stressed ecosystem.³ Any flow scenario less than that is demonstrably not giving effect to prioritising the health and wellbeing of waterbodies and freshwater ecosystems.
16. We also note with concern that the ecosystem health indicators for algae or caddisfly aren't 'good' until flows above 3,500l/s. This is why we have consistently said 3,000 l/s or above throughout as our preference would be flow regimes as high as possible.
17. As highlighted before, providing for Habitat, Aquatic Life, and Ecosystem Services is part and parcel of the five biophysical components that make up the Compulsory Value of Ecosystem Health which the ORC must meet entirely in accordance with 3.9 and 3.10.
18. Allocation for human consumption is provided for after this as the second priority stating "the health needs of the people" and the third priority is for taking water for other mainly economic uses: "the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future."
19. While most of the freshwater ecosystem assessments have focused on instream values, the wider river habitat for other species such as for native birds is also important to consider.
20. In that regard, Forest & Bird and others have undertaken bird surveys along the river which indicate more bird life above Falls Dam where there is less abstraction compared to below the dam.

Climate Change

21. According to 3.16 (4)(a) of the NPS the ORC "must have regard to the foreseeable impacts of climate change" when setting environmental flows and

³ Hayes, J., Shearer, K., & Casanovas, P. (2021). The Relationship Between Invertebrate Drive and Flow in the Manuherikia River: Revised analysis and implications for setting minimum flow and allocation limits. Nelson: Cawthron Institute. Retrieved May 31, 2021, from https://ehq-production-australia.s3.ap-southeast-2.amazonaws.com/794f207e6f72418323a810f63ddedf799aed8e02/original/1621219151/5d7da376718e1538003fd12430a35c2d_Drift_study.pdf?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIBJCUKD4ZO4WUUA%2F2021053

levels.

22. Of the flow scenarios proposed, only the highest flow scenario or above will help provide for the long-term viability of Ecosystem Health in a catchment that is already stressed.
23. Given that the local ecology is already stressed and is likely to be further stressed by effects of climate change, it is important to provide stability in the freshwater ecosystems now, this is at the habitat and species level. Providing more water for the local flora and fauna now provides more resilience when the effects of climate change occur. 3000l/s flow is barely adequate as a buffer to ensure resilience. A flow of 4000l/s would be better.

Native fish

24. The majority of New Zealand native freshwater fish are ranked as at risk or threatened with extinction (76%) with many of the non-migratory galaxiid species finding home in Otago which has been named as a biodiverse hotspot for these fish.^{4,5}
25. NIWA report published December 2019 evaluated the fish diversity of the Manuherikia river catchment by way of annual electric fish surveys between 2015-2018 as well as reviewing data in the NZ Freshwater Fish Database.
26. The findings from this report show that the following native freshwater fish species can be found in this catchment: kōaro (at risk – declining), upland bully, roundhead galaxias (threatened – nationally endangered), alpine galaxias (threatened – nationally endangered), Clutha flathead galaxias (threatened – nationally critical), lamprey (threatened – nationally vulnerable), common bully, upland bully, shortfin eel, and longfin eel (at risk – declining).^{6,7}
27. Policy 9 of the NPSFM 2020 requires the habitats of indigenous freshwater fish to be protected. A reduced flow in the main stem of the river will have consequences to overall soil moisture, increase concentration of contaminants

⁴ Ministry for the Environment. Our Freshwater 2020. Environmental Reporting Series.
<https://environment.govt.nz/assets/Publications/Files/our-freshwater-report-2020.pdf>

⁵ [Medium rare | New Zealand Geographic \(nzgeo.com\)](https://www.nzgeo.co.nz/stories/medium-rare/)

⁶ In 2017, Landcare research prepared a desktop analysis of wetland loss between 2001 and 2016. The research showed that Otago had at least 27,049 hectares of wetlands amounting to a count of 2,418 wetlands. The analysis showed that by area almost 9% of the wetlands had experienced partial (8.5%) or complete loss (0.3%). It is important to note that wetland destruction is ongoing as indicated by the report and is in addition to the historic loss.

⁷ Dun, N. et al. Conservation status of New Zealand freshwater fishes, 2017. Department of Conservation. 2018.

from agricultural runoff and sedimentation, and reduced riverine cooling, to name a few, which could all negatively affect native fish in the catchment.

28. Given that the alpine galaxias is endemic to this catchment area, and is among the two most threatened species, any decisions on flow should incorporate the needs of these species in a way that holistically looks at the ecosystem functions. It should also consider that galaxiid habitat today may be restricted due to human activity and that naturally, galaxiids should be inhabiting more of the river.
29. Further to this, Threatened Species is a Compulsory Value listed in Appendix 1A of the NPSFM2020 that must be provided for over Other Values listed in Appendix 1B (such as fishing, irrigation, food cultivation, drinking water).
30. Forest & Bird recognises work is currently underway between DOC, ORC, and Fish & Game Otago on researching and preventing negative species interactions. We support this work and encourage ongoing monitoring of indigenous galaxiid populations. Forest & Bird rejects the premise which some argue that low-flows and dry reaches support the galaxiid populations and other forms are available such as appropriate fixed barriers.

Take limits

31. Forest & Bird recognises that this flow rate will require a reduction in allocation in the catchment which will have an effect on landuses. This won't be an easy task but it is achievable as the NPS requires.
32. Forest & Bird would like to highlight that part 3.17 (4) of the NPSFM 2020 indicates how identifying take limits are to be done in such a way that the takes provide for flows that can meet the needs of the water bodies and safe guard ecosystem health.
33. It is apparent from this that the intended pathway for this process is to first identify the values associated with ecosystem health needed to support the water way and then what flow will achieve these values before identifying the take limits.
34. There appears to be a desire for water permit holders to have their water takes quantities renewed at largely status quo levels. This has cast a shadow over this process and potentially subverts the intentions of the NPSFM 2020 to clearly

prioritise the needs of the river over the uses for human consumption and economic purposes.

35. In this regard, we reiterate that a minimum flow of at least or no less than 3000 l/s is needed to support the health and well-being of the Manuharekia catchment and the associated flora and fauna.

Achieving the transition

36. This difficulty of adjusting has been well known by deemed permit holders in the catchment who have known for thirty years that change was coming at the end of the reprieve the RMA created when it was enacted.
37. To make the transition, Forest & Bird recommends a de-intensification approach, greater focus on moving towards land uses more fitting to the semi-arid environment.
38. Restoring and improving riparian strips and catchment areas with natives should improve water retention and yield. Additionally, halting wetland destruction and restoring wetlands that have been historically damaged or partially destroyed throughout the catchment area should be a priority. We note the funding that has been allocated from central towards supporting landholders with this work through the Freshwater Improvement Fund.
39. While Forest & Bird would support a fast transition given the well-known historic issues and need to reduce the over allocation in the catchment, we would be open to a clearly staged approach as long as the resulting consenting regime isn't allowed to frustrate this with long term water take consents. And there are agreed milestones.
40. We think a reasonable transition period to achieve this change shouldn't take longer than 10 years and needs to be clearly staged.

Environmental Outcomes

41. We note with concern that the consultation document implies that the environmental outcomes in *Table 1* were agreed to by the MRG. Our understanding is that was explicitly not the case. We would want to see these outcomes strengthened significantly in favour of improving the health and wellbeing of the waterways and freshwater ecosystems.

42. As our understanding is this consultation is largely focused on the flow scenarios we would like to reserve the opportunity to provide further input into these objectives before they are adopted.

Conclusion

43. Forest & Bird supports minimum flow regimes of 3,000 l/s and above and considers that any flows below this do not meet the requirements of the NPS 2020. Take and flow limits need to be set throughout the catchment to meet this. In addition, natural flow variability also needs to be restored.

Thank you for considering our submission.

Rick Zwaan

Regional Conservation Manager – Otago-Southland

M: 021 845 587

E: r.zwaan@forestandbird.org.nz

PO Box 6230, Dunedin North, Dunedin 9059

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Otago

1070: LETTER

Email - letter

2021-06-18

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

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Manuherekia River Scenarios: Otago Regional Council

18 June 2021

INTRODUCTION

As a business owner that has been heavily involved in the Alexandra and wider community for almost 30 years, I welcome the opportunity to provide a submission on the proposed Manuherekia River scenarios for the freshwater management in the catchment.

ABOUT CENTRAL FINANCIAL PLANNING

Our business in its current and various preceding forms has been providing financial planning advice and guidance to Central Otago residents since the early 1990s.

In addition, our staff have strong past and present community leadership experience in a wide range of organisations ranging from national, local and regional business groups, through to community, sporting and recreational organisations.

We believe our skills, expertise and experience in guiding the financial and economic decision-making of residents and business owners in the region provides us with a unique and insightful skillset and understanding of the strengths, weaknesses, opportunities and threats that our region faces.

FEEDBACK

As residents and business owners, we have a vested interest in ensuring that our community thrives from both economic and environmental perspectives. Indeed, one of the reasons that we, and many residents chose to make Central Otago our homes was because of the unique history and balance between the economy and the outstanding vistas and environment that we feel so fortunate to live and work in.

Our economy must be sustainable from both the environmental and economic sense. A robust Central Otago economy is fundamentally dependant on our rural communities and the surrounding towns that service them -one does not prosper without the other.

Policy setting

With the drivers for implementing freshwater management changes coming from central government, we understand that the Otago Regional Council is required to develop appropriate Land and Water Regional Plans.

We are aware of the central government requirement for regional councils to set allocation limits and minimum water levels/flows for all freshwater management units and priorities to ensure efficient water use:

- Health and well-being of water bodies and fresh water ecosystems.
- Health needs of people (drinking water).
- The ability of people and communities to provide for their social, economic, and cultural well-being, now and into the future.

We see serious shortcomings in the consultation processes to date and it is with a high degree of alarm that we consider that the current issues with the Manuharekia River health has not been adequately communicated. Why is the status quo not working? What are the root causes of any issues? Most importantly is an arbitrary minimum flow just treating a symptom rather than the real cause or causes of any issues?

More water doesn't make our river any cleaner it just hides the real cause of the problem.

We recognise that damming and irrigation displace water and alter natural processes within aquatic ecosystems. However, the Falls Dam has been in place for nearly 100 years making it difficult, if not almost impossible to know what a natural flow is, and what it might look like. Indeed, without the dam it is recognised that the river would possibly run dry for days, weeks or even months during the dry spells we experience.

The proposed flow scenario options for freshwater management in the Manuharekia catchment is a major issue for the district. This has potentially massive economic and social repercussions.

The March 2021 Paterson Report was commissioned by the CODC indicates the current, financial benefit to the Central Otago district is a GDP contribution from irrigated farming of about \$18 million during an average rainfall year.

As I understand it, this report was commissioned by the CODC in response to the alarming shortcomings of the Otago Regional Councils Lindis River research and consultation process that were revealed by the Environment Courts which highlighted the lack of credible research.

The March 2021 Paterson Report, commissioned by the CODC, indicates approximately 300 direct and downstream jobs in the district would likely disappear.

On the other hand the Otago Regional Council's McDonald and Yang Report downplays the economic impact.

There is a very serious and significant disconnect between these two reports which demands more robust and rigorous examination before an informed and prudent decision can be made.

The solutions must stand up to rigorous debate AND be proven by the weight of evidence as to the most appropriate solution by finding a balance between the environmental and economic impacts.

It seems very obvious in the conflicting reports that the economic impact in particular has not been given enough robust and rigorous attention by the Otago Regional Council. We cannot afford to get this wrong.

Additionally, there are a number of other very significant water related change projects under consideration which must not be considered in isolation.

We are concerned about the unintended consequences that government policy decisions being made will have on rural communities. The proposed water management reforms will have significant impacts for existing businesses in the wider district and region and threaten the health of local communities.

Consultation scope

We have concerns about:

- The token public consultation process and the research used by the Otago Regional Council
- The lack of consultation, representation and involvement of the farming and business communities. The business community has been side lined and not consulted
- The limited public submission template which is not easily accessible
- The lack of clarity that would enable considered and informed decision making
- The technical information has been dumbed down to such an extent there is important information missing or glossed over
- The minimum flow scenarios presented, for example, are only for the Campground section of the river (the lower 1/3-1/4). This fact is not clear. The river health in the upper sections of the river is good and this is not well articulated in the consultation document.
- The perceived conclusion that any environmental issues can be resolved by an increased waterflow which ignores the real causes of the problem areas.

Why is the status quo not provided as a scenario option in the survey question? Improving the water quality by resolving the contamination issues at source is a far better, long term solution than diluting any problems by adding more water.

While the National Policy Statement for Freshwater requires regional councils to put the health of the river as the first priority to improve or maintain.

While it is pleasing to see "sustaining the well-being and economic viability of the region" is acknowledged as a key challenge (p11). It is concerning that it is listed as the last key challenge for future management and not the first.

The Manuharekia River and associated catchment has been the life blood for individuals, families, businesses, communities and towns directly and indirectly in Central Otago, and the wider Otago region for close on 100 years. The water distribution under historic mining privileges has helped build a vibrant Central Otago region that is under very real economic threat.

The impact of any significant change in water flows will have an impact on the future economic viability of the Central Otago region.

Economic Report

We consider the McDonald and Yang report (April 2021) economic assessment of the proposed policy options for the Manuharekia catchment is under-stated and fundamentally flawed.

- There is, by admission no consideration of the impact on horticultural and viticulture businesses which is a significant contributor to the local economy.

- The impact of the 1,200 l/s option presented in the public consultation document has not been assessed.
- There is no modelling of potential future land use changes despite being recommended for further work.

CONCLUSION

There is too much conflicting information about the economic impact to make a considered and informed decision to change the status quo. Furthermore, we are astounded that the premise that an increased water flow solves the problems identified. Surely common sense suggests that we first address the cause of any contamination? Putting more water through just dilute the problem -at a likely significant cost to the community.

A thriving economy, sustainable environment and a connected community is something we all strive for. We recognise that a thriving river and thriving economy could bring multiple benefits to the region long term. However playing one off against the other in a win/lose scenario will likely have serious and long lasting economic repercussions.

Striking the right balance between the environment and the economy is the fundamental issue that we must get right. The solutions need to be affordable, sustainable, effective and fair.

Genuine leadership is required and wider collaboration of environmentalists, business, councils and the farming community working together is essential however, what has been presented by the Regional Council to date has excluded or muted the voices of sectors within our community until now and the Otago Regional Council faces further reputational damage if more inclusive consultation is not forthcoming.

Kind regards,

Brent Wilson
Financial Planner, Adviser
Central Financial Planning Limited

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Not specified

1071: LETTER

Email - letter

2021-06-18

Q1: Minimum flow preference

1,500 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

18 June 2021
Otago Regional Council
Private Bag 1954
DUNEDIN 9054

To whom it may concern

Submission on minimum flow scenarios for the Manuherekia catchment

The Manuherekia catchment sits within the Central Otago District. The Central Otago District Council (CODC) has an interest in submitting on the proposed minimum flow options as this is a complex and important issue for our community.

The mandate for CODC's submission comes from Section 10 of the Local Government Act 2002 that states that the purpose of local government is -

- (a) to enable democratic local decision-making and action by, and on behalf of, communities; and
- (b) to promote the social, economic, environmental, and cultural well-being of communities in the present and for the future.

T

he Central Otago community is diverse and values its waterways for a wide range of environmental, economic, social and cultural reasons. CODC recognises the importance of a healthy waterway to achieving our communities social and cultural values and makes this submission informed by our economic impact report with the vision that a sustainable primary sector and healthy waterway can both be achieved.

The primary sector is an important part of Central Otago's economy with the benefits going beyond those directly employed in it. Most recently our primary sector has helped to ensure that our community has weathered the economic effects of COVID-19 well and has offered employment for displaced workers from other sectors.

There are several regulatory changes happening at the moment, and these are having a cumulative effect on individuals' wellbeing in the primary sector. Most are committed to a longterm low impact sustainable approach to farming in which they are positively contributing to the environment and community around them. So it is important to consider the wider context that these changes might be happening within and the work already underway to address environmental concerns.

In late 2020, Central Otago District Council commissioned Benje Patterson to produce a report on the economic impacts of various minimum flow scenarios in the Manuherekia catchment to ensure both Council and the community were informed of what the changes could mean. As part of the process to produce the economic impact report, our consultants peer reviewed land use and farm models developed by Otago Regional Council's consultants. These models were used as base data for CODC's report. The Economic impacts of minimum flows in the Manuherekia Catchment report was released on 26 May 2021.

Key findings of this report were that under the current status quo flow regime:

- ② The direct GDP contribution from irrigated farming in the catchment is \$17.6 million during an average rainfall year. This estimate excludes horticulture, which in itself is understood to be significant.
- This level of direct GDP is equivalent to 20% of livestock and dairy farming GDP across Central Otago and represents about 1.2% of Central Otago's economy.
- These direct GDP effects from farm-level activity can also be considered alongside downstream effects that also occur from farm wages being spent, as well as farmers buying in goods and services for use on the farm.
- Considering downstream and direct effects together suggests that the total GDP effect of irrigated farming in the catchment could currently be as high as \$27.8 million in Central Otago. Across Otago as a whole, this total GDP effect is estimated to be as much as \$33.4 million during an average year. The effects are slightly higher across Otago due to broader supply chains and increased processing capacity at a regional level.
- From an employment perspective, it is estimated that there could be as many as 180 direct jobs supported in Central Otago from farming in the catchment under status quo flows in an average year, with as many as a further 125 jobs supported downstream. Together, these suggest the total employment contribution could be 305 jobs in Central Otago during an average rainfall year of which 41% of the employment falls outside of those directly working on farms.

The effects of different minimum flow scenarios:

- Alongside the status quo minimum flows regime, this report also considered five other minimum flow scenarios (900 l/s, 1,500 l/s, 2,000 l/s, 2,500 l/s, and 3,000 l/s).
- The impairments to economic activity and employment are greater as minimum flows increase because irrigation water takes will be more constrained under higher flows. Nevertheless, the impairments are relatively small up to 1,500 l/s, but are substantial under a 3,000 l/s scenario.
- During an average rainfall year, the Central Otago's total GDP across both direct and downstream channels could be as much as 19% lower in a 3,000 l/s scenario, compared to the status quo benchmark. This impairment would reduce to 5.2% at a 1,500 l/s minimum flow level.
- The effects of different minimum flow scenarios are even more pronounced during dry years, which are the years when farmers are most reliant on their irrigation systems.
- During a dry year, the impairment to Central Otago's total GDP across both direct and downstream channels from irrigated farming in the Catchment could be as much as a 50% reduction in a 3,000 l/s scenario, compared to the status quo benchmark. Under a 1,500 l/s minimum flow regime, the total reduction in the Catchment's contribution to Central Otago's GDP would be 9.8%.
- There are similar impairments evident in estimates of employment effects, and when GDP and employment effects are considered from an Otago-wide perspective.

Two key limitations should be factored in when interpreting these results:

- These estimates only account for the immediate impairment from different minimum flows, but longer term adaptation by farmers to mitigate the effects have not been addressed. The reason is that Otago Regional Council has not modelled land use changes under different minimum flows. But the reality is that there will be tipping points, particularly under high minimum flow scenarios, where the impairments to yields for certain farming systems are so great that long-term land use changes are necessary. More work must be done by Otago Regional Council to understand these tipping points, adaptive behaviour and the timeframes required for implementation with the least disruption.
- The estimates in this report considered dairy, dairy support, and sheep and beef farming only. Horticulture was not captured because insufficient work was commissioned by Otago Regional Council to understand horticultural returns and land use. This omission could be significant because even though only 4% of land in the catchment is in horticulture, the value add from horticulture will be much higher because crops such as cherries and vineyards offer much better yields than dairying and other farming systems. Without knowing the areas of land under different crop types and the profitability, we do not know the water requirements of the different crops, financial ability of farms to adjust to different flow levels and ultimately the scale of the potential affects. The effect of raising minimum flow levels on horticulture (including viticulture) is likely to be more dramatic compared to the types of farming modelled because of the heightened importance of reliable water required due to the lack of alternative options. Orchardists and viticulturists do not have the option of moving their plantings or bringing in supplementary feed (as a farmer may do with stock) in dry years if producing trees or vines are lost due to drought the lost production will take years to be replaced.

Having produced the Economic impacts of minimum flows in the Manuherekia catchment report and considered the Manuherekia Scenarios consultation document along with supporting evidence, CODC considers it has a responsibility to make this submission.

A solution-focused approach that considers the uniqueness of our environment and the full range of options available to meeting the health of the river along with the maximum number of social, cultural and economic values is required rather than viewing a minimum flow in isolation. CODC believes that the following points should be considered in the next steps to establishing a minimum flow.

1. The consultation document identifies environmental water quality outcomes to be achieved by a range of tools, and environmental water quantity outcomes to be achieved through preferred flows. However, the pamphlet that many in the community will have seen focuses on flows as the mechanism for achieving improved environmental outcomes for the river. There may be a

perception in the community that the minimum flow is the only lever available to them for improving the health of the river. This is likely to influence the consultation feedback. Some of the objectives identified are water quality objectives which would be more effectively addressed through some of the other more targeted tools identified in the consultation document such as action plans or resource output controls than by simply diluting them with increased flows. A number of projects are also currently underway on farms such as the fencing of waterways, riparian planting and wetland development, and the positive benefits from these should also be taken into account.

2. Timing of implementation

Implementation of a new minimum flow needs to factor in adequate time for industry and communities to adapt, to minimise the adverse impacts on the community as a whole. This could in part be informed by better understanding likely land use change and the infrastructure required for transitions. Further investigation should also seek to establish the economic effect on horticulture.

Timing should also consider other changes to regulations for those same communities and sectors to ensure that it is staged in such a way that they have the capacity to meet the changing regulatory environment. The consultation document identifies a range of other tools, including limits and rules, that ORC intends to develop and implement in order to address water quality. These are important but will require considerable effort and investment from farmers and others. The economic report highlights the impacts that various flow scenarios will have on farmers. Care will be required to ensure farmers have the financial capacity left to implement these other new steps.

3. Narrowing of flow range to be further investigated We would like to see a range of scenarios modelled for hydrology, economic and environmental outcomes, in 100 L/s increments from 1000 L/s to 1500 L/s (or any such range under proper consideration) so that the relative impacts of settings can be better understood and fine-tuned.

4. Recognition that the ecosystem health readings are very good for the top two thirds of river.

5. Support from Regional Council and Central Government to provide water storage options if higher flows are required that go beyond meeting the needs of the National Policy Statement. The water used for irrigation supports sectors that generate revenue (and taxes) for the region and country. The development of additional storage would secure long-term sustainability for the environment and economy and government alongside water users should invest in that future. Regional councils and Central Government have supported water storage options in other parts of the country such as the Waimea Dam near Nelson and the Matawii water storage dam near Kaikohe.

Nick Lanham

Economic Development Manager

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

1072: LETTER

Email - letter

2021-06-18

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Manuherikia Catchment Group ORC Survey response on Manuherikia flow scenarios

Contact: Chairperson, Anna Gillespie

Email: anna@twoff.co.nz

Date: 18 June 2021

1. Which (if any) of the scenarios above do you prefer?

- Scenario 1: Minimum flow of 1,200 l/s
- Scenario 2: Minimum flow of 1,500 l/s
- Scenario 3: Minimum flow of 2,000 l/s
- Scenario 4: Minimum flow of 2,500 l/s
- Scenario 5: Minimum flow of 3,000 l/s

None

2. Why do you prefer this/these scenarios? Or if you don't like any, please say why.

The MCG does not prefer any of the scenarios proposed. Our reasons include:

The combined Manuherikia Irrigators group have been working for years on a **River Management Plan** that is based on science and values.

1. Irrigators have worked with independent science experts and stakeholders to develop a proposal that balances environment and community wellbeing.
2. The irrigators catchment wide proposal includes a minimum flow of 1,100 l/s at Campground along with residual flows for the main tributaries of the Manuherikia (Dunstan Ck, Lauder Ck, Thomsons Ck, Chatto Ck) and promotes environmental gains for the catchment compared to the current river management regime of a voluntary minimum flow of 900 l/s at Campground.
3. The proposed minimum flow of 1,100 l/s is based on an 80% habitat retention for indigenous species (eel and galaxiid), relative to the habitat at a MALF of 3,900 l/s, which complies with the values set out in the National Policy Statement for Fresh Water (2020)
4. During a dry period the stored water in Falls Dam is used to supply the irrigation schemes and this results in higher flows in the upper three quarters of the catchment. Only the lower 18% section of the river from the lower Ophir gorge to the Clutha experiences the low flows. From our studies a minimum flow of 1,100 l/s will maintain the values in the lower catchment.
5. If the minimum flow is set at higher level (> 1,100 l/s) then the stored water in Falls dam runs out sooner. When the dam is at minimum levels the flows higher in the catchment will be less than modelled and the flows lower in the catchment could also be less than the minimum chosen at Campground. In short the modelled flows in the scenarios would not be reality.

6. Economic impact reports of the flow scenarios have been completed in an inconsistent adhoc manner. Economic impacts of the flow scenarios is a very important aspect of the decision making for all of the community.

The ORC scenarios are inadequate because:

- i. The hydrological model and its outputs have not been peer reviewed or signed-off by the hydrological experts in TAG.
- ii. The scenarios do not link clearly and explain how they address any values for the catchment.
- iii. The scenarios presented do not address any values based flow regimes in the tributaries of the Manuhēria (tributary flows have been apportioned pro-rata in the modeling)
- iv. The modeling assumes the same sharing and dam management regime would occur under the higher minimum flow scenarios as status quo – this is seriously flawed. The current management regime is a dynamic process that responds to many factors and would need to do so in the future.
- v. Allocation was not assessed or presented appropriately. This is an absolutely critical aspect of the plan change and even required to understand the impacts of the scenarios. It was the missing variable in 2018 and remains so in the ORC's 2021 proposal.
- vi. No flow options have been assessed for ecological outcome collectively by TAG.
- vii. The ecological thresholds used in the consultation brochure and public meeting are not consistent with other Otago rivers nor are they reflective of best practice habitat modeling.
- viii. The consultation brochures and public presentations are only relevant to 18% of the river length below Falls Dam at times of low flow.
- ix. Some reports relied on to support scenarios have not been peer reviewed or made public. Example: The expert responsible for the hydrology model(Ian Lloyd) clearly states in the supporting material that the Model Report has not even been commissioned.
- x. For many values the flows that were presented in ORC's consultation brochure make no sense. For example, swimming occurs most commonly at flows less than 2 m³/s at Campground and trout fishing certainly occurs below 1.2 m³/s at Campground. Based on national angler day surveys by NIWA under status quo the Manuhēria is one of the 50 most fished rivers in NZ.

In conclusion these fundamental issues make it impossible to formulate an informed position on any scenarios.

[Do you have any other feedback on water management in the Manuhēria Rohe?](#)

A viable proposal for water management in the Manuherekia Rohe can not be developed without accurate information that is robust. This last minute rush to deliver flow values that appear to respond to a noisy minority of the catchment without logical grounding is disappointing. The errors in the material delivered make confidence in the process very difficult.

The Manuherekia Rohe boundary remains an issue for MCG. Water is transported outside the rohe for irrigation and can not be lost in the plan change. There needs to be information about neighbouring rohes and the use of Manuherekia water in these rohes.

The Objectives and issues of the FMU need to be clearly established and the link between the scenarios and how they will deliver the objectives explained.

MCG has delivered a comprehensive River Management proposal as part of the Catchment permit application suite. We recommend this body of work be utilised to establish a pathway forward for the rohe.

MCG Submission to ORC Manuherekia consultation Page 3 of 3

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why**SUBMISSION**

TELEPHONE 0800 327 646 | WEBSITE WWW.FEDFARM.ORG.NZ



To: Otago Regional Council

Submission on: Consultation on Manuherikia flow scenarios, May/June 2021

From: Federated Farmers of New Zealand

Date: 18 June 2021

Contact: Peter Wilson
Senior Policy Advisor
Federated Farmers of New Zealand
P: 021 151 3486
E: pwilson@fedfarm.org.nz

Federated Farmers requests a meeting with your policy team to discuss this matter

SUBMISSION MANUHERIKIA FLOWS

FEDERATED FARMERS SUBMISSION

1. Federated Farmers welcomes the opportunity to make this submission to the Otago Regional Council on the Manuherikia flow scenarios.

ABOUT FEDERATED FARMERS

2. Federated Farmers of New Zealand is a primary sector organisation that represents farming and other rural businesses. Federated Farmers has a long and proud history of representing the needs and interests of farmers.
3. The Federation aims to add value to its members' farming businesses. Our key strategic outcomes include the need for New Zealand to provide an economic and social environment within which:
 - a. Our members may operate their business in a fair and flexible commercial environment;
 - b. Our members' families and their staff have access to services essential to the needs of the rural community; and
 - c. Our members adopt responsible management and environmental practices.

MANUHERIKIA CONTEXT

4. Federated Farmers has over 50 members within the Manuherikia catchments, which roughly corresponds to over half of the farmed area within the catchment.
5. As with other Central Otago catchments Federated Farmers has always had an active and in-depth role in advocating for our members interests in farming and irrigation within the catchment. Our members also care deeply about the river, its health, and its long-term management, and believe that a balance between instream health and irrigation needs can be found. To that end, farmers have invested, and continue to substantially invest in water storage, particularly at the farm scale, but catchment scale storage plus run-of-river allocation will always be required in this dry environment if farms are to remain economic.
6. The Manuherikia catchment is a modified catchment with modified hydrology. Since the building of Falls Dam and the Manorburn and Poolburn storage reservoirs, the catchment has sustained modified hydrology and flows. Due to the extent of historical allocation across Central Otago, it is important to recognise that the reality of setting Central Otago flows regimes is different to the rest of the country. Improved flows in rivers will always fall between some historical baseline and the (modelled) naturalised regime, with substantial weight placed on farm economics, storage considerations, and the phasing and timing of flow or storage options. There are also seasonal considerations that assist.

7. As Covid-19 has showcased, farming remains the bedrock of the regional economy, and in this dry environment, irrigation is critical to the security and viability of farming operations in the catchment. Without irrigation in some form, farming would either be unviable for many operations, or change substantially for others. The flow on effects, through regional multipliers, to the towns of Alexandra, Omapau of substantial changes in the flow regime, are substantial. The regional economic modelling show increasing costs with increasing increments of flow (above 1500 lps).
8. On the whole, the river is in relatively good health currently, primarily due to the use of about two thirds of it for transport water from Falls Dam, which enhances flows above what would occur during natural low flow periods. The provision of a voluntary minimum flow of 900 lps at Campground also maintains other values such as connectivity for fish passage and recreation.
9. The central flaw in the proposals appears to be the integration and aggregation of the scientific, technical, and economic reports to the catchment scale, with the focus on the flow at Campground. The flawed process of aggregation has resulted in the production of scenarios that do not reflect the reality of the river at existing flows across its length. Similarly, the weighting given to the various variables in the scenarios does not reflect how the degree of influence that these variables have on catchment processes. The river has natural limiting factors which are not properly represented in the aggregation. For instance:
 - a. The lower river naturally has limited suitable adult trout pool habitat compared to other sections. This limitation occurs at all flows – *it is not a flow dependent variable*. Whilst fishing still occurs, it will always be limited in the lower river because of the lack of suitable holding pools for adult trout. Most fishing occurs upstream, particularly in the reaches from Falls Dam to Ophir, where the habitat is better and where flows are sustained due to transport water from Falls Dam.
 - b. The scenarios that show the fishing value increasing at Campground with increasing increments of flow do not accurately represent the true magnitude of gain given the majority of the river is already carrying good flows for fishing. Disappointingly, ORC has failed to even mention the significant fishing benefits of both the Poolburn and Manorburn dams which are both regionally significant trout fisheries and would not exist but due to irrigation. Surely a proper assessment of angling would include these dams to truly assess if the catchment (as it is) has more angling opportunity than it would naturally and allow a proper understanding of whether angling opportunity in the Manuherikia is impacted by the current water management regime.
 - c. The Manuherikia River is a long accrual river – it has a long period between freshes naturally. Existing monitoring and habitat modelling both show that nuisance algae is always going to be a risk in the lower river, regardless of flow, meaning that the best option to reduce the risk of algal proliferation is to focus on quality. The habitat curves (at Galloway-Campground) for short filamentous algae and long filamentous algae also show an opposite relationship, as one decreases with flow, the other increases with flow. This is independent to any other

parameters that might affect their growth, such as water quality, deposited sediment, or temperature. Given climate change, the effects of temperature on algae growth will need to be factored in. Therefore, nuisance algae (both filamentous types) *is not a flow dependent variable in the context of these scenarios.*

- d. Habitat is a limiting factor, and varies in space and (sometimes) with time. Assuming fish passage, the catchment is a single unit, and small increases in flow at the bottom of the catchment may produce substantial gains elsewhere. This has not been considered in the scenarios. It is a particularly important consideration in the tributaries, where small changes in flow can offer a big improvement to ecological values. The scenarios do not cover this at all, and make scant mention of the tributaries.
 - e. There is no discussion of the beneficial effects of water storage, of phasing the future flow regime (in a manner consistent with implementation of the National Policy Statement-Freshwater Management 2020), or of the potential benefits of seasonal nuance in the flow regime, which may also be consistent with seasonal migration cycles for species.
10. A fundamental problem with the modeling results provided to the community is that the habitat results and flows were only relevant to the reach from Galloway intake to Campground and the majority of the river covered by the other two modelled reaches were left out of public consultation documents. The addition of the extra detail would fundamentally change the weighting given to the scenarios, as the presence of reach-specific limiting or critical factors, the river (and the fishery) should be considered as a whole.
11. The scenarios also do not properly model the 'status quo'. Instead, the 'status quo' scenario should be replaced with a 'historical' scenario which outlines the range of flows experienced at Campground for a period of 10-15 years prior to the introduction of the voluntary minimum flow of 900 lps, then offer a new Scenario 1 (the voluntary minimum flow of 900 lps).
12. Federated Farmers would then request that the new proposed Scenario 1 is modified, with the effects of increasing increments of flow from 900 lps up to 1500 lps be modelled in (six sub scenarios) 100 lps increments. Scenario 1b would be 1000 lps, scenario 1c 1100 lps and so on up to 1500 lps. This is simply because it is easier to conceptualise and understand the practical impacts of these volumes in practical day-to-day farming and irrigation management. Handling larger flow increments is too challenging without significant changes to storage.
13. Federated Farmers could support an increase in minimum flow, as proposed by the irrigators to 1100 lps at Campground, along with improved residual flows in the tributaries and below the mainstem intakes. Federated Farmers describes this as Scenario 1c. Structural improvements to all intakes where improved fish passage is required are possible as well. The primary reasons for the 1100 lps minimum flow are:
- a. 1100 lps represents a substantial improvement from historical practice in the river. It has a modest benefit to the lower river (not adequately modelled in the scenarios due to the way the habitat limitations have been dealt with), a bigger benefit to the upper reaches (due to

- transport water being in the river for longer), and a large benefit to the tributaries.
- b. There is some economic cost to farms, but it is tolerable.
 - c. It is achievable in a short time frame with existing infrastructure, but still represents a stretch for some catchments and operations. It is an achievable, but not an easy option. Changes to irrigation practices and infrastructure are still required.
 - d. It assumes that there may be economic cost and loss when NPS-FM 2020 water quality rules apply to the catchment and wishes to make room for this within farm budgets. Whilst water quality in the catchment overall is stable to improving, Federated Farmers acknowledges that improvements to water quality are required in some sub-catchments. However, as it is farmers that will need to make some changes, it seems unfair to make their farming systems uneconomic in the process of doing so – farm systems under financial stress have poorer environmental performance. This deserves further study and building into the scenarios.
14. Any further increases in the minimum flow above 1100 lps will require increases in overall catchment storage and a likely phasing in of the flow regime over time as storage comes online. Federated Farmers is open to those discussions but notes that previous storage discussions have foundered on cost contribution – the Crown, and/or regional government (urban ratepayers) need to pay their share, as everyone benefits from water storage.
15. We do note that under the ORC Plan Change 7 (short term resource consents), there is no options for further investment into either environmentally friendly irrigation infrastructure or any additional water storage (at either a farm or catchment level). As such previous water storage discussions are now indefinitely off the table, so therefore there is no possibility for further future environmental improvements.
16. Central Otago District Council has undertaken an independent economic impact assessment to understand how the different flow levels might affect economic activity and employment in a dry year, in a year of average rainfall, and in a wet year⁴. The Council website reports that “the economic impact assessment looked at the changes in employment and economic activity at both a farm level, and the downstream benefits at district and regional levels. Downstream benefits include the effect on employment and economic activity from farm wages being spent, as well as farmers buying in goods and services for use on the farm.
17. The key points of the assessment showed that currently in a year of average rainfall the irrigated farmland in the Manuherehia catchment alone directly provides for \$17.6m in GDP and 180 jobs. This economic activity indirectly creates an additional \$10.2m in GDP and 125 jobs in Central Otago. This does not include horticulture or viticulture, due to be base level data not being available from ORC.

⁴ [Economic impacts of minimum flows in the Manuherehia Catchment - Central Otago District Council \(codc.govt.nz\)](https://www.codc.govt.nz/economic-impacts-of-minimum-flows-in-the-manuherehia-catchment/)

18. This level of direct GDP is equivalent to 20% of livestock and dairy farming GDP across Central Otago. During a dry year, the total contribution to Central Otago's GDP from irrigated farmland in the catchment could reduce by 50% in a 3000 l/s scenario, compared to the status quo. Under a 1500 l/s minimum flow regime, the total reduction in contribution to Central Otago's GDP would be 9.8%. For such a serious impact on our rural communities needs serious and informed consultation."

19. Federated Farmers wishes to discuss this with your policy team, and thanks you for the opportunity to provide feedback.

Yours sincerely,

Peter Wilson

Senior Policy Advisor

Dunedin

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Otago

1074: LETTER

Email - letter

2021-06-18

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Manuherikia River scenarios- minimum flow.

Background

[name deleted] is the owner of an irrigated valley floor property at Poolburn in the Ida Valley. The farm is irrigated by water from the Poolburn and Upper Mannorburn reservoirs (via company shareholding) together with a private right to take from a tributary of the Poolburn stream.

Submission

None of the proposed minimum flow scenarios are acceptable to the submitter.

The minimum flow of 1100 L per second is the proposed acceptable minimum flow. This minimum flow is the one proposed in the applications by water users under the Manuherikia Catchment Group umbrella. These water permit applications have all been filed with the ORC.

The reason is that none of the proposed a minimum flow scenarios in the discussion document released by the ORC are not accepted are as follows;

- The proposed flow scenario options for the Manuherikia catchment is significant for the whole district with potential economic social and ecological repercussions.

- The full extent of those repercussions have not been appropriately canvassed in the minimal information provided by the ORC for consultation. It is submitted that there would be significantly greater effects than those proposed in the consultation document particularly in regard to the economic effects and loss of employment. The information in the document does not take into account adequately the ripple effect of a loss of income and production at the individual farm level to the loss of income and employment in the service sector in the townships.
- The ORC discussion document does not explain with any clarity what the exact problem is that a higher minimum flow seeks to address. There is little to no discussion on the status quo and what the issues are resulting from that and why there is a need to increase the minimum flow. It was stated at the ORC public consultation in Omakau that over two thirds of the river is in good heart and nowhere is this stated in their documentation released for consultation. If there are problems in the lower stretch of the river and these need to be addressed but it may not be that a higher minimum flow effectively does that.
- The protection of the native Galaxid population that currently exists in the catchment has not been adequately addressed by raising the minimum flows as set out in the proposed scenarios as this may increase trout habitat who are predators of the native Galaxid population.
- The river currently is used for recreational purposes, swimming and fishing. These activities can therefore be carried out under the status quo and an increase to the minimum flow of 1100 L per second will also mean such uses can continue.
- The ORC consultation documentation did not adequately refer in a meaningful way to the technical reports the ORC had obtained and available on the ORC website. Within those technical reports were a number of assumptions that needed to be peer-reviewed and tested for correctness.
- Given the way the scenarios were presented in the public consultation document it appears to be leading people to choose one of those options as it's not adequately stated that none of the options are required to be accepted. The documentation is definitely lacking in providing any party with full disclosure of all the effects of each of those scenarios which is absolutely essential for meaningful consultation.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

1075: LETTER

Email - letter 2021-06-18

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why



Submission

Manuherekia River Scenarios
Otago Regional Council
Due: 18 June 2021

Connecting People & Advancing Business
www.otagochamber.co.nz

INTRODUCTION

1. The Chamber welcomes the opportunity to provide a submission on the proposed Manuherekia River scenarios for the freshwater management in the catchment. Our feedback is focused at a high level on the options, given the role and nature of our membership organisation.
2. We provide constructive comments on the scenarios presented in the paper. These are based on our observations and expectations from our member base.

ABOUT THE CHAMBER

3. The Chamber is a membership-based service organisation that has been the home and voice of business in the Otago¹ region since 1861. It offers business and business people a range of services and advocacy. We are dedicated to promoting and actively encouraging business growth and opportunity throughout the Otago region.
4. Comprised of over 950 members, the Chamber actively provides information, advocacy and support for business, connecting members through networking events and functions, and developing capability and skills through our training workshops and programmes, including the not-for-profit sector.
5. We also advocate and offer a voice for business concerns and submit on behalf of members on local and national government policy. Representation occurs on behalf of a broad cross-section of business demographics including size, location and industry type, with the full range from small businesses through to large employers and stakeholders in the region.

FEEDBACK

6. We are pleased to make a submission on behalf of our members based in the Central Otago district. The Chamber aims to have a thriving Otago community, if the economy is doing well the whole community benefits. The economy needs to be sustainable in both the environmental and economic sense. A robust economy in the Central Otago rural community and service based towns is equally essential for the vitality, health and wellbeing of the residents. With this in mind, we strive to provide positive feedback on the proposed options where possible.

Policy setting

7. With the drivers for implementing freshwater management changes coming from central government, regional councils are required to develop their

¹ Otago Chamber of Commerce excludes the chamber organisations in the Queenstown Lakes District – Queenstown Chamber of Commerce and Ignite Wanaka.

individual Land and Water Regional Plans. The Chamber is aware the National Policy Statement for Freshwater Management - Te Mana o te Wai 2020 requires regional councils to set allocation limits and minimum water levels/flows for all freshwater management units and ensure efficient water use. The Chamber notes the priorities in the consultation document for achieving environmental outcomes are:

- First - health and well-being of water bodies and freshwater ecosystems.
- Second - health needs of people (drinking water).
- Third - ability of people and communities to provide for their social, economic, and cultural well-being, now and into the future.

8. As these reforms are underway, it is of concern to our business community that the current issues with the Manuharekia River health has not been adequately communicated ie. what is the problem? why is the status quo not working? We recognise that damming and irrigation displace water and alter natural processes within aquatic ecosystems. With the Falls Dam, however, having been in place for nearly 100 years, it is difficult to know what a natural flow is, and what it looks like. The remainder of water comes from the tributaries downstream.
9. The proposed flow scenario options for freshwater management in the Manuharekia catchment is a major issue for the district, with both potentially economic and social repercussions. Currently, the financial benefit to the Central Otago district is a GDP contribution from irrigated farming of \$17.6 million during an average rainfall year and amounts to approximately 180 direct jobs, and a further 125 downstream jobs, in the district². On the other hand, it is worrying the Otago Regional Council's estimates on the jobs losses appear to be under-stated, with 1-2 job losses modelled under the 5 scenarios.
10. If the council's long-term aim is to increase the flow to a higher level, a transition plan setting out how to achieve that is critical. The proposed water management reforms would see transformational change, having implications for balancing the needs of different water users (rural, business, recreation, conservation and local rūnanga) and any future land use changes. How local businesses sustain, adapt and grow with such uncertainty is stressful for the Central Otago business community. In the long term, having a thriving river and thriving economy (with significant benefits for future generations) might well be possible, but how to get there is not clear at all.
11. The Chamber is also aware of a number of other water related change projects underway, and the sequencing of these need to be considered alongside each other, and not in isolation. Businesses are directly, and indirectly, affected by changes to future water permits plan changes (currently before the Environment Court) and any potential farm land use changes.

² Benje Patterson report, Economic impacts of minimum flows in the Manuharekia Catchment (29 March 2021) prepared for the Central Otago District Council.

12. The Chamber is concerned with the unintended consequences of government policy decisions being made in rural and smaller communities, both at a central and local government level. The proposed water management reforms will have impacts for existing businesses in the wider district and region. These water management changes come alongside the impending future transformational change across the New Zealand economy with the Climate Change Commission's recommendations including the potential changes for agriculture, transport, energy and forestry to meet the target of net zero emissions.
13. How businesses, and their communities, adjust and make the necessary changes requires significant leadership and investment. Where is this happening? What is required? Who is responsible? How will it be funded? When will it happen?

Consultation scope

14. The Chamber has concerns about the public consultation process and tools used by the Otago Regional Council:
- a. How accessible is the consultation document and process for the business community and wider public? We are aware this is a complex issue. There is a lot of information to process and understand, the majority of which is largely technical.
 - b. Businesses are key stakeholders in the Central Otago district, and we are aware there has been limited business representation on the reference group (and not wider business community consultation) having input in the development and assessment of implications of the scenarios presented. The focus has largely been on the technical issues.
 - c. Why is the online public submission template so limited in the questions asked (when there are questions on p3, 16, 19 and 36 of the consultation document), particularly given the technical nature of the issues at stake? It is not clear enough to assist people in making decisions. On the other hand, the technical information has been dumbed down to such an extent there is information missing. The minimum flow scenarios presented, for example, are only for the Campground section of the river (the lower 1/3-1/4). This fact is not clear. The river health in the upper sections of the river is good and this is not well articulated in the consultation document.

With the narrow focus being on this section of the river, there are views from members that it's creating stress for businesses. The council is not looking at initiatives and solutions for the whole river, including the upper river and tributaries.
 - d. Why is the status quo not provided as a scenario option in the survey question? While the National Policy Statement for Freshwater

requires regional councils to put the health of the river as the first priority to improve or maintain. There are many in the business community who feel it should be included as a scenario for consideration.

15. It is pleasing to see "sustaining the well-being and economic viability of the region" is acknowledged as a key challenge (p11). Although, concerning that it is listed as the last key challenge for future management. The Manuherekia River and associated catchment is the life blood for individuals, families, businesses, communities and towns directly and indirectly in Central Otago, and also the wider Otago region, and even nationally. With water in the district been allocated under historic mining privileges, the neighbouring settlements and towns that service the rural community, have built up to what is a vibrant Central Otago region.
16. Whilst our membership is largely 'town' or 'urban' based businesses, it cannot be underestimated the impact of any significant change in water flows may have on the current economic viability of the service towns and settlements in the Central Otago district, and wider region.

Economic Technical Report

17. The Chamber notes the council has invested in a number of technical reports to support the development of the public consultation document.
18. The McDonald and Yang report (April 2021) assesses the economy-wide impacts of the proposed policy options for the Manuherekia catchment. It is a robust report using a clear methodology to assess the implications. As is often the nature of modelling exercises, assumptions are made. The Chamber is concerned the economic impacts have been significantly understated, such as:
- a. Only 1-2 job losses estimated due to the increased flow scenarios.
 - b. No impact on horticultural and viticulture businesses been considered.
 - c. There was no 1,200 l/s option assessed, which an option is presented in the public consultation document.
 - d. The absence of any modelling of potential future land use changes (while it is noted in the report as recommended further work). Access to specialist scientific and technology information and funding for existing businesses to make improvements and make any significant changes would need to be made available.

Further information required

19. The Chamber would like more information shared on the following issues:
- a. If there is an increase in the minimum flow:
 - i. Will government invest to support those adversely affected by this decision to ensure economic outcomes are met, while balancing ecological outcomes?

- ii. How can businesses access funding, science and technology needed to make any necessary changes to support any changes?
- b. How can decisions be made with no modelling of future land use changes being undertaken? With potential transformational change on the table, this information is critical.

CONCLUSION

20. Thank you again for the opportunity to submit. The Chamber would welcome the opportunity to discuss this submission with the council.
21. The Chamber aims to have a thriving economy, sustainable environment and connected community. We recognise that a thriving river and thriving economy could bring multiple benefits to the region long term. How to get there, is the fundamental issue. Appropriate water management would secure water dependencies to ensure the long-term supply of resources that underpin the economy and profitability of business.
22. As a transitional way forward, we suggest allowing a really good collaborative approach, a clear road map and an opportunity to combine funds (that should be made available). We need to have environmentalists, business, councils and rural community working together to find solutions that will enable an increase in water flow, whilst providing effective alternatives to support the farming community. The solutions need to be affordable, sustainable and effective.
23. This submission is submitted on the basis that it provides feedback and the opportunity to further engage with the council on this important complex issue. We are committed to working with the council to have both a sustainable environment and economy in the Otago region.

Yours sincerely,

Nicky Aldridge-Masters
Acting Chief Executive
Otago Chamber of Commerce

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Otago

1076: LETTER

Email - letter

2021-06-18

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

File: doccm-6687618

18th June 2021

Otago Regional Council
Private Bag 1954
Dunedin 9054

Manuherekia River water management scenarios

Tena koutou,

Please find enclosed feedback from the Department of Conservation *Te Papa Atawhai* in respect of the Manuherekia River water management scenarios.

Please contact Trudy Anderson in the first instance if you wish to discuss any of the matters raised in this submission at tanderson@doc.govt.nz or 027-408-3380.

Ngā mihi



John Roberts
Pou Ture Whenua / Statutory Manager Southern South Island
Te Papa Atawhai Department of Conservation
Whakatipu-wai-Māori Office
1 Arthurs Point Road | PO Box 811 | Queenstown 9348



New Zealand Government

Te Papa Atawhai / DOC feedback:

Manuherekia River water management scenarios

This feedback has four sections:

1. DOC's role in the development of a Regional Plan: Land and Water.
2. The purpose of this feedback
3. Flow Scenarios
4. Additional comment and recommendations

1. DOC's role in the development of a Regional Plan: Land and Water – Manuherekia section

The Department of Conservation (the Department/DOC) understands that the Otago Regional Council (ORC) has committed to the development of a new Regional Plan: Land and Water by 2025 (RPLW). The content of this plan must comply with national rules and regulations including the Resource Management Act 1991, National Policy Statement for Freshwater Management (NPSFM) 2020 and will also need to comply with the coming National Policy Statement for Indigenous Biodiversity (NPSIB) 2021.

DOC understands that ORC is currently consulting on the Manuherekia catchment chapter of the future RPLW and that ORC considers DOC is an affected party in this process due to its fisheries, wildlife and land management responsibilities. DOC agrees with this assessment and is pleased to have been invited to participate in the consultation for the development of the Plan.

DOC's role in freshwater advocacy is outlined in various legislation including:

- the Conservation Act 1987 section 6(ab) responsibilities "to preserve so far as is practicable all indigenous freshwater fisheries, and protect recreational freshwater fisheries and freshwater fish habitats";
- the Conservation Act 1987 section 53(3)(d) role "to advocate the conservation of aquatic life and freshwater fisheries generally";
- general responsibilities the Conservation Act 1987 and Reserves Act 1977
- its role to protect wildlife under the Wildlife Act 1953
- responsibilities for regulating fish passage under Part 6 of the Freshwater Fish Regulations 1983.

The Otago Conservation Management Strategy (2016), which is the overarching statutory plan for DOC in Otago, has specific threatened species and freshwater Objectives under section 1.5.1, including the provisions as follows:

1.5.1.1 The diversity of New Zealand's natural heritage is maintained and restored, with priority given to:

- a. conserving a full range of New Zealand's ecosystems to a healthy functioning state, with an emphasis on the priority ecosystem units in Appendix 4;*
- b. supporting the work of others to maintain and restore ecosystem types selected from Appendix 2;*
- c. conserving threatened species to ensure persistence, with an emphasis on those species listed in Appendix 5;*
- d. maintaining or restoring populations of nationally iconic species that occur locally, with an emphasis on those species listed in Appendix 7; and*
- e. conserving significant geological features, landforms and landscapes, including those listed in Appendix 9, where they are on public conservation lands and waters.*

1.5.1.6 Work with landowners, Ministry for Primary Industries, Fish and Game Councils, local government and other agencies, and advocate for the:

- a. protection of freshwater fisheries, fish habitat and fish passage;*
- b. preservation of threatened indigenous freshwater species; and*
- c. maintenance and improvement of habitat connectivity and water quality from the headwaters of waterways to the coast.*

DOC's interests in the Manuherekia catchment include (but are not limited to):

- Protection and enhancement of indigenous fish habitat and fish passage (including enhancing, installing or removing fish barriers as appropriate)
- Protection and enhancement of remnant populations of non-diadromous galaxias, bullies, tuna (eel), kanakana (lamprey), koaro, kākahi and other threatened and at risk species.
- The non-diadromous galaxiids present in the Manuherekia catchment are:
 - Alpine galaxias (*Galaxias* aff. *paucispondylus* "Manuherekia") – Nationally Endangered
 - Central Otago roundhead galaxias (*Galaxias anomalus*) – Nationally Endangered
 - Clutha flathead galaxias (*Galaxias* "species D") – Nationally Critical
- Protection and enhancement of other priority indigenous values including wetlands, dryland plants and ecosystems, and the habitats of birds and lizards (some of which are threatened).
- Cultural, recreational and historic values
- Management of Public Conservation Land and covenants for conservation purposes including: Oteake Conservation Park, Lauder Conservation Area, Blackstone Hill Conservation Area, Otago Central Rail Trail Recreation Reserve, Fiddlers Flat Conservation Area and Marginal Strips.

DOC has been an active participant of the Manuherekia Reference Group (MRG) and the Technical Advisory Group (TAG) since they were initiated in 2019. The collaborative process and information sharing has been beneficial. The diversity of MRG and TAG members has been important when understanding and responding to the complex issues facing the catchment.

DOC acknowledges that other parties have differing views on parts of the process and outcomes, however, their inclusion and feedback in this process continues to be important. DOC appreciates ORC and other MRG and TAG participants for their commitment to these forums.

2. The purpose of this feedback

The Department wishes to express its own views on the consultation document, whilst also recognising our collegial role within the MRG. The content of this feedback has previously been shared with members of MRG.

3. Flow scenarios

The Department has purposefully chosen not to endorse any of the proposed flow scenarios at this point in time. The reasons for this are as follows:

- 1) *DOC is concerned that the scenarios do not represent an environmental flow regime.*

There are significant limitations on scenarios focussed only on managing the minimum flow at the campground site. These scenarios do not address the ecological requirements further up the mainstem and the inflowing tributaries.

The upcoming consenting and planning processes in the Manuherekia would be well informed by robust environmental flow scenarios for both the mainstem and the tributaries. DOC acknowledge the challenge of having a multi-faceted environmental flow focus for public feedback. DOC anticipates discussing this further detail with ORC and others following the public feedback process.

- 2) *DOC wish to see other tools such as allocation, residual flows, storage and variable proportional flow considered in an environmental flow scenario.*

The NPSFM section 3.16 has a requirement that regional plans define allocation and use limits to achieve the environmental outcomes for the values identified in each FMU (Freshwater Management Unit) or parts of an FMU (in this case the Manuherekia rohe). This requires ORC to set an environmental flow regime which includes managing flow variability.

The NPSFM (Section 3.17) states that flows, volumes, and levels of storage reservoirs are matters that the Plan must identify, provide for and safeguard in order to meet environmental flows and levels. This has not yet been adequately addressed in the Manuherekia. DOC is concerned that if water takes continue to be managed as one discreet block, variability of stream flows will be lost, particularly later in the irrigation season. Managing water takes in separate blocks with rules to provide for flow variability (such as using gaps in the blocks and flow sharing) will contribute to an acceptable environmental flow regime that meets the ecological requirements of the river and tributaries.

The documentation is unclear on the role of storage in achieving future minimum or environmental flows in the catchment. The current scenarios have been based on the continuation of the current Falls Dam, Manorburn and Poolburn reservoirs without consideration of alternative use or future options. The NPSFM (Section 3.17) specifically states that flows, volumes, and levels of storage reservoirs are matters that the Plan must identify, provide for and safeguard. DOC supports that view and accordingly considers dam storage in the Manuherekia catchment should have suitable Objectives, Policies and Rules detailed in the future Plan.

DOC would like to explore the use of a monthly variable minimum flow in the Manuherekia. This would allow, for example, higher minimum flows in the early spring and summer, when reliability of supply matters less for irrigators and provides gains for fisheries and bird habitat. The Hurunui River in Canterbury has a successful monthly variable flow regime, as an example

3) *DOC encourages greater use of the Manuherekia hydrological model.*

The Manuherekia hydrological model (produced by ORC in consultation with TAG, NIWA and others) can be used to understand the impact of different allocation, storage and water use options on the freshwater values. DOC anticipates having the opportunity to use the hydrological model to inform our position prior to choosing a flow scenario preference.

4) *DOC encourages greater consideration of conservation values in the tributaries.*

The tributaries of the mainstem provide habitat for important threatened galaxiid populations in the catchment. The need to protect of these species must be considered in any freshwater management plan as stated in the NPSFM. Establishing an appropriate environmental flow regime in galaxiid habitats has not yet been addressed in the plan. The basis for minimum flow scenarios at campground has been developed from a proportional contribution from the tributaries. This may or may not be the best outcome for galaxiid habitat. As detailed above, using the hydrological model to consider possible options is needed prior to endorsing a flow recommendation.

- 5) *DOC is concerned about the rationale for excluding the Ida Valley from the Manuherekia discussion.*

DOC consider it is important to include the Ida Valley and Manor Burn catchment in the Manuherekia plan. The Ida Burn, Pool Burn and Manor Burn catchments are important tributaries of the Manuherekia River. These catchments provide habitat for threatened species, contain significant water storage reservoirs and contribute to the flow in the Manuherekia main stem. Management of the Manuherekia catchment will be more effective by considering inputs from all the tributaries. It is DOC's view that rules and policies relating to the Manuherekia should be applied consistently throughout the catchment including in the Ida Valley and Manor Burn catchments.

- 6) *DOC requires additional information prior to endorsing any environmental flow regime(s) in the Manuherekia catchment.*

DOC acknowledges the great progress that has been made in recent years to fill freshwater ecological information gaps in the Manuherekia catchment. DOC appreciate the access and resource from the parties involved that has enabled this progress. Continuing this mahi will be important for understanding key habitats and ecological requirements in the catchment.

4. Additional comment

- 1) *Interaction of native galaxiids with trout*

Regarding Section 3.2.4 of the Manuherekia Scenarios consultation document: Reversing the decline of threatened galaxias. DOC agrees that low flows can act as a barrier to trout passage at some times of low flow, at some locations. However, this effect is only temporary and generally seasonal so cannot be relied on to protect remaining galaxias populations. The only way to reliably exclude trout is by means of natural or constructed fish barriers that prevent their migration upstream. DOC's preference is for trout to be excluded from galaxiid habitat by permanent methods rather than reliance on temporary low flows. The vulnerability of these threatened species to trout predation requires robust management strategies. DOC acknowledges that a sensible approach is required when considering any changes or increases to current flows.

DOC continues to work with ORC, Fish and Game, iwi, landowners and others to identify sites where trout interaction with native fish is detrimental and able to be managed differently. Where there are sites where restorative initiatives are identified and practical, DOC is hopeful these can be progressed using both statutory and non-statutory processes.

- 2) *DOC considers that changes to water management in the Manuherekia may be phased in over time.*

DOC is aware that, in meeting the requirements of the NPSFM, the changes to water management in the catchment are likely to be significant. In the Manuherekia, DOC is of the view that, because of the potential magnitude of likely changes, there is merit in phasing in a new environmental regime over time. This is allowed for in the NPSFM (section 3.16(2)).

- 3) *DOC considers that a full exploration of future options needs to include water currently transferred out of the Manuherekia catchment.*

Environmentally significant transfers of water from the Manuherekia catchment into the Taiari catchment occur at South Rough Ridge, and along the Hawkdun / Ida race.

- 4) *DOC is likely to have additional comment on terrestrial matters in the Manuherekia catchment.*

Feedback on the Manuherekia catchment has predominantly been centred around freshwater matters. As outlined above, DOC is aware that the future Regional Plan will be for both Land and Water. It is likely that DOC will have additional views on the Manuherekia Catchment that have not been covered in discussions thus far.

Thank you for the opportunity to feedback. The Department of Conservation Te Papa Atawhai looks forward to continuing engagement in the Manuherekia River and tributaries.

Nāku noa, nā



John Roberts
Pou Ture Whenua / Statutory Manager Southern South Island
Te Papa Atawhai Department of Conservation

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Otago

1077: LETTER

Email - letter

2021-06-18

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why



LANDPRO

Make the most of your land

18 June 2021

Otago Regional Council
70 Stafford Street,
Dunedin 9016

Attn: ORC Policy and Planning Manager: Anita Dawe, via policy@orc.govt.nz and
anita.dawe@orc.govt.nz

Dear Anita,

Re: Manuherekia River Water Management Scenarios – which do you prefer?

Please find below feedback on the Manuherekia River Water Management Scenarios on behalf of Landpro Limited. Landpro Limited are Landpro is a consultancy firm headquartered in Cromwell, Central Otago. We support a significant number of rural landowners with their resource management needs, including preparing applications to replace deemed permits for water take, use and storage, as well as applications for new permits.

We have been working with our clients for many years drafting their applications and assessment of environment effects and coordinating science investigations of hydrological flows and instream ecological values to support these applications. The resource consent applications which Landpro are working on in the Manuherekia Catchment are tabled below. These applications are presently 'on hold' pending the outcome of Plan Change 7.

Knapdale	RM18.458
R Naylor	RM21.012
Matakanui Station	RM21.006
Longslope Trust	RM19.121
B Drake	RM21.155
OAIC – County	RM21.008
OAIC – Main Race	RM21.010
OAIC – Dunstan and Downs Irrigation Scheme	RM21.011

0800 023 318
13 Pinot Noir Drive
PO Box 302
Cromwell 9342
Central Otago, NZ
info@landpro.co.nz
landpro.co.nz

Southern Lakes Holdings Limited	RM17.195
Falls Dam	RM21.023
Barley Station (Glencoe Trust)	RM21.007
NZ Pastures Limited	RM21.201
C McNally & May	RM21.130
Cairn Hill	RM19.125
Mt Campbell Station	RM20.437

Our feedback is grouped into three topics below:

1. The proposed scenarios

Our concern is not with which scenario is presented, and ultimately supported or opposed by the community. Rather, our concerns are whether:

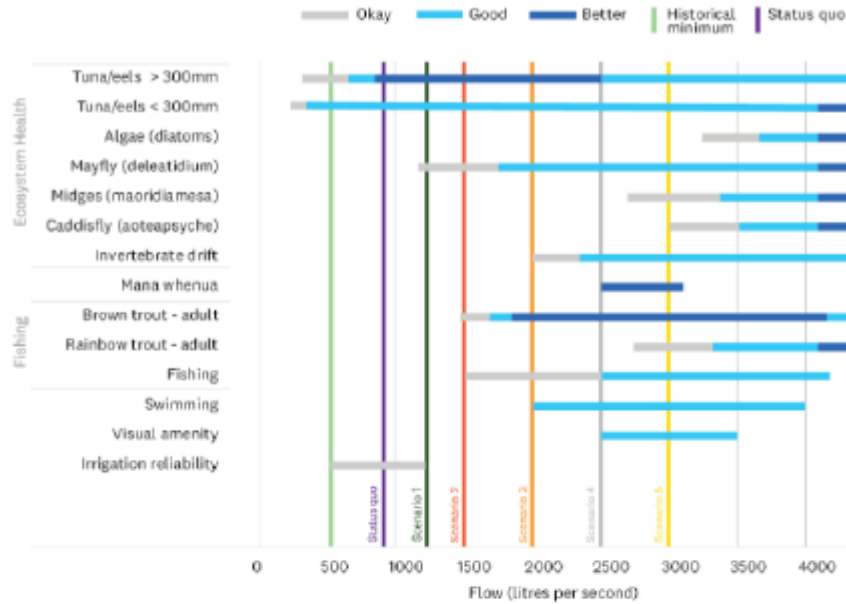
- the Council has undertaken a robust assessment to propose scenarios,
- the scenarios are based on fact,
- the information is presented accurately to the community for feedback, and
- that all available information is considered (including the existing deemed permit replacement applications affected, and the local ecological knowledge of the catchment).

Particularly, we take concern with the following graph presented by ORC. The graph is not representative of the entire river system, the terms Okay, Good, and Better are subjective, the impact on galaxiid habitat (in both the mainstem and tributaries) is not shown on the graph (ecosystem health), nor is an analysis of whether the scenarios meet Te Mana o Te Wai.

There is conflict between the representation of the flow scenarios, and the values supported by the whole river system. With regard to fishing, the entire Manuherekia River is classified as a 'regionally significant' fishery, and the value representation in the graph below does not reflect that this status is already achieved under status quo voluntary minimum flow and flow sharing regime.

Our concern is that the graph is not representative.

Manuharekia River water management scenarios



The figure above shows a summary of preferred flows for values against minimum flow scenarios at Campground water monitoring site.

A longitudinal flow representation of the flows in the river at natural (or status quo) minimum flow, throughout the three stretches of the river (campground to Ophir, Ophir to Dunstan, and Dunstan to Falls), would be beneficial for the community, and would be a clearer depiction of the outcomes at each minimum flow scenario. This would need to be measured against each graph of the river extent, and the extent of values supported by that flow (the second and third-tier values, Mana Whenua, Ecosystem Health, Fishing, swimming, visual amenity, irrigation and primary production). Much harder to represent, but of equal importance in the ranking of values, is the impact of supporting a value (or part of a value) on the storage in Falls Dam and the mental health and well-being of the people directly influenced by those values.

This representation is critical for understanding the river as a whole ecosystem, and not just a measure or an output at the bottom (of the catchment) managed as a minimum flow. This is important, because

the river is viewed by many as a whole river system, and decades of river management has treated the river as such. Supporting a value at the lowest reach does not mean that all other values will also be supported at other reaches of the main stem or its tributaries. The scenarios, do not take into consideration the galaxiid values in the tributaries (and modelled at Galloway) in that higher flows may adversely degrade galaxiid habitat, impacting mana whenua values, and ecosystem health as biodiversity is lost.

An accurate visual representation of the any flow scenario, within the context of the whole river system presented would ensure that the community can provide informed feedback.

The river has been too modified to simply impose one limit on the bottom, and the community (water abstractors) are currently and will in future, prefer to manage their river as a whole system. The Manuherekia is a catchment with a proven history of cohesive site-specific flow management, and it is a lost opportunity to replace this with a set minimum flow at the bottom without considering the complexity of the catchment. A health River is more than just the minimum set at the bottom, and a minimum flow only is not the right model for this catchment.

The ORC has obligations under the NPSFM to set environmental flows and levels. The NPSFM does not specify that a minimum flow must be set. We feel that Council's scenarios are overly simplistic for the complex Manuherekia catchment (complex in terms of hydrology, and water conveyance, as well as values, storage and deemed permits). Council have presented minimum flow scenarios at the lowest reach of the catchment and expressed to the community (via ORC staff attending the Alexandra presentation) that the minimum flow scenarios would 'take care of' the rest of the river reach. We do not believe this to be the case, and that an alternative to 'minimum flow only' should be investigated and presented to the community. Noting this option has already been presented to Council by permit holders seeking replacement of deemed and water permits in the Manuherekia Catchment.

2. What the consultation document is really looking at

ORC need to confirm that all of the scenarios achieve Te Mana o Te Wai. What the consultation document is really looking at, is how much of a recreational river the community want at the bottom

of the catchment. The visual representation does not show the existing recreational values already supported throughout catchment. This message is not upfront in the consultation document.

3. ORC shows their longer-term vision

If the Council is considering increased storage as a method to meet the scenarios – this message needs to be clearly documented in all consultation documentation (i.e., the scenario report).

Further (or the highest) recreational value may only be achieved through investing in more water storage in the catchment. Council can provide for easy consent pathways for new storage – but the Council and Community need to understand who will fund the storage for the benefit of the wider community.

People need to understand how they will fund storage in order to achieve the potential environmental flows as proposed by ORC.

ORC staff have commented frequently on the requirement for a storage-based solution for the Manuherekia Catchment. This includes comments made at the Alexandra meeting, where the scenarios were presented. This dialogue is not recorded in the ORC documents released, and it is concerning that foresight to the methods required to achieve potential values ‘voted on’ by way of this feedback process, is lacking. Particularly if the method to achieve those values ‘voted on’ is not palatable to those who voted on them (i.e., they have insufficient understanding) or practicable to implement, or the cost of that falls unevenly across the community, then the value cannot in actuality be supported by the Manuherekia River system, or the community.

One method to achieve increased storage is facilitated in part by a streamlined consent process. That can be enabled through appropriate and well drafted Rules, and matters for control or discretion, in the proposed Manuherekia Chapter of the proposed LWP.

The cost of new (or more) storage, has not been considered in the economic evaluations of the proposed scenarios. If Council intend that this is a method to meet a future flow regime in this Catchment, they must be clear and upfront about who will pay for increased storage.

Summarising comments

The scenarios and the issues are complex. The matters are too important to the community, and we urge a fair summation of all feedback received is presented to Council. We recommend that the summary of feedback is not presented in a way to Councillors that reduces the importance of it to those who have provided feedback.

Suggested approach:

1. The ORC policy team familiarise themselves with the Manuherekia Overview Document and all other Manuherekia Catchment deemed permit application/science work submitted on that process – as these are directly impacted by the proposed scenarios;
2. Visual representations of flow scenarios within an appropriate context are presented to the community prior to drafting of the Manuherekia Chapter;
3. Consider wider catchment environmental flows other than just a minimum flow at the bottom of the catchment, as an option/scenario;
4. ORC consult with the community on allocation and minimum flows together – as the two are interlinked;
5. That a series of consultations with the community occur, not just one presentation and opportunity for feedback, and that these occur prior to completing the drafting of the Manuherekia Chapter;
6. That the hydrology model is peer reviewed;
7. The ORC policy team seek further input from the Manuherekia Reference Group (MRG), with ORC providing feedback and maintaining a dialogue with MRG, between meetings (also prior to drafting the Manuherekia Chapter);
8. That the proposed Regional Policy Statement provide for storage (as a means to enable storage through the future LWP and a pathway for meaningful consultation on storage)

Kind Regards



Zoe McCormack
Senior planner
Landpro Limited
E: zoe@landpro.co.nz | P: 03 445 9905

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

1078: LETTER

Post - letter 2021-06-18

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

We propose maintaining the Status Quo for the Manuherikia River for the following reasons.

- 1 Irrigation was forced onto the community under the Public Works Act in the 1910 – 15 era, and the Crown has received massive return on investment in the form of Capital Expenditure in the hundreds of millions of dollars and the dramatic increase in land values in the ensuing 100 plus years. Both direct and indirect taxation has contributed significantly to Government Coffers and the Regional Council and District Councils ability to rate.
- 2 Agricultural production will already be declining in the lower reaches of the catchment as irrigators subdivide into lifestyle blocks as they fear the consequences of water restrictions will severely impede their ability to function economically in a restrained water availability regime.
- 3 Water efficiencies i.e. spray irrigation, will lead to less flows in the river as it does not allow the aquifer to replenish which in turn contributes to the flows in a lot of the smaller tributary streams. Council's own studies show evaporation of up to 18mm per day, with spray applications only able to effectively apply 12mm per day if weather conditions allow. In the extremely hot and dry summer period that is shown on your graphs depicting water quality in the lower reaches, I strongly believe that water quality will become even more compromised by this so called efficiency.
- 4 Questionable water quality in the lower reaches in the timeframe used for your graphs could be attributed to the leaking Omakau Sewage Plant plus contributions from septic tanks in Intensified population areas such as Galloway, Lower Manorburn and Letts Gully areas with seepage into the aquifer. Rainfall records I believe would show a correlation of water quality relative to the lack of rain at various times.
- 5 Water flow depletion is contributed to by significant vegetation invasion, i.e. Willows on the river banks; photographic evidence to support this claim is shown in a shot taken in 1865 by a Joseph Perry, showing what I believe to be a section of the river in the Springvale/Chatto Creek area, a river devoid of any vegetation on its banks compared to the present time. It is a known fact that approximately 10 per cent of a hundred head flow "disappears" between Falls Dam and the Ophir Intake of the Manuherikia Scheme in summer. Given that the Falls Dam is owned by the irrigators of the Omakau area and operated for the benefit of the whole valley how does the Regional Council intend to supplement the low flows as per your charts and proposals in a dry period when you theoretically will only be able to utilise the natural inflow of the catchment and NOT stored water. N.b. MOW records historically showed inflows of 11 heads entering the Falls Dam in the dry period of late 70's early 80's. There is anecdotal evidence of the river running dry pre irrigation.
- 6 The value of the river as a Trout fishery should be ignored as they are an introduced species. However, "good" fisherman inform me that the river holds significant fish stocks even when the river is running at minimum flow (900L per second). In 41 years of living beside the river I have only seen 1 dead fish. The value of the tourist fishery to the local/national economy is totally insignificant compared to the reduction in agricultural/horticultural production caused by reducing irrigation availability. The building of the Roxburgh Dam in the 50's will have contributed significantly to the decline in eel and fish numbers in the river and its tributaries by impeding their migratory habits. Also the commercial sanctioning of Eeling was and is a factor. I do not believe the Maori's utilised this water way to any great extent as

region was used mainly as a transit route as the search for the greenstone.
Certainly they would have hunted as they passed through.
We do know that they gather flint in the Crawford Hills region.

7

Having lived in Galloway for 62 years I can report there have been many changes in land use.
Ground water quality has always been extremely good.
When there were 3 dairy Farms in Galloway 1960-84 there was never a need to treat water. Testing
was carried out Annually to comply with food safety Rules.

However in the early 2000 era our water testing picked up e coli.
This was after the sub division of farm properties in the south east corner of the Galloway Flat.
There were approximately 12 new houses and with them new septic tank installations.

It should be noted that the livestock density has reduced in that time.

Rural housing density is impacting on the River tributaries.

Also in the Omakau region we are seeing huge increases in housing.
It is of great concern that in the Data set that the Public and presented with spanning the last 5
years, there have been 2 breaches from the Omakau Effluent Plant.

Additionally the old Ophir Dump South East of the township was the dumping ground for untreated
Abattoir waste for decades.

There is no reference to these sites.

8.

The way in which the ORC is implementing the "rules" really does have to change.
By finding a way that makes people want to continue to improve our whole environment and
highlighting good work by rural people.

9.

It should be noted that the Consultation Progress is a very unbalanced one indeed because the
people seeking and living in the Manuherekia Valley are well out numbered by the number of
people living in Urban Areas.

10.

The River system, while not in perfect condition, is in reasonable health and needs care and
consideration so that there is **Synergy between People and the River System.**

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

1079: LETTER

Email - letter

2021-06-30

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

30 June 2021

Central Regional Council
Manuherekia River water management scenarios
C/- email: policy@orc.govt.nz

Re: Feedback on Manuherekia Water Management Scenarios

Horticulture New Zealand (HortNZ) thanks Otago Regional Council (ORC) for the opportunity to provide feedback on the Manuherekia Water Management Scenarios and welcomes any opportunity to continue to work with the Otago Regional Council and to discuss our feedback.

HortNZ represents the interests of 6000 commercial fruit and vegetable growers in New Zealand, who grow around 100 different crop types and employ over 60,000 workers.

There is approximately 120,000 hectares of horticultural land in New Zealand - approximately 80,000 ha of this is fruit and vegetables. The remaining 40,000 ha is primarily made up of wine grapes and hops, which HortNZ does not represent.

It is not just the economic benefits associated with horticultural production that are important. The rural economy supports rural communities and rural production defines much of the rural landscape. Food production values provide a platform for long term sustainability of communities, through the provision of food security.

HortNZ's purpose is to create an enduring environment where growers prosper. This is done through enabling, promoting and advocating for growers in New Zealand.

commercial fruit and vegetable growers.



On behalf of its grower members HortNZ takes a detailed involvement in resource management planning processes around New Zealand. HortNZ works to raise growers' awareness of these processes to ensure effective grower involvement. It was disappointing for HortNZ to be excluded from the community engagement as our growers look to us to represent their interests.

Horticulture and the Manuherekia Catchment

The Manuherekia catchment is an important catchment for horticulture, particularly summerfruit and pipfruit. Over the last five years Horticulture was the top export industry in the Central Otago District¹. In 2020, horticulture was three times the value of the next primary production activity. These figures exclude fruit grown for the domestic market. With the exception of cherry and apple crops, approximately 80% of all other fruit crop types grown in Central Otago are sold in the domestic market, and directly contribute to New Zealand's food supply. Horticulture achieved this while only being 4% of the land use in Central Otago.

Manuherekia Background Reports

Given the above, HortNZ and our growers were very disappointed to discover that the Manuherekia Rohe background reports purposefully excluded any assessment of the impact on Horticulture.

While there have been six economic assessments commissioned in relation to the Manuherekia Catchment (four by ORC and 2 by Central Otago District Council), none have yet provided an assessment of the potential impact on Horticulture.

This is the report exclusion statement from the Manuherekia Catchment Economics Discussion Document by Lewis Tucker and Co:

"Horticulture– Given the broad range of land-uses that constitute Horticulture (i.e. various pipfruit and stonefruit), the variability in per-hectare returns between crop types, and the relative importance of irrigation reliability to returns – this makes a Catchment-average approach highly unreliable. For this reason, 624 Ha of Horticultural land has been excluded from this analysis."

Irrigation reliability is essential for all crop types that we represent. The timing of when they require a reliable water supply may alter, but they all require reliable water. Therefore, the above statement is inaccurate.

Successfully growing fruits and vegetables requires a water supply with a 9 in 10 reliability. There is no alternative to water for growing fruits and vegetables. Without water nutrients are unable to be taken up by the plant. This can result in reduced production, inferior fruit, no fruit production at all, or the fruit tree dying. The outcome will depend on the length of drought. Unfortunately, a tree cannot be transported to another location with water as livestock can be. For vegetables it is more likely that the crop will die. The feedback of Mr Earnsey Weaver (dated 18 June 2021) provided more detailed account of the outcomes of water deprivation for summerfruit and pip fruit.

Furthermore, HortNZ were not approached by the report writers or ORC to assist in filling the gaps.

The AbacusBio memo does comment that the author consulted with 'a prominent local cherry producer' and then makes very broad assumptions based on that one interaction. HortNZ does not consider this is an appropriate method to assess the economic impacts on the industry.

In addition, there has been no assessment on the social impact (other than recreational) on the Community generally for each of the ORC's scenarios. If the horticulture sector (and/or the farming sector generally) were to no longer be viable,

¹ <https://ecoprofile.infometrics.co.nz/Central%2bOtago%2bDistrict/Gdp/Exports>

then the impacts will be significant –employment, viability of businesses supporting the industries, access to fresh produce, etc. Given the potential gravity of the impacts, HortNZ is interested to understand why social impacts have not been a consideration?

Scenarios

Given the scale of horticulture in the catchment, HortNZ is strongly of the view that the research that has informed the scenarios is flawed. For these reasons we cannot support any of the Scenarios until the information gap can be filled.

We understand that the Manuherehia Catchment work will inform the Otago Land and Water Plan which is anticipated to be publicly notified in 2023. This provides sufficient time to address the information gaps.

We have had a meeting with ORC staff (David Cooper, Principal Engagement Advisor and Ann Yang, Economist) to discuss how the information gap is to be addressed prior to development of the Otago Land and Water Plan.

As a result of that meeting HortNZ has engaged Agribusiness Group to undertake a review of the six economic reports that have been completed to date in relation to the Manuherehia Catchment. The assessment will determine firstly if the methodologies were appropriate and secondly provide a suggested framework for including an assessment of the economic impacts on horticulture. When this assessment is completed, we will again meet with ORC staff to discuss the next steps.

Summary

HortNZ is disappointed in the ORC approach to consultation in the Manuherehia catchment, the lack of consideration of the impacts on horticultural operations and the lack of consideration of social impacts.

HortNZ has engaged Agribusiness Group to review the six economic assessments undertaken to date and provide a recommended framework for undertaking an economic assessment of the potential impacts on horticulture in the Manuherehia Catchment.

Given the considerable absence of appropriate assessment on the impacts on Horticulture, HortNZ cannot support any of the scenario until the information gap can be filled.

We look forward to working productively with ORC to address the information gap prior to the development of the Otago Land and Water Plan.

Yours sincerely,



Rachel McClung
Environmental Policy Advisor – South Island

Q3: Do you have any other feedback on water management in the Manuherehia Rohe?

Location: Otago

1080: LETTER

Email - letter

no date

Q1: Minimum flow preference

> 3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Central Otago Environmental Society



Otago Regional Council
Private Bag 1954
Dunedin, 9054 policy@orc.govt.nz

Submission on Manuherekia Choices Document

This feedback is provided on behalf of the Central Otago Environmental Society (COES).

Submitter Details

Submitter: Central Otago Environmental Society
Contact person: Matthew Sole
Email: msole@xtra.co.nz
Phone: 03 4437 3336

Introduction

1. We are a community organisation whose objectives are as follows:
 - a. The protection and preservation of the natural landscape and character of Central Otago. This covers many values including landscape, amenity, aesthetic and Central Otago's endemic flora and fauna.
 - b. Raising awareness of issues concerning the natural landscape, heritage and resources of Central Otago with the wider public.
 - c. To encourage and support the Government, the Central Otago District Council, the Otago Regional Council, the Department of Conservation and other statutory authorities as appropriate, to establish policies and make decisions which will preserve and enhance the special character of Central Otago's landscapes, heritage and resources for the benefits of future generations.
2. As a community group dedicated to the preservation of the natural environment, we have particular concerns regarding the degradation of the unique biosphere of Central Otago. Many of the drivers of this diminishment of the ecological function and capacity have been due to urban sprawl but more significantly the growth and intensification of horticultural and agricultural enterprises, together with excessive

water takes from natural waterways. Such activities have been unrestricted by the necessary regulatory frameworks which have been overseen since 1991 by the Otago Regional Council (ORC). COES is frustrated that the issues responsible for environmental decay have been well known for the last three decades, and yet little has been implemented by the ORC to arrest the decline in biodiversity and in monitored attributes of ecological function.

3. Through previous submissions and feedback, including at the Manuherekia Reference Group (MRG), COES has raised and identified serious issues in the Manuherekia. These issues combine to limit the resilience and productivity of Manuherekia catchment ecosystems and deplete the catchment's waterbodies, causing environmental degradation; loss to the Mauri – life force of the river, loss of river being, vitality, character and naturalness; loss of ecological function and productive capacity; loss of amenity to recreational users. As such, we have been actively involved in 'giving voice to the river and her tributaries' in engagement and discussions with the ORC and stakeholders in relation to issues concerning the water quantity, quality and over-allocation of water resources in the Otago area.
4. The latest Manuherekia Scenarios – A discussion of freshwater management in the Manuherekia Catchment, has been presented and circulated to the Manuherekia community for discussion and their say. We will outline our issues for the catchment within this submission but we have some concerns over the framing of the presentation and delivery of the Manuherekia Scenarios.
5. COES is at a complete loss to understand
 - a. how there are choices as to how we manage the ecological health and function of the Manuherekia Rohe and
 - b. how the ORC can reason that all of the choices give priority to achieving MfE's National Policy Statement for Freshwater Management 2020 (NPSFM). The NPSFM document emphasises the importance of Te Mana o te Wai which is the Fundamental Concept of managing freshwater under environmental concerns:

"There is a hierarchy of obligations in Te Mana o te Wai that prioritises:

- a. first, the health and well-being of water bodies and freshwater ecosystems
- b. second, the health needs of people (such as drinking water)
- c. third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future. "

The scenarios choices for the Manuherekia Rohe seems to have failed to take these absolute priorities into account, reverting to the old school thinking of balance where each generation abstracts and mines the ecological life supporting system in its quest for another slice of growth. Without any robust acknowledgement or accounting for ecological limits and cumulative effects or consideration to what is left or passed on to the next generation. The ORC statement that all the scenarios choice options meet 'Te mana o te wai' on the face of this appears misleading and incorrect.

6. A better alternative for framing public discussion would have been to acknowledge from the outset that the current government policy has determined that our economy cannot grow or be maintained at the cost of the environment and it must operate within ecological limits.
7. Communicating to the community the growing body of evidence across a range of ecological health attributes that shows that the Manuherekia is clearly in a degraded ecological condition, with independent information transfer, communicating that water allocation and in turn land use needs to change course to meet this national objective.
8. With regard to the disconnect between national objectives around the environment and what we have in the Manuherekia at the moment, it should be pointed out that the major players in the agricultural economy such as Fonterra and Beef & Lamb support the governments objectives around maintaining environmental standards as they know that their industries being seen to operate at the cost of the environment makes them vulnerable to attack in the international market place.
9. The view being promoted within the MRG and in the Scenarios report that higher minimum flow options are simply bad for the economy and low minimum flows are good for the economy as indicated above is old world thinking. Ecologically sustainable businesses are in the long term good businesses. It's the transition period we're dealing with here, not the final outcome. The discussion needs to be around "OK we know from the science what flow is needed to maintain the ecology of the catchment. Now how do we get there and over what time frame?"
10. COES was disappointed in degree of personal opinion expressed by MRG's facilitator who framed the conversation through his own perspectives. Examples are 'that the Manuherekia is not in bad condition in comparison to other rivers throughout the country', 'that the table showing the water quality of the river established from 5 years of ORC testing is not that bad' and that 'the environmental issues with the river are relatively simple to fix'. These comments are both inaccurate and deliberately influencing of the discussion, and inappropriate to free discussion. We expect a conversation based on the facts rather than an interpretation of them, and frankly find this process not only flawed but misleading. The current process does not reflect the science considered by the MRG in an unbiased fashion.
11. It's about restoring the life force of the Manuherekia and her catchment tributaries and not just about the Manuherekia main stem. The tributaries combined are more significant contributors to flow of the Manuherekia than the headwaters flow into Falls Dam. We are seeking restoration of the life force to the whole Manuherekia Catchment Rohe. All sources of the Manuherekia need minimum flows and proportionally contribute to minimum flow.
12. Dunstan Creek catchment flow variability profile over a year provides and represents the likely flow profile that the Manuherekia would have without Falls Dam (e.g. removes the Falls dam flow variability flat lining as a result of water abstraction regimes) The Dunstan Creek flow variability should be modelled for the selected flow variability scenario for Manuherekia.
13. The water abstractors are positioning an argument that as they are returning some flow to the Manuherekia main stem and that this is a community good, therefore the community should contribute as well. The water abstractors are the major causal contributor to flow reduction and degradation of river and stream ecological health

and function. The community contribution could be in the form of time to allow a transition to land use systems that are ecologically sustainable, low water footprint and low carbon footprint systems.

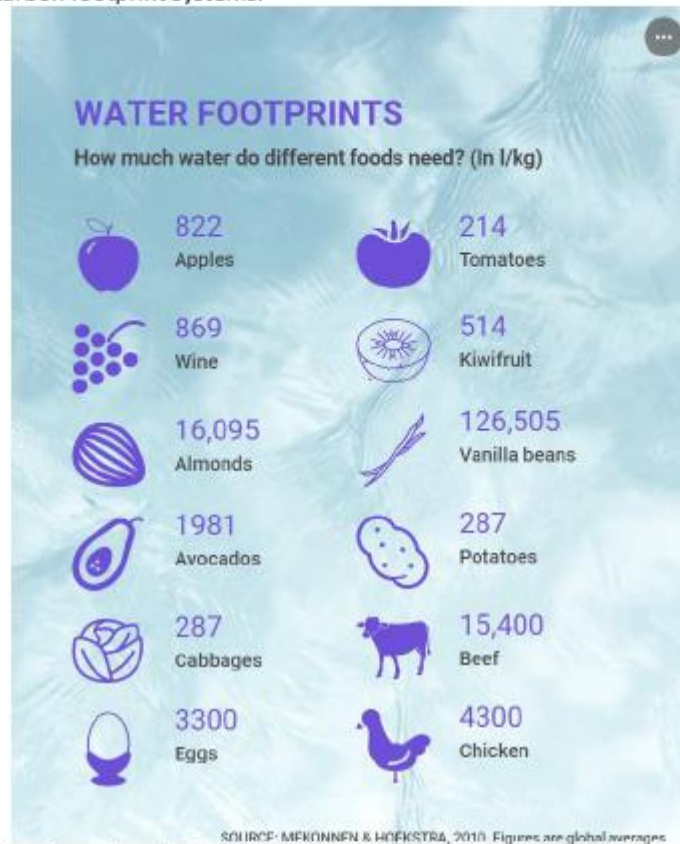


Figure 1 Water footprints of respective animal and food crops.

14. Irrigators, and the CODC through their economic assessment of the river flows, argue that to improve the health of the river through a higher minimum flow, especially a healthier flow at 3cumecs, would mean loss of millions of dollars in farming profits as well as job losses. The respective reports suggesting wildly different outcomes, particularly for projected job losses.
15. But nowhere do they acknowledge, nor the irrigators acknowledge, that there are already available ways of changing farm practices, ie to regenerative practices that allow the soil to retain more water, to organic practices, that cut the pollution of nitrates and phosphates, and to changing crops to those that don't need irrigation or that need a much lesser amount, such as lucerne and hemp. Refer water footprints figure 1
16. From Stats NZ - Otago 2002 = 60678 ha irrigated; Otago 2017 = 94151 irrigated. A percentage increase of 55.165 percent 2002 to 2017. Alleged by irrigators that increase in irrigation ha is from irrigation efficiency rather than increased water abstraction. Can this be independently substantiated by ORC? By implication now

with these water efficiency gains, irrigators will be able to reduce their water abstraction rates and provide for the restoration of the ecological and functional needs of the Manuherekia and her tributaries as indicated by ORC ecosystem health values.

17. Irrigators and economic assessment claim reduced water will detrimentally affect the local farming economy. Changing land use in a semi-arid region – reflecting water footprints & carbon footprints of differing food crops is an opportunity for investigating for transitioning the local economy into a more water and carbon efficient systems and enhancing local resiliency.
18. The Oxford University (Britain) study on agriculture and climate change said that the best thing agriculture could do to limit carbon was to stop producing red meat. The recent Otago University (NZ) study backs this up, saying the best thing for our health and environment is to reduce and cut meat and dairy. As well as the growing transition towards plant-based diets, international consumers are looking to see that the products they purchase are produced without harming the environment. Irrigators need help, advice and encouragement to transition towards crops that have a lighter carbon footprint and lighter need for water and chemicals. The time has gone that we can earn money at the expense of the environment. In this document, dated 22 January, 2020, the authors looked at [Diet Impacts on Climate and Health: New Zealand's Experience](#). They concluded “The global food system is among the principal drivers behind this unprecedented planetary disruption, responsible for up to 29% of all anthropogenic greenhouse gas emissions (GHGs; [Vermeulen et al. 2012](#)), as well as significant soil degradation, deforestation, biodiversity loss, and nitrogen and phosphorous cycle disruption ([Willett et al. 2019](#)).
19. “Irrespective of the setting or food system in question, policies that enable a transition toward diets that are predominantly plant-based appear likely to confer substantial climate and health co-benefits. As a general rule, the climate impact of animal-based foods tended to be substantially higher than that of plant-based foods. Meat products, particularly beef and lamb, were among those associated with the highest GHG emissions. Our findings reinforce the message from the recent EAT-Lancet Commission that the global evidence base is sufficiently strong to justify urgent action among policymakers, and that further postponement poses a great risk to society ([Willett et al. 2019](#)).” <https://ehp.niehs.nih.gov/doi/full/10.1289/EHP5996>
20. The Scenarios material presented to the public frames issues in terms of competing interests - between the river and commerce. While this is an understandable point of tension for public discussion, it suggests that we can balance one against the other. However the current korero must take place in the light of NPS-FM 2020, which determines the parameters of what debate is possible, and what matters the ORC must address. Te Mana o te Wai spells out a hierarchy of priorities in regard to the Manuherekia. We can no longer trade off the century-old priority of agricultural and horticultural uses of the river as a resource, over the mauri of the manifold tributaries and stem of a living being. Economic considerations cannot be discussed until the well-being of the Manuherekia rohe is restored.
21. Many of the dam structures like Falls Dam are past their design life and with little seismic design included in their construction. Falls Dam is currently under deferred maintenance liabilities and design deficiencies (OPUS 2013 Falls Dam Prefeasibility Study). Future plans for the Dam appear unresolved with no publicly agreed plan or

funding for its future by the irrigator owners. Dam structures have very significant impacts on river ecology and ecological function and should not be seen as a given in future catchment management scenarios without some robust ecological assessment and environmental cost benefit analysis.

22. In relation to Galaxiid, where species interaction occurs, COES supports ongoing work with other parties to identify and implement long term conservation measures. This is necessary as the status quo approach of using low flow barriers to separate populations during summer is not working, as evidenced by the continued loss of non-migratory galaxiid populations over time in Otago. Along with concerns about reliance on one method and being ineffective in the long term, this approach has severe impacts on the health and well-being of water bodies and freshwater ecosystems downstream.
23. COES support the established working group including DOC, ORC and Fish and Game to progress species interaction work. COES expects this work along with galaxiid monitoring will continue after the work of the MRG is complete.
24. There are also concerns the scope and the confinement of choices to just minimum flow when there are a whole suit of ecological attributes and parameters unaddressed that make up ecological health and function of the Manuherekia and the life force of the catchment. There is more to ecological health and function than just minimum flows. The choices flow scenarios are largely silent on these other environmental functions of river Mauri.
25. A key point is that given the table below none of the scenarios meet all of the Ecosystem health attribute measures for good. 3000l/s gets to OK for all but one. 4000l/s gets to good across all attributes. 4000l/s plus is needed to get to better.

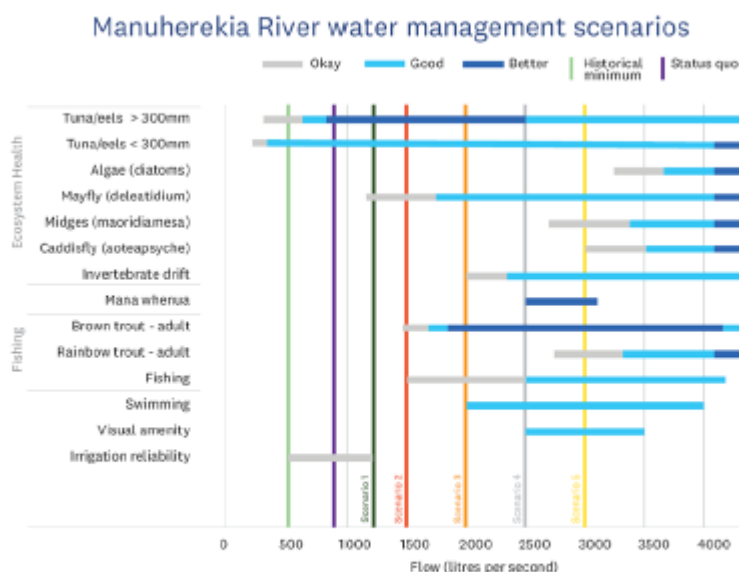


Figure 2

26. COES expects that regulation in the catchment, through the Freshwater Management Unit process and/or regional wide provisions in the Land and Water Regional Plan, will ultimately need to include:
 - a. limits on allocation, a definition of over-allocation and a mechanism to phase out over-allocation;
 - b. water quality and quantity bottom lines for all water bodies in the catchments,
 - c. including minimum environmental flows and allocation limits;
 - d. prescriptive limits or limits on activities relating to land use – both urban and rural;
 - e. limits for discharges; and
 - f. direction on large infrastructure in the catchment, such as dams.
27. Nonetheless COES does not support any of the five scenarios; Our provisional recommendation, based only on current scenarios flow management information provided, which is only one component of managing water bodies and freshwater ecosystems is we support none of the five options and recommends provisionally a 4000l/s or higher for minimum flow.
28. This from our assessment within the constraints of the consultation document information and supporting research is the best precautionary approach for the health and full ecological function of the Manuherekia.
 - a. best supports the Mauri - life force, health and well-being of water bodies and freshwater ecosystems;
 - b. will also benefit the intrinsic and recreational amenity, which COES considers to be a second tier priority within the hierarchy of obligations and covers the being of the river for human wellbeing and contact recreation, including swimming and angling; and
 - c. is consistent with recommendations from mana whenua.
29. In the modern era, we are now required to prioritise the river via the fundamental concept of “te mana o te wai” (the life force of water). That’s a fact, set in policy and inescapable. The concept gives as a first priority the health and wellbeing of the river, then allows for other factors. Interpreting “te mana o te wai” in the context of the Manuherekia must be at the centre of our discussions (and resolutions). We now have a great deal of information to do just that.
30. Quoting Nigel Paragreen of F&G Hydrological modelling shows us the scale of drought we (water abstraction) impose on the river. The summer low flows we have observed in the lower river in the past 10 years or so are on average just 25% of what would be there without dams or water takes. It has been this way for pretty much the past 100 years — a century of summer droughts imposed on the river.
31. Degradation and modification of ecologically diverse shrub land and tussock grassland vegetation through conversion to single species crops has reduced water harvest and yield which play a key role in determining the hydrology of the catchment. This has exacerbated runoff, added to soil health degradation, sedimentation losses and nutrient leaching, into water bodies.
32. Of note in table 2 Water quality grades based on NOF criteria for values, within the Management scenarios, only one site on the Manuherekia downstream of forks is a near clear grade ‘A’- notably and tellingly the only site upstream of intensive land use. There is need for more water quality and quantity monitoring in the headwaters of contributing tributaries to assess and gauge baseline levels for robust monitoring. This is to better understand and monitor land use effects and future changes in land use systems within tributary catchments.
33. The comment at the first Manuherekia choices meeting by Councillor Malcom, MRG council representative, that ORC was only following current Govt water policy was

incredibly demeaning of the process and undermined the effort and commitment put into the MRG and community discussion.

34. The Ida Valley, Moa Creek catchment must be part of ecological monitoring and water quality improvement.
35. This also must be cognisant with the growing body of monitoring reports on declining attributes for ecological function and water quality, along with the growing and improving science understanding of the needs for ecological health and function aligned and reconciled to our own respective observations and experiences with degradation of our Manuherekia and her tributary catchments.
36. The Skelton Report, states that most rivers in New Zealand have around 25% of the water taken for irrigation and on the Manuherekia irrigation takes up to 75% of the river within a semi arid environment often coinciding with climatic water deficit periods.
37. COES seeks that the general degraded nature of the catchment is addressed by restoring flows in the catchment, reducing allocation for out of stream uses, resolving water quality issues and regulating land use.
38. In summary.
 - a. Our provisional recommendation, based only on current scenarios flow management information provided, which is only one component of managing water bodies and freshwater ecosystems is we support none of the five options and recommends provisionally a 4000l/s or higher for minimum flow.
 - b. Notes anything below 3000l/s does not support Te Mana o te Wai;
 - c. It will be amended on new information.
 - d. Is prepared to support time frame extensions when necessary.
39. As COES has raised in various written submissions to MRG and ORC this reductionist approach to confining issues to flow and quantity without including research and science on contributing impacts of land use, catchment yield & harvest, allocation, over allocation, storage, with described and aligned management regimes to consider, our flow option has to be provisional and precautionary.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

1081: LETTER

Email - letter **no date**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

I am writing this submission to assert that the required minimum flow in Manuherekia River to be 3000 l/s.

I am writing this as a member of the general public living in Alexandra, who often goes for a walk beside the river and who takes my kids swimming and paddling in the river.

This is my preferred scenario for the following reasons:

- a. This option ensures the health of the river. It would be good for the local fishery, preserving the fish numbers and ensuring clean water.
- b. Securing this would mean that the river can be enjoyed by the general public, by many. The river would be good for swimming, for fishing and for other water sport activities. In turn, this will attract tourists. As the river is beside the rail trail, people can appreciate and marvel at its beauty. The very thing New Zealand is known for. This will give a boost to the local economy.
- c. I do not understand why farmers think that it is okay to just deplete the river without any regard. The river is not their own personal resource and it should not be used to serve the financial interests of the few. The flagrant disregard of the health of the environment is not acceptable and is not sustainable. It may serve their interest now but how about 10 years from now or 20 years from now. An unclean, unhealthy and depleted river is not what I want for my children.
- d. I do appreciate the need for irrigation but not at the expense of the river. During the rainy season or when the river floods, why can the farmers not make a system that takes advantage of this increased river flow. Is this not what they have done somewhere near Ahuriri, where excess flood water is drained into a dam and reserved to irrigate on drought season? Wouldn't something like this be better than to just deplete the river?
- e. River health is important and must be protected.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

1082: LETTER

Email - letter

no date

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why



MANUHEREKIA RIVER WATER MANAGEMENT SCENARIOS – WAKATIPU ANGLERS’ CLUB SUBMISISON

By email: policy@orc.govt.nz

- 1 Thank you for the opportunity to submit on Manuherekia River minimum flow scenarios.
- 2 The Wakatipu Anglers Club urges the ORC to set the minimum flow rate at **no less than 3000 l/s**.
- 3 Doing so would best meet priorities one and two of the Mana o te Wai obligation hierarchy for the Manuherekia Rohe.
- 4 We offer context and brief reasons for our position below.

The Wakatipu Anglers Club (WAC)

- 5 WAC is a Queenstown-based fishing club established in 1986.
- 6 Our diverse membership includes woman, men, girls and boys who relish the opportunity to chase trout across the region’s rivers and lakes. Our members range from some of the country’s finest fly-fishing guides, to complete beginners. But whatever our fishing ability, we all value and appreciate the phenomenal natural beauty of our wider region. We are all grateful for the outstanding work Fish & Game and the ORC do to preserve and enhance our environment for New Zealanders and visitors alike.
- 7 We expect our values to be shared by outdoor enthusiasts across Otago and throughout the country. So while this submission comes from WAC’s membership, we respectfully suggest it reflects the views of thousands of others for whom a day on or near a river is a deeply special occasion.

3000 l/s in context

- 8 The Manuherekia River is an outstanding fishery, offering brown and rainbow trout fishing throughout its length. The Manuherekia is, for many, the jewel in crown of Central Otago fishing.

- 9 The Manuherekia River is also a unique fishery: it boasts dozens of kilometers of readily accessible front country water ensuring beats for many fishers on any given day.
- 10 It follows that – to fishers alone – the river offers exceptional recreational opportunities. In doing so, it brings fishing tourism which, alongside the rail trail, contributes to the vibrancy and health of local town economies.
- 11 Raising/maintaining flow at 3000l/s would keep the river cool and free from algae. Doing that would, in turn:
- 11.1 make the river safe to swim in throughout the summer;
 - 11.2 maintain the river's aesthetic value for rail trail tourists amongst so many others who walk dogs, who picnic and who play in and around the Awa; and
 - 11.3 promote fantastic brown and rainbow trout fishery throughout the system.
- 12 In making our submission we acknowledge it is likely to conflict with vested farming interests in the Rohe. We appreciate and respect that farming delivers certain economic benefits to the region. But we make no apology for our position. The Manuherekia River is what economists would call a public good – it is, or should be, a resource that is non-rivalrous and non-excludable; a resource available to the entire community, not depleted for the benefit of a small minority of commercial operators.
- 13 Again we urge the ORC to set the minimum flow rate at 3000 l/s. We do so in the public interest.
- 14 We look forward to being included in your future deliberations over water management scenarios for this precious resource.
- Yours sincerely,
- The Membership of the Wakatipu Anglers Club Inc.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Queenstown Lakes District

1083: LETTER

Email - letter **no date**

Q1: Minimum flow preference

3,000 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

As quoted, the National Policy Statement for freshwater management 2020 sets the framework for how Regional Councils must manage freshwater. The fundamental concept of Te Mana o te Wai, underpins the NPSFM and specifies a hierarchy of obligations that prioritises:

First, the health and well-being of water bodies and freshwater ecosystems.

Second, the health needs of people (such as drinking water)

Third, the ability of people and communities to provide for their social, economic and cultural well-being.

I support Option 5 which provides the 3000 l/sec minimum flow at Alexandra for the following reasons:

It supports the health and well-being of water bodies and freshwater ecosystems as required. (Although this is reliant on rigorous and regular testing of run-off and groundwater seepage from farms and other land-based businesses and needs to be enforced).

It protects the health needs of people by ensuring a safe drinking water supply and the health benefits people can get from river based recreation as long as the above water quality monitoring is done often and thoroughly.

It provides for public recreation by ensuring there is enough clean, flowing water for swimming, fishing and food gathering, enhancing people's enjoyment of their rivers socially and culturally.

If the above work is done, then we should all be able to enjoy the Manuherekia.

However, there are two issues often raised:

1. Economic well-being:

The third priority made in the National Policy Statement sees the economic wellbeing of communities (and landholders) as the last in importance.

And under Scenario 5 it is stated that: "Irrigation reliability is very poor and farm viability would be stressed."

Irrigation reliability can be addressed by farming businesses and horticulture by sourcing additional water from elsewhere such as Lake Dunstan, by creating additional storage within the catchment and by using water more efficiently rather than depleting the mainstem Manuherekia or its tributaries

2. Employment & GDP :

In Scenario 5 the effects on employment and GDP are said to be low in ORC's economic research.

Conclusion:

I understand the importance of primary production to the local economy, but I totally disagree with the perpetuation of historic over-allocation and I strongly object to the degradation of the river through nutrients in farm run off. The Manuherekia is first and foremost a public assets, belonging to us all.

ORC is currently issuing permits to farmers and other land based businesses to take water from catchment rivers and streams for the next 35 years. ORC needs to signal that irrigators need to look at alternative sources of water for irrigation such as increased storage or use of the huge amount of water available in Lake Dunstan.

Finally, it is stated in the document that irrigators will have their earnings and land values impacted.

Clearly irrigated land values are to an extent propped up by historic overallocation and some declines are to be expected as water is restored to the river for environmental flows. This adjustment has been known about for the last thirty years and should be a surprise to no one.. The major difference between the value of irrigated farmland and dry farmland is an incentive to landowners to secure alternative water sources.

[name deleted]

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District

1084: LETTER

Email - letter

no date

Q1: Minimum flow preference

900 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Opportunity cost of Water of the Manuherikia River

Submission to the ORC on the Manuherikia River flow rates

A report by Global Water Resources Group projects that by 2030, annual global fresh water needs will reach 6.9 trillion cubic metres – 64% more than currently existing reliable and existing supply. The implications for further global and domestic conflict are obvious as interest groups vie for influence and control. In NZ, evidence suggests that variation of rainfall from year to year and not scarcity of water is the real problem. Despite this obvious reality being easily overcome by water storage -nothing is now to be done - by Government decree. The Government has decided to do away with the ineptly named "irrigation fund" in favour of other expenditure. There will be a massive future cost associated with that decision. Economists call it the opportunity cost – in this case - of fresh water. The real cost is not in monetary terms but in social conflict which will lay at the ORCs door

Not so long ago it was announced that the vegetable growers of Levin will not be planting as the weather is too hot and they have no stored water to irrigate their crops. Surface takes from rivers are banned as minimum low flows of rivers are implemented by Regional councils. The decision not to invest in water storage will therefore result in a significant opportunity cost thru loss of income to the grower. Consumers are also impacted by a likely higher cost of vegetables. We consumers are constantly impacted by opportunity cost as we make our usual decisions when buying and selling. To buy or not buy a car; to invest some money instead of going for a holiday. All have an opportunity cost attached. The choices we the people make may have only minor impacts but what happens when Governments simply ignore this most basic of economic principles in favour of political expediency?

The environmental lobbies campaign to demonize all forms of intensive farming, even where water has been used for 100 years has been entirely successful to the extent that the Government withdrew even the meagre support of the previous Government - for water storage. This occurred despite the reality that 98% of all water in NZ is not used for intensive farming.

The lack of storage nationwide is already impacting on town water supplies as population growth and hot dry summers start to impact. Central Governments' appears preoccupied with the infrastructural problems of Auckland which are real but so too is inadequate water storage capacity throughout NZ.

The so called "Irrigation fund" is or was a public good fund where recreational, cultural, aesthetic, economic, social and biological values all benefit from increased supply of fresh water.

The administration of water by councils is under increasing pressure to determine and balance all the competing values of fresh water. Each has significant losses attached to the other's values. Fresh water allocation between competing productive economic uses is relatively simple compared to allocation for recreational values - competing for the same water. In other words -as demand for recreational value increases, the availability of water for an economic use diminishes. Add in the seasonal variation of rainfall, and the failure to apply even basic economics to the use of water, the opportunity cost becomes even more obvious.

The question now becomes - who or what should have the highest use right to existing water? The productive use or the recreational use? The environmental lobby groups have a huge political and public sphere of influence, so the answer becomes self-evident. Meanwhile the opportunity cost of water - for all our benefits - is still ignored.

The decision soon to be made by the Otago Regional Council on the minimum flow of the Manuherikia River is a case in point. The ORC is asking people to make submissions on the nebulous concept of how they "feel" about the Manuherikia River. No empirical evidence as to the financial / productive /economic / recreational / social value of the river is released by the ORC to assist the public in their personal submission. In other words, the opportunity cost of the water from the Clutha is set aside from the process in favour of how we all feel about this water body. The opportunity cost of this resource must be fully assessed and debated before any decisions can be rationally made .The CODC has done some work -the ORC has done none .Where is the ORC economic analysis , the statistical data to assist with this decision on the flow .

To the productive sector (which includes all towns) the cost of supply and distribution of water is very real and is inherent in the cost of supply and production. To the fisher or recreational user there is no cost except the opportunity cost to our wider society, of which they are part. Every use of fresh water therefore has a cost; however, some costs are imposed - others aren't - often due to political influence rather than hydrology or economics. The electricity industry, for example, pays little cost for the millions of tons of silt deposited behind the Clyde and Roxburgh dams yet provides an essential service to us all - as do food producers. Only one industry however is vilified. Even viticulturists are called alcohol farmers by some environmentalists.

The issue of the export of virtual water is another issue for another time.

The failure of our Government to understand the opportunity cost of water will impact on us all. Prime Minister Ardern needs to tell us why she places fish and aquatic life ahead of human use for human benefit. The answer is pure politics.

What of the wilding trees which line the Manuhēria - called willows which consume 400 litres of water per tree per day during the summer. I estimate the following

A willow 5 metres apart per kilometre equals 200 trees per kilometre

That means 200 trees X 400 litres = 80,000 litres. Trees on both sides of the river means 160,000 litres is lost every kilometre

I estimate 20 kilometres of tree lined river so 160,000 x 20 ks = 3.2 million litres is lost each summer day

Yes evaporation is important as a result but nowhere near what the trees take

What does the ORC do about this ? nothing

The use of water from the this river has sustained communities for 100 years in fruit growing and agriculture in all its forms. Every litre required to flow into the Clutha means water unavailable for a community productive use.

Should the minimum flow be reduced - who will allocate the reduced flow - as to do so, benefits one and penalised another. Properties have evolved in size to be sustained by water availability during the crucial few summer months. The river receives high flows from mid May thru to Oct /November.

I do not accept that any stored water from the falls dam should be made available for recreational use

That water is captured water - not migratory water

I will further propose that a judicial review must/will occur on this particular issue of captured water

The river must be left at 900 l per sec at the camping ground - enough to sustain aquatic life.

[name deleted]

Q3: Do you have any other feedback on water management in the Manuhēria Rohe?

Location: Manuhēria

1085: LETTER

Email - letter

no date

Q1: Minimum flow preference

900 - 1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

Ida Valley Irrigation Co Ltd Submission

Manuherikia minimum flow consultation

Background

The Ida Valley irrigation company operates the Poolburn and Upper Mannorburn reservoirs for the provision of irrigation water to 49 shareholders in the Ida Valley and the Galloway areas.

Submission

- None of the prescribed minimum flow scenarios in the ORC consultation document are accepted.
- The acceptable minimum flow to IVIC Ltd is either the status quo or 1100 L per second as set out in the water permit applications lodged by IVIC Limited together with other water users under the umbrella of the Manuherikia Catchment Group. This proposed a minimum flow has been based on the science and values including environmental gains throughout the whole catchment together with community well-being as the proposed solution lodged with the permit applications.
- The consultation brochures do not set out the full implications of each of the proposed minimum flows and what that means environmentally, economically and socially to the whole community. It is difficult to make any informed decision on any of the proposed minimum flows as there is not sufficient data or information available to understand the impact on people and the community.
- The consultation document does not make it clear what the issues are that may need addressed by an increase in the minimum flow nor that those issues are in the lower 20% of the river and the balance of the river is in good heart.
- There is not sufficient information on the proposed increases in the minimum flow and the effect of that on the native Galaxid endangered population given that increased flow will promote greater trout numbers which are a predator to the native fish population. None of the proposed flow options appear to be accessed for ecological outcome by the Technical Advisory Group set up by the ORC.
- Currently there is recreational use fishing and swimming under the status quo in in and around the river. The status quo or an increase of the minimum flow to 1100 L per second would mean continuation of such uses.
- The reports relied on by the ORC need to be peer reviewed to ensure that the assumptions that they rely on are correct and quantifiable.

Ida Valley irrigation Co Ltd

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?

Location: Manuherikia

1086: LETTER

Email - letter

no date

Q1: Minimum flow preference

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

SUBMISSION ON

OTAGO REGIONAL COUNCIL (ORC) HAVE YOUR SAY "CONSULTATION MANUHERIKIA RIVER WATER (FLOW) MANAGEMENT SCENARIOS"

SUBMITTED BY

ICL CHARTERED ACCOUNTANTS LIMITED
ICL CHARTERED ACCOUNTANTS HAVE BEEN PROVIDING ADVICE TO FARMING AND COMMERCIAL BUSINESSES IN THE MANUHERIKIA CATCHMENT FOR OVER 70 YEARS.

JUNE 2021

1. WHICH SCENARIO DO YOU PREFER FOR THE MINIMUM FLOW

We support a minimum flow of 1,100 litres/second at the campground.

The Manuherikia Catchment Group has provided a very detailed and comprehensive River Management proposal as part of the Manuherikia Water permit application process. This information not only looks at the minimum flow at the campground but also provides for residual flows for the main tributaries of the Manuherikia including the Dunstan Creek, Lauder Creek, Thompson Creek and Chatto Creek.

2. WHY DO YOU PREFER THIS SCENARIO

The Manuherikia Catchment Group has worked with and paid for independent scientific input and other stakeholders to develop a proposal that balances environment, community and economic outcomes.

The Falls Dam which is owned and operated by irrigators, allows water to be taken from winter inflows and high flows to be released progressively when conditions get drier. This dam has effectively run out of water in previous droughts and that was under a voluntarily regime of 900 litres/second.

Having a minimum flow above 1100 litres/second could easily mean that the Falls Dam could easily run out earlier in the season and lead to minimum flows of much less than 1,100 litres per second.

Q3: Do you have any other feedback on water management in the Manuherikia Rohe?**3. FEEDBACK ON WATER MANAGEMENT IN THE MANUHERIKIA ROHE?**

- i. The process needs to be as robust as possible. To have a robust process there is a requirement for robust information.

We understand that there is a Technical Advisory Group that has been put together by the Otago Regional Council that has a task of reviewing and signing off technical information before it is released to the public.

We understand that the Technical Advisory Group has not signed off the Hydrological or Economic information or reports before it has been released for public information.

- ii. We have some queries about some of the economic reports for this process which in our opinion could have a material effect on some of the economic information.

For example:

- a. Why has there been no loss of horticultural income included in the economic analysis. There are some substantial Cherry and Vineyard properties as part of the Manuherikia Catchment and the net returns (EBIT) from these would be 10 to 20 times per hectare higher than the net returns (EBIT) from dairy farming (as quoted in the Compass and Benji Patterson reports).

Instead, what the report has done is exclude horticulture altogether. The reports states that they are unsure of how much horticultural land is involved so has left the land classified as horticulture (634 hectares) out altogether.

It would not be a big exercise to work this out accurately.

Leaving horticultural land out is a big oversight and it would have a material impact on the financial outcomes to the catchment.

- b. The economic analysis excludes 8,926 hectares of irrigated land in the Ida Valley.

This appears to be implying that the Ida Valley will not be part of the minimum flow regime and therefore there does not need to be any economic modelling undertaken for this irrigated area. Is this correct?

- c. The sheep, beef, dairy and dairy grazing models and the impact of increasing minimum flows have been modelled by Abacus Bio. This has been modelled on the basis that any reduction in irrigation water will grow less feed (which we agree with) and the way farmers in the Manuherikia Catchment will deal with this is buy more feed (which we disagree with).

Buying more feed is often not possible in a normal or dry year as this would have to be sourced from Canterbury or Southland which would make it too expensive even if it was possible to source it from those locations.

The most common strategies that would occur is that farmers would destock.

The effect of this has not been modelled and Compass Agri refer to this in their report where they indicate that the various farm models should be run through Farmax models to show what less irrigated areas would have on reduced livestock numbers and economic returns.

- iii. Many of the farming properties in the Manuherikia Catchment are a mix of Valley Floor (Irrigated and Dryland) and extensive hill country.

The irrigated part of these farming properties can often be the key to the overall farm system in that it allows their entire farm to produce at a much higher level of production on the rest of their farm.

For example, a dryland valley floor and hill country property may have a stocking rate of 2.0 stock units per hectare on the hill country but with irrigated land as part of their farming system they can run at 3.0 stock units per hectare on the hill country. This is called the 'complementary effect' of irrigation on the rest of the farming system.

This occurs by having greater confidence in the overall farm system eg reliable winter feed crops, supplements and quality feed for late winter ie the property has a much better 'balance' of country. This has not been taken into account for any of the economic analysis.

- iv. The economic analysis does not include any analysis on land valuation of what less irrigated land and less reliability irrigated would be valued at.

Any increases in the minimum flow could result in reduced land values and not just for the irrigated areas because of the complementary impact on the balance of the property.

This should be modelled and considered because it is very much part of the economic equation.

- v. The economic analysis does not factor in any future land use changes which could also have a material impact.

- vi. If there is a material impact – who will compensate the irrigators?

4. OTHER POINTS

- i. The scenarios presented do not address any other values for the tributaries of the Manuhērikia which seems to be an oversight.
- ii. Why is the process being rushed through when it is obvious that there is a complete lack of robust information to make informed decisions.

Much of the information presented has not been peer reviewed by the Otago Regional Councils own Technical Advisory Group.
- iii. With the new legislation from the national freshwater policy statement to have no renewal of water consents for another 6 years and simply having a roll over of what is in place at present (which is currently part of the Plan Change 7), why is there the urgency to decide a minimum flow when it appears nothing can be actioned for another 6 years?
- iv. One of the absolute keys to helping in the decision making going forward with minimum flows is to have an agreed upon hydrology model. Has this been agreed upon and if not, this would be the starting point in this process of developing minimum flow?

Location: Central Otago District

1087: LETTER

Email - letter

no date

Q1: Minimum flow preference

None of these flows

1,100 l/s

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The document consultation information leads the reader to a simplistic perception and to potentially simplistic decisions for selecting from the offered scenarios, eg;

- That anything lower than these flows must be detrimental
- That all of the river and tributaries must be degraded
- That there are no external or mitigating effects other than flow that currently affect the well being of the river, habitat and ecological health
- That any of these flow choices are able to be consistently maintained regardless of seasonal rainfall variations
- That more flow must be better regardless of interconnection with specific values
- That Falls Dam water storage is available for the arbitrary choice of environmental flow
- That **draft** hydrology and economic reports are credible enough to offer flow choices
- That the flow choices offered are the only flows that will satisfy the NPSFM (2020)
- That irrigation reliability measured by 'okay, marginal, poor, very poor' could be an acceptable outcome to rural communities

The document and supporting information has no acknowledgement, measurement or statement of;

- The definition of Manuhērikia as a degraded river, a quantitative analysis of what is wrong, where it is wrong and what the causes may be and how the different flow scenarios offered may be a solution.
- The interconnected role of tributary flows, their values and their management
- River flows if and when Falls Dam storage is depleted
- Existing irrigation regimes and river management that currently manages the storage capacity of Falls Dam to maintain an environmental flow for as long as possible through dry periods

- The extent of existing values and species, where they are located and why they are/aren't still there
- Particularly indigenous species habitat, extent and location
- Existing Ecology & habitat assessments, are they all negative?
- How the Manuherekia objectives have been determined in relation to NPSFM (2020)
- Assessment of each flow scenario offered beside a specific objective?
- Existing sections of the main stem that would benefit from simply higher flows and how those flows might impact on other sections of the river and tributaries
- Allocation quantified in relation to flows
- The effect of differing allocations demonstrated in the economic reports
- The omission of allocation and minimum flow setting as related processes and as agreed to by ORC in 2018

Other concerns I have about this process;

- Failure of consistent, timely and sincere collaboration between Technical Advisory Group and Manuherekia Reference Group to achieve their tasked objectives and to provide a genuine range of recommendations for the community to choose from
- Failure to coordinate science and facts to narrow and authenticate the scope of the flows offered
- Which is déjà vu to the July 2018 minimum flow settings offered to the community
- The June 2021 offering has merely been presented to the community on a larger, glossier, more costly, rear of another envelope.
- The decision to ignore the MRG's agreement to consider status quo and 1100/s minimum flow at campground as a scenario in this consultation document
- Will these consultation results be fairly weighted to the segment/size of community representation?
- Timing and haste of ORC scenarios consultation in consideration of the PC 7 Environment court process
- The very fact that PC7 was ever construed as a solution
- Lost trust and alienation of the rural community
- The immense pressure on ORC staff to implement one size fits all national policy

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

- The Manuherekia catchment irrigators have submitted their Resource Consent renewal applications to ORC in a timely manner for renewal by the expiry date of Deemed Permits 21 October 2021.
- A comprehensive Catchment Overview document has been submitted with the applications
- A River Management Plan has also been submitted
- The Plan proposes a minimum flow at Campground is 1,100l/sec with residual flows at the confluence of the main tributaries, Dunstan Creek, Lauder Creek, Thomsons Creek, and Chatto Creek
- Applicants have used a holistic approach to develop this River Management Plan in consideration of environmental outcomes and community wellbeing
- This proposal deserves public consideration as a management pathway forward during the PC7 process and the development of future legislative framework

Location: Manuherekia

1088: LETTER

Email - letter

no date

Q1: Minimum flow preference

Prefer Scenario ONE but why was 1100L/S not an option. ? That would be my Minimum Flow setting.

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

1. I have witnessed the flow of the river below the railway bridge for many years, and photographed it at low flows (approx 900L/S) through the various stages to about 2500L/S. I obtained the "readings" from ORC website and John Anderson, at the time of taking photos. I also have frequented the Camp Ground at the very spot the camp kids go swimming, at these very same flows, for the past 35 years, visiting family members who have their van camp site right beside this favourite swimming spot every year. The flows for the Kids swimming are best about this 1100 as the hole is deep enough to swim in, but the current not too swift to carry the little ones away. Generally the water is of good quality, some build up of algae at low and warmer flows, but not off putting. I totally disagree with the Figure 6. Showing swimming favoured at flows 2000 and above. That is nonsense.
2. The same Figure 6. seems to represent the River at all reaches, based on Campground minimums, it is not made clear that this table is only relevant for the very spot measured as Campground. Except for this snapshot, the River is by ORC admission in very good shape/health at all reaches above Campground. Misleading data, presented in a biased manner at best.
3. Figure 6. Values are based on "models", not measured/researched. This was said publically by Mr Ravenscroft at Omakau meeting. Since when have Models proven to be factual, where is the science?
4. Again on Figure 6. Historical Minimum of 500 is irrelevant, when was this event ??
5. For the sake of better explanation, the values measure for Irrigation after 1500, should be a RED line. Consequences to the economics of all those derive livelihood from irrigation will very harsh, after 3000 it will be catastrophic!
6. Any chosen scenario must be not only feasible, but FAIR across all stakeholders. Anything above 1100 moves rapidly away from Fairness to the Irresponsible.
7. If the chosen scenario rises above 1100 then ORC have already admitted the Storage at Falls Dam, will soon become "environmental" as flows continue to drop towards the campground minimum, irrigators ration, then switch off, leaving the stored water to augment what volumes enter the valley from above Falls and Tribs along the way. So does that follow that ORC should contribute to the Falls Dam storage capability, even extending to maintenance or raising. It seems to me the campground flows are getting a free run from Falls Dam, owned, maintained, funded, managed by the Irrigators, and get no thanks from ORC or the wider Community.
8. Te Mana o te Wai is a PR. spin on fundamental values which we mostly would share and agree with, however has been high-jacked for political (and financial?) GAIN. Self interest, if it was ever to be exposed as such. Do IWI not understand that the rest of us (non Maori) want to and will share and protect water resources as much as them. Why then do they get such power and prominence in such decision making that affects so many other persons well being and values of ecology and environmental standards we all share. It is a hidden agenda that is becoming rapidly exposed for what it is. Greed.
9. Your figure 4. Shows a priority hierarchy that has as its consequence, winners and losers. If you apply the first priority, then all the others are subservient and most will fail. This format is one of Utopia, not the real world. This is fundamentally the problem with much of these Choices options, they are pie in the sky with unattainable and unachievable outcomes, except if all other interests are sacrificed. Therefore I say this lack of realism and extravagant claims and goals makes it unworkable, and divisive.
10. Figure 3. Is factually incorrect. The drop status quo line is attributing a massive fall below Chatto to Manuherikia Irrigation drawoff of 2500L/s This is physically impossible and so represents a campground flow of 900 because of this drawdown. I challenge you to demonstrate these flows with your hydrology model, in a PUBLIC forum.
11. The hydrology model was explained as yet to be proven and verified as accurate. A PLAYER version was mentioned, so we look forward to having access. Or is that just for the privileged few at ORC ?
12. point 5.4 economic modelling makes absurd assumptions, namely Hort enterprises will increase storage to 100%, farmers will buy in feed to offset production losses caused by reduced irrigation, potential land use

changes are not included, how about irrigated land reverting to dryland, which must happen if you take away 25% or more of the water volume available to irrigate.

13. If we look at just one of the Scenarios 3. At 2000L/s as the table says access to water for existing irrigation is poor at 84%. This does state the reality that rationing by water users would commence in early December and continue to March, if not reduced even further during that time. We know this because we have lived through these scenarios for decades, and that at a voluntary minimum of 900, watching the campground flow diminish below this Scenario 3. of 2000 with concern and speculation of where we may end up before, or if we reach our 900. And so the quote "overall impact likely to be negligible" is an insulting statement. Say that to a stone fruit grower and they will bite your head off ! Their orchards will fail and so will the people whose livelihoods depend on them. The whole document totally understates the consequences of minimum flows at or above 1100.

Enough of my critique, I fear you are setting us up for a quantum leap backwards, for a resource that is worth protecting, YES, but not in a fair and reasonable manner for all stakeholders, sharing the pain and the gain. Alas those groups who will charge their cases with emotive and divisive language, riding the wave of political correctness and anti-colonialism, will prevail.

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Manuherekia

1089: LETTER

Email - letter

no date

Q1: Minimum flow preference

Q2: Why do you prefer this/these scenarios? Or if you don't like any, please say why

The community meetings in Alexandra and Omakau clearly showed that there are marked differences in perceptions and viewpoints among interested parties, in particular irrigation users, farmers and others. The issues are complex and it would seem that none of the scenarios would appease all and that middle ground is still a long way off. **I am therefore unwilling to make a choice and would prefer more consideration of options which could result in community acceptable outcomes, including increased storage through raising the Falls Dam.**

The community meetings in Alexandra and Omakau may be best described as a shambles and unfortunately did not allow for discussion on the questions that the community was asked to consider. That was a pity because the discussion document was well prepared and contained a lot of good information. Ideally it should have been circulated with the Have your say flyer as a hard copy rather than the digital version on the Council website. It would have cost the Council more but provided an easier to read source of information, especially for individuals without access to a high-quality colour printer.

The one-page response handout was a wasted exercise which could not conceivably produce reliable data on minimum flow preferences.

I would have liked to hear more discussion on the following issues.

Nitrate levels in groundwater: Extract from the report on the Donnelly Road bore. *The data shows a pronounced increase in nitrate concentrations, which were around 1.0mg/L at the start of monitoring in 2010. Concentrations then fluctuated between 1.0 and 2.0mg/L until 2014. It then increased steadily, reaching a maximum concentration of 5.3mg/L, over ½ of the MAV, in March 2019.*

More investigation to determine the cause for the increasing levels over time at Donnelly Road is warranted and ground water from more sites in the Omakau/Lauder area should be tested to determine the extent of elevated levels. Bores adjacent to high risk sites such as intensive dairy operations should be included. Recent research suggests that the cut-off of 11.3 may be too high.

Economic models: Three types of enterprises were modelled and give useful insights into the effect of different minimum flows on profitability. However, the models contain some uncertainties especially for levels of debt which are unlikely to be constant over time and individual variability in enterprises and efficiency of their operations. The sheep and beef farm model was for crossbred sheep, 135% lambing and negligible returns for strong wool. It contrasts with fine wool enterprises in the region which achieve 130% lambing and \$45 to \$50 per ewe for 18 to 22µ wool. It is obvious that profitability would be affected by increasing minimum flows but there are avenues for mitigation over time through changes in enterprise type and levels of debt. The economic models do not reflect the diversity of enterprises.

More information on the various types of dairy enterprises in the catchment in relation to their makeup and profitability would be helpful. An easy to find link to the Beje Patterson report would be appreciated.

I have repeatedly asked for information on the makeup and population sizes for sheep, beef and dairy cattle in the Manuherekia catchment over the past 20 years but the Council refuses to consider and analyse those data. Correspondence by email with two councillors has been equally frustrating (Michael Laws – no reply and Gary Kellher – did not pass the message to operational staff). The lack of action is unfortunate because the actions I have proposed would allow changes in the animal and human populations to be considered in relation to changes in quality of health of the river. All farms in NZ are georeferenced in AgriBase along with information on stock numbers and some farm practices. Otago RC have been a licensed holder of AgriBase data on and off since around 2010 and AgriBase holds additional data back to 2000. I would like to see livestock and farm type and spatial information plotted over time against other historic data on water quality and flows and human population changes for Omakau, Ophir and Galloway. It may also be possible to model predictions on the effects from increasing the height of Falls dam and increased irrigation and stock density on the overall health of the catchment. Raising the level of Falls dam or other options for increased storage of water should not be seen solely as opportunities to add more livestock to the catchment but rather as an opportunity to provide acceptable outcomes to all interested parties.

Future prospects for dairy farming in the catchment need to be considered because of local and global adverse environmental effects from current dairy farming practices.

Te Mana o te Wai priorities: The principles of Te Mana o te Wai, Te Hauora o te Taiao and Te Hauora o te Tangata provide wellcome consideration to the health and wellbeing of water, people and the environment but are somewhat weak on the wellbeing and health of domestic animals and consideration of the interrelationship between the health and wellbeing of environment, people and animals. I am unable to accept the hierarchical structure proposed in the Scenario document because many Te Mana o te Wai values rely on data generated from the proposed second and third values. I contend that the health and well being of the environment, people and animals (One Health) needs to be considered together along with due consideration of the precautionary principle for new proposals. This approach is more relevant to the issues facing the Manuherekia where farmed animals play an important role in Te Mana o te Wai. As an example of the One Health approach, today's dairy industry has a lot to answer for – lack of shelter, early life culling, high incidence of lameness in cows and respiratory, enteric disease and excessive mortality in young animals, methane emission and risks to human health from zoonoses.

I am a veterinary epidemiologist with a background of provision of rural veterinary services in Central Otago from 1966 to 1990 after which I completed a PhD in epidemiology at the EpiCentre at Massey University. I remained at the EpiCentre as an independent epidemiologist with inputs into teaching and research projects at the EpiCentre and international projects in many countries until 2015 when my wife and I returned to Clyde. I observed marked differences in farm enterprises and the state of the environment between the intervening years.

Regards,

[name deleted]

Q3: Do you have any other feedback on water management in the Manuherekia Rohe?

Location: Central Otago District