
From: Drew & Sally Brown <drewsallybrown@gmail.com>
Sent: Thursday, 12 September 2019 9:15 AM
To: Mailroom Mailbox
Subject: Plan Change 7 to the LWRP submission
Attachments: Orari Submission 19.docx

Hi,
I have attached Form 5 with my submission. See attachment.
Cheers,
Drew brown

Form 5

Submission on notified proposal for policy statement or plan, change or variation

[Clause 6](#) of Schedule 1, Resource Management Act 1991

To: Environment Canterbury Regional Council

Name of submitter: Andrew Graham Brown

- This is a submission on the following the proposed **Plan Change 7**.
- I could not gain an advantage in trade competition through this submission.
- I am directly affected by an effect of the subject matter of the submission that adversely affects the environment.
- The specific provisions of the proposal that my submission relates to are within **Plan Change 7**:
- My submission supports Plan Change 7 with comments on additional relevant actions that should be taken into account .
- The collaborative process of the OTOP process was effective.
- I do not wish to speak to my submission.

Signature of submitter: Andrew Graham Brown

Date; 11/9/19

Electronic address for service of submitter: drewsallybrown@gmail.com

Telephone:

Postal address : 34 Thatcher Rd, RD 21 Geraldine 7991.

Contact person: Drew Brown

Note to person making submission

If you are making a submission to the Environmental Protection Authority, you should use [form 16B](#). If you are a person who could gain an advantage in trade competition through the submission, your right to make a submission may be limited by [clause 6\(4\)](#) of Part 1 of Schedule 1 of the Resource Management Act 1991. Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least 1 of the following applies to the submission (or part of the submission):

- it is frivolous or vexatious:
- it discloses no reasonable or relevant case:
- it would be an abuse of the hearing process to allow the submission (or the part) to be taken further:
- it contains offensive language:
- it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

Schedule 1 form 5 heading: amended, on 18 October 2017, by [regulation 15\(1\)](#) of the Resource Management (Forms, Fees, and Procedure) Amendment Regulations 2017 (LI 2017/231).

Schedule 1 form 5 heading: amended, on 1 November 2010, by [regulation 19\(1\)](#) of the Resource Management (Forms, Fees, and Procedure) Amendment Regulations 2010 (SR 2010/279).

Schedule 1 form 5: amended, on 18 October 2017, by [regulation 15\(1\)](#) of the Resource Management (Forms, Fees, and Procedure) Amendment Regulations 2017 (LI 2017/231).

Schedule 1 form 5: amended, on 14 September 2017, by [regulation 15\(1\)](#) of the Resource Management (Forms, Fees, and Procedure) Amendment Regulations 2017 (LI 2017/231).

Schedule 1 form 5: amended, on 1 November 2010, by [regulation 19\(1\)](#) of the Resource Management (Forms, Fees, and Procedure) Amendment Regulations 2010 (SR 2010/279).

Schedule 1 form 5: amended, on 1 June 2006, by [regulation 10\(2\)](#) of the Resource Management (Forms, Fees, and Procedure) Amendment Regulations 2006 (SR 2006/99).

Submission by Andrew Graham Brown on Plan Change 7

1. (a). I live on an 18 acre life-style farm next to the Orari River (on Thatcher Rd). My wife and I have lived there for 32 years.
- (b). We were founding member of the Orari River Protection Group (ORPG) in 2003 and I was part of the Integrated Management Plan team (hosted by Ecan) that formulated the Orari River Integrated Management Catchment Plan (2008).
- (c). I taught Science and Outdoor and Environmental Education at Geraldine High School, and I was Head of Dept of OE for 25 years. I was also Chair of the Peel Forest Outdoor Pursuits Centre for 25 years. During my professional career I taught hundreds of students kayaking, river dynamics, river health, river ecology and river crossing/ safety/rescue on and in the Orari River. I have an in-depth knowledge of the upper and lower areas of the river, its dynamics and its needs. I am also very aware of the community's connection to the river.
- (d). I have been a member of the ORPG's working parties (weed control) that have volunteered in the river gorge and below-gorge areas from 2006, as well as the formalised bio-diversity project (in conjunction with Ecan) in the river gorge when it began in 2016.
- (e). I made and placed (on behalf of the ORPG) 3 Didymo control boxes containing solutions and equipment for recreationalists in the gorge and at Lochaber.
- (f). I was a volunteer in the ORPG predator trapping operation and bird surveys, as well as taken part in the Blue Duck relocation project (now withdrawn) at Lochaber in the upper reaches of the river and contributing mountain streams.
- (g). I have been part of the ORPG endangered bird colony protection as well as the quarterly water monitoring programme.

Part A:

I support the 'Omnibus' change proposing amendments to region-wide provisions (policies, rules, maps and schedules) that:

- Improve freshwater outcomes for Canterbury
- Protect habitats of indigenous freshwater species
- Enable consideration of Ngāi Tahu values in relation to a broader range of activities
- Provide the use of managed aquifer recharge (a technique to improve the volume and quality of groundwater) across the region
- Establish a new nutrient framework for commercial vegetable growing operations

However, I would like to submit that the habitats of indigenous plant, freshwater and reptile species in and by the Orari River must be mapped as soon as possible to provide a measure for river ecology stability. The river hosts many endangered native species. (see Conclusion).

Parts B and C

I support the following changes, but with further submissions:

(a) New water quality limits for groundwater and surface water

I support the protection of water quality in the Orari river as it is used extensively for education of youth, and general recreation by the community used for recreational rafting, kayaking and bathing.

I submit that all stock must be excluded at all times from any part of the Orari River.

I submit that a specific study should be made of the levels of nutrient levels in the Orari catchment and aquifer systems in order to improve nutrient levels and thereby water standards. The result of which should give a very clear indication of what the limit of cow numbers in the catchment and contributing watersheds should be.

I support extending the Groundwater Allocation Zone Boundaries to include the entire sub-Region. The Orari River is impacted by high nitrate areas even though the river has been recognised as a Significant Natural Area. (see conclusion).

I submit that the 2008 Integrated Catchment Management Plan (ICMP) developed by Ecan and stakeholders (including ORPG) must be included in the LWRP. This ICMP was presented to the community by Ecan and was formally accepted by all community representatives. Thus, it must be included in the LWRP.

(b). Requirements for farms to further reduce nitrogen losses over time:

I support the reduction of nitrogen emissions within the Orari catchment, which I submit must include the Orari high country catchment area.

However, as it has been proposed that it will take 11 years to reduce nitrate levels by 10% and therefore I submit that the timeline should be reduced to half that time because the river surface and aquifer ecosystem will be in danger of being seriously affected.

I support the inclusion of in-stream biodiversity values within Farm Environment Plans under Schedule 7

(c). Increases to minimum flows for rivers and streams:

I submit that Extraction consents on the Orari river be reviewed annually

I submit that a higher minimum flow be established and reviewed annually.

I submit that over allocation is a priority for Ecan deliberations and should be reviewed annually to take into account climate change and a potential demand by the Geraldine area for Orari water as a potable supply.

(d). A cap on the volume of water available for allocation:

I support these changes (see (c) above)

(e). Requirements to exclude stock from a broader range of water bodies.

I submit that all stock be excluded from all parts of the Orari river. (see above in (a))

Overall Time-frame and Central Direction of Plan Change 7:

I submit that the Zone committee proceed with the implementation of this plan sooner than five years beyond 2022. Delay will see an acceleration of degradation of river and lake water quality.

Conclusion:

The water management plan in the OTOP zone must align rigorously with the national standards for waterways and aquifers.

Standards for nitrate levels potable water must be reviewed as research continues to associate low levels of nitrate with bowel cancer.

Studies and mapping must be initiated to create an accurate measure of system degradation or improvement.

Accordingly:

I submit that the following ongoing data gathering studies be established for the Orari River:

- (a) River length water quality and flow regimes for surface and aquifer water.
- (b) River length mapping of flora and fauna
- (c) Weed and pest effects on river length biodiversity
- (d) Extraction effects on the river (water & ecosystem) quality.
- (e) Extraction effects on agricultural business health.
- (f) Projected changes to river ecosystem by proposed changes in the high country adjoining stations and farms.

I submit that the the Orari gorge be formally designated a “Significant Natural Area” within the LWRP with specific reference to upper catchment water quality preservation. This has an crucial impact on Geraldine’s potable water supply as well as being critical to healthy and sustainable biodiversity in the river as a whole. It also reaffirms the need to have regular and in-depth data gathering as described above.

Thank you for your consideration,

Yours sincerely,

Andrew (Drew) Brown.