Otago Regional Council

SUBMISSION FORM
Proposed Plan Change 1B: Minimum Flows
to the Regional Plan: Water for Otago
December 2008

Form 5, Clause 6 of the First Schedule, Resource Management Act 1991

31
Office Use Only

Full name of submitter: Peter Snow

Name of organisation (*if applicable*): Palmerston Anglers Club

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Fax:

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Contact person:

I do not wish to be heard in support of my submission.

If others make a similar submission, I will consider presenting a joint case with them at a hearing.

Date:5/03/2009 12:35:51

Please note that all submissions are made available for public inspection.

Signatures are not required for submissions made electronically.

Submissions must be received by 5pm, Monday 9 March 2009.

The parts of the proposed plan change that my submission relates to are:
(*Give clear references if possible e.g. reference number, policy x, rule y*)

I am writing this submission on behalf of the Palmerston Anglers Club in regards to the Proposed Plan Change 1B Minimum Flows.Our club opposes the proposed minimum summer flow of 8 litres a second for Trotters Creek.

My submission is:
(Include whether you support, oppose, or wish to have amended the parts identified above, and give reasons)

Our club opposes the proposed minimum summer flow of 8 litres a second for Trotters Creek. The reason the club opposes this level of flow is that the "Management Flows for Aquatic Ecosystems in Trotters Creek" report dated August 2006 commissioned by the Otago Regional Council clearly identifies the minimum flow of 20 litres a second is required from the period November to April inclusive to ensure the sustainability of the diverse indigenous fish community present in the creek.Our club finds it surprising the Otago Regional Council would consider a flow lower than that identified in their report and when the report says the "recommended management objective for Trotters Creek is to sustain the diverse native fish community in the lower reaches".....The only beneficiary of this lower minimum flow level would be the one individual using the water for the irrigation of farmland and with no benefit to the greater community.

I seek the following decision from the local authority:
(Give precise details e.g. changes you would like made)

In summary our club opposes the minimum summer flow of 0.008 m3/s and supports the position that a level of 0.02 m3/s be adopted for Trotters Creek.

SUBMISSIONS MUST BE RECEIVED BY 5.00PM, MONDAY 9 MARCH 2009

Please send submissions to:

Email: policy@orc.govt.nz
Post: Attn: Policy Team, Private Bag 1954, Dunedin 9054
Fax: (03) 479 0015 (Attn: Policy Team)
Deliver: 70 Stafford Street, Dunedin; or
William Fraser Building, Dunorling Street, Alexandra; or
The Station, 1st Floor, Cnr Shotover and Camp Streets, Queenstown

Otago Regional Council

SUBMISSION FORM
Proposed Plan Change 1B: Minimum Flows to the Regional Plan: Water for Otago
December 2008

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Form 5, Clause 6 of the First Schedule, Resource Management Act 1991

Full name of submitter: Otago Fish & Game Council

Postal Address: PO Box 76:
DUNENDIN:

Telephone: (03) 479 6552

Fax: (03) 477 0146

Email: j.hollows@fish-game.org.nz

Contact person: John Hollows

We wish to be heard in support of my submission.

Date: 5 March 2009

The Otago fish & Game Council wish to make the following submission on proposed plan change 1B: minimum flows.

2D – *matters to be considered when setting minimum flows.*

Fish & Game support the setting of minimum flows and primary allocation limits for waterways as this allows for some degree of environmental protection.

We have concerns about the weighting that may be given to existing minimum flows and relevant flow setting. The expectation of Fish & Game has always been that once mining rights expire and/or minimum flows are set there will be significant gains for the instream environment. The past and current situation of streams with extreme low or no flows is not acceptable to the community in our view. While we are seeing proposed flows that may facilitate trout spawning and juvenile fish, we are not seeing flows that will allow adult fish to inhabit some stretches of river over summer. Although this issue is related, it is unable to be dealt with through the current plan change process. However, Fish & Game wish to raise it as an issue for consideration and one to be discussed at future council to council meetings.

We are available to discuss and/or provide clarification of the matters raised in our submission once you have had time to assimilate these. The contact people are John Hollows at Otago Fish & Game and/or Bridget Z. Pringle at Central South Island Fish & Game.

Yours sincerely

John Hollows

Environmental Officer

SUBMISSIONS MUST BE RECEIVED BY 5.00PM, MONDAY 9 MARCH 2009

Please send submissions to:

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Otago Regional Council

SUBMISSION FORM 1B: Minimum Flows
Proposed Plan Change ~~1C: Water Allocation and Use~~
to the Regional Plan: Water for Otago
December 2008

Form 5, Clause 6 of the First Schedule, Resource Management Act 1991

33
Office Use Only

Full name of submitter: David James and Sarah Evelyn Matheson

OTAGO REGIONAL COUNCIL
RECEIVED DUNEDIN
05 MAR 2009
FILE No. RI221
DIR TO MRP-SV

Name of organisation (*if applicable*):

Postal Address: Number/Street: No 2RD Palmerston SH1
Suburb:
Town/City: Otago
Postcode:9482

Telephone: 034651408

Fax: 034651408

Email: sematheson@hotmail.com
atheson

Contact person: James

I wish to be heard in support of my submission *(delete the one that does not apply)*.

If others make a similar submission, I will consider presenting a joint case with them at a hearing.
(Delete if you would not consider presenting a joint case).

Date:2 March 2009-03-01

Please note that all submissions are made available for public inspection.

Signatures are not required for submissions made electronically.

Submissions must be received by 5pm, Monday 9 March 2009.

The parts of the proposed plan change that my submission relates to are:
(*Give clear references if possible e.g. reference number, policy x, rule y*)
The minimum low flow of Trotters Creek
I am a 5th generation farming family with the Trotters Creek running through my property.
In 2002 I applied for consent to extract water for the purpose of irrigation. Before being granted this I employed an engineer[s] to work through the process with me. Having made the decision to precede with the process we then consulted interested parties. My down stream neighbour endorsed the scheme when I assisted with a new stock water scheme, as he relied on tidal water. DOC signed it off as did Game and Fish. Local Maori visited along with the ORC and all gave their approval based on the minimum flow rate of 5lt/sec. I duly paid my consent fees of nearly 10k and proceeded with the expensive infrastructure based on the approved consent.
A water monitor was placed where ORC requested along with the approved weir design. In order to insure we were compliant we allowed a margin of error and allowed 8lt/sec to flow through the weir. This is inspected monthly to ensure there are no breaches. None have occurred. I had been asked to make the fish pass more user friendly; I did that immediately with the help of ORC staff. I voluntarily remove the weir over winter to allow spawning to occur unrestricted.

The information that ORC has on the historical flows of Trotters Creek and its comparison with the South branch of the Wainakarua are inaccurate.
In the last 25 years I can't recall ever being asked to allow anybody to fish the creek other than commercially for eels.
The mouth has always closed up historically as does the Clutha on occasions.
There are some very clear signs that the fish habitat has improved and very clear evidence of this has to be the fact, in your notes of a meeting held in Moeraki .[which we were unable to attend] that 13 native species exists. Not many creeks in Otago can boast this amount. Unfortunately DOC and Fish and Game don't always see eye to eye as to the ideal habitat!!
ORC staff will be able to confirm the well being of this creek is my uppermost priority and I take great interest in their results.
In spite of the creek going through the middle of my property I now have only one small paddock that sheep rely on the creek for stock water. I feel nothing would improve the quality and habitat of the creek more, if ORC would implement a policy of fencing stock out of the water ways, rather than adjust the flows which vary from nothing to heaps naturally. Large numbers of cattle pollute river ways and DOC Fish and Game and the public would no doubt all agree this should be the first step.
There can be no confusion as to my motive for irrigating. North Otago is very dry and this small scheme turns my property from a store one to a finishing one, put more simply economic as opposed to uneconomic. So to the person who at the Moeraki meeting who stated' I would not go broke' why else would I spend well in excess of 100k and comply with all the rules within my consent that has not yet reached the halfway mark, if it wasn't for financial survival? I can assure you expenditure was based on the 20 years and minimum flow of 5lt/sec as granted in my consent.

My submission is:
(Include whether you support, oppose, or wish to have amended the parts identified above, and give reasons)

In support of the status quo.

I seek the following decision from the local authority:
(Give precise details e.g. changes you would like made)

Allow the minimum low flow of Trotters Creek to go from 5lt/sec to 8lt/sec

TE RUNANGA O MOERAKI INC.
OOL BUILDING, CNR. TENBY & HAVERFORD STS.

34

Submission	
TO:	Otago Regional Council
DATE:	7 March 2009
PLAN CHANGE:	Proposed Plan Change 1B (Minimum Flows) to the Regional Plan: Water for Otago
DESCRIPTION OF THE PLAN CHANGE	The plan change proposes minimum flows and primary allocation limits for the Waianakarua, Trotters and Luggate catchments, and describes how these flows are set.

Submitter(s):
Te Rūnanga o Moeraki

We wish to lodge a submission on the above plan change.

Te Rūnanga o Moeraki opposes this plan change. The submission of nga Rūnanga is that it is generally supportive of the intent of the plan change believing that minimum flows and allocation limits need to be set. However, nga Rūnanga opposes further allocation in the Waianakarua and Trotters Catchment, and the proposed minimum flows.

We do wish to be heard in support of this submission at a hearing, and we request an opportunity to expand on our submission. If others make a similar submission, we will consider presenting a joint case with them

Postal Address: Tenby Street, Moeraki, RD 2, Palmerston, North Otago
Phone 03 439 4816, Fax 03 439 4400
E-mail: moeraki@xtra.co.nz

1.0 INTRODUCTION

1.1 Kaitiaki Rūnaka

The Te Rūnanga o Ngāi Tahu Act 1996 describes the takiwā of Kā Papatipu Rūnanga.

The takiwā of Te Rūnanga o Moeraki is based at Moeraki and extends from the Waitaki River to the Waihemo (Shag) River. Nga Rūnanga share an interest in the inland lakes and mountain ranges to the western coast with Rūnanga to the North and to the South.

1.2 Kaitiakitaka

Nga Rūnanga are kaitiaki for the environment within their takiwā. Kaitiakitaka is derived from the word "kaitiaki" which includes guardianship, care and wise management.

The term has received recognition in Section 7(a) of the Resource Management Act 1991 and is defined in the Act as "the exercise of guardianship by the tangata whenua of an area in accordance with tikanga Māori in relation to natural and physical resources; and includes the ethic of stewardship".

The primary resource management principle for Māori is the protection of the mauri (the life-giving spirit) of an ecosystem from desecration. The forest, waters, the life supported by them, together with natural phenomena such as the mist, wind and rocks, possess a mauri or life force.

1.3 Kāi Tahu Association with Water

Preservation of the integrity of valued waterways is an important aspect of the responsibilities of those members of Kāi Tahu Whānui that are identified as Kaitiaki. The values (both tangible and intangible) associated with specific waterbodies include:

- The role of particular waterways in unique tribal creation stories;
- The role of those waterways in historical accounts;
- The proximity of important wāhi tapu, settlement or other historical sites in or adjacent to specific waterways;
- The use of waterways as access routes or transport corridors;
- The value of waterways as traditional sources of mahinga kai and other cultural materials; and
- The continued capacity for future generations to access, use and protect the resource.

Further, Kāi Tahu place a high value upon water bodies that possess a healthy mauri and that are fit for cultural purposes. While there are also many intangible qualities associated with the spiritual presence of rivers, elements of physical health which Kāi Tahu use to reflect the status of mauri and to identify the enhancements needed include:

- Aesthetic qualities e.g. clarity, natural character and indigenous flora and fauna;
- Life-supporting capacity and ecosystem robustness;
- Depth and velocity of flow;
- Continuity of flow from the mountain source of a river to the sea;
- Productive capacity; and
- Fitness for cultural usage.

The cultural importance and management of water is addressed through the Te Rūnanga o Ngāi Tahu Freshwater Policy, and through the objectives and policies of the Kāi Tahu ki Otago Natural Resource Management Plans. The Te Rūnanga o Ngāi Tahu Freshwater Policy includes the following kaupapa (policy) for the management of freshwater resources:

- Water plays a unique role in the traditional economy and culture of Kāi Tahu. Without water no living thing, plant, fish or animal can survive.

- Water is a taonga. Water has an inherent value that should be recognised in the event of potentially competing uses. Taonga value refers to values associated with the water itself, the resources living in the water and the resources in the wider environs that are sustained by the water. Taking, using and disposing of water can have drastic effects on the environment and the values Kāi Tahu accord to a waterbody.

- Water is a holistic resource. The complexity and interdependency of different parts of the hydrological system should be considered when developing policy and managing the water resource.

- Water is a commodity that is subject to competition. An understanding of the significance and value of water to Kāi Tahu and other stakeholders is necessary to change the existing behaviour from one that prioritises consumptive uses and permits inefficient use towards one that recognises and provides for cultural and ecological values as priorities.

- Water has many stakeholders. The interdependency of different parts of the hydrological system creates many stakeholders, including other organisms and humans (both current and future generations).
  The Resource Management Act 1991 confirms that future generations are also stakeholders. From Kāi Tahu's perspective, the present generation has an obligation to pass on healthy water resources to future generations.

- Water should be managed at the local level because most threats to waterbodies are local. Responsibility for management should therefore by delegated to those organisations that have a personal stake in its overall health and condition.

The Te Rūnanga o Ngāi Tahu Freshwater Policy and the Kāi Tahu ki Otago Natural Resource Management Plans are relevant planning documents that are "... recognised by an iwi authority and lodged with the council". Therefore the Otago Regional Council is required to take these planning documents into account in changing the Regional Plan: Water for Otago [Resource Management Act 1991 s66(2A)(a)].

2.0 GENERAL SUBMISSIONS

2.1 The significance of both the Waianakarua and Trotters catchments has been conveyed to the Otago Regional Council (the Council) on previous occasions. Values identified in schedule 1D of the Regional Water Plan are as follows:

Waianakarua: Kaitiakitanga, mauri, waahi taoka, mahinga kai, kohanga, trails, cultural materials, waipuna.

Trotters: Kaitiakitanga, mauri, waahi taoka, mahinga kai, kohanga, trails, cultural materials, waipuna.

2.2 Nga Rūnanga support the intent of the plan change believing that minimum flows and allocation limits need to be set. All interests – instream and extractive - need to know that management regimes are set to sustain the range of values identified by agencies, users and communities.

2.3 However, Nga Rūnanga notes that the plan change is 'intended to limit when people can take water from rivers under low flow conditions, and thereby protect the rivers aquatic ecosystems and natural character'. Nga Rūnanga is concerned generally at the narrow focus on minimum flows for extractive and consumptive use. Further, the plan change appears to have paid scant regard to the concerns and flow aspirations expressed by communities across the catchment.

2.4 Nga Rūnanga considers that both catchments are moderately modified in their lower catchment with lovely, relatively unmodified, reaches being found in the upper catchment. Nga Rūnanga seek assurances that flow regimes will be adopted that are cognisant of the needs of the whole catchment. In other words water quantity issues needs to be integrated with water quality, and reflect a ki uta ki tai – a mountains to sea - philosophy.

2.5 Nga Rūnanga are alarmed at the recent public health warnings concerning the Waianakarua catchment. Although this plan change addresses water quantity nga Rūnanga notes that water quality and water quantity are obviously inextricably interrelated.

2.6 In setting minimum flows and allocation limits the Council is required to take into account the relevant provisions of the Resource Management Act 1991, and relevant planning documents prepared under that Act. These planning documents include the Proposed National Policy Statement on Freshwater Management, the Regional Policy Statement for Otago, and Regional Plan: Water for Otago.

2.7 Nga Rūnanga have a legitimate expectation that their interests will be accommodated given the statutory and policy imperatives with respect to freshwater. Regrettably, Nga Rūnanga are of the opinion that the existing minimum flows do not adequately recognise and provide for the association of nga Rūnanga with their ancestral lands and waters [s6(e) RMA 1991].

2.8 In addition to enhanced recognition and provision for their ancestral lands and waters, nga Rūnanga also seeks greater recognition of

- The preservation of natural character [s6(a) RMA 1991]
- The maintenance and enhancement of amenity values [s7(c) RMA 1991]
- Intrinsic values of ecosystems [s7(d) RMA 1991]
- Maintenance and enhancement of the quality of the environment [s7(f) RMA 1991]

In setting flow regimes and allocation limits.

2.9 Nga Rūnanga believes that the stated allocation limits set out Plan Change 1B will result in the rivers flowing at their minimum for extended durations, adversely affecting ecological, cultural and community values.

2.10 Nga Rūnanga believe that both Trotters and the Waianakarua catchments are 'over allocated' and accordingly Nga Rūnanga does not support any further allocation from Trotters Creek and Waianakarua.

3.0 SPECIFIC SUBMISSIONS

3.1 Nga Rūnanga submits that a change to the wording is required to make it explicit that when setting allocation limits, decision makers need to take into account cultural values and any other matter that is relevant to giving effect to Part II of the Act.

Outcome Sought	**Amendment Requested**
Include consideration of any relevant matter in the RMA when setting allocation limits	2D.2 When setting primary allocation limits in Schedule 2A for a catchment, consideration may be given to the following matters: (a) Any existing or previous allocation limit (b) The amount of water currently taken as primary allocation (c) The 7 day Mean Annual Low Flow (d) The proposed minimum flow regime (e) Possible sources of water (f) Acceptable duration and frequency of rationing among consented water users (g) Social and economic benefits of taking water ***(h) Cultural values of Ngai Tahu as expressed in Schedule 1D*** ***(i) Any other relevant matter in giving effect to Part 2 of the Resource Management Act.***

Schedule 2A Trotters Catchment

3.2 The cultural values associated with Trotters Creek are detailed in Schedule 1D. At a meeting with ORC, nga Rūnanga representatives expressed concern at:

- The movement of sediment throughout the system
- The frequency of river mouth closures
- The infestation of monkey mustard in the catchment which at low flows severely restricts fishing.

3.3 The hydrological data available for Trotters Catchment is limited. The management flow recommendation was to retain a minimum flow in the creek of 20 l/s from October to April (MALF was assessed to be 23 l/s) and that combined with the 35 l/s May to September minimum flow this *would maintain natural character.*

Nga Rūnanga, in consultation with other agencies, accepts that when coupled with the primary allocation of 30 l/s and 1:1 sharing for secondary permits this could provide for natural character, other ecological, cultural values and community values.

3.4 The Plan change now proposes a minimum flow for October to April of 8 l/s. Nga Rūnanga does not support this change and submits that, aside from its failure to balance the competing demands for the resource with the values and aspirations of other parties, the proposed minimum flow is not sufficient to recognise and provide for the relationship of nga Rūnanga with the waters of Trotters catchment.

3.5 A flow of 8 l/s would comprise the mahinga kai values of the river. Fish and Game have suggested that flows of that size may not maintain connectivity between pools. Should the creek be induced to flows of 8 l/s for prolonged periods any refuge habitat provided by pools would quickly diminish through the impacts of temperature increases and dissolved oxygen decreases, and the ecological functioning of the river mouth may be affected. Nga Rūnanga raised the issue of river mouth closure at its meeting with ORC representatives.

3.6 Nga Rūnanga seek the following flow regime and allocation limits for Trotters Creek

- A minimum flow for the period October to April of at least 20l/s
- Retention of the existing allocation limit of 30l/s
- Minimum flow for the period May to September of 35l/s

Outcome Sought	**Amendment Requested**			
A minimum flow over the period Oct - April that provides for ecological, fish passage and environmental values of the community, ***and the cultural values of Ngai Tahu*** whilst allowing abstraction at a high level of reliability.	Trotters Catchment	Mathesons Weir (MS 12)	**20** (October to April) 35 (May to September)	30 l/s Trotters catchment from mouth to headwaters

Schedule 2A Waianakarua Catchment

3.7 The lower parts of this catchment have been modified and, from the perspective of Kāi Tahu, have been adversely impacted by gravel takes. However the upper reaches are relatively unmodified and the river is fished by Kāi Tahu whanui. Fish and Game have advised that it is not clear if 200 l/s can provide connectivity or fish passage throughout the river, nor is it known how the allocation above the proposed minimum flow will affect the physical length and duration that low flows are experienced. Nga Rūnanga, as noted above, believes that the Waianakarua River is currently 'over allocated'.

3.8 Nga Rūnanga notes that there is limited hydrological data for Waianakarua. Given the paucity of data it wants to see a precautionary approach adopted to setting flows and a conservation approach taken to allocation.

3.9 Nga Rūnanga does not support setting the minimum flow at 2/3rds of the natural MALF. Taking the advice of Fish and Game and Department of Conservation, nga Rūnanga believe that flows of this level may induce drying out of the river in some reaches, inhibit or prevent fish passage, limit opportunities to use the river, and may extend flatlining affecting ecological, amenity and recreational values. In contrast, abstractors will only be 100% restricted on average for 1 day. Therefore, nga Rūnanga believes that the proposed flow regime does not balance the competing needs of the community nor is it cognisant of cultural values.

3.10 The majority of community interests at the minimum flow workshop 'strongly supported' a minimum of 300 l/s and 'strongly opposed' a minimum of 200l/s. Although nga Rūnanga would prefer a flow of 400 l/s it would support a minimum flow of 300 l/s given it represents a compromise between competing needs within the community.

3.11 Nga Rūnanga seeks the following flow regime and allocation limits for the Waianakarua catchment:

- A minimum flow for the period October to April of at least 300l/s
- An allocation limit of 190 l/s
- Minimum flow for the period May to September of 400 l/s

Amendment to the outcome sought	**Amendment Requested**			
A minimum flow over the period Oct - April that provides for ecological, recreational and environmental values of the community, ***and the cultural values of Ngai Tahu*** whilst continuing to provide a high level of reliability for abstractive users.	Waianakarua Catchment	Browns Pump (MS13)	***300*** (October to April) 400 (May to September)	190 l/s Waianakarua catchment from mouth to headwaters

Submission lodged on behalf Te Rūnanga o Moeraki

Heoi ano

Koa Mantell

Chair

Te Runanga o Moeraki

Address for Service:

Te Runanga o Moeraki

C/- Dr Gail Tipa

44 Chain Hills Road

RD 1

DUNEDIN 9076

Otago Regional Council

SUBMISSION FORM
Proposed Plan Change 1B Minimum Flows
to the Regional Plan: Water for Otago

Form 5, Clause 6 of the First Schedule, Resource Management Act 1991.

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Full name of submitter: Bridget Zoe Pringle

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Temuka

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Contact Person: Bridget

I wish / do not wish *(circle preference)* to be heard in support of my submission.

If others made a similar submission, I will consider presenting a joint case with them at a hearing.
(Cross out if you would not consider presenting a joint case).

Signature of submitter: B Pringle Date:
(or person authorised to sign on behalf of person making submission).

Please note that all submissions are made available for public inspection.

The parts of the proposed plan change that my submission relates to are:
(Give clear references if possible e.g. reference number, policy x, rule y)

Please refer attached submission

My submission is:
(Include whether you support, oppose, or wish to have amended the parts identified above, and give reasons)

Please refer attached submission

I seek the following decision from the local authority:
(Give precise details e.g. changes you would like made)

please refer attached submission

Fol

SUBMISSIONS MUST BE RECEIVED BY 5.00 PM, MONDAY 9 MARCH 2009.

Please fold and secure with a small piece of tape.

Fol

FreePost Authority ORC 1722

Free

Otago Regional Council
Private Bag 1954
Dunedin 9054

Attention Policy Team

Fish & Game NEW ZEALAND

2 March 2009

Otago Regional Council
Private Bag 1954
Dunedin 9054

Attn: Policy Team

CHANGES TO THE REGIONAL PLAN: WATER FOR OTAGO
Proposed Plan Change 1B Minimum Flows - Waianakarua and Trotters catchments

Fish and Game have considered the proposed plan change outlined above, attended various public meetings/community workshops regarding the changes and make the following submissions:

General: Fish and Game support the intent of the plan changes. Environmental and recreational users need to know that management regimes are set to sustain instream and fisheries values, and provide for flow variability and natural character. Those abstracting from the catchment need to be certain of the rate of water available to be abstracted and that a limit on abstraction protects their reliability of supply from being diminished.

Water quality is obviously intrinsically linked with water quantity. Both catchments are moderately modified with the Wainakarua seeing marked changes in the lower catchment land use in recent times. Waterways can only assimilate a limited degree of contaminants and considering impacts on water quality when setting the flow regimes combined with improved land management practices may serve to ensure water quality degradation is avoided.

It is also important that the minimum flow be applied over the length of the river and water management needs to be integrated on a whole of catchment basis to ensure connectedness from the headwaters to the sea.

Purpose of the regime: The plan changes seek to set minimum flows which are *'intended to limit when people can take water from rivers under low flow conditions, and thereby protect the rivers aquatic ecosystems and natural character'*. Setting a minimum flow cannot protect aquatic ecosystems and natural character on its own. Whilst the changes also propose to set allocation limits, the consideration of effects on aquatic ecosystems and natural character as a result of the allocation limit is not currently specified as 'a matter to be considered' in Schedule 2D.2 and is only listed as a matter to be considered for Schedule 2D.1 relating to setting minimum flows. In defining allocation limits, consideration of natural character and aquatic values in conjunction with access for out of stream use is important.

In setting allocation limits, both primary and secondary, various sections of the RMA, the RPS and the ORC Plan should be provided for. Some of these matters are especially relevant to Fish and Game's statutory functions under the Conservation Act, 1987. Relevant Part II matters that can be affected by setting allocation limits in addition to minimum flows are outlined below;

- s.6 (a) The preservation of natural character is defined as a Matter of national importance that must be recognised and provided for. As discussed above natural character can be

Central South Island Region
32 Richard Pearse Drive, PO Box 150, Temuka, New Zealand. Telephone (03) 615 8400 Facsimile (03) 615 8401
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affected by the volume of water allocated to out of stream use over and above the minimum flow.

- s7. (b) The efficient use and development of natural resources - i.e setting limits on available allocation ensures competition remains between abstractive users and drives efficiency gains to maximise potential benefits.

- s.7 (c) The maintenance and enhancement of amenity values - amenity values include the characteristics and qualities of a waterway that contribute to recreational attributes, the instantaneous rate of water abstracted from a waterway above the minimum dictates the frequency and duration that the river may be at its minimum flow (or below) and this can greatly impact on recreational values.

- s7. (d) Intrinsic values of ecosystems - which include the essential characteristics that determine an ecosystems integrity, form, functioning and resilience - particularly functioning of river mouths and integrity can be affected by flat lining.

- s.7 (f) Maintenance and enhancement of the quality of the environment - this is defined by perception as much as technical aspects. The aspirations of the community should be reflected in any management regime.

- s.7 (g) Any finite characteristics - water is a finite resource and is especially limited in the Waiankarua and Trotters waterways, it is known that instream habitat of smaller streams is more sensitive to the effects of water abstraction, than larger (>500l/s MALF) waterways.

- s.7 (h) the protection of the habitat of trout and salmon- prolonged low flows impact on fish passage, water quality, invertebrate production, substrate, algae and periphyton (recently demonstrated in the Waianakarua and Trotters re algal blooms), temperature and oxygen can all be affected by the size of the allocation block above the minimum leading to decreased salmonid growth rate and increased salmonid mortality.

Whilst the minimum flow should be intended to protect the life supporting capacity of a waterway for critical short periods, it can never achieve those parts of the Act referred to above if the allocation block above the minimum is of a size that means the river is drawn down to its minimum for extended periods. An allocation limit specifies how much water can be allocated (or by how much the flow of a river can be modified). It clearly states the availability of water (temporally and spatially) for abstraction, diversion or damming. It provides more robust protection of instream values compared to solely setting minimum flows and has the environmental advantage of retaining natural variation in flow and subsequently minimising flat lining.

Fish and Game submit that it is important that matters to be considered in Schedule 2D.2 include Part II matters that may in some cases warrant setting some other limit. It is worth noting that in the case of both Trotters and the Waianakarua catchments both are technically 'over allocated'.

Fish and Game seek that the policy specifies when setting allocation limits, any other matter relevant in giving effect to Part II of the Act should be considered as per the considerations listed relevant to setting minimum flows.

Outcome Sought	**Amendment Requested**
Include consideration of any relevant matter in the RMA when	2D.2 When setting primary allocation limits in Schedule 2A for a catchment, consideration may be given to the following matters:

setting allocation limits	(a) Any existing or previous allocation limit (b) The amount of water currently taken as primary allocation (c) The 7 day Mean Annual Low Flow (d) The proposed minimum flow regime (e) Possible sources of water (f) Acceptable duration and frequency of rationing among consented water users (g) Social and economic benefits of taking water **(h)Any other relevant matter in giving effect to Part 2 of the Resource Management Act.**

Fish and Game support all other aspects of Schedule 2D.

Schedule 2A Trotters Catchment

The sportsfishery of Trotters Creek is limited simply due to the size of the waterway and its catchment however, the habitat requirements of trout, in particular juvenile rearing habitat values and sea run brown trout passage should still be considered when determining the management regime. Local anglers within the community will vigorously defend the fishery values associated with the creek and this has been reflected somewhat at the public meetings/community workshops and to Fish and Game staff in recent times.

The best information available on the hydrology of Trotters Catchment is that provided by the ORC and is extremely limited with MALF being calculated essentially from one or two gaugings. Whilst lack of information is not a reason to 'do nothing' it does mean that a conservative minimum flow should be set with a view to reassessing the information at some later date. (i.e after 5 years of flow recording).

Regardless, the information available is the best we have at this time, although Fish and Game are not entirely comfortable with the methodology used to derive the statistics and may comment on this further during hearings. The management flow recommendation was to retain a minimum flow in the creek of 20 l/s from October to April (MALF was assessed to be 23 l/s) and that combined with the 35 l/s May to September minimum flow this *would maintain natural character.* Fish and Game have discussed the ability of a minimum flow alone to provide for natural character above. It is accepted that coupled with the primary allocation of 30 l/s and 1:1 sharing for secondary permits this could provide for natural character and other ecological and community values.

The Plan change now proposes a minimum flow for October to April of 8 l/s. Fish and Game submit that the impacts of an allocation of 30 l/s on top of 8 l/s cannot provide for Objective 6.3.1, or other aspects of resource management legislation (as outlined in paragraphs above) and does not accurately balance the competing demands for the resource and the aspirations of the community.

A flow of 8 l/s may not maintain connectivity between pools and should the creek be induced to flows of 8 l/s for prolonged periods (Fish and Game have not been able to assess the likelihood of this) any refuge habitat provided by pools would quickly diminish through the impacts of temperature increases and dissolved oxygen decreases, in addition the ecological functioning of the river mouth may be affected. Brown trout are diadromous and sea run browns are particularly important for the Trotters fishery. The ecological functioning of the river mouth is critical to enabling fish passage (anytime from October through to May) and later subsequent impacts on spawning success and water quality may result.

It is stated in the s32 analysis that *such a flow* (at 8 l/s) *has potential economic consequences on water takes.* It has been assessed that even with a minimum flow of 20 l/s restrictions would only apply on average 4 days per year. Bearing in mind that the take is to storage (presumably intended to provide some 'insurance' during times of low flow when abstraction was not viable, and that supplementary allocation on a 50:50 flow sharing basis is also available to fill the storage during times of higher flows) such an outcome would not be unduly restrictive for the abstractor.

Fish and Game seek a minimum flow for the period October to April of at least 20 l/s (whilst accepting the retention of the allocation limit of 30 l/s) on the basis of the original recommendation and the knowledge that for small streams the further the flow is induced below the naturally occurring MALF the greater the likelihood of adverse impacts on fisheries. As indicated in earlier sections, a conservative approach is warranted on the limited information available and any minimum set could be reviewed as appropriate.

Fish and Game submits that whilst 20 l/s is never going to be optimal habitat for adult sportsfish (not a general goal when setting a minimum flow), such a regime would better provide for fish passage, natural character, juvenile habitat, amenity and water quality whilst not being unduly restrictive for the sole abstractor and as such better balance the competing demands for the resource.

Fish and Game support the proposed minimum flow for the period May to September of 35 l/s below which habitat for juvenile brown trout diminishes sharply. However as noted above the extreme low minimum flow for the rest of the year may critically limit sea run fish passage, and prevent recruitment of juvenile fish, diminishing the perceived value of the higher May to Sept flows.

Outcome Sought	**Amendment Requested**			
A minimum flow over the period Oct - April that provides for ecological, fish passage and environmental values of the community whilst allowing abstraction at a high level of reliability.	Trotters Catchment	Mathesons Weir (MS 12)	20 (October to April) 35 (May to September)	30 l/s Trotters catchment from mouth to headwaters

Additional comments re abstraction: Fish and Game agree that abstractive use is an important value of the waterway and were involved with and provided written approval for the supplementary take provided it was when flows exceeded 230 l/s on a 1:1 sharing basis (with other conditions). During this time it was understood that fish passage limitations resulting from the original weir were addressed via a modified design during 2004.

It is also understood that the weir arrangement facilitates continued taking into the storage pond when full, which is then discharged some distance downstream back into Trotters Creek. Avoiding taking when the pond is full would reduce the effects of dewatering that section between the intake and discharge points of the creek and extend fish passage and habitat availability within the creek.

Fish and Game provided written approval to the original application to take 30 l/s with a residual flow of 5 l/s, on the basis that the creek was thought to be ephemeral and that the storage pond would provide refuge habitat for fish during periods of drying. More recent information has not indicated that the creek has an ephemeral nature, shows an estimated MALF of 23 l/s (not the estimated 10 l/s at the time of original applications) and it is not clear whether fish access the storage pond or not.

These matters need to be addressed/discussed at an appropriate opportunity also.

Schedule 2A Waianakarua Catchment

Whilst trout are not identified as a key ecosystem value in Schedule 1A Natural Values of the Water Plan, the Wainakarua River supports a brown trout fishery that is worthy of protection and restoration into the future and Fish and Game shall be making submissions to this effect to the Plan review process.

The NIWA National Angler Survey results show 140 angler days spent on the Waianakarua River for 2001/02 (last survey period) and it is known that local anglers are avid protectors of the fishery resource where the community consultation workshops reinforced this. As with Trotters Creek values sea run trout are an important aspect of the Waianakarua fishery and fish passage and functioning of the mouth are critical components of maintaining this value.

Both natural and induced low flows and their associated effects have likely been the key limiting factor for the fishery. It is known that at MALF adult brown trout habitat is limited, and at 200 l/s (as proposed for the period October to April) such habitat is severely restricted. The lowest 7 day low flow since the start of records is 225 l/s, it cannot be said that flows of prolonged, regular flows of 200 l/s are a 'natural' limitation.

It is not clear if 200 l/s can provide connectivity or fish passage throughout the river, nor is it known how the allocation above the proposed minimum will affect the physical length and duration that low flows are experienced. As noted above the Waianakarua River is considered 'over allocated'. Over allocation compounds these impacts.

Fish and Game are concerned that setting the minimum flow at 2/3rds of the natural MALF may induce the river to dryness in sections, prevent fish passage, limit recreational opportunity, and may extend flatlining affecting ecological, amenity and recreational values whereas abstractors will only be 100% restricted on average for 1 day. The proposal does not balance the competing needs of the community. The minimum flow workshop #2 notes diagrammatically showed that the majority of the community 'strongly supported' a minimum of 300 l/s and 'strongly opposed' a minimum of 200l/s. Fish and Game submit that a minimum flow of 300 l/s would be a more balanced representation of competing needs within the community.

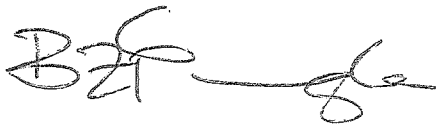
Fish and Game support the proposed monitoring site location.

Outcome Sought	**Amendment Requested**			
A minimum flow over the period Oct - April that provides for ecological, recreational and environmental	Waianakarua Catchment	Browns Pump (MS13)	**300** (October to April) 400 (May to September	190 l/s Waianakarua catchment from mouth to headwaters

values of the community whilst continuing to provide a high level of reliability for abstractive users.			)	

This submission is made in support and expansion of the joint CSI and Otago Fish and Game submission also entered and Fish and Game reserve the right to be heard at a hearing.

Yours Sincerely



B Z Pringle

Resource Officer

Central South Island Fish and Game

Otago Regional Council

SUBMISSION FORM
Proposed Plan Change 1B Minimum Flows
to the Regional Plan: Water for Otago

Form 5, Clause 6 of the First Schedule, Resource Management Act 1991.

36

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Postcode:

Telephone: 03 439 5780 Fax:

Email: r.s.elder@xtra.co.nz Contact Person:

OTAGO REGIONAL COUNCIL RECEIVED DUNEDIN - 9 MAR 2009 FILE No. RF221 DIR TO MAP - SY

I wish / do not wish *(circle preference)* to be heard in support of my submission.

If others made a similar submission, I will consider presenting a joint case with them at a hearing.
(Cross out if you would not consider presenting a joint case).

Signature of submitter: Date: 4-3-09
(or person authorised to sign on behalf of person making submission).

Please note that all submissions are made available for public inspection.

The parts of the proposed plan change that my submission relates to are:
(Give clear references if possible e.g. reference number, policy x, rule y)

Plan Change 1B Minimum Flows
Primary Allocation Limit

My submission is:
(Include whether you support, oppose, or wish to have amended the parts identified above, and give reasons)

Being an avid fly fisherman I have spent many years fishing the Waingtaruna river. While I support the minimum flow of 200 litres/sec I do have grave concerns about the wording; "When the minium flow is breached primary allocation ~~takes~~ permit holders must stop taking water." Having witnessed this scenario on the Kakanui river for many years where the river

I seek the following decision from the local authority:

(Give precise details e.g. changes you would like made)

was regularly taken below the minimum flow with disastrous results for the river. I believe a penalty clause must be added for breaching the minimum flow of 200 l/sec. While I believe permit holders would adhere to the minimum flow guidelines a penalty clause would therefore not affect irrigators as has been the case with the Hakataramea river since the environmental court hearing Oct 2001.

Owing to the recent poisonous algae outbreak in the Waimakariri river I believe it is important to place a moratorium on the Primary Allocation Limit of 140 litres/sec. It is too coincidental that this algae bloom has coincided with an increase in intensive farming in the Waimakariri valley.

The Waimakariri river has run clear and pure for generations. We must learn from what has happened to the Hakataramea river during low flows and preserve our East coast rivers for future generations.

SUBMISSIONS MUST BE RECEIVED BY 5.00 PM, MONDAY 9 MARCH 2009.

Fold

Please fold and secure with a small piece of tape.

Fold

FreePost Authority ORC 1722

Free

Otago Regional Council
Private Bag 1954
Dunedin 9054

Attention Policy Team

37

The Otago Regional Council,
Private Bag 1954,
Dunedin.
9094.

Dear Sirs,

Proposed Changes to the Regional Plan: Water for Otago

Proposed Plan Change 1B Minimum Flows.

Specifically **Trotters Creek and Waianakarua Stream.**

Trotters Creek Catchment:

I note seasonal MANAGEMENT FLOWS are envisaged for the Trotters Creek catchment and agree this philosophy as it recognises there are clear seasonal variations in the NATURAL FLOWS in the catchment.
It is also noted that the higher natural flows generally occur during May to October and the lower flows generally occur from November to April.

Accepting these points there is then a need to accurately understand the impact of extreme low flows, low flow duration and flow variability on the in-stream ecology and both the suggested minimum flow for the period October to April – 8 litres per second-and the indicated period for that minimum flow, at October to April, are very questionable.

8 litres per second:

How any body could seriously suggest this as an acceptable minimum flow for Trotters Creek is beyond comprehension.
At that level, suggested as "half a bucket of water per second" in a recent letter to the ODT I would suggest the natural character of that creek would be seriously compromised and the result would be environmentally disastrous.

At that suggested minimum flow the effect of any localized pollution or nutrient concentration would be maximized, there would be insufficient flow to maintain an environmentally friendly temperature and dissolved oxygen concentrations would suffer to the point that invertebrate and fish life would be at best highly stressed.

In addition the natural character of the creek would be reduced from a small healthy and visually attractive waterway to an unattractive farm drain.

That scenario does not indicate a fair balance between the maintenance of a public asset for public benefit and the reasonable needs of adjoining landowners who require access to water for there commercial operations

The Trotters Creek management flows report clearly identifies that 20 litres per second is required to protect the diversity of life in the creek – a diversity that includes some 13 varieties of fish and a wide variety of invertebrates. Surely this diversity is of significance and should attract a corresponding level of protection.

8 litres per second as a proposed minimum flow is completely unacceptable whereas 20 litres per second would not unduly restrict abstraction for commercial purposes – perhaps only on 4 days per year- a matter which can be substantially compensated for by use of the stored water in the existing small dam in the lower reaches.

Indicated Minimum flow –October to April.

Many of the native fish. and introduced species, which exist in Trotters Creek are diadromous i.e. they need to go to sea as part of their life cycle.
Because of this it is imperative that sufficient water remains in the creek to ensure that access to the sea by way of an open creek mouth across the beach is regularly available. Whitebait in particular spawn in the lower reaches and at certain times of the year they require access from the sea or access to the sea as part of their life cycle

We accept that under normal conditions there will be times when natural low flow will occur to the point where insufficient flow would be available to ensure ideal conditions for this but it would be quite unacceptable to have these conditions occur solely as a result of human intervention i.e. by abstraction for commercial purposes.

From this we need to ensure that at all times natural conditions are maintained which would allow the maintenance of a healthy population of native and introduced fish. Our above suggestion that a minimum low flow of 20 litres per second may not always provide the conditions required but are infinitely better than the proposed 8 litres per second
With regard to any low minimum flow being applied to the period October to April I would question whether this is based on an accurate assessment of fish movements in and out of the creek.

I note a statement in one report that brown trout tend to use the increased flow generally encountered in winter for their annual migration up river to spawn and agree that is so but there is a considerable population of sea run brown trout in that area, and including Trotters Creek, which migrate in to fresh water at different times of the year

I have personally enjoyed some 40 years of freshwater angling in the Kakanui, and Waianakarua streams, and have fished the lower reaches of Trotters Creek, Shag and Waikouaiti rivers mainly for sea run brown trout and have found them in almost every case from at least October. I have not fished in these areas prior to October in any year but if we accept sea run browns follow in the whitebait and we know the whitebait run earlier than October it would be reasonable to assume that sea run brown trout enter these streams earlier than October and their needs for an acceptable water flow are therefore spread over a much longer period than that indicated in some reports.

A minimum flow of 8 litres per second from October to April as proposed would therefore not ensure the survival of a population of sea run brown trout in Trotters Creek as at that level of flow it would be unlikely that water from the creek would cross the beach to the sea.

From all of this I would urge that a minimum low flow of 20 litres per second be introduced from October to April and a minimum low flow of 35 litres per second be applied for the remainder of the year.

WAIANAKARUA STREAM :>

This stream is an outstanding fishery for sea run brown trout characterised by a small number of fish of excellent size and appearance. It also presents as a productive whitebait fishery in season and in the lower reaches one may see kahawai, mullet and flounder
The general streamscape is most attractive with a clear gravel bottom and a good mix of shaded and open banks.
My comments for this stream parallel those I have made above for Trotters Creek in so far as sea run brown trout are concerned. They are certainly present from October onwards and coincidently I can also report having seen fresh run whitebait in the stream as late as March.

During some summers, flows in this stream can fall to low levels and it is suggested that a very conservative approach be taken to approved abstraction takes .We need to accept natural fluctuations in flow will occur but we also need to ensure that these adverse events are not exacerbated by over enthusiastic abstraction approvals.

From research undertaken by Fish & Game it is known that at 200 litres per second the flow proposed for the period October to April would severely restrict the in stream habitat for adult trout and it is known that the lowest 7 day low flow recorded since records commenced was 225 litres per second.

We are not aware of any record available which would confirm a free flow of the river without drying at some points would occur at 200 litres per second and, noting the lowest 7 day low flow mentioned above at 225 litres per second, that would appear highly unlikely.
If we were to accept the setting of the minimum low flow at 200 l/sec i.e. 2/3rds of the MALF there would be a serious risk of some reaches of the river drying with a consequent disastrous effect on the ecological and amenity values of the river.
We therefore support the Fish & Game position that a minimum low flow of 300 litres per second be accepted and that would go some way towards satisfying the public interest in this stream
There is another issue that needs consideration.
The writer is concerned at the establishment of a dairy farm in the lower catchment of the Waianakarua and its potential for harm to the stream.
We understand that some 1000 dairy cows will be sited on this farm most of the time under cover

This small valley of the Waianakarua particularly from the main highway to the sea has a gravelly substrate that would be a highly porous base for the spreading of dairy effluent. In the quantities that could be involved from a dairy farm of the proposed size effluent could be a problem for the future health of this lower catchment and any commercially induced low flow would add to this problem. The reduced flow would not provide the same protection by dilution that any higher flow would provide

Under these circumstances we would urge the Council to adopt a very conservative approach to any water abstraction from the catchment and ensure adequate monitoring is in place to ensure any pollution in the waterway is quickly identified and rectified.

Sincerely

Alan McMillan
On behalf
New Zealand Federation of Freshwater Anglers inc.,
C/o 19 Haggart Street,
Wingatui,
R.D.2.
Mosgiel
4th March 2009

From: Alan McMillan [club.wingatui@xtra.co.nz]

Sent: Monday, 9 March 2009 10:19

To: Policy Reply

Subject: Water for Otago Proposed Plan Trotters creek/Waianakarua

Dear Sirs,

In my submission on behalf of the NZ Federation of Freshwater Anglers inc., dated 4th March I attributed research to Fish & Game which should have referred to research promoted by the Regional Council. The offending comment was as follows

"*From research undertaken by Fish & Game it is known that at 200 litres per second the flow proposed for the period October to April would severely restrict the in stream habitat for adult trout and it is known that the lowest 7 day low flow recorded since records commenced was 225 litres per second* "

I wouldd be grateful if you would record this as an error on my part and credit Otago Regional Council with the reference rather than Fish & Game

My apologies

Alan McMillan
for NZ Federation of Freshwater Anglers inc.,

Otago Regional Council

SUBMISSION FORM B Minimum Flows
Proposed Plan Change 1C ~~Water Allocation and Use~~
to the Regional Plan: Water for Otago
Form 5, Clause 6 of the First Schedule, Resource Management Act 1991.

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Full name of submitter: Norman David Mackenzie

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Postcode:

Telephone: 034439355

Fax:

Email:

Contact Person:

OTAGO REGIONAL COUNCIL RECEIVED DUNEDIN
- 9 MAR. 2009
FILE No. RE221
DR TO MAP SK

I wish / do not wish *(circle preference)* to be heard in support of my submission.

If others made a similar submission, I will consider presenting a joint case with them at a hearing.
(Cross out if you would not consider presenting a joint case).

Signature of submitter: N D Mackenzie Date: March 6 · 2009
(or person authorised to sign on behalf of person making submission).

Please note that all submissions are made available for public inspection.

The parts of the proposed plan change that my submission relates to are:
(Give clear references if possible e.g. reference number, policy x, rule y)

The whole Plan.
Having farmed here for 30 years the health of the creek & the fish species in it are as good now as ever in the past 30 years.

My submission is:
(Include whether you support, oppose, or wish to have amended the parts identified above, and give reasons)

I am in favour of the Status Quo

Please turn over

I seek the following decision from the local authority:

(Give precise details e.g. changes you would like made)

I wish the existing consent holder to retain their water right in its present form

SUBMISSIONS MUST BE RECEIVED BY 5.00 PM, MONDAY 9 MARCH 2009.

Please fold and secure with a small piece of tape.

FreePost Authority ORC 1722

Free

Otago Regional Council
Private Bag 1954
Dunedin 9054

Attention Policy Team

39

Trotters Creek Minimum Flow Proposal Submission

Submitter: Craig George Trotter
Residential address: 2RD Palmerston, OTAGO
Postal address: 1/581 Birches road, RD2 Christchurch
Email address: craig.trotter@gmail.com

I write this submission of rejection to the proposed minimum flow rate of the Trotters Creek of eight litres per second but do support the flow rate projected by the Otago Regional Council of 20 l/s as stated as ecologically sustainable in the recent report 'Management Flows for Aquatic Ecosystems'.

As the Trotters Creek is one of the first streams to go through the process of minimum flow proposals, I find it critical that the Otago Regional Council (ORC) make a wise and sustainable proposition, the stream has long been recognised as biologically diverse and has a wide range of social and ecological strong points to both humanity and most importantly maintaining a diverse and sustainable population of both flora and fauna.

Over the past 50 years, the New Zealand lowland stream environment has recently become under considerable stresses, mostly as a result of the intensification of agriculture both due to excessive water abstraction and nutrient runoff. Many streams in parts of the North Island, Canterbury, South Otago and Southland are reporting excessive algal blooms, and weed growth, increased water temperatures, oxygen depletion and as a result, reduced fish habitat and water deemed unsafe for swimming and drinking from. One only needs to read the report produced by the Parliamentary Commissioner for the Environment 'Growing For Good', as quoted "there is a vital need for indigenous biodiversity on private lands to be sustained and enhanced to improve the sustainability of farming in New Zealand", surely the ORC can recognise this and adopt the minimum flow rate of maintaining 20 l/s to ensure fauna habitat is satisfied.

Trotters Creek is only a small stream but it is these small streams which have up until recently been left alone. As a result of an apparent need for intensification of agriculture, these small streams are beginning to be recognised as a source of water for irrigation purposes. Many of these streams including Trotters Creek are still healthy and bio diverse. The setting of unsustainable minimum flows result in damage to flora and fauna where there are many instances throughout the world and in New Zealand. Surely it is essential that the ORC review the past literature and read the popular press and for once make a stand by imposing a minimum flow of meaning and one which will maintain an environmentally friendly and biodiverse water way such as the Trotters Creek.

One needs to question the benefit and sustainability of irrigation in an area of low natural rainfall, rather light coastal dominantly sandy permeable stony soils, and excessive extraction from a minor waterway. As stated in the 'Growing for Good'

report, "Irrigation, particularly in this environment can also act as a conduit for contaminants such as excess sediment, agricultural chemicals, effluent and fertiliser discharges" further inducing the contamination of the stream with a low flow rate during the summer dry period exasperating aspects of poor water quality mentioned above in the coastal reaches of Trotters Creek. I currently reside in mid Canterbury and have first hand witnessed the effects of excess draw of water resources in and around the Lincoln area; many of the streams which flow into Lake Ellesmere have very poor water quality and continually flow at rates of minimum flow.

Annual rainfall records from the Trotters Creek farm collected almost continuously since 1908 show a declining annual rainfall. In light of these records, and the unavoidable changes in the future due to climate change, especially where what models that have been produced show eastern parts of New Zealand anticipating lower rainfall, it is imperative that cautious minimum flows are adopted.

There are several species of native fish which utilise the coastal waterways for spawning areas amongst the edges of small streams. I, myself have caught white bait or inanga from the Trotters Creek mouth. Ngai Tahu and the Department of Conservation are now beginning to understand the importance of these stream edges to these native fish and as such have recognised them as important areas worthy of conservation. As a result of this, many of these small streams in the Canterbury region are being fenced off and managed appropriately to ensure that these spawning areas are protected to ensure regeneration of the species.

I find it difficult to understand that the ORC propose a flow of eight litres per second where in the 2006 report, the writers conclude that a minimum flow of 20 l/s is considered to be required to maintain natural biodiversity of aquatic fish life within the stream during the natural low flow months of November to April. Given there is potential un-reliability in the flow measurements recording, surely it is the councils best interests to show foresight and impose this flow rate of 20 l/s. Given the work which has been previously performed on the Trotters Creek stream, maintaining minimum flows between 20 and 35 l/s depending on the variability of natural flows of the creek, I struggle to understand where the proposition of 8 l/s comes from where it has previously never been proposed in the reports published and is well below the minima suggested in previous documentation.

I do wish to be heard in support of my submission.

Yours Sincerely

Craig Trotter
2RD Palmerston OTAGO

Otago Regional Council

SUBMISSION FORM
Proposed Plan Change 1B: Minimum Flows
to the Regional Plan: Water for Otago
December 2008

Form 5, Clause 6 of the First Schedule, Resource Management Act 1991

40
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Full name of submitter: Sidney Jerome Wing

Name of organisation (*if applicable*): Waianakarua River Community Users

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Town/City: 8 O Rd Oamaru
Postcode: 9495

Telephone: 03 4395197

Fax:

Email: jwing@sbytes.co.nz

Contact person: S.J.Wing

I do wish to be heard in support of my submission.

If others make a similar submission, I will consider presenting a joint case with them at a hearing.

Date:9/03/2009 07:43:28

Please note that all submissions are made available for public inspection.

Signatures are not required for submissions made electronically.

Submissions must be received by 5pm, Monday 9 March 2009.

The parts of the proposed plan change that my submission relates to are:
(*Give clear references if possible e.g. reference number, policy x, rule y*)

The setting of the a minimum flow

My submission is:
(Include whether you support, oppose, or wish to have amended the parts identified above, and give reasons)

Our group supports the monitoring of flows and the setting of a mininmum flow in this important coastal river but as we participated in workshops which clearly showed the preferrance for a 300l/s minimum flow we oppose the 200l/s as being too low

I seek the following decision from the local authority:
(Give precise details e.g. changes you would like made)

The minimum flow be 300l/s Oct/ April 400l/s May/ Sep

SUBMISSIONS MUST BE RECEIVED BY 5.00PM, MONDAY 9 MARCH 2009

Please send submissions to:

Email: policy@orc.govt.nz

Post: Attn: Policy Team, Private Bag 1954, Dunedin 9054

Fax: (03) 479 0015 (Attn: Policy Team)

Deliver: 70 Stafford Street, Dunedin; or
William Fraser Building, Dunorling Street, Alexandra; or
The Station, 1st Floor, Cnr Shotover and Camp Streets, Queenstown