

PART 1 – Submitters by number – Submitters – 1-40

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NOTE: Where two people are listed under submitter/contact for service please contact both. Where one person is recorded as CONTACT: [name], please contact that person only.

Submitter #	Submitter / contact for service	Company / organisation / iwi/hapū/marae	Address	Phone	Email	Page #
1	Ben Goodwin		372 Te Ranga Road, Te Onepu, New Zealand, 4174	068749363	bgoo022@gmail.com	3
2	Angus Wall		307 Knight Street, Hastings, New Zealand, 4122	0211749778	flynnwall@gmail.com	5
3	Gavin Yort	Limestone Properties Limited	PO Box 14065, Mayfair, Hastings, New Zealand, 4159	06 8781800	toni@squakingmagpie.co.nz	8
4	Des Ratima	Takitimu District Maori Council	PO Box 51, Whakatu, Hastings, New Zealand, 4172	0275482688	desratima52@gmail.com	13
6	Daniel Soltau		41 Waipatu Settlement Road, RD 2, Karamu, Hastings, New Zealand, 4172	0277045736	soltau@gmail.com	17
7	Neil Eagles		30 Trigg Cres, Taradale, Napier, New Zealand, 4112	0272762043	nandgeagles@outlook.com	21
8	Rengasamy Balasubramaniam	Delegat Limited	PO Box 305, Blenheim, New Zealand, 7240	+64 3 572 6301	bala@delegat.com	22
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10	David Renouf		603A Ballantyne Street, Frimley, Hastings, New Zealand, 4120	06 8783239		32
11	Matt Edwards		246 Waverley Road, Meeanee, Napier, New Zealand, 4112	06 8448862		151
12	c/o: Alec Duncan, Beca Limited	Ministry of Education	PO Box 448, Hamilton, New Zealand, 3240	07 9607259	alec.duncan@beca.com	153
13	c/o: Alec Duncan, Beca Limited	Fire and Emergency New Zealand	PO Box 448, Hamilton, New Zealand, 3240	07 960 7259	alec.duncan@beca.com	161
14	Ryan Fraser		2112 Mareakakaho, Hastings, New Zealand, 4120	0276345174	ryan.fraser@paritua.com	172
15	Andrea and Phil Cranswick	Meridiem Trust	195 Ngatarawa Road, RD5, Hastings, New Zealand,	(06) 8799877	andrea.cranswick@xtra.co.nz	176
16	Bernadette Hamlin		802 Collinge Road, Mayfair, Hastings, New Zealand, 4122	0278782775	baebham@hotmail.co.nz	180
17	Richard Riddell	Olrig Limited	1233 Kereru Road, Maraekakaho, Hastings, New Zealand, 4171	021379006	richard1riddell@gmail.com	182
18	Mark Cairns	MD Cairns & AR Wright Partnership	PO Box 8718, Havelock North, Hastings, New Zealand, 4157	027 532 0482	mark@magnitudewines.co.nz	188
19	John Palmer		80 Aorangi Road, RD1, Hastings, New Zealand,	021 474 833	jpalmer.awarua@xtra.co.nz	198
20	Bruce Nimon		680 Ohiti Road, Crownthorpe, New Zealand, 4179	0274998178	Bruce@kokakofarms.co.nz	200
21	Robert & Helen Patullo	Newstead Farm Ltd	1192 Puketitiri Road, RD4, Napier, New Zealand, 4184	068445858	newstead@ruralinzone.net	205
22	Peter Clayton	PB & BG Clayton	214 Swamp Road, RD3, Napier, New Zealand, 4183	0274578476	pbclayton@xtra.co.nz	215

23	Kerry Sixtus	Pattullo's Nurseries Limited	1023 Links Road,RD3 ,Napier,New Zealand,4183	0274440887		221
24	Jim Watt	Saint Columba's Havelock North Environment Group (SCHNEG)	PO Box 8487,Havelock North,Hastings,New Zealand,4157		jpc.watt@gmail.com	225
25	Xan Harding		2091 Maraekakaho Road,RD1,Hastings,New Zealand,	0276127927	xan.harding@xtra.co.nz	227
26	Robin Back	Dunvegan Estate	20 Dunvegan Road,RD5,Hastings,New Zealand,	021523810	randmback@gmail.com	242
27	Richmond Beetham		Te Wharau Road, Kourarau Hill,Kourarau Hill,New Zealand,Unknown	0276649559	rsbeetham@hotmail.com	253
28	Hamish Clark	Saint Clair Family Estate Ltd	PO Box 970 ,Blenheim,New Zealand,	035788695	hamish@saintclair.co.nz	254
29	Xan Harding	Hawke's Bay Winegrowers' Association Inc.	2091 Maraekakaho Road,RD 1,Hastings,New Zealand,4171	068749316	xan.harding@xtra.co.nz	263
30	Anthea Yule	Paranui Farming Trust	759 Otamaru Road,RD 9,Hastings,New Zealand,4179	068742852	farming@paranui.co.nz	292
31	Bernie Kelly	Hawke's Bay Canoe Club	47 Ferry Road ,Clive,Hastings,New Zealand,4102	0274461538		299
32	Kent Griffiths		361 Twyford Road,RD5,Hastings,New Zealand,	0274416359	kentokid@xtra.co.nz	304
33	Bruce McGregor		1707 Pakaututu Road,R D 4,Napier,New Zealand,4184	0276551695	mcg@mcgfarming.co.nz	308
34	Jonathan Hamlet	Craggy Range Vineyards Limited	PO Box 8749,Havelock North,Hastings,New Zealand,	0274521835	jonathan.hamlet@craggyrange.com	313
35	Colin Campbell		118 Waihau Road,RD6,Napier,New Zealand,4186	0274478011	colin.campbell117@gmail.com	325
36	Karen Morrish	Mr Apple New Zealand Ltd	2 Station Road,Whakatu,Hawke's Bay,New Zealand,4172	06 2611 919	Karen.Morrish@mrapple.com	332
37	Greg Evans	Dartmoor Estate Ltd	643 Dartmoor Road,DR6,Napier,New Zealand,4183	0274544460	greg@grochem.com	338
38	Roger Brownlie		PO Box 41,Bay View,Napier,New Zealand,4149	0274527999	the.orchard@xtra.co.nz	342
39	Bridget Wilton & Miles Leicester	Mb and Sons	387 Ngatarawa Road,Hastings,Hawke's Bay,New Zealand,	0274527999	MBandSons76@gmail.com	346
40	Jeremy White	J and S White Contracting Ltd	1262 Waihau Rd,RD 6,Napier,New Zealand,	0274253514	sharron.jwhite@xtra.co.nz	357

Proposed TANK Plan Change 9

Submitter Details

Submission Date: 18/05/2020

First name: Ben **Last name:** Goodwin

Phone number: 068749363

I could not

Gain an advantage in trade competition through this submission

I am not

directly affected by an effect of the subject matter of the submission that :

- a. adversely affects the environment, and
- b. does not relate to the trade competition or the effects of trade competitions.

Note to person making submission:

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

Would you like to present your submission in person at a hearing?

- Yes
- I do NOT wish to speak in support of my submission and ask that the following submission be fully considered.

Consultation Document Submissions

Proposed TANK Plan Change 9 > 5.10.3 Policies: Managing Adverse Effects From Land Use on Water Quality (Diffuse Discharges) > Industry Programmes and Catchment Management > POL TANK 25

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

I think that a provision needs to be made for farms on the bounday of two catchments, such that the rules of catchment inwhich the majority of a farming enterprise is in, should apply to the whole farm and the rules of the minor part dont apply. This would reduce the confusion and cost if rules differ from catchment to catchment.

Reason for decision requested:

We have a farm with most of its area in the Tukituki catchment, but some in the Tank. we dont want to have a situation where we need to do two separate farm plans or concents for sepatarte section of our farm.

Proposed TANK Plan Change 9

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

I think that a provision needs to be made for farms on the bounday of two catchments, such that the rules of the catchment inwhich the majority of a farming enterprise is in, should apply to the whole farm and the rules of the minor catchment shouldn't apply. This would reduce the confusion and cost if rules differ from catchment to catchment.

Reason for decision requested:

We have a farm with most of its area in the Tukituki catchment, but some in the Tank. we dont want to have a situation where we need to do two separate farm plans or concents for sepatarte section of our farm.

Attached Documents

File

Proposed TANK Plan Change 9

Proposed TANK Plan Change 9

Submitter Details

Submission Date: 18/05/2020

First name: Angus **Last name:** Wall

Phone number: 0211749778

I could not

Gain an advantage in trade competition through this submission

I am not

directly affected by an effect of the subject matter of the submission that :

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Would you like to present your submission in person at a hearing?

- Yes
- I do NOT wish to speak in support of my submission and ask that the following submission be fully considered.

Consultation Document Submissions

Proposed TANK Plan Change 9 > 5.10.1 TANK Objectives > General Objectives > OBJ TANK 1

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

Reason for decision requested:

Proposed TANK Plan Change 9 > 5.10.4 Policies: Stormwater Management

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

Reason for decision requested:

Proposed TANK Plan Change 9 > Chapter 6 New Regional Rules > 6.10.1 Use of Production Land > Stock Access

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

Reason for decision requested:

Proposed TANK Plan Change 9 > 5.10.1 TANK Objectives > General Objectives > OBJ TANK 2

- Support
- Oppose

Amend

I seek the following decision from the Regional Council:

Reason for decision requested:

Attached Documents

File
Proposed TANK Plan Change 9

Nichola Nicholson

From: Angus Wall <flynnwall@gmail.com>
Sent: Thursday, 21 May 2020 12:46 PM
To: Mary-Anne Baker
Subject: Re: TANK Plan Change submission
Attachments: noname

Hi Mary-Anne,

Yes, I support the council to retain the provisions.

Regards
Angus

On Thu, 21 May 2020, 11:46 AM Mary-Anne Baker, <Mary-Anne.Baker@hbrc.govt.nz> wrote:

Dear Angus,

Thank you for making a submission on the proposed TANK Plan Change.

We would like to confirm with you that as you support the plan provisions, the decision you wish the Council to make is to retain those provisions.

If you could reply to this email that would be great.

Regards,

Mary-Anne Baker



Mary-Anne Baker
Senior Policy Planner
833-5478

Hawke's Bay Regional Council | Te Kaunihera ā-rohe o Te Matau a Māui
159 Dalton Street, Napier 4110 | hbrc.govt.nz

Enhancing Our Environment Together | Te Whakapakari Tahī I Tō Tātau Taiao



Let us know how we're doing, give your feedback here.
This communication, including any attachments, is confidential. Refer to the disclaimer on our website.

Proposed TANK Plan Change 9

Submitter Details

Submission Date: 28/05/2020

First name: Gavin **Last name:** Yort

Organisation/Iwi/Hapu: Limestone Properties Limited

Phone number: 06 8781800

I could not
 Gain an advantage in trade competition through this submission

I am not
 directly affected by an effect of the subject matter of the submission that :
 a. adversely affects the environment, and
 b. does not relate to the trade competition or the effects of trade competitions.

Note to person making submission:

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

Would you like to present your submission in person at a hearing?

- Yes
- I do NOT wish to speak in support of my submission and ask that the following submission be fully considered.

Additional requirements for hearing:

Attached Documents

File
LPL PC9 Submission
Proposed TANK Plan Change 9

Limestone Properties Limited

SUBMISSION – PROPOSED PLAN CHANGE 9 TO THE RRMP

Company name	Limestone Properties Limited
Contact person	Gavin Yort
Address	PO Box 14065 Hastings 4159
Region	Hawke's Bay
Phone	+64 6 878 1800
Email	toni@squakingmagpie.co.nz
Submitter type	Business / Industry

1 INTRODUCTION

Limestone Properties Limited (LPL) is the owner of a property at 2596 SH50. In March 2017 LPL was granted a subdivision consent by the Hastings District Council.¹ The subdivision is for 35 residential farm park sites (ranging in area from 0.2750ha to 0.3874ha) with a balance lot of 130.2 h.

Potable water for each farm lot will be obtained from individual roof rainwater collection tanks. However, reticulated irrigation water from existing bore 4909 will be used for the lawns and gardens of each residential farm lot.² Existing consent WP030582Ta provides for 35 L/s at a maximum volume of 19,404 m³ in any 7-day period and it is intended to be used for this purpose, once it is renewed.

LPL is concerned about potential adverse effects of PC9 on the viability of its residential farm park development site.

2 PROVISIONS SUPPORTED**Plan Provisions**

The provisions in Table 1 of this submission.

Position

Support.

Reasons for Position

Brief reasons for support are provided in Table 1. LPL supports these provisions as they appropriately seek to manage water abstraction, whilst recognising the importance of resource use and development activities for the Hawke's Bay economy.

Relief sought:

- a) Retain the provisions in Table 1 of this submission.
- b) Any consequential amendments required to other parts of PC 9 as a result of the above relief.

¹ RMA20150341 HDC Ref: PIP99838

² LPL applied to renew its existing groundwater take consent WP030582Ta in 2019. No change to the existing rate of take (L/s) or maximum 7-day volume of take was sought. LPL agreed to an unlimited extension of the processing time for the consent renewal application to enable HBRC to undertake a cumulative effects assessment of all the expiring groundwater takes in the area.

3 PROVISIONS OPPOSED

Plan Provisions

The provisions in Table 2 of this submission.

Position

Oppose.

Reasons for Position

Reasons for opposition are provided in Table 2, together with the relief sought in each case.

4 HEARING

LPL wishes to be heard in support of its submission and if others make a similar submission, LPL would consider presenting a joint case with them at the hearing.

Table 1: PC9 Provisions Supported

Provision	Reason for Support
OBJ TANK 14(a)	Enabling people and communities to safely meet their domestic supply and essential needs appropriately gives effect to Objective A4, Policy A7, Objective B5 and Policy B8 of the NPSFM
OBJ TANK 16(a) and (b)	
5.10.6 Policy 37(a)	In terms of supporting economic and social well-being it is appropriate to base the Heretaunga Plains Water Management Unit interim allocation limit on actual and reasonable water use.
5.10.7 Policy 43(a) to (d)	The existing flow management regimes for Ngaruroro River are sustainable. It is also appropriate to provide water for abstraction at a reasonable security of supply.
5.10.7 Policy 46(b)	It is appropriate to allocate water based on actual and reasonable requirements.
5.10.7 Policy 47(a)(ii) and (d)	Good practice water use technology and processes that minimise the amount of water wasted are supported.
5.10.7 Policy 49(g)	Consent durations of 15 years provide appropriate investment certainty.
Rule TANK 9	It is appropriate that groundwater consent renewals (namely those subject to s124) are restricted discretionary activities, particularly as abstraction is to be limited to an "actual and reasonable amount". In particular clause (d)(i) is supported as it relates to the existing authorised quantity on the consent to be renewed.
Schedule 31 Ngaruroro groundwater	It is appropriate to set the groundwater allocations based on existing use.
Schedule 33 Ngaruroro Catchment	The proposed expiry dates provide appropriate investment certainty for primary producers whilst enabling a periodic review of allocations and effects.
Glossary Actual and reasonable use	Clause (a) is appropriate for the renewal of water take consents

Table 2: PC9 Provisions Opposed

Provision	Reason for Opposition	Relief Sought
OBJ TANK 11	Objective 11(g) recognises primary production and urban activities but not rural residential activities that are equally reliant on a reliable source of water.	Mend clause (g): "primary production water needs and water required for associated processing and other urban <i>and rural residential (including farm parks)</i> activities to provide for community social and economic well-being"
OBJ TANK 17	The development of economic and social wellbeing is important for all sectors of the Hawke's Bay community.	Amend clause (a): "the development of <i>Māori the Hawke's Bay community's</i> economic, cultural and social well-being <u>is</u> supported through regulating the use and allocation of the water available at high flows for taking, storage and use"

Provision	Reason for Opposition	Relief Sought
5.10.6 Policy 36(g)	An unqualified reference to “reducing existing levels of water use” does not provide adequate guidance to decision-makers.	Amend clause (g) to refer to reducing existing levels of water use to actual and reasonable water needs, as provided for in 5.10.6 Policy 37(d)(ii).
5.10.6 Policy 37(d)(ii)	Policy 37(d)(ii) does not provide for the situation where an existing water take has sought to be renewed with no increase in the rate of or volume of take, but where the intended use differs from that undertaken in the ten years prior to 2017.	Amend Policy 37(d)(ii): “apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to August 2017 (except as provided by Policy 50 <i>and except where a consent renewal application subject to s124 has sought to change the intended use of the abstracted water</i>);”
5.10.6 Policy 39	Policy 39 is inconsistent with the approach to stream depleting groundwater takes established in RRMP POL TT11 and Table 5.9.7. Having inconsistent regimes in the Ruataniwha and Heretaunga Plains does not promote integrated management.	Amend Policy 5.10.6 Policy 39 to be consistent with RRMP POL TT11 and Table 5.9.7.
5.10.7 Policy 45(d)	Policy 45(d) is inconsistent with the approach to stream depleting groundwater takes established in RRMP POL TT11 and Table 5.9.7. Having inconsistent regimes in the Ruataniwha and Heretaunga Plains does not promote integrated management	Amend Policy 5.10.7 Policy 45 to be consistent with RRMP POL TT11 and Table 5.9.7.
5.10.7 Policy 48(e)	It is inappropriate to prioritise the end use of existing water takes to irrigation, particularly where an intended different end use relates to human health and welfare and there are no additional adverse effects on the water source.	Amend clause (e) to read: except where a change of use and/or transfer is for the purpose of a flow enhancement or ecosystem improvement scheme <i>or is intended to provide for the reasonable consumptive needs of people and communities</i> , declining
Rule TANK 9(f)	TANK Rule 9 is inconsistent with the approach to stream depleting groundwater takes established in RRMP POL TT11 and Table 5.9.7. Having inconsistent regimes in the Ruataniwha and Heretaunga Plains does not promote integrated management	Amend TANK Rule 9 condition (f) to be consistent with RRMP POL TT11 and Table 5.9.7.

Submission on Proposed Plan Change 9: Hawke's Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: (required) Des Rotuma
 Organisation/Iwi/Hapu: Takitimu District Māori Council
 Postal address: (required) PO Box 51
Wakatu
Hastings
 Email address: desrotuma52@gmail.com
 Phone number: 0275482688
 Contact person and address if different to above: _____

Trade Competition

Pursuant to Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

- adversely affects the environment; and
- does not relate to trade competition or the effects of trade competition.

Please tick the sentence that applies to you:

- I could not gain an advantage in trade competition through this submission; or
- I could gain an advantage in trade competition through this submission.

If you have ticked this box please select one of the following:

- I am directly affected by an effect of the subject matter of the submission
- I am not directly affected by an effect of the subject matter of the submission.

Do you wish to be heard in support of your submission? Yes No

If others make a similar submission, would you consider presenting a joint case with them at a hearing? Yes No

Signature: [Signature] Date: 25 May 20

NB: Space for writing submissions is overleaf.

Send written submissions to:

Hawke's Bay Regional Council
 Private Bag 6006
 NAPIER

or fax to:
 (06) 835-3601

or email to:
 eTANK@hbrc.govt.nz

Deadline for Submissions:

5pm Fri 3 July 2020

No submissions will be accepted after this deadline. The deadline will not be further extended.

OFFICE USE ONLY

SUBMISSION ID#

Date Received:

Database Entry Date:

Database Entry Operator:


HAWKES BAY
 REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

Submission Details

Please attach more pages if necessary. If you do not wish to use this form, please ensure that the same information required by this form is covered in your submission. Further information on how to make a submission and the submission process is available on the Regional Council website.

Plan provision (eg. objective, policy or rule number)

I Support Oppose Amend

I seek the following decision from the Regional Council: *[Please give precise details to ensure your views are accurately represented in submission summary documents to be prepared by the council as part of the submission and hearing process]*

Submission in opposition is attached.

Reason for decision requested:

Question of legitimacy to have governance and operational control over waterways without informed and independent participation by Māori, Tekeata Whenua, Mana Whenua.

REMINDER: SUBMISSIONS MUST REACH COUNCIL BY 5PM ON 3 JULY 2020

**SUBMISSION OPPOSING THE PLAN CHANGES
AS OUTLINED IN THE TANK PROPOSED PLAN CHANGE 9.**

This submission is made on behalf of the Takitimu District Maori Council (TDMC) which in turn is authorised under the Community Development Act 1962.

This submission is informed by a Wai 2601 which was consolidated with Wai 2358 resulting in the Waitangi Tribunal report entitled The Stage 2 Report on the National Freshwater and Geothermal Resources Claims. The full report is 618 pages and quotes will be taken out of the report to support this submission. TDMC is listed as an interested party to this claim along with 165 others.

In part the Waitangi Tribunal found in favour of the Maori claimants and that Maori do have proprietary rights to water.

¹ The Report is divided into three chapters. Chapter 1 is an introduction to the claim. Chapter 2 – entitled 'What Rights Are Protected by the Treaty of Waitangi?' – focuses on the claim's first key issue, the nature of Māori proprietary interests in water. Chapter 3 concentrates on the principal issue concerning the intended sale of SOE shares. It is entitled 'Selling Shares Without First Providing for Māori Rights: A Breach?' Both chapter titles are questions. Both questions the Tribunal answered in favour of the Māori claimants.

This submission questions the right of the Hawkes Bay Regional Council or any other authority to manage or utilise water as a commodity as though they had ownership rights. There is already an admission in the plan change document that water is a taonga and therefore is subject to Article 2 of the Treaty of Waitangi.

² Water is viewed as a taonga by Māori; a treasure where mauri and ecosystem health are protected and provided for. This is consistent with the requirements of the NPSFM for the protection of ecosystem health and the desire of the wider community to manage water sustainably for current and future generations.

The language used throughout the proposed plan change is in the language of ownership. The Waitangi Tribunal found that there is no owner.

³ The Crown accepts that Māori have legitimate rights and interests in water but asserts no one owns water and therefore the best way forward is not to develop a framework for Māori proprietary rights but to strengthen the role and authority of Māori in resource management processes.

To achieve the role and authority of Maori in resource management recommended by the Waitangi Tribunal and also included in the plan change document Plan Change 9 does not meet the terms of consultation and frame working the resource management processes and does not provide any clear indication where Maori were provided the role and authority to contribute to a solution of water management. The plan change uses Maori concepts and values to give the impression of role and authority, but the entire process was driven by HBRC. Even the mandate of the RPC is given as the basis for role and authority. This is not the intention of the Waitangi Tribunal report.

The Waitangi Tribunal Stage two report on National Freshwater and Geothermal Resources claim provide further clarification around how Maori should be involved and participate in the RMA process and water management.

¹ September 2012 Māori Law Review
Māori rights in water – the Waitangi Tribunal's interim report

² 2 May 2020 Proposed Plan Change 9 Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments

³ September 2012 Māori Law Review
Māori rights in water – the Waitangi Tribunal's interim report

⁴In its Stage 2 report, the Tribunal has found that, although the Crown deserves credit for work carried out to develop a better national framework for freshwater management, the present law in respect of fresh water is not consistent with Treaty principles.

There is sufficient and further detailed information available to support this submission further. However, it is sufficient at this stage to highlight the concerns that support the reports finding that:

- a. ⁵ *The Tribunal recommends that the Crown should recognise Māori water rights through "proprietary redress". This would include phasing out the first-in, first-served water allocation system, and making inalienable and perpetually renewable water allocations for the exclusive use of iwi and hapū. Parallels are drawn in the report between this proposal, and how commercial aquaculture and fisheries rights have been allocated to Māori. And*
- b. ⁶ *The report is highly critical of the Crown's failure to lead or support Māori participation in RMA processes regarding freshwater management. It recommends changes to decision-making structures and processes under the RMA so that Māori are empowered by positive provisions that enhance the Treaty guarantee of tino rangatiratanga.*

I conclude our submission by stating that any plan change affecting the management and allocation of water resources must be consistent with the recommendations of the Waitangi Tribunal findings and recommendations. It is already well known that the Tribunal cannot impose its recommendations, nonetheless they have considerable weight with Maori and impact upon how we choose to engage with local and central government.

TANK addresses the management and allocation of our main waterways. The inability of the local authorities to impose any restrictions regarding water allocation for water bottling emphasises the inequitable relationship between iwi hapu and government in being able to provide governance and management of a taonga and an asset.

Therefore, TDMC recommends that:

- a. that Plan Change 9 does not proceed,
- b. that HBRC/RPC work with Maori to determine the structure and relationship for co governance of water, and
- c. that all future water management and allocation come under the authority of any proposed new structure.



D.K.Ratima ONZM, JP
Chair
Takitimu District Maori Council
22 May 2020

⁴ Waitangi Tribunal releases Stage 2 Report on the National Freshwater and Geothermal Resources Claims August 28, 2019

⁵ Waitangi Tribunal releases Stage 2 Report on the National Freshwater and Geothermal Resources Claims August 28, 2019

⁶ Waitangi Tribunal releases Stage 2 Report on the National Freshwater and Geothermal Resources Claims August 28, 2019

Proposed TANK Plan Change 9

Submitter Details

Submission Date: 08/06/2020

First name: Daniel **Last name:** Soltau

Phone number: 0277045736

I could not
 Gain an advantage in trade competition through this submission
 I am not
 directly affected by an effect of the subject matter of the submission that :
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Would you like to present your submission in person at a hearing?

- Yes
- I do NOT wish to speak in support of my submission and ask that the following submission be fully considered.

Consultation Document Submissions

Proposed TANK Plan Change 9 > 5.10.6 Policies: Heretaunga Plains Groundwater Levels and Allocation Limits > Heretaunga Plains Aquifer Management > POL TANK 37

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

Amend Clause (b) and (c) to reallocate water that becomes available to be used for new consent requests by smaller food growers on less than 5Ha. Locally owned small enterprises should be given priority over foreign owned enterprises that ship their profits overseas.

Reason for decision requested:

This will enable small enterprises to get started to make better productive use of the high value soils in our region to produce food crops that will encourage more jobs and regenerative farming practices.

This will enable small producers and lifestyle properties to change land use from just growing grass for their pet animals to produce export income for the region. Growing high value crops and job creation in the community.

If no avenue is available for new entrants to obtain consents and only existing consent holders can have water that will create an artificial market for water. Where new entrants will be forced to pay for water by buying properties purely for the allocations already consented on those. This will inflate some land prices and devalue others that have no consents.

Preventing new consents below to 90 million limit will hold back economic development and job creation. The water belongs to all of not just those who have the wealth and own the big businesses. There needs to be equity and fairness to all of us who want to develop the land to the full productive food and job creating potential.

Proposed TANK Plan Change 9 > 5.10.6 Policies: Heretaunga Plains Groundwater Levels and Allocation Limits > Heretaunga Plains Aquifer Management > POL TANK 38

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

Amend Clause (b) to be five years

Reason for decision requested:

Ten years it too long to wait, we have already waited three years since new consents were stopped. By the time this change goes through it will be another year or two.

Proposed TANK Plan Change 9 > 5.10.7 Policies: Surface Water Low Flow Management > Water Use Change/Transfer > POL TANK 48

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

Amend Clause (f)

do not allow the transfer of any allocations between properties or owners

Reason for decision requested:

Allowing transfer creates a market for water. This means existing consent holders can sell their allocations under that table and create a market for water that they received for free and can now sell to the highest bidder.

Instead allow new consents for unused water thereby creating a fair and equitable process for new entrants. If water is not used for the purpose it was consented for it should be reallocated fairly.

Proposed TANK Plan Change 9 > 5.10.7 Policies: Surface Water Low Flow Management > Over-Allocation > POL TANK 52

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

Remove Clause (d)

Reason for decision requested:

There is no pathway for those that use existing unconsented quantities i.e under 20M3/day to obtain consents under current TANK plans. There needs to be a way for all of us to have equal access to the shared resource.

Proposed TANK Plan Change 9 > 5.10.7 Policies: Surface Water Low Flow Management > Over-Allocation > POL TANK 52

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

Amend Clause (g)

Remove consent sharing and collectives

Reason for decision requested:

If you allow consent sharing or collectives then you create a market to buy into shared consents and then on selling portions or shares in the consents. This will create a market for water and allocations.

Proposed TANK Plan Change 9 > 5.10.1 TANK Objectives > Catchment Objectives > OBJ TANK 11

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

Amend Clause (c) Remove jet boating

Reason for decision requested:

I don't see why jet boating gets a special mention, what about jet ski's and other recreational water sports

Proposed TANK Plan Change 9 > 5.10.1 TANK Objectives > Water quantity > OBJ TANK 17

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

Amend Clause (d) include new consents into the flexible and efficient use

Reason for decision requested:

There needs to be flexibility to enable new productive uses of smaller parcels of land and soils that are currently without irrigation consents. Where more productive use can be made instead of large rain guns to water pumpkins/corn to feed animals in feedlots which pollute, we could be growing food for export and to feed people.

Attached Documents

File
Proposed TANK Plan Change 9

Proposed TANK Plan Change 9

Submitter Details

First name: Daniel **Last name:** Soltau

Phone number:

I could not Gain an advantage in trade competition through this submission

I am not directly affected by an effect of the subject matter of the submission that :

- a. adversely affects the environment, and
- b. does not relate to the trade competition or the effects of trade competitions.

Note to person making submission:

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

Would you like to present your submission in person at a hearing?

- Yes
- I do NOT wish to speak in support of my submission and ask that the following submission be fully considered.

Consultation Document Submissions

Proposed TANK Plan Change 9 > 5.10.6 Policies: Heretaunga Plains Groundwater Levels and Allocation Limits > Heretaunga Plains Aquifer Management > POL TANK 36

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

Remove Clause (f) - avoiding further adverse effects by not allowing new water use

Include a clause that allows for new consents to be considered, on the basis of growing horticultural products.

Include a clause that allows for small horticultural enterprises to apply for new consents

Reason for decision requested:

- 1.) This is unfair and disadvantages those who don't already hold a consent. In particular, it favours large commercial users and prevents small horticultural start-up blocks from operating.
- 2.) Water should be equally accessible to all of the horticultural community - it is a shared resource. And should not be limited to those who already have existing consents.
- 3.)The focus should be on reducing the large users of water - particularly those in the business of exporting of water and those commercial users not producing horticultural products.

Attached Documents

File

No records to display.

Proposed TANK Plan Change 9

Submitter Details

Submission Date: 10/06/2020

First name: Neil **Last name:** Eagles

Phone number: 0272762043

I could not

Gain an advantage in trade competition through this submission

I am not

directly affected by an effect of the subject matter of the submission that :

- a. adversely affects the environment, and
- b. does not relate to the trade competition or the effects of trade competitions.

Note to person making submission:

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

Would you like to present your submission in person at a hearing?

- Yes
- I do NOT wish to speak in support of my submission and ask that the following submission be fully considered.

Consultation Document Submissions

Proposed TANK Plan Change 9

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

The Ahuriri Estuary wetland proposal to polish the Storm Water coming from Napier City & surrounding areas should be progressed as soon as possible. This is the only way to reduce future pollution. The Storm Water Working group has ground to a halt at present. Government support for funding to progress the wetland is available if action taken soon.

Reason for decision requested:

Attached Documents

File
Proposed TANK Plan Change 9

Submission on Proposed Plan Change 9: Hawke's Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: (required) Dr Rengasamy Balasubramaniam

Organisation/Iwi/Hapu: Delegat Limited

Postal address: (required) PO Box 305, Blenheim 7240

Email address: bala@delegat.com

Phone number: +64 3 572 6301

Contact person and address if different to above:

Trade Competition

Pursuant to Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

- adversely affects the environment; and
- does not relate to trade competition or the effects of trade competition.

Please tick the sentence that applies to you:

I could not gain an advantage in trade competition through this submission; or

I could gain an advantage in trade competition through this submission.

If you have ticked this box please select one of the following:

I am directly affected by an effect of the subject matter of the submission

I am not directly affected by an effect of the subject matter of the submission.

Do you wish to be heard in support of your submission?

Yes No

If others make a similar submission, would you consider presenting a joint case with them at a hearing?

Yes No

Signature: [Signature] Date: 22-06-2020

NB: Space for writing submissions is overleaf.

Send written submissions to:

Hawke's Bay Regional Council
Private Bag 6006
NAPIER

or fax to:
(06) 835-3601

or email to:
eTANK@hbrc.govt.nz

Deadline for Submissions:

5pm Fri 3 July 2020

No submissions will be accepted after this deadline. The deadline will not be further extended.

OFFICE USE ONLY

SUBMISSION ID#

Date Received:

Database Entry Date:

Database Entry Operator:


HAWKES BAY
REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

SUBMISSION – PROPOSED PLAN CHANGE 9 TO THE RRMP
DELEGAT LIMITED

Company name	Delegat Limited
Contact person	Dr Rengasamy Balasubramaniam
Address	PO Box 305 Blenheim 7240
Region	Hawke's Bay
Phone	+64 3 572 6301
Email	bala@delegat.com
Submitter type	Business / Industry

1 INTRODUCTION

Delegat Limited (Delegat) was established in 1947 and it produces a range of export quality wine varieties including Sauvignon Blanc, Chardonnay, Pinot Noir, and Merlot from vineyards in the Marlborough Region (Wairau and Awatere Valleys) and the Crownthorpe Terraces and Gimblett **Gravel areas of Hawke's Bay**. In the year to 30 June 2018, Delegat sold a record 2,736,000 cases of wine globally generating operating revenue of some \$272 million.

In **Hawke's Bay** the Delegat resources include:

- Over 1,000 hectares of planned vineyard plantings in the Crownthorpe Terraces (Matapiro Road) and Gimblett Gravel areas of the Ngaruroro River catchment; with 676 hectares of planted and productive vineyard currently established;
- A substantial winery development constructed between 2014 and 2015 (operational since February 2016), located on Evenden Road, north of Hastings.

The current asset value of the **Hawke's Bay** resources is around \$230 million. Delegat employs 31 permanent staff in its vineyards and winery in **Hawke's Bay, and between 100 to 300 contractors on a seasonal basis. The annual operating expenditure for these activities within the Hawke's Bay region** (including staff wages and salaries) is approximately \$14.95 million.

Delegat holds a number of existing resource consents to take and use water that are affected by PC9:

Consent No	Location	Maximum Volume (m ³ /year)	Irrigable Area (ha)	Expiry Date
WP140423Ta	Matapiro Road, Crownthorpe	2,630,808 normal 700,000 high flow	600	31 May 2025
WP140492T	Matapiro Road, Crownthorpe	653,576	308	31 May 2025
WP140632T	Gimblett and Kirkwood Road	365,000	108	31 May 2030
WP100258T	Gimblett Road	118,820	33	31 May 2019
WP990240Ta	Gimblett Road	64,725	21	31 May 2019
WP090268Ta	Evenden Road	52,564	6.18 (viticulture) 1.9 (pasture) winery and cellar door	31 May 2020

The continued availability of water authorised by these resource consents is essential to the continued viability of the Delegat **operations in Hawke's Bay**.

2 PROVISIONS SUPPORTED

Plan Provisions

The provisions in Table 1 of this submission.

Position

Support.

Reasons for Position

Brief reasons for support are provided in Table 1. In overall terms though, Deleat supports these provisions as they appropriately seek to manage water abstraction, whilst recognising the importance of **primary production to the Hawke's Bay economy**.

Relief sought:

- a) Retain the provisions in Table 1 of this submission.
- b) Any consequential amendments required to other parts of PC9 as a result of the above relief.

3 PROVISIONS OPPOSED

Plan Provisions

The provisions in Table 2 of this submission.

Position

Oppose.

Reasons for Position

Reasons for opposition are provided in Table 2, together with the relief sought in each case. For all parts of Table 2, the relief sought includes any consequential amendments to other parts of PC9 as a result of the specified relief.

4 HEARING

Deleat wishes to be heard in support of its submission and if others make a similar submission, Deleat would consider presenting a joint case with them at the hearing.

Table 1: PC9 Provisions Supported

Provision	Reason for Support
OBJ TANK 11(g)	Enabling and prioritising primary production water needs and water required for associated processing appropriately gives effect to Objective A4, Policy A7, Objective B5 and Policy B8 of the NPSFM
OBJ TANK 14(b)	
OBJ TANK 16(c) and (d)	
OBJ TANK 17(b), (c) and (d)	A reliable standard of supply is a fundamental component of enabling the efficient use of water.
5.10.3 Policy 21	It is appropriate to focus land use regulation on activities that result in increased nitrogen losses.
5.10.3 Policy 23 5.10.3 Policy 24	It is appropriate to support industry programmes (including Sustainable Winegrowing New Zealand's (SWG NZ)) that are aligned with Council's objectives for water quality.
5.10.3 Policy 25	Where a primary production landuse is part of a recognised Industry Programme that sets standards for land and water use, including SWGNZ's annual Winery and Vineyard Scorecards annually (entered online via WISE – the Wine Industry Sustainability Engine tool) there is no need for a separate Farm Environmental Plan.
5.10.6 Policy 37(d) 5.10.7 Policy 46 5.10.7 Policy 52(b) Rule TANK 9 conditions (c) and (e) Rule TANK 10 conditions (e) and (g)	It is appropriate to base water allocation for irrigation on actual and reasonable use while enabling a known security of supply. The caveat to that is that "off season" use continues to be enabled for essential primary production activities such as filling spray tanks and flushing irrigation lines.
5.10.6 Policy 37(a)	In terms of supporting economic and social well-being it is appropriate to base the interim allocation limit on actual and reasonable water use.
5.10.7 Policy 43(a), (c) and (d)	The existing minimum flow regime for the Ngaruroro River is appropriate. It is also appropriate to base the allocation volume on existing actual and reasonable use.
5.01.7 Policy 45(a)	It is appropriate that the abstraction of water that has been taken at times of high flow and stored and released for subsequent use, is not subject to allocation limits.
5.10.7 Policy 46(b)	It is appropriate to allocate water based on actual and reasonable requirements.
5.10.7 Policy 47(c)	The application efficiency and reliability of supply specified are appropriate and provide necessary certainty to primary producers.
5.10.7 Policy 47(c)	A reliability standard that meets demand 95% of the time is appropriate.
5.10.7 Policy 49(g)	Consent durations of 15 years provide appropriate investment certainty for primary producers.

Provision	Reason for Support
5.10.8 Policy 56	It is appropriate to recognise the benefits of water storage and augmentation schemes.
Rule TANK 1	It is appropriate to provide for participation in Industry Programmes as an alternative to a Farm Environment Plan.
Rule TANK 9	It is appropriate that groundwater consent renewals (namely those subject to s124) are restricted discretionary activities, particularly as abstraction is to be limited to an “actual and reasonable amount” .
Rule TANK 13	It is appropriate to categorise high flow takes as discretionary activities.
Glossary Actual and reasonable use	The proposed methodology for irrigation takes is appropriate and strikes a sensible balance between providing certainty for primary producers whilst recognising the fully allocated nature of the Heretaunga Plains Water Management Unit.
Schedule 30 Industry Programme of Catchment Collective Programme	It is appropriate to recognise industry programmes (including Sustainable Winegrowing New Zealand’s (SWG NZ)) that are aligned with Council’s objectives for water quality.
Schedule 31 Ngaruroro River	The Fernhill minimum flow of 2400 L/s is appropriate.
Schedule 31 Ngaruroro Groundwater	An allocation limit based on existing use is appropriate.
Schedule 32 Ngaruroro R	A high flow take cessation trigger of 20 m ³ /sec is appropriate.

Table 2: PC9 Provisions Opposed

Provision	Reason for Opposition	Relief Sought
OBJ TANK 17	The development of economic and social wellbeing is important for all sectors of the Hawke’s Bay community.	Amend clause (a): <i>the development of Maori <u>the Hawke’s Bay community’s</u> economic, cultural and social well-being <u>is</u> supported through regulating the use and allocation of the water available at high flows for taking, storage and use</i>
5.10.6 Policy 36(f)	The provision as currently worded could be interpreted to preclude the use of consented abstractions that relate to activities that have yet to be fully developed. For example, where a winery holds	Amend clause (f) so that it does not preclude the use of a consented but as yet unused allocation of water that relates to future planned primary production developments.

Provision	Reason for Opposition	Relief Sought
	consent to abstract water required to process the crop from planned future vineyard expansions. Precluding such planned development to occur would not represent sustainable management.	
5.10.6 Policy 36(g)	An unqualified reference to “reducing existing levels of water use” does not provide adequate guidance to decision-makers.	Amend clause (g) to refer to reducing existing levels of irrigation water use to reasonable crop water needs (as provided for in 5.10.6 Policy 37(d)(ii)) and the reasonable needs of primary produce processing facilities, including wineries.
5.10.6 Policy 36	It would promote the efficient use of water to enable water to be taken and stored (without exceeding a consent holder’s seasonal allocation) at time when irrigation is not required. For example, when it is raining. The stored water could then be used to irrigate crops if an irrigation ban is subsequently imposed later in the season.	Amend Policy 36, and other Plan provisions as may be necessary, to enable water that has been allocated for irrigation on an actual and reasonable basis to also be abstracted, stored and thereafter used for irrigating crops in the eventuality of an irrigation ban being imposed later in the season, provided that in doing so a consent holder does not exceed their seasonal allocation.
5.10.6 Policy 37(d)(ii)	The need to set an arbitrary ‘cut off’ date for existing water use is acknowledged, however a more current and specific date should be used, such as 30 June 2019. For example, the proposed healthy waterways NES intends to use benchmark periods culminating in the 2018/2019 year. The 2 May 2020 date used referred to in the Glossary definition of “actual and Reasonable Use” should be applied consistently across the PC9 area.	Amend clause (d)(ii) to refer to “up to 2 May 2020”.
5.10.6 Policy 37(e)	This provision could be interpreted to preclude an individual consent holder individually mitigating their stream depletion effects, such as though the use of stored water captured at times of high river flow.	Amend clause (e) to read (or similar): “... schemes, including through an individual consent holder’s use of stored water to augment stream flows. ”
5.10.6 Policy 39 5.10.6 Policy 40 5.10.7 Policy 45(d) Schedule 36	These provisions could be interpreted to preclude an individual consent holder mitigating their stream depletion effects, such as though the use of stored water captured at times of high river flow.	Amend Policies 39, 40 and 45 and Schedule 36 to enable an individual consent holder to mitigate their stream depletion effects, including though the use of stored water captured at times of high river flow.
5.10.6 Policy 39 5.10.6 Policy 40 5.10.6 Policy 41	These policies in combination are inconsistent. Policies 39 and 40 place responsibility for mitigating Heretaunga Plains Water Management Unit stream depletion effects on consent holders. Yet Policy 41 states that HBRC will “remedy” those effects. The Policy	Amend Policies 39, 40 and 41 so that it is clear that HBRC will fully implement Policy 41 <u>before</u> requiring individual consent holders to mitigate stream depletion effects by way of contributions to “stream flow maintenance and habitat enhancement schemes”.

Provision	Reason for Opposition	Relief Sought
	41 approach is preferred. It should be implemented before the Policy 39 and 40 obligations are imposed on consent holders.	
5.10.7 Policy 46(a)	It would be more certain to include reference to the 95% reliability of supply for irrigation specified in 5.10.7 Policy 47(c) and the Glossary definition of “actual and reasonable use” . Setting an appropriate reliability of supply is a fundamental component of determining allocable volumes of abstraction.	Amend clause (a) to read: ensuring allocation limits and allocations of water for abstraction are calculated with known security of supply, <u>including an irrigation reliability standard that meets demand 95% of the time.</u>
5.10.7 Policy 47(b)	It is appropriate to enable a model other than IRRICALC to be used, particularly as IRRICALC is a commercial product and the algorithms it is based on do not appear to be available for scrutiny in the public domain. A more generic wording would provide greater flexibility.	Amend clause (b) to read: “using the IRRICALC water demand model if available for the land use being applied for (or otherwise by a suitable equivalent approved by Council) or a similar reasonable use model that utilises crop type, soil type and climatic conditions to determine efficient water allocations for irrigation uses;
5.10.7 Policy 53	Frost protection is important. However, given the potentially over-allocated nature of the Heretaunga Plains Groundwater Unit, it would be beneficial if applicants for frost protection water were required to firstly investigate and discount the feasibility of alternative non-water reliant options such as frost fans.	Amend Policy 53 to require applicants for frost protection water to firstly investigate and discount alternative non-water reliant options such as frost fans.
Rule TANK 5 and 6 Schedule 29	These rules are not consistent with Government’s proposed national environmental standards restricting agricultural intensification. It is important to avoid a duplication of regulations at a national and regional level.	Either delete Rules TANK 5 and 6 and Schedule 29 <u>or</u> amend them to ensure they are no more onerous than Government’s proposed national environmental standards restricting agricultural intensification.
Rule TANK 5	Should Rule 5 be retained, then condition (a) is inappropriate and does not give effect to 5.10.3 Policy 21. Changes in landuse should only be regulated if they will lead to an increase in nutrient leaching. This can be achieved by amending the rule so that it is the counterpart to Rule TANK 6.	If Rule 5 is retained, amend condition (a) to read: <i>Any change to a production land use activity over more than 10ha of the property or enterprise area commencing after 2 May 2020 does not result in the annual nitrogen loss increasing by more than the applicable amount shown in Table 2 in Schedule 29.</i>
Rule TANK 9(e) Rule TANK 10(g)	The use of 1 August 2017 is unnecessarily restrictive and the 2 May 2020 date used referred to in the Glossary definition of “actual and Reasonable Use” should be applied consistently across the PC9 area.	Amend clauses (e)(ii) and (g)(iii) to refer to “preceding 1 August 2017 2 May 2020”.

Proposed TANK Plan Change 9

Submitter Details

Submission Date: 21/06/2020

First name: Lynette **Last name:** Blackburn

Phone number: 0273306133

I could not

Gain an advantage in trade competition through this submission

I am not

directly affected by an effect of the subject matter of the submission that :

- adversely affects the environment, and
- does not relate to the trade competition or the effects of trade competitions.

Note to person making submission:

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

Would you like to present your submission in person at a hearing?

- Yes
- I do NOT wish to speak in support of my submission and ask that the following submission be fully considered.

Consultation Document Submissions

Chapter 9 Glossary of Terms Used

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

The Actual and Reasonable take for groundwater be based on take up to May 2020, not the proposed date of 2017.

Or alternatively, that all water take consents are equitably pro-rated on a straight percentage basis.

Reason for decision requested:

We have a consent for water take for our drinking/household water and for irrigation of our land which is used for cropping.

Our land has been through various periods of use, including periods where it has been spelled from cropping and grazed, as you would expect of sound land management principles. During those spelled periods it has been used for grazing. Rotating bare land in this way is normal standard practice to manage the health of the soil.

Our land had been through a period of significant low/minimal water take for a period of time prior to 2017 due to the land use rotation (ie: a significant period of limited cropping where grazing was taking place).andnbsp; Since 2017 to current, it has been used again for cropping, resulting in moderate water take for irrigation purposes.

Our water used based on pre 2107 volumes will be very low compared to what it has actually been since 2017.

We will be unfairly disadvantaged if the proposed future water take was solely based on pre 2017 levels.

We strongly oppose the altering of existing consents, and the issuing of future consents based on the proposed 10 year period to 2017.

Attached Documents

File
Proposed TANK Plan Change 9



Submission on Proposed Plan Change 9: Hawke's Bay Regional Resource Management Plan

29 JUN 2020

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: (required) David Renouf

Organisation/Iwi/Hapu: _____

Postal address: (required) _____

603 A. Ballantyne Street
Hastings 4120

Email address: _____

Phone number: 06-8783239

Contact person and address if different to above: _____

Trade Competition

Pursuant to Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

- adversely affects the environment; and
- does not relate to trade competition or the effects of trade competition.

Please tick the sentence that applies to you:

- I could not gain an advantage in trade competition through this submission; or
- I could gain an advantage in trade competition through this submission.

If you have ticked this box please select one of the following:

- I am directly affected by an effect of the subject matter of the submission
- I am not directly affected by an effect of the subject matter of the submission.

Do you wish to be heard in support of your submission? Yes / ~~No~~

If others make a similar submission, would you consider presenting a joint case with them at a hearing? Yes / No

Signature: D. W. Renouf Date: 30/06/2020

NB: Space for writing submissions is overleaf.

Send written submissions to:

Hawke's Bay Regional Council
Private Bag 6006
NAPIER

or fax to:
(06) 835-3601

or email to:
eTANK@hbrc.govt.nz

Deadline for Submissions:

5pm Fri 3 July 2020

No submissions will be accepted after this deadline. The deadline will not be further extended.

OFFICE USE ONLY

SUBMISSION ID#

Date Received:

Database Entry Date:

Database Entry Operator:

Submission Details

Please attach more pages if necessary. If you do not wish to use this form, please ensure that the same information required by this form is covered in your submission. Further information on how to make a submission and the submission process is available on the Regional Council website.

Plan provision (eg. objective, policy or rule number) See attached submissions 1-19

I Support Oppose Amend

I seek the following decision from the Regional Council: *[Please give precise details to ensure your views are accurately represented in submission summary documents to be prepared by the council as part of the submission and hearing process]*

See attached Submissions 1-19

Reason for decision requested:

See attached submissions 1-19

Note: Explanation and Reasons about Submission attached to submission N° 8

D.W. Renouf

REMINDER: SUBMISSIONS MUST REACH COUNCIL BY 5PM ON 3 JULY 2020

To: Chief Executive
Hawke's Bay Regional Council
PB 6006. Napier 4142

Submission on Proposed Plan Change 9.
Hawke's Bay Regional Resource Management Plan

Person Making Submission
David W. Renouf. 603A Ballantyne Street,
Hastings 4120 Telephone 06-8783239

[No. 1]

My submission relates to:

**PC-9. 5.10.2 Policies: Surface Water and Groundwater Quality Management
Priority Management Approach - 2**

I seek the following decision from the Regional Council:

2. (c) Add after land 'and road/street surfaces'

Reason for decision requested:

Because road and street surface catchments areas produce high levels of contaminants.

Heavy metals in road runoff

"Many of the most toxic contaminants in road runoff arise from brake and tyre wear. This wear leaves not only particulate residue, but also potentially soluble residue of heavy metals. Of particular environmental significance are zinc from tyres and copper and cadmium from brake linings".

Ref: Page 40. Heavy metals in road runoff. NZWWA Journal November 2007

"Zinc, copper and lead are the most common metal pollutants found in urban aquatic environments. Road transport is the major contributor of these metals although zinc is also widely used as an anti-corrosion agent. During rainfall, stormwater can contain high concentrations of dissolved copper and zinc".

Ref: Page 180. TE KARAMU HBRC June 2004

Some results from road and street surface catchment areas. These results may contain minor contaminants from 5 industrial properties.

Total Suspended Solids (25)mg/L	280, 290, 330
Dissolved Copper (0.001)mg/L	0.0078, 0.0084, 0.021
Hexavalent Chromium (0.001)mg/L	0.0021, 0.0052, 0.0060
Dissolved Zinc (0.005)mg/L	0.165, 0.174, 0.098
Dissolved Reactive Phosphorus (0.015)mg/L	0.102, 0.104, 0.067
pH Units (7.2-7.8)	7.1, 9.6, 9.8
Turbidity NTU (4.1)	280, 440, 550

Source of results HDC Omaha Urban Stormwater Data Presentation January 2014

Asking for pre-hearing and to be heard

David W. Renouf. – 'Researcher'

D.W. Renouf.

30/06/2020

1 of 1

Person Making Submission

Submission on Proposed Plan Change 9.

David W. Renouf.
603A Ballantyne Street,
Hastings 4120
Telephone 06-8783239

[No. 2]

My submission relates to:

PC-9. 5.10.3 Policies: Sediment Management - 20

I seek the following decision from the Regional Council:

Add to Sediment Management 20.

‘measuring the phosphorus and nitrogen mg/kg (dry basis) load in the sediments (mud) in the river systems will provide a better understanding of what is happening’

Add to Sediment Management 20.

‘Targets of reducing phosphorus and nitrogen mg/kg levels in river sediments to at least ANZECC recommended levels by 2030’

Reason for decision requested:

By measuring the phosphorus and nitrogen loads in the sediments (mud) in the river systems this will provide a better understanding of what is happening.

“The **Council will reduce adverse effects on freshwater** and coastal aquatic ecosystems from sediment, and from the **phosphorus** associated with this, by prioritising the following mitigation measures;” [**Emphasis added**]

Ref: PC-9. 5.10.3 Policies Sediment Management 20.

Slime and algae found in streams and rivers. They mainly attach themselves to the sediments where they mainly get their Nitrogen and Phosphorus.

“We cannot manage what we do not measure”

Ref: David Ray NIWA September 2002

“Several workers have suggested that fine-grained sediment transported in suspension (measured in mass concentration units: g/m^3) is *the* most important contaminant of waters, not merely in terms of mass load (g/s), but in terms of damage caused to aquatic habitat and human use (e.g., Clark et al. 1985). The effects of sediment while suspended differ from those when the sediment is deposited”. Ref: 11.7 Freshwaters of NZ

‘Suspended Solids’

“Suspended sediments are of particular importance in considering characteristics and effects of urban stormwater.

Not only do suspended sediments present a potential physical effect in an aquatic environment, they also influence contaminant uptake, release, transport and short and long term contaminant ‘sinks’ (with effects to bioavailability of contaminants) for contaminants in their particulate phase.

Particulate organic matter (i.e. adsorbed dissolved organic substances or particle sized organic detritus), nutrients, toxic inorganic pollutants (e.g. sorbed heavy metals, arsenic etc), and toxic organic pollutants (e.g. organochlorine compounds, hydrocarbons etc) can be present in the particulate phase of urban stormwater (Thomas & Meybeck, 1996)".
Ref: MWH for HDC May 2009

"Sediments represent a potential source of contaminants to the overlying water and hence can influence water quality".
Ref: page 8.4-3 Sediment chemistry ANZECC 2000

Data from (2003) indicates that some soils cannot store any additional nitrogen. Recent records of excessive nitrogen reaching groundwater indicates that these 2003 figures need to be revised to include more recent data to inform Council decisions. "Remaining nitrogen storage capacity". "we estimate 5% of soils in our data set currently cannot store any additional N, and in the next 40 years a further 7% of soils will have reached full storage capacity, that is, a total of 12% of these soils will be at full capacity within 40 years".
Ref: An approach for estimating when soils will reach maximum nitrogen storage. L.A. Schipper 2004 Soil Use and Management (2004)

River sediment samples have been taken in the Tukituki River lower system at Tennants Road near Haumoana of total nitrogen and total phosphorus

Soluble Inorganic Nitrogen (SIN)

"The estimate annual SIN load in the Tukituki River at Shagrock varied between 1,500 and 3,300 Tonnes per year, depending on the year and the calculation method used. Annual loads at the two lower catchment sites (Red Bridge and Black Bridge) were estimated between 1,400 and 2,400 T/Y"

"In all years analysed, the calculated SIN loads decrease in the lower catchment compared to Shagrock, suggesting that, in the lower catchment, SIN 'outputs' (e.g. consumption by the algal biomass, absorption) exceed the inputs". Ref: Page 38. Report prepared for Hawke's Bay Regional Council by Dr. Olivier Ausseil - 2008

NOTE: The lower Tukituki river contributes groundwater to the Heretaunga Aquifer.

Asking for pre-hearing and to be heard

David W. Renouf. – 'Researcher'

D.W. Renouf.

30/06/2020

Attached picture of significant algae in the Tukituki River



11 2 79

Attached to Submission N° 2: D. in. Renard

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 Telephone 06-8783239

Submission on Proposed Plan Change 9

[No. 3]

My submission relates to:

PC-9 Land Use and Nutrient Losses 21.

I seek the following decision from the Regional Council:

At 21. **Add (e)** “encourage farmers and growers to have a humus content in cropping and orchard soils with Target set of at least 4 percent of ‘humus content in soils’ by 2030”

Add 21 **Add (f)** “encourage farmers and growers to achieve nitrogen leaching loss target of less than the kg per hectare per year of the eight soil type figures set in Plan Change 6 of Land Use Capability by 2025”

Reason for decision requested:

NOTE:

This means there will be less nutrients and water losses from soil.

This will be a positive step forward to improving freshwater quality

It is all very well having information on nutrient losses but there must be a balance of information about retaining nutrients in the soil. Request that this be reviewed.

- There is a need to provide a balance of information
- *This information is about providing nutrients to plants instead of the focus on losses*
 - “Retaining moisture -

Looking after the soil can also mean farms fare better during times of drought.

Grant Paton of Environmental Fertilisers explained that the level of humus in the soil, as well as providing nutrients to the plants, prevents soils drying out as it holds four to five times its own weight in water.

‘A soil with a humus content of one percent can retain around 100,000 litres of water/ha, which is the equivalent to 25 mm rainfall’ he said.

‘When the humus content increases to six percent, that soil can retain 600,000 litres/ha – equivalent to 150 mm of rain.’

Ref: Page 123. Article by Marianne Cantley - Dairy Exporter May 2010

Asking for pre-hearing and to be heard

David W. Renouf. – ‘Researcher’

D.W. Renouf.
 30/06/2020
 1 of 1

Person Making Submission

Submission on Proposed Plan Change 9

David W. Renouf.

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[No. 4]

My submission relates to:

PC-9. 5.10.4 Policies: Stormwater Management - 28

I seek the following decision from the Regional Council:

At 28 (b) after available **Add** “and is within 200 metres of that property Boundary”

Delete the words ‘Urban Infrastructure’ because many catchments are in rural catchments

At 28 (k) **Delete** high and after contamination **Delete**

At 28 (k) after contamination **Add** ‘in the TANK catchments’

Add 28 (L)

‘Developing measures to monitor and introduce target figures with a time frame for **captured** stormwater pipe direct discharges into drains, streams and rivers where there is no reticulated stormwater network within 200 metres’.

Add 28 (m)

‘That local authorities must seek to identify all reasonable practicable options when making a decision on discharging stormwater and road runoff’ See s77 & 79 LGA 2002

Reason for decision requested:

There are properties within 200 meters of a stormwater reticulation network, which are in SPZ and in the Heretaunga Unconfined Aquifer area, which needs protection.

Part of the Heretaunga Plains Aquifer is defined as most vulnerable (Schedule V) and as sensitive catchment (Schedule V1b).

At any risk there are many contaminants which can cause harm

Example: ANZECC freshwater level of protection species if set at 80% means that **20% of species can be harmed.**

There are direct pipe discharges of stormwater going into drains and waterways, which are not being managed in a manner to prevent adverse effects on indigenous aquatic species and trout

Asking for pre-hearing and to be heard

David W. Renouf. – ‘Researcher’

D W Renouf.

30/06/2020

1 of 1

Person Making Submission
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Submission Proposed on Plan Change 9.

[No. 5]

My submission relates to:

PC-9 'Dealing with the Legacy' at 30 (a) (i) (ii).

I seek the following decision from the Regional Council:

30 (a) Delete (i) (ii)

Because:

The latest Proposed Plan Change 9 Schedules 26 and 27 Freshwater Quality Objectives are more robust and comprehensive (wide ranging) water quality objective measures and use the HB Regional Resource Management Plan 5.4 Surface Water Quality Tables 7 and 8 because they are used to manage the effects of activities affecting the quality of water in rivers.

At 30 (a) Add

Proposed Plan Change 9 Schedules 26 and 27 Freshwater Quality Objectives as Freshwater Standards.

- (A) When the discharge of stormwater is directly into surface water, apply '**After reasonable mixing of a distance of 200 metres down stream of the point of discharge**' and at that point shall not cause a breach of Proposed Plan Change 9 Schedules 26 and 27 Freshwater Standards.
- (B) When the discharge of stormwater is onto land or where it may enter water that the Proposed Plan Change 9 Schedules 26 and 27, Freshwater Standards shall comply at point of discharge by 31st December 2025
- (C) All discharges of stormwater shall achieve at least **Proposed Plan Change 9 Schedules 26 and 27 Freshwater Standards by 31st December 2025 and the HB Regional Resource Management Plan 5.4 Surface Water Quality Tables 7 and 8 when PC-9 becomes operative.**

Sampling the riverbed sediments (mud) for concentrations (mg/kg) of nitrogen and phosphorous at the upper, middle and lower Ngaruroro and Tutaekuri river sites after flood events. With reducing targets levels of N & P with time frames

The sampling of riverbed sediments (mud) is necessary to give a complete picture of the total river ecosystem.

“We cannot manage what we do not measure”

Ref: David Ray NIWA September 2002

Issues, which need to be addressed please

Because there is more than one type of stormwater discharge

1. Stormwater which is discharged into a Council reticulated stormwater network
2. Stormwater which has no Council reticulated stormwater network to discharge into
3. Stormwater which is being discharged into SPZ outside the City boundary
4. Stormwater being discharged in SPZ. Over and into Heretaunga Plains Unconfined Aquifer with **no** Council reticulated stormwater network available by the property boundary but is within the Council’s City boundary
5. Stormwater being directly discharged into surface water within the City boundary and outside the City boundary
6. Captured and piped road runoff (stormwater) outside of the city/town boundary
7. Captured and piped stormwater being directly discharged into drains and waterways.
8. Stormwater being discharged into wetland over the Heretaunga Plains Unconfined Aquifer.

Reason for decision requested:

Using ANZECC freshwater level of protection for species ANZECC freshwater level of protection species if set at 80%, means that **20% of species can be harmed**. Example: such as sensitive species

NOTE: “If one species is sensitive to a particular toxicant, it would be sensitive to other toxicants. However, this is not necessarily the case.” “as different species react differently to toxicants (Pedersen et al. 1994).” Ref: P 8.3-7 ANZECC October 2000

Reason: Why to have the % level of protection for species set higher

“RMA Sections 70 and 107 contains narrative standards rather than quantitative performance standards. Interpretation issues will inevitably arise as to the meaning of term such as ‘conspicuous’”. Ref: WR7.4 Interpretation issues

[No. 5]

D.W. Renouf

2 of 3

ANZECC Trigger values lack human protection

ANZECC 2000 Trigger values do-not contain all water quality characteristics especially human health characteristics.

- Therefore ANZECC Trigger values should not be used on their own.

What can be used is all of the following concentration figures from professional judgement recommendations from ANZECC Freshwater 2000

- Physico-chemical stressors
- Inorganic toxicants (heavy metals and others)
- Organic toxicants
- Pathogens and biological

Or

Use the latest Proposed Plan Change 9 Schedules 26 and 27 Freshwater Quality Objectives as freshwater standards, which are wide ranging water quality characteristics

Asking for pre-hearing and to be heard

David W. Renouf. 'Researcher'

D.W. Renouf
30/06/2020

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Submission on Proposed Plan Change 9

[No. 6]

My submission relates to:

PC-9 Water Allocation – Priority 51

I seek the following decision from the Regional Council:

Add at Water Allocation – Priority 51.

‘Water for essential for the survival of seed, vegetable, stock crops, trees, grape vines, animals, and pasture’

Reason for decision requested:

Because the massive costs loss of food and animals suffering from lack of food (pasture), water and the loss of seed production for future year’s crops.

Then there is a possibility of farmers getting into financial problems, which may be pick up by the tax payers and this can be avoided

Two Examples:

“One farmer has gone from 1800 lambing ewes to zero”

“Tikokino deer and dry stock owner Grant Charteris said he had planted 9000 native trees on his farm over the past couple of years, in keeping with the Hawke’s Bay Regional Council’s plan addressing water quality issues.

Now thousands of those trees are dead, at a cost of about \$90,000”.

“In feeding, grazing alone I have spent \$150,000 and my [projected] loss of income could amount to a quarter of a million dollars, he said”.

Ref: Article in HB-Today 9th May 2020

Asking for pre-hearing and to be heard

David W. Renouf. – ‘Researcher’

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30/06/2020

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Submission on Proposed Plan Change 9

[No. 7]

My submission relates to:

PC-9 Benefits of Water Storage and Augmentation 56.

I seek the following decision from the Regional Council:

After 56. The Council will - **Add** 'actively encourage and'

That the Council will put a condition into new resource consents to take water from wells.

Add

'Where possible positive artesian pressure be maintained under abstraction conditions'

Reason for decision:

There are many farmers and growers, which require essential water for seed crops, vegetables, stock crops, trees, pasture and stock water

Most of these people rely on river groundwater and river surface water.

It would benefit the environment, farmers and growers if local water storage was initiated and started, so that these farmers and growers do not continue to impact on water when our waterways and aquifers are at low levels.

It is now time to actively move forward with this issue for farmers and growers in our region to have their own water storage.

There are already some farmers and growers that have their own water storage.

It is interesting that there are a few winegrowers/companies with their own water storage. They have recognised the importance of having their own such facility.

Positive artesian pressure

"A further consideration has been to ensure that, where possible, positive artesian pressure can be maintained under abstraction conditions. This is considered a key risk management approach to minimise the potential for near-source surface activities to influence ground water quality". Ref: Hastings District Water Strategy March 2018

It is essential for robust water storage now.

Asking for pre-hearing and to be heard

David W. Renouf. – 'Researcher'

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30/06/2020

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Submission on Proposed Plan Change 9

[No. 8] *See Explanation and Reason/s for this Submission*

My submission relates to:

PC-9 RRMP-Rule 11. Fertiliser Use - Permitted

I seek the following decision from the Regional Council:

Add to Rule 11.

That the combined rate of total nitrogen in Rules 11, 13 and 14 shall not exceed 10 kg total nitrogen per hectare per month and shall not exceed the combined rate of total nitrogen in Rules 11, 13 and 14 of 100 kg total nitrogen per hectare per year.

Reason for decision requested:

There is a massive amount of information that shows if you apply more nitrogen onto plants than the plant uptake then this nitrogen goes below the root zone.

Then this nitrogen is lost to groundwater, which is causing problems in waterways.

Also because: Already set out in HBRC-RRMP

“POL 19 Decision-Making Criteria – Effects of Freshwater Pasture Irrigation on Agricultural Effluent Disposal Areas.

3.8.26 To minimise the leaching of nutrients to groundwater by ensuring that the **combined hydraulic loading rates** from agricultural effluent disposal and freshwater pasture irrigation **do not exceed the capacity of the soil**”. **[Emphasis added]**

This information is not being transferred in a meaningful manner into Rules so there is a significant reduction of nutrients leached into waterways.

Asking for per-hearing and to be heard

David W. Renouf. – ‘Researcher’

D.W. Renouf.
30/06/2020

Explanation and Reason/s about Submission

PC-9 RRMP-Rule 11. Fertiliser Use

Why wording in PC-9 document and on issues that are not covered by PC-9 document can be raised within the PC-9 submission process.

Example:

1. PC-9 document has no Rule on Fertiliser Use (RRMP Rule 11).
This is a fundamental Rule. There are many other Rules
2. The Ahuriri and the Karamu catchments are not specially stated in the current RRMP
3. So now having the Ahuriri and the Karamu catchments with specific Rules, Conditions, Standards and Terms, which is completely new. This is surely a robust reason for allowing this submission.
4. “Non-point source discharges, include loss of contaminants including nutrients from rural activities, soil loss from land disturbance activities and stream bank erosion. To date, there has been little regulatory management of non-point source discharges which cumulatively contribute significant amount of contaminants to waterbodies”.

Ref: Page 2. HBRC Proposed Plan Change 9. TANK 2 May 2020

Because of point 4 it is important that RRMP Rule 11 of 28th August 2006 is now robust, appropriate and fit for purpose for use in 2020

Proposed Plan Change 9. Tukaekuri, Ahuriri, Ngaruroro and Karamu Catchments is contained in publication number 5456.

This publication is all encompassing of Proposed Plan Change 9.

Some of the proposed PC-9 wording and in new and existing Rules can cause issues with people's rights. Therefore must be able to submit onto the PC-9 document.

Questions:

Does the RRMP Rule 11 apply to all the catchments of the TANK?

If so where is this stated?

OR

Does the Rule 11 from the RRMP need to be inserted into PC-9 to be complied with?

There has been no change to RRMP 5.4 Surface Water Quality Table 7.

Does RRMP Table 7 apply to the TANK catchments?

Could these Questions be addressed?

That any changes that are made to the proposed PC-9 HBRC must ensure that there is consistency in PC-9 with decision sought in my submissions

David W. Renouf.

D.W. Renouf

30/06/2020

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Submission on Proposed Plan Change 9

[No. 9]

My submission relates to:

PC-9 Rule 13 Use of compost, biosolids & other soil conditioners - Permitted

I seek the following decision from the Regional Council:

Rule 13 h **Delete** after exceed

Rule 13 h after exceed **Add** '10 kg/ha of total nitrogen in one application per month and shall not exceed 100 kg/ha/yr of total nitrogen'

Add: That the combined rate of total nitrogen in Rules 11, 13 and 14 shall not exceed 10 kg total nitrogen per hectare per month and shall not exceed the combined rate of total nitrogen in Rules 11, 13, and 14 of 100 kg total nitrogen per hectare per year.

Reason for decision requested:

There is a massive amount of information that shows if you apply more nitrogen onto plants than the plant uptake then this nitrogen goes below the root zone.

Then this nitrogen is lost to groundwater, which is causing problems in waterways

Already signalled by Hawke's Bay Regional Council

"6.5 The existing nitrogen loading rate of 150 kg/ha/yr under Rule 14 is considered inappropriate. Any new threshold figure (based on inputs or outputs) needs to be fully justified, but this will depend on the system. Timing and type of application (e.g. fertiliser or effluent) have a bearing on effects and should be taken into account."

Ref: Hawke's Bay Regional Council Maori Committee Tuesday 26 May 2009

"on average 50% of the nitrogen from the ordinary urea you apply is lost after application"

Ref: Page 28 Dairy Exporter September 2009

If there is no change to significantly lowering the existing nitrogen loading rate of 150 kg/N/ha/yr under Rule 14 there will be a continued significant loss of nitrogen to groundwater. This is OUR drinking water.

Asking for pre-hearing and to be heard

David W. Renouf. – 'Researcher'

D.W. Renouf

30/06/2020

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Submission on Proposed Plan Change 9

[No. 10]

My submission relates to:

PC-9 Rule 14 Animal effluent - Controlled

I seek the following decision from the Regional Council

At Rule 14 f. **Delete** after exceed

Rule 14 f. **Add** '10 kg/ha of total nitrogen in one application per month and shall not exceed 100 kg/ha/yr of total nitrogen'

Rule 14. **Add** 'a fundamental' checklist 1-6 below of when effluent should be and should not be applied.

1. No application 48 hours prior to >4 mm rainfall event
2. Soil temperature must be over 7°C before any application
3. Measure the moisture level in leaves. Only apply water when the plant can uptake
4. Soil moisture deficit prior to irrigation must be under 50% water holding capacity before application
5. Check FDE N mg/L concentration seasonal differences keep within plant uptake.
6. Check levels of N already in soil – adjust application rate accordingly

To help

Before grazing measure the sugar levels (brix) in plants
 Because the feed will be more valuable, livestock will be more content on less feed,
 animal performance improved, vet bills reduced.

Add: That the combined rate of total nitrogen in Rules 11, 13 and 14 shall not exceed 10 kg total nitrogen per hectare per month and shall not exceed the combined rate of total nitrogen in Rules 11, 13 and 14 of 100 kg total nitrogen per hectare per year

Reason for decision requested:

There is a massive amount of information that shows if you apply more nitrogen onto plants than the plant uptake then that nitrogen goes below the root zone. Then this nitrogen is lost to groundwater

Already signalled by Hawke's Bay Regional Council

"6.5 The existing nitrogen loading rate of 150 kg/ha/yr under Rule 14 is considered inappropriate. Any new threshold figure (based on inputs or outputs) needs to be fully justified, but this will depend on the system. Timing and type of application (e.g. fertiliser or effluent) have a bearing on effects and should be taken into account."

Ref: Hawke's Bay Regional Council Maori Committee Tuesday 26 May 2009

Value of effluent

"Research shows that 1 kg N from effluent is equivalent to 1 kg from urea, in terms of pasture production, composition and nitrate leaching."

Ref: A guide to managing farm dairy effluent p9 Dairy Insight, EW, dexcel

The importance of getting it right

1. "So as the experts pointed out, effluent used wisely, spread as far as possible at a light, easy-to-absorb rate, is an extremely valuable asset for any dairy farm"
2. "Any nutrients leaching below the root line are wasted"
3. "When the soil is moist or during rain, effluent has no show of being used – it just runs off and this is when trouble can start. 'If it's wet, don't irrigate'"
4. "Only irrigate when there is a soil moisture deficit"
5. "With irrigator points, the depth and rate needed to be correct, which depended on soil type and soil moisture content at the time of irrigation"

Ref: Page 67 & 68 Dairy Exporter December 2007

NOTE: "Where effluent is discharged onto land covered by a crop, or to be used for cropping purposes, the application rate shall not exceed the rate of nitrogen uptake by the crop." **[Emphasis added]** Ref: RRMP Rule 14 g.

Therefore this needs to also apply to a pasture application rate, why not?

"There is no pasture growth response to nitrogen fertiliser applied below 5°C. When pasture isn't growing, it will not take up nutrients from fertiliser"

Ref: Farm Enviro Walk-Technical Support Booklet – Dairy NZ 2006

Other issues which need to be addressed before irrigating and applying nitrogen

- Soil type, health condition, humus layer & soil colour of that soil type
- Plant root depth, plant size, plant type, growth stage, density of the root structure
 - Soil temperature
 - Month of the year seasonal growth differences
 - Wind – air temperature
 - Level of nutrients already in soil. Are they available to plant
 - Moisture buffer for rainfall events

- Soil moisture deficit prior to irrigation
- **Calculate nitrogen in rainfall -**

So that no water or nutrients caused by irrigation goes below the root zone

Ensure that the plant uptake of nitrogen does occur

Before grazing measure the sugar levels (brix) in plants because the feed will be more valuable, livestock will be more content on less feed, animal performance improved, vet bills reduced. See Chapter 15. The Non Toxic Farming Handbook 1998

No direct loss of nutrients

“The strategy of irrigating smaller quantities of FDE (Farm Dairy Effluent), more frequently (7 events at an average of 9 mm depth) in 2001/02, resulted in zero drainage of applied effluent through the mole and pipe drainage system, and consequently, no direct loss of nutrients.”

Ref: Page 13. Characterising FDE drainage risk. Ag Research Ltd. October 2009

This has been achieved. This has not been recognised

Evidence - Nitrate levels in bores ‘red flag’

“Hawke’s Bay Regional Council data shows nitrates at some bores are nearly twice the maximum acceptable level for drinking water”.

“Groundwater nitrate-N concentrations in some wells deeper than 20m and even deeper than 50m is increasing”.

“Ngati Kahunguna environment and natural resources director Ngaio Tiuka said the iwi was privy to data that showed nitrate levels were, in some places, even higher than what was in the report”.

Ref: HB-Today article **Nitrate levels in bores ‘red flag’** 8th May 2020

Already set out in HBRC-RRMP

“POL 19 Decision-Making Criteria – Effects of Freshwater Pasture Irrigation on Agricultural Effluent Disposal Areas.

3.8.26 To minimise the leaching of nutrients to groundwater by ensuring that the **combined hydraulic loading rates** from agricultural effluent disposal and freshwater pasture irrigation **do not exceed the capacity of the soil.**” **[emphasis added]**

This information is not being transferred in a meaning full manner into Rules so that there is a significant reduction of nutrients into water ways

Asking for pre-hearing and to be heard

David W. Renouf. –‘Researcher’

D.W. Renouf.
30/06/2020

[No. 10]
DW Renouf
3 of 3

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Submission on Proposed Plan Change 9

[No. 11]

My submission relates to:

PC-9. 6.6.4 Rule 37 New sewage systems - Permitted

I seek the following decision from the Regional Council

Rule 37

At k **delete** after 2008))

After 2008)) **Add** 'at the point of discharge'

Delete o.

Add to o.

'The discharge of wastewater shall not exceed – at the outlet – discharge point

- BOD₅ 8 mg/L
- Total Suspended Solids 10 mg/L* See reference from RRMP POL 18
- Total Nitrogen 25 mg/L'

Add to Rule 37.

'Where the discharge of wastewater is likely to enter any water the discharge of wastewater shall not exceed
 200 Faecal coliforms per 100 mL at the outlet'

Reason for decision requested:

Because it's virtually impossible to test water quality when wastewater discharge enters the ground. Therefore to test after reasonable mixing is not practicable or possible. Also most septic tank discharges do not have a mixing zone

With new Source Protection Zones now in part of the Heretaunga Plains Unconfined Aquifer area there is a need for the latest domestic and commercial wastewater treatment systems technology to be used and to update the old treatment levels, (which date back to RRMP of August 2006).

NOTE: Reference to the above BOD, TSS and TN figures are based around, which are **higher** than the Hynds 'Lifestyle' system average figures there are-

- BOD₅ 3.9 mg/L
- Total Suspended Solids 6.4 mg/L
- Total Nitrogen 20 mg/L

Ref: page 56 'Lifestyle' wastewater system excels at Rotorua trials. The NZWWA Journal December 2006

*POL 18 Decision-Making Criteria – On Site Sewage Discharges

(a) Discharges over the Heretaunga Plains Unconfined Aquifer

(i) "A filtration system which reduces the level of suspended solids to a maximum of 10 g/m³".

Ref: Page 51 Hawke's Bay RRMP

A chance not to be missed

It is important to improve the discharges from septic tanks now otherwise if not done now it may be at least another (ten) 10 years before a change can be made.

Included Total Nitrogen into Rule 37 because "Septic tanks are identified as the most likely source of nitrates in the Heretaunga Plains groundwater, especially where the aquifer is unconfined or semi confined with shallow water table. It has not been possible to assess the number of septic tanks installed in the Heretaunga Plains but the Hastings District Council estimate is more than 500"

Ref: Page 232 Heretaunga Plains Groundwater Study. HBRC – GNS May 1997

Asking for pre-hearing and to be heard

David W. Renouf. – 'Researcher'

D.W. Renouf
30/06/2020

[No. 11]

2 of 2

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Submission Proposed on Plan Change 9.

[No. 12]

My submission relates to:

PC-9 Schedule 26: Freshwater Quality Objectives

I seek the following decision from the Regional Council:

Add to Schedule 26: Freshwater Quality Objectives

Water quality attributes, to all Freshwater Quality Management Units and Water Quality Targets.

- Total Phosphorous mg/L (Upland rivers 0.026 mg/L – Lowland rivers 0.033 mg/L)
- Total Suspended Solids mg/L, which measures the water column, this causes harm This is totally different from deposited sediment measurement.

Ngaruroro River upstream of Fernhill Bridge 10 mg/L
 Ngaruroro River downstream of Fernhill Bridge 25 mg/L
 Tutaekuri River upstream of Redclyffe Bridge 10 mg/L
 Tutaekuri River downstream of Redclyffe Bridge 25 mg/L
 Ref: 5.4 Table 8. HBRC RRMP

Reason for decision requested:

Because Schedule 26: Freshwater Quality Objectives does not have

- Total Phosphorous mg/L (Upland rivers 0.026 mg/L – Lowland rivers 0.033 mg/L)
- And
- Total Suspended Solids mg/L, which measures the water column, this causes harm
- This is totally different from deposited sediment measurement.**

Total Suspended Solids mg/L is far easier to sample than measuring the river bed area for deposited sediment %

Asking for pre-hearing and to be heard

David W. Renouf. – ‘Researcher’

D.W. Renouf
 30/06/2020

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Submission Proposed on Plan Change 9.

[No. 13]

My submission relates to:

PC-9 Schedule 35: Source Protection for Drinking Water Supplies

The consequence (effect) of SP Zones to

‘Hawke’s Bay Regional Resource Management Plan’ 28th August 2006

- Schedule IV Known Productive Aquifer systems in the Hawke’s Bay Region
- Schedule Va Heretaunga Unconfined Aquifer Map.
- Schedule VIb Catchments sensitive to animal effluent discharges

I seek the following decision from the Regional Council:

That the alignment of the Heretaunga Plains Unconfined Aquifer boundary be updated.

That the Hawke’s Bay Regional Council updates the Schedule maps and includes the **full extent** of the Heretaunga Unconfined Aquifer areas in all ‘Hawke’s Bay Regional Resource Management Plan’ Maps - example Schedule IV, Va, VIb

Delay PC-9 if required so that SkyTEM Aquifer Mapping Project data can be included into PC-9 so that there is no need for a separate time wasting and costly process at some latter date.

Reason for decision requested:

So that the full extent of Heretaunga Unconfined Aquifer areas are identified on all HBRC and Regional Resource Management Plan Maps.

So that planning, rules and policies are updated to provide more robust protection for OUR Drinking Water. e.g. animal faeces in waterways – Re Havelock-North

As stated “The current boundary was drawn reasonably conservatively around 10 years ago” Ref: 6.16 HBRC Maori Committee 26 May 2009

Because we need to protect OUR vulnerable (at risk) groundwater by having the fullest extent of all the Heretaunga Unconfined Aquifer areas identified

“Likewise, the plan change project for the Greater Heretaunga / Ahuriri catchment area (a.k.a. the ‘TANK’ plan change) will present an earlier opportunity for maps of the Heretaunga aquifer system to be updated.” Ref: HBRC letter dated 29 August 2017

HDC Fig 22 SPZ and HBRC TANK PC9 SPZ Map 1.

Both show unconfined areas outside the present Heretaunga Unconfined Aquifer area

Evidence and information gathered

Evidence shows the full extent of the Heretaunga Unconfined Aquifer areas, and information shows gravel pathways where once streams ran. E.g. areas of fluvial deposits.

The full extent of the Heretaunga Unconfined Aquifer areas **are not shown** on the present 'Hawke's Bay Regional Resource Management Plan' especially Schedule Va Heretaunga Unconfined Aquifer Map

(A). Soil Map of Heretaunga Plains Hawke's Bay – Sheet 2

Compiled from data obtained from the Lands and Survey Department and from Aerial Survey by Piet van Asch and Air Department. Additional surveys and soils by H.A. Hughes of the Soil Survey Division of the Department of Scientific and Industrial Research. Agriculture notes by I.L. Elliott. Drawn by K.A. Bell 1938.

This Soil Map shows Pathways of stony gravels - Omaha Stony gravels 1 – 1a – 1b

1 – Omaha – Main channel and active flood plain of Ngaruroro until 1867.

Infiltration rate: 1 very rapid, 1a rapid, 1b rapid

Ref: p 48. Soils of the Heretaunga Plains E. Griffiths 2001. (HBRC plan no. 3042)

(B). The extent of subsurface Holocene alluvial fans from the Ngaruroro and Tukituki rivers is shown on this map image.

Ref: Figure A 5.7 Groundwater residence time assessment of Hastings District Council water supply wells in the context of the Drinking water Standards for New Zealand.

GNS Science Consultancy Report November 2016

(C) The 3D electromagnetic survey technology called SkyTEM Aquifer Mapping Project will provide new information, which needs to be included into PC9

To HELP:

Information found and some meanings of **Unconfined** and Confined Aquifers

Unconfined Aquifer – An aquifer which has its upper boundary at the Earth's surface

Confined Aquifer – An aquifer which is confined between aquitards and therefore contains water under pressure

Ref: Page 215 HBRC RRMP

Unconfined Aquifer – Aquifer containing unconfined groundwater, that is, having a water table and an unsaturated zone

Confined Aquifer – Aquifer overlain and underlain by an impervious formation

Ref: Glossary Freshwaters of NZ

[No. 13]

D.W. Renouf

2 of 4

Information 'Referenced' found about Unconfined Aquifers

1.1 Young Water At Depth of >100 m

"It is obvious that tritium, an indicator of young water, occurs at significantly greater depth (>100 m) in the Heretaunga Plains aquifers, compared to other aquifers (typically <50 m). This implies significantly higher hydraulic conductivities in the Heretaunga Plains aquifers, as indicated in Brown et al. (1999)."

Ref: Page 13 Heretaunga Plains Aquifers GNS Science Report April 2018

1.2 Young Water Found in Hastings District Council Drinking Water Wells

	Well no.	Depth m	Screen Depth m	Young Fraction
Whakatu	473	38.4	32.3-38.4	Yes
Lyndhurst	130	63.4	51.7-54.1	Yes
Eastbourne	1302	85.5	69.4-76.4	Yes

Ref: Page 8. GNS Science Consultancy Report November 2016

NOTE: The significant different & *deep* depths at which young water is being detected

1.3 Discrete sampling may not occur at the time of young water being present

"The recharge pattern of groundwater to a well will vary throughout the year. A discrete sample taken at a particular time will not reflect this variability in water age and may not occur at a time when the greatest proportion of young water may be reaching the well".

Ref: Page 33. Technical Guidelines for Drinking Water Source Protection Zones. Pattle Delamore Partners Ltd. 27 June 2018

1.4 Young Water found in well. Location Orchard Road Hastings

It is stated that this well sits in unconfined aquifer area

Well no. 4497	Depth 51 m	Screen Depth 45-51 m	Young Fraction Yes
---------------	------------	----------------------	--------------------

1.5 Potential for the local groundwater level to exceed the first confined aquifer within part of the Omaha Industrial zone.

"That within the part of the Omaha Industrial zone between Kirkwood Road and the vicinity of Lowes Pit there is potential for the local groundwater level to exceed the first confined aquifer's local piezometric level during periods of aquifer drawdown (from reduced recharge or high groundwater extraction rates) and high water level (from local heavy rainstorms)". Ref: Page 15 MWH Stormwater Discharges to Land over the Heretaunga Plains Unconfined Aquifer September 2010

1.6 E. coli detected in Hastings District Council Drinking Water Bores

E. coli detected at Wilson Road and Frimley Park bores August 2016

E. coli detected at Wilson Road September 2016

E. coli detected at Eastbourne bore 1. October 2016

All investigated and unable to determine the cause

Ref: Page 83. Agenda Item 9 HDC 25/05/2017

1.7 Gravel aquifers are not considered effective

“Retardation of bacteria is reported between 1 and 2 but the filter process in gravelly aquifers are not considered effective for small diameters of bacteria.”

Ref: Tonkin +Taylor Report Bacteriological Contamination Investigation November 2016

1.8 Despite impermeable aquicludes

“Static water levels did not show any significant change with depth, suggesting hydraulic connection despite apparent separation of aquifers by impermeable aquicludes”

Ref: Page 68. Heretaunga Plains Groundwater Study HBRC-GNS May 1997

1.9 Reversal of Upward Pressure

“In the northern and eastern parts the Heretaunga Plains aquifers merge with the peripheral aquifer systems. In the aquifer overlap areas, the upwards piezometric pressure gradient in the main aquifer normally prevent seepage from shallow inter-bedded aquifer. However on the margin of the main aquifer system during the summer periods when there is increased groundwater abstraction, reversal of the upward hydraulic gradient occurs, thereby creating the potential for discrete groundwater mixing zones of local recharged shallow groundwater and underlying peripheral limestone aquifer groundwater with the intervening stressed main Heretaunga Plains aquifer system.”

Ref: pages 99/100. Heretaunga Plains Groundwater Study HBRC-GNS May 1997

1.10 Modelling Holocene fans

“Modelling of the Holocene fans of the Ngaruroro and Tukituki rivers suggest that Last Glacial gravels are overlain by Holocene fan gravels of Ngaruroro and Tukituki rivers at twelve of the production bore sites (Omahu Pa, Omahu, Portsmouth Road, Wilson Road, Brookvale 1, Brookvale 3, Waipatu, Whakatu and Napier Rd/Hastings, but possibly also Lyndhurst Rd 3 and Eastbourne 5). Where this is the case, there is some potential for hydraulic continuity between the Holocene fan gravels and underlying Last Glacial gravels.” Ref: Page 12. Heretaunga Plains Aquifers GNS Report April 2018

Attached: Soil Map of Heretaunga Plains HB and Figure A 5.7 GNS, which shows the extent of subsurface Holocene alluvial fans from the Ngaruroro and Tukituki rivers is shown on this map image.

Asking for pre-hearing and to be heard

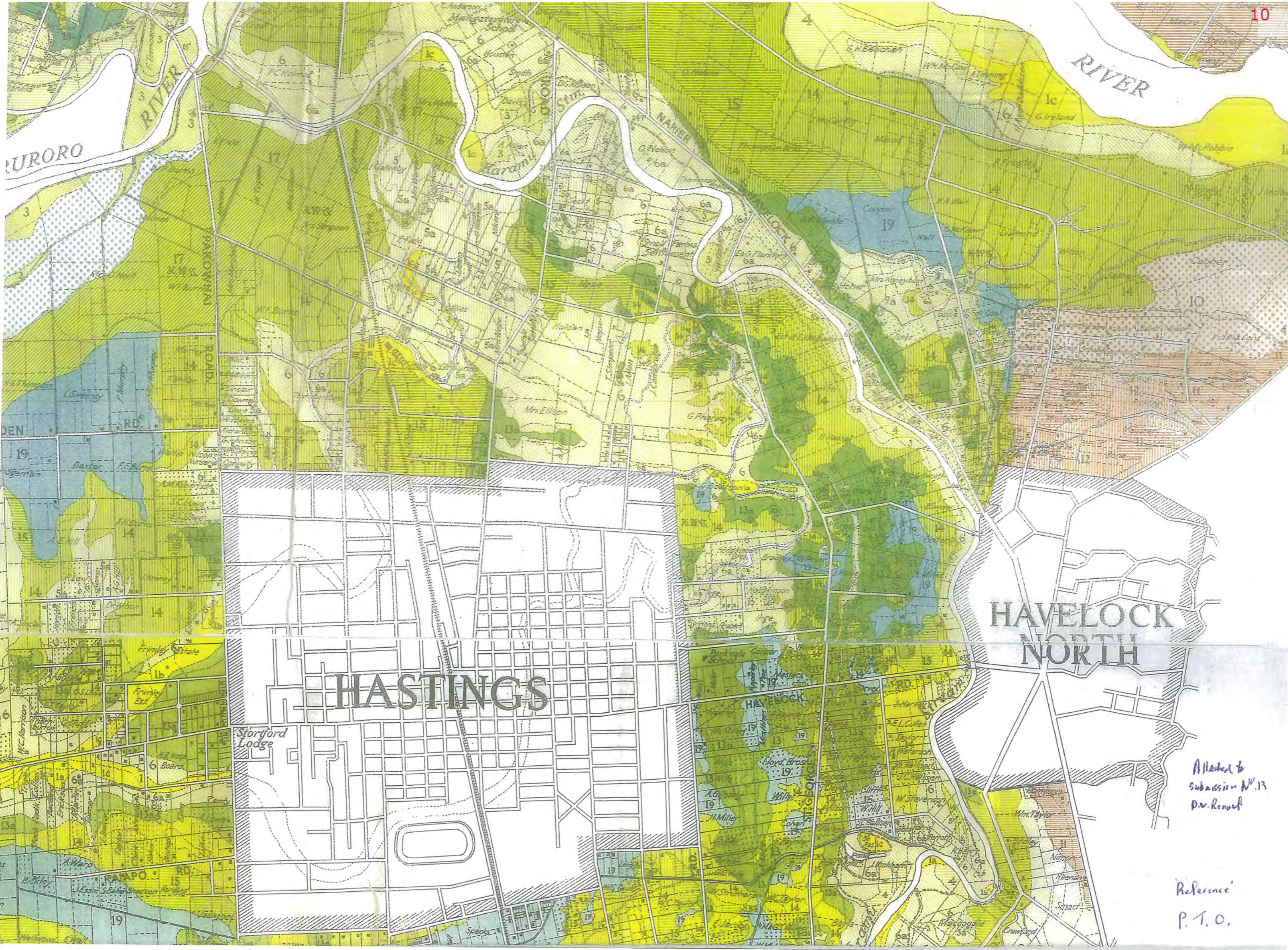
David W. Renouf. - ‘Researcher’

D.W. Renouf.

30/06/2020

[No. 13]

4 of 4



HURORO RIVER

RIVER

HASTINGS

HAVELOCK NORTH

Storford Lodge

HAVELOCK

Attached to
Submission N° 13
D.V. Rensoff

Reference
P.T.O.

Soil Map of Hevelaunga Plains

Compiled from Topo Maps
of the Land and Survey Department
and from Aerial Surveys by Piet van Asch and the Air Department
Additional surveys and soils by H. A. Hughes of the Soil Survey Department of
the Department of Scientific and Industrial Research
Agriculture notes by I. L. Elliott
Drawn by K. A. Bell 1935

Stony gravel 1

Attached to Submission N°15. P.W. Renaud



Soil Map of Herclanga Plains Hawke's Bay

Compiled from data obtained from the Lands and Survey Department and from Aerial Survey by Piet van Heek and the Air Department. Additional surveys and soils by H. A. Hughes of the Soil Survey Division and the Department of Scientific and Industrial Research.

Agriculture notes by I. L. Elliott

Drawn by K. A. Bell 1938

Omakere Soils

Strong gravels - 1

Attached to Submission No 13. D.W. Renouf.

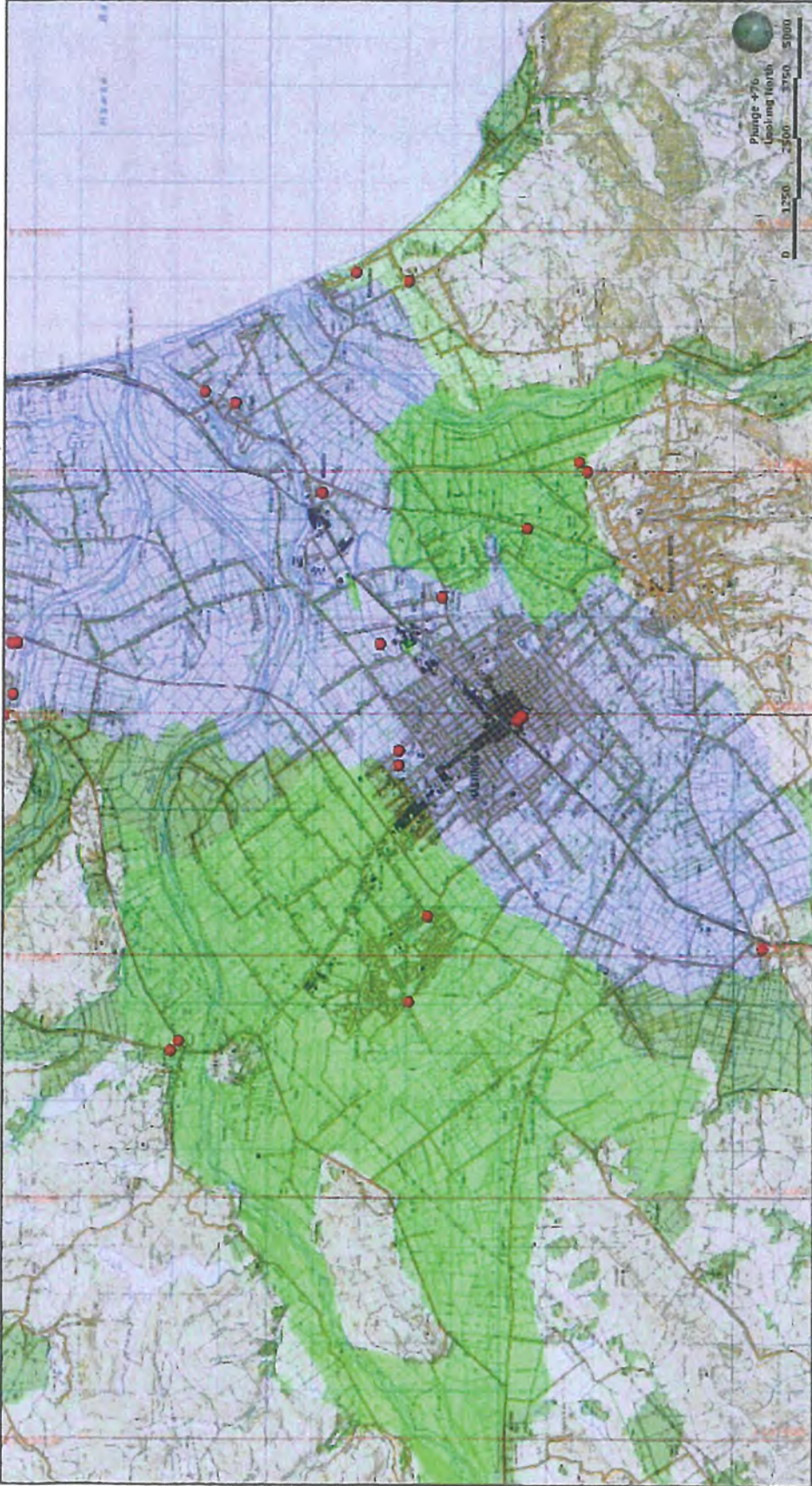


Figure A 5.7

The extent of subsurface Holocene alluvial fans from the Ngaruroro and Tukituki rivers is shown in this map image. The area coloured blue indicates the extent of the Holocene marine incursion, and the light green colour (with a solid line border) the lateral extent of the loose gravel fans from these two rivers. The slightly darker green areas (with dotted line borders) show the extent of Holocene fan gravels older than c. 6500 years. The named red points represent production water bore sites.

Ref: GNS Science Consultancy Report 2016

November

Groundwater residence time assessment of Hastings District Council water supply wells in the context of the Drinking-water Standards for New Zealand.

Person Making Submission
 David W. Renouf.
 603A Ballantyne Street, Hastings 4120
 Telephone 06-8783239

Submission on Proposed Plan Change 9.

[No. 14]

My Submission relates to:

TANK PC-9 Map 1 SPZ and HDC Fig 22 SPZ Map
 Hawke's Bay Regional Council and Hastings District Council jointly form up Source Protection Zone 3 and **Source Protection Conjunctive Zone maps**
Because of the hydraulically-connected groundwater and surface water in the Heretaunga Plains Aquifer system

I seek the following decision from the Regional Council:

That the Hawke's Bay Regional Council and Hastings District Council jointly form up Source Protection Zone 3 for all HDC registered drinking water wells and **Source Protection Conjunctive Zone**, which will comply with the ('Technical Guidelines')
 Because –

“The Technical Guidelines for Drinking Water Source Protection Zones ('Technical Guidelines') are based on current national and international best practices for delineating and implementing source protection zones for drinking water sources.

The Technical Guidelines recommend default source protection zones to which the regulations within the NES could apply.”

Ref: Page iii. Technical Guidelines for Drinking Water Source Protection Zones.

Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

Schedule 35: At Source Protection Zones

Add the wording “That '**Registered**' drinking water wells that provide small communities with less than 501 people shall have Source Protection Zones.”

Add to

Hawke's Bay Regional Council PC-9 - SPZ Map Hastings District Council **registered** drinking water wells 542, 1658, 16671 at Clive, 473 at Whakatu, 10334 at Omahu

Reason/s for decision requested:

Because some of these wells have had young water detected.

“The Technical Guidelines recommend default source protection zones to which the regulations within the NES could apply”.

Ref: Page iii Technical Guidelines for Drinking Water Source Protection Zones

Prepared for Ministry for the Environment. By Pattle Delamore Partners Ltd 27 June 2018

Reason for decision requested:

Because different methods are being used for calculating Source Protection Zones. This is OUR Drinking-water therefore the most robust method/s based on current national and international best practices for calculating SPZ's must be used
The Heretaunga Plains Aquifer system is the most important resource and is very vulnerable.

Substantive data that needs to be taken seriously

Sideways influence

That when establishing SPZ's they must consider sideways influence and distance of pumping from single and groups of wells especially when wells are using the same water source

Example:

Sideways influence distance from bore pumping

HBRC water level logging of BH10496.

"HBRC installed a groundwater level data logger into BH10496 (located approximately **370 m** south of BH1). Groundwater levels within BH10496 are presented on Plot 9.1 along with pumping rates of BV1 and BV2. The results indicate that water levels within BH10496 are influenced by pumping at BV1, then show a signature that matches pumping regimes in BV2. This clearly indicates that a hydraulic connection exists between BH10496, BV1 and BV2 and indicates that a hydraulic connection between BV3 and BH10496 is highly likely.

Ref: Page 24.9.2 Contamination Investigation Brookvale Bore 3, Havelock North. T+T December 2016

HDC Eastbourne Street bores are approximately **817.90 meters** from the Heinz Watties bore field. Found no details about this

Cone of Depression

This cone of depression **extends at least 4.61 km** from Eastbourne Street bores to the Karamu Stream using Google Ruler

- "The Eastbourne Street bore abstracts groundwater from the leaky-confined aquifer. When pumping, the cone of depression is located beneath the confined aquifer area and extends beneath the Karamu and Irongate streams, and other tributaries.

Ref: Page 59. HDC Water Safety Plan. Council 25/05/2017

Sensitivity Analysis Map includes the Karamu Stream.

Map of Sensitivity Analysis # 2 shows when flow direction is rotated anti-clockwise by 25 degrees towards the south it then includes the Karamu Stream.

The Map of Sensitivity Analysis # 2 also shows when flow direction is rotated anti-clockwise by 25 degrees towards the north it includes a significant group of Heinz Wattie's Ltd eight wells at King Street, Hastings.

Ref: Sensitivity Analysis # 2 Tonkin + Taylor map for HDC

[No. 14]

D.W. Renouf

2 of 5

This **sideways influence, the extent of the cone of depression, sensitivity analysis map includes the Karamu Stream, is** *substantive* data that needs to be taken seriously when forming up source protection maps for the protection of all HDC drinking water wells.

At the moment the Heretaunga Plains aquifer does not get the required protection, which will give us safe quality and quantity of OUR Drinking Water for the future.

There are Hastings District Council **registered** drinking water wells, which do not have Source Protection Zones.

→ **Note:** As at 6 March 2020 HDC **registered** drinking water wells 542, 1658, 16671 at Clive, 473 at Whakatu, 10334 at Omahu have no Source Protection Zones.

The latest Hastings District Council SPZ3 map Figure 22 in HDC letter of 6 March 2020 And the Hawke's Bay Regional Council TANK Proposed Plan Change 9 Map 1 Source Protection Zones

Both these SPZ Maps **do not** meet what is required for Source Protection Zone 3.

Example of what is required:

“Source Protection Zone 3: This zone encompasses the entire upper catchment for **surface water** sources and / or the entire capture zone or catchment for **groundwater** sources.”

Ref: iv Technical Guidelines for Drinking Water Source Protection Zones. Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

Protect the whole Capture Zone/Groundwater Catchment Including Catchments of any Recharging Surface Water Bodies is important because its OUR RAW Drinking Water “Raw water – Water intended for drinking that is after the abstraction point but has not yet received treatment to make it suitable for drinking.” Ref: Definition DWSNZ

Important to follow – because of the very vulnerable Heretaunga Plains Aquifer system
“Step 5: Define Whole Capture Zone/Groundwater Catchment Including Catchments of any Recharging Surface Water Bodies

Draw Zone 3: Entire capture zone/catchment

Figure 4: Default groundwater source protection zone delineation process

Ref: Page 37. Technical Guidelines for Drinking Water Source Protection Zones.

Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

There is a very good reason (requirement) on the SPZ map for having Conjunctive Zone as wording states in the PDP ‘Technical Guidelines’ June 2018

‘The Numbers Game’

Playing the numbers game does not help. Even where there is a **registered** well, which is supplying a small number of people, these people have the right to safe potable drinking water.

To protect the raw source of drinking water before it is abstracted there is a need for SPZ
 “Safe drinking-water, available to everyone, is a fundamental requirement for public health” Ref: Page 1 Drinking-water Standards for New Zealand 2005

*So, why not be proactive and provide small communities that have **registered** wells with safe drinking water, by having Source Protection Zones.*

These are real people so provide them with robust protection they deserve.

“7.3 Conjunctive Zones.

As outlined previously, the term ‘conjunctive’ relates to situations where both hydraulically-connected groundwater and surface water are drawn into an intake. Where public drinking water supplies abstract water that is a combination of groundwater and surface water such as a gallery or a well that is receiving water from an adjacent surface water source, then source protection zones should be delineated for each component as if each were a single source using the above methods. In this case, there will be overlapping of the groundwater and surface water zones and these should first be defined separately.” Ref: page 37. Technical Guidelines for Drinking Water Source Protection Zones. Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

PC-9 Schedule 35 Table 3: Methodology for Determining Source Protection data does not recognise the data found - some examples

1. Conjunctive Zones.

“source protection zones should be delineated for each component as if each were a single source using the above methods”

“there will be overlapping of the groundwater and surface water zones and these should first be defined separately”

Ref: page 37. Technical Guidelines for Drinking Water Source Protection Zones. Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

“Conjunctive Source”

“Zone 3: Entire Catchment/Capture Zone”

“The total extent of the groundwater and surface water catchments contributing to the well or surface water way”.

- “In addition, where a number of wells draw from the same groundwater system, it may be more pragmatic to make Zone 3 the entire groundwater catchment”.

Ref: Page i. Specifications for Default Drinking Water Source Protection Zones

Technical Guidelines for Drinking Water Source Protection Zones. Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

2. Step 5: Define Whole Capture Zone/Groundwater Catchment Including Catchments of any Recharging Surface Water Bodies

3. **“Source Protection Zone 3:** This zone encompasses the entire upper catchment for **surface water** sources and / or the entire capture zone or catchment for **groundwater** sources.”

Ref: iv Technical Guidelines for Drinking Water Source Protection Zones. Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

4. Modelling Holocene fans

“Modelling of the Holocene fans of the Ngaruroro and Tukituki rivers suggest that Last Glacial gravels are overlain by Holocene fan gravels of Ngaruroro and Tukituki rivers at twelve of the production bore sites (Omahu Pa, Omahu, Portsmouth Road, Wilson Road, Brookvale 1, Brookvale 3, Waipatu, Whakatu and Napier Rd/Hastings, but possibly also Lyndhurst Rd 3 and Eastbourne 5). Where this is the case, there is some potential for hydraulic continuity between the Holocene fan gravels and underlying Last Glacial gravels.” Ref: Page 12. Heretaunga Plains Aquifers GNS Report April 2018

5. Young Water At Depth of >100 m

“It is obvious that tritium, an indicator of young water, occurs at significantly greater depth (>100 m) in the Heretaunga Plains aquifers, compared to other aquifers (typically <50 m). This implies significantly higher hydraulic conductivities in the Heretaunga Plains aquifers, as indicated in Brown et al. (1999).”

Ref: Page 13 Heretaunga Plains Aquifers GNS Science Report April 2018

6. Young Water Found in Hastings District Council Drinking Water Wells

	Well no.	Depth m	Screen Depth m	Young Fraction
Whakatu	473	38.4	32.3-38.4	Yes
Lyndhurst	130	63.4	51.7-54.1	Yes
Eastbourne	1302	85.5	69.4-76.4	Yes

Ref: Page 8. GNS Science Consultancy Report November 2016

NOTE: The significant different & **deep** depths at which young water is being detected

Because of the hydraulically-connected groundwater and surface water in the Heretaunga Plains Aquifer system

NOTE: ‘Contamination of the raw water has severe consequences’

Attached:

Coloured - Fig 22 SPZ3 HDC Map **and** TANK PC9 SPZ HBRC Map 1 on a A3 page
Coloured – Sensitivity analysis # 2 Map for HDC Tonkin + Taylor

Asking for pre-hearing and to be heard

David W. Renouf. – ‘Researcher’

D.W. Renouf.
30/06/2020

[14]

5 of 5



TANK

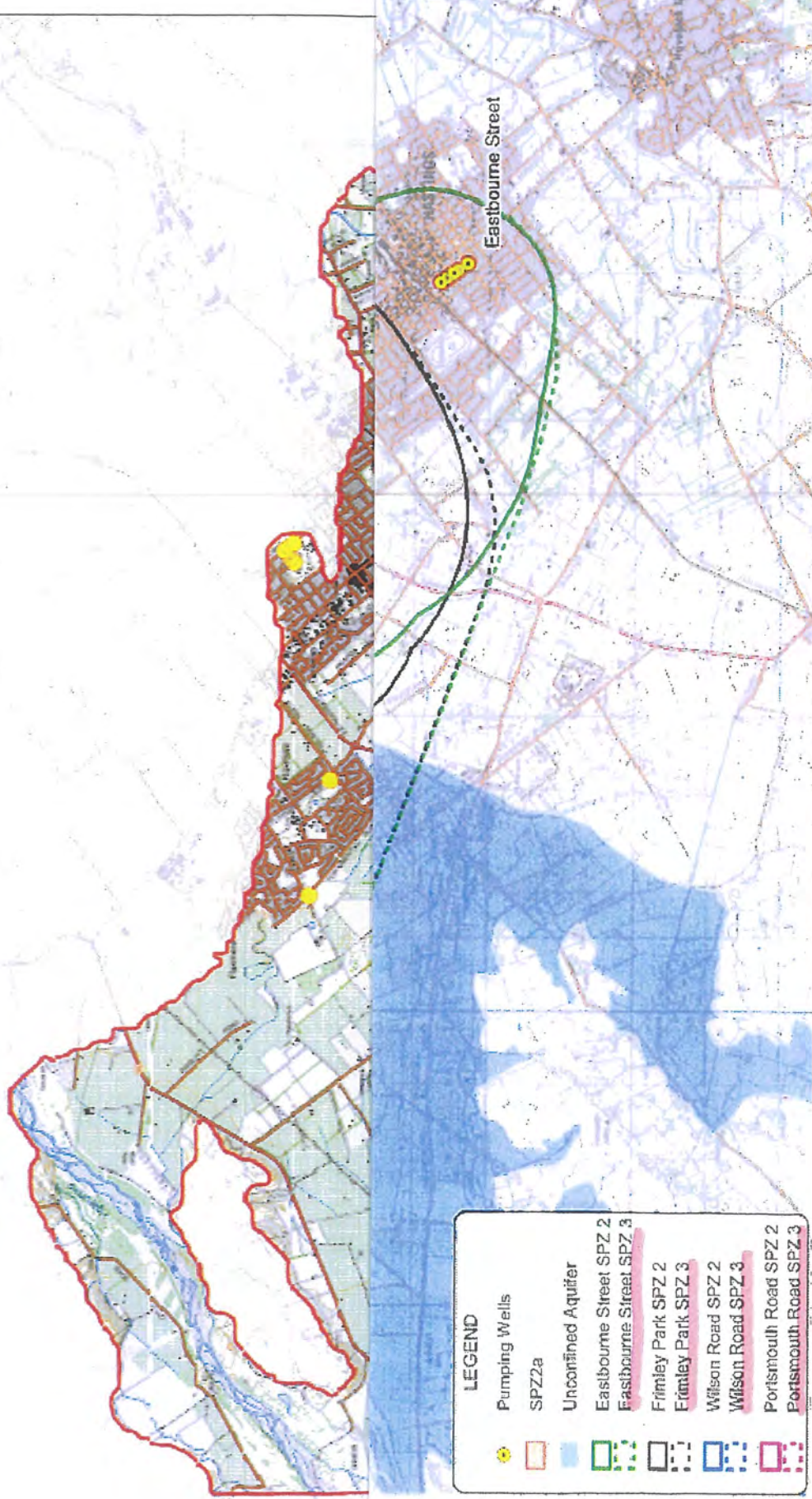
Hastings, Ashurst, Ngaheroa, Kawerau

Proposed Plan Change 9

Map 1

Source Protection Zones

Hastings

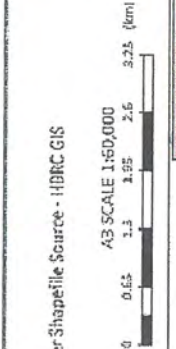


LEGEND

- Pumping Wells
- SPZ2a
- Unconfined Aquifer
- Eastbourne Street SPZ 2
- Eastbourne Street SPZ 3
- Firmley Park SPZ 2
- Firmley Park SPZ 3
- Wilson Road SPZ 2
- Wilson Road SPZ 3
- Portismouth Road SPZ 2
- Portismouth Road SPZ 3

DRAWN	DATE	REP. DATE
APPROVED	10/03/20	10/03/20
JDS:249-1000-FIG026.mxd DATE: 03/03/20 SCALE: 1:150,000 PROJECT NO: 1005769		

Tonkin+Taylor
 105 Centre Gate Rd, Newmarket, Auckland
 www.tonkintaylor.co.nz



Notes:
 Hereinafter Plans Confined and Unconfined Aquifer Shapefile Source - HBRC GIS
 Service Layer Credits: Eagle Technology, LINZ

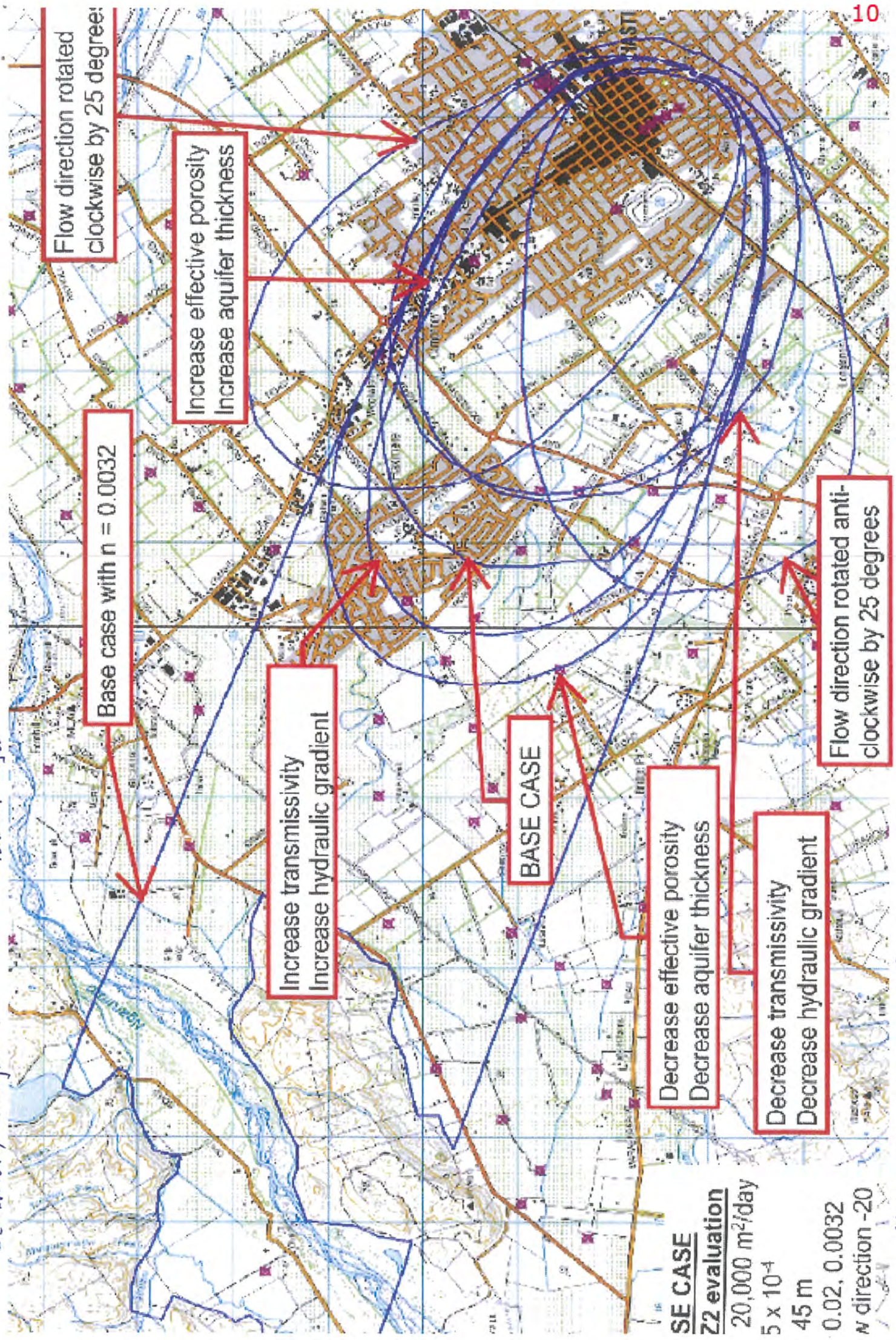
HASTINGS DISTRICT COUNCIL
 SOURCE PROTECTION ZONES FOR PUBLIC SUPPLY BORES
 HASTINGS URBAN AREA
 All SPZ2 and SPZ3 Zones

Figure 22

A Header to Submission N° 14 Dr. Renard

Sensitivity analysis #1

London & Taylor



SE CASE
Z2 evaluation
 20,000 m²/day
 5 x 10⁻⁴
 45 m
 0.02, 0.0032
 N direction -20

Attached to submission N°14 de Renaud

Person Making Submission

Submission on Proposed Plan Change 9.

David W. Renouf.

603A Ballantyne Street, Hastings 4120. Telephone 06-8783239

[No. 15]

My Submission relates to:

PC-9 6.10.3 TANK 19, 21, and 22 Stormwater (Road Run Off) [All new]

I seek the following decision from the Regional Council:

That the Hawke's Bay Regional Council adds to the Stormwater Rules – Proposed Plan Change 9 Schedules 26 and 27 Freshwater Quality Objectives as 'Freshwater Standards'

To the 6.10.3 Stormwater Rules – TANK 19 Plan Change PC-9

Delete TANK 19 (a) (vi) i, ii, iii, iv

Because sampling after reasonable mixing is virtually impossible and is not practicable when the discharge is onto land where it may enter groundwater - and

Because:

The latest Proposed Plan Change 9 Schedules 26 and 27 Freshwater Quality Objectives are more robust comprehensive (wide ranging) water quality objective measures.

Also because HB Regional Resource Management Plan 5.4 Surface Water Quality Tables 7 and 8 are used to manage the effects of activities affecting the quality of water in rivers, which apply across the entire Hawke's Bay region

Add to TANK 19 (a) (vi)

Proposed Plan Change 9 Schedules 26 and 27 Freshwater Quality Objectives as Freshwater Standards to be met at point of discharge by 2025

and that -

The discharge shall meet HB Regional Resource Management Plan 5.4 Surface Water Quality Tables 7 and 8 when PC-9 becomes operative

Delete TANK 19 (b)

Because there is part of stormwater road runoff being discharged into the reticulated **wastewater network**. This area is over the Heretaunga Plains unconfined aquifer within Hastings City boundary where there is no reticulated stormwater network next to the property boundary but the properties have a sewage connection

Add to TANK 19 (b)

'All property's shall connect to the current or planned reticulated stormwater or wastewater network that is within 200 metres of their property boundary'

Add to TANK 19 (e)

Soakage is Not to be used for disposal of captured road runoff in the Heretaunga Plains Unconfined Area

Delete TANK 21 (vi) i, ii, iii, iv

Because: Sampling after reasonable mixing is virtually impossible and is not practicable when the discharge is onto land, where it may enter groundwater

And because:

The latest Proposed Plan Change 9 Schedules 26 and 27 Freshwater Quality Objectives are more robust comprehensive (wide ranging) water quality objective measures. Also HB Regional Resource Management Plan 5.4 Surface Water Quality Tables 7 and 8 are used to manage the effects of activities affecting the quality of water in rivers, which apply across the entire Hawke's Bay region

Add to TANK 21 (vi)

Proposed Plan Change 9 Schedules 26 and 27 Freshwater Quality Objectives as Freshwater Standards to be met at point of discharge by 2025.

and that -

The discharge shall meet HB Regional Resource Management Plan 5.4 Surface Water Quality Tables 7 and 8 when PC-9 becomes operative

Add to TANK 21 (b) (vi)

'and medium risk'

Because there are contaminate concentrations, which at medium risk, can cause harm

(b) (xii)

This is the same issue with reasonable mixing wording at (b) (xii) when the discharge is onto land where it may enter groundwater

Because sampling after reasonable mixing is virtually impossible and is not practicable when the discharge is onto land where it may enter groundwater and there may be no mixing zone.

Add (b)(xii)

'Where a stormwater discharge is within a Source Protection Zone but outside of stormwater or wastewater network and the discharge is **not** to surface water the discharge shall meet Proposed Plan Change 9 Schedules 26 and 27 Freshwater Quality Objectives as Freshwater Standards at the point of discharge by 2025'

and that -

'The discharge shall meet HB Regional Resource Management Plan 5.4 Surface Water Quality Tables 7 and 8 after 200 m distance (a distance set out in RRMP POL72 ¹⁷) of reasonable mixing when PC-9 becomes operative'

Delete TANK 22 (c) (i) (ii) (iii) (iv)

Because: Sampling after reasonable mixing is virtually impossible and is not practicable when the discharge is onto land where it may enter groundwater and there may be no mixing zone

Add to TANK 22 (c)

‘shall meet Proposed Plan Change 9 Schedules 26 and 27 Freshwater Quality Objectives as Freshwater Standards at point of discharge by 2025’.

and that -

‘The discharge shall meet HB Regional Resource Management Plan 5.4 Surface Water Quality Tables 7 and 8 after 200 m distance (a distance set out in RRMP POL72 ¹⁷) of reasonable mixing when PC-9 becomes operative’

Delete TANK 22 (e)**Add to TANK 22 (e)**

‘All properties shall connect to the current or planned reticulated stormwater or wastewater network that is within 200 metres of their property boundary’

I seek that the concerns over the following 3 issues be addressed please

1. There are stormwater discharges where reticulated stormwater networks are within 200 metres of their property boundary’s
2. There are stormwater discharges where there are **no** reticulated stormwater networks within 200 metres of their property boundary’s
3. The issue of **‘after reasonable mixing’**

Sampling after reasonable mixing is virtually impossible and is not practicable when the discharge is onto land where it may enter groundwater and there may be no mixing zone.

Delete at TANK 19 (vi) after following

Add at TANK 19 (vi) after following – ‘at the point of discharge’

Delete at TANK 21 (vi) after following

Add at TANK 21 (vi) after following – ‘at the point of discharge’

Delete at TANK 21 (xii) after occur

Add at TANK 21 (xii) after occur – ‘at the point of discharge’

Delete at TANK 22 (c) after occur

Add at TANK 22 (c) after occur - ‘at the point of discharge’

[No. 15]

D.W Renouf

3 of 5

Reason for decision requested:

These are serious, grave and severe issues regarding OUR Drinking Water. Therefore there is a need for more robust Policies, Conditions, Terms and Rules such as using Proposed PC9 Schedules 26 and 27 Freshwater Quality Objectives figures as 'Standards' for stormwater management.

- There are discharges of Stormwater and Road Run Off over and into land and **directly into** the Heretaunga Plains Unconfined **groundwater** with no limits.
- There are discharges of Stormwater and Road Run Off into gravel pits/holes over the Heretaunga Plains Unconfined Aquifer groundwater with no limits.
- These discharges are within a Source Protection Zone
- OUR Drinking Water flows underneath the Heretaunga Plains Unconfined Aquifer area
- The gravels above the unconfined aquifer have little or no capacity to absorb pollutants and prevent them from reaching the shallow water table.
- Bacteria and other micro-organisms travel freely through these gravels.
- **“Soakage is Not to be used in the following circumstances:**
 - **for disposal of road runoff”**

Ref: Hastings District Council Engineering Code of Practice 2011

‘after reasonable mixing’

It’s virtually impossible to sample water quality when stormwater discharge is onto land where it enters groundwater water. To sample after reasonable mixing is not practicable or possible in most cases. Also most discharges have **no** mixing zone.

So instead of having ‘after reasonable mixing’ the words need to be ‘at point of discharge’

→ **Potential for the local groundwater level to exceed the first confined aquifer within part of the Omahu Industrial zone.**

“That within the part of the Omahu Industrial zone between Kirkwood Road and the vicinity of Lowes Pit there is potential for the local groundwater level to exceed the first confined aquifer’s local piezometric level during periods of aquifer drawdown (from reduced recharge or high groundwater extraction rates) and high water level (from local heavy rainstorms)”. Ref: Page 15 MWH Stormwater Discharges to Land over the Heretaunga Plains Unconfined Aquifer September 2010

D.W. Renouf

[No. 15]

4 of 5

The following robust two Quotes need to be carefully considered

“Make a decision *before* the ecosystem becomes adversely affected”

“In most situations, we will need to make a decision *before* the ecosystem becomes adversely affected so that management actions can be implemented in time to prevent the ecosystem becoming damaged. In other words, we will need to select a ‘threshold value’ of the indicator that is *smaller* than that which indicates that the ecosystem has been impaired. How much smaller this value needs to be depends on the nature of the impact, the level of our understanding of the relationship between changes in the indicator and ecological impact, and the lead-time necessary to implement management actions”.

--- “if there is a long lag between detection that the threshold has been exceeded and implementation of some action or decision, the threshold value will need to be set at a very small value”.

Ref: 3.1.7 page 3.1-20 – 3 Aquatic ecosystems. ANZECC 2000

“Decision must be made *before* the level of change becomes harmful”

And

“at a level that prevents harmful effects from occurring in the first place”.

“The environment assessment objectives (table 3.2.1) determine the point along the continuum at which an environment impact is deemed to have occurred. For example, monitoring based on early detection of impact will have a different emphasis from monitoring geared towards assessing the ecological importance of an impact that has already happened. For early detection, a decision must be made *before* the level of change becomes harmful; otherwise the change may be irreversible. By contrast, to assess the importance of, say, an accidental ecological impact, the monitoring team must decide whether the level of acceptable change has been exceeded and by how much. In this situation the decision criterion is at the point of harmful change rather than some smaller value. In general, however, the emphasis will be on setting the decision criteria at a level that prevents harmful effects from occurring in the first place”.

Ref: Page 7.2-14 Chapter 7- Monitoring and assessment. ANZECC 2000

Asking for pre-hearing and to be heard

David W. Renouf. ‘Researcher’

D.W. Renouf.
30/06/2020

[No. 15]

5 of 5

Person Making Submission
 David W. Renouf.
 603A Ballantyne Street, Hastings 4120.
 Telephone 06-8783239

Submission on Proposed Plan Change 9.

[No. 16]

My Submission relates to:

PC-9 POL 72A Discharge Permits – Matters for consideration in catchments other than the Tukituki River catchment and in Tutaekuri, Ahuriri, Ngaruroro and Karamu River catchments.

I seek the following decision from the Regional Council:

POL 72A (1) When considering any application for a discharge the consent authority must have regard to the following matters.

Add (c) That when a discharge of stormwater and road run off is into freshwater or groundwater there needs to be all the fundamental freshwater parameters with maximum limits in the discharge permit.

Reason for decision requested:

Discharge Permits for the discharge of stormwater and road run off into freshwater do not have all the fundamental freshwater parameters in the consent conditions and do not have any maximum contaminant discharge limits.

“As stated in your letters, the HDC stormwater discharges to Lowe’s Pit does not contain maximum contaminant discharge limits.”

Our view is that the best short term approach for managing this discharge is to focus on identifying and high risk sites within the stormwater catchment area, and to require management of contaminants at the source.

Setting of discharge limits is not a mandatory requirement of a rule in the plan,”

Ref: Letter from Hawke’s Bay Regional Council 16 September 2019

[Emphasis added]

[This allows any amount of contaminants to be discharged into freshwater and groundwater]

Asking for pre-hearing and to be heard

David W. Renouf. ‘Researcher’

D.W. Renouf.

30/06/2020

Person Making Submission
 David W. Renouf.
 603A Ballantyne Street, Hastings 4120.
 Telephone 06-8783239

Submission on Proposed Plan Change 9.

[No. 17]

My Submission relates to:

PC-9 POL 76A Discharge Permits – Matters for consideration in catchments other than the Tukituki River catchment and in Tutaekuri, Ahuriri, Ngaruroro and Karamu River catchments.

I seek the following decision from the Regional Council:

POL 76A (1) When considering any application for a discharge the consent authority must have regard to the following matters.

Add (c) That when a discharge of stormwater and road run off is into freshwater or groundwater there needs to be all the fundamental freshwater parameters with maximum limits in the discharge permit.

Reason for decision requested:

Discharge Permits for the discharge of stormwater and road run off into freshwater do not have all the fundamental freshwater parameters in the consent conditions and do not have any maximum contaminant discharge limits.

“As stated in your letters, the HDC **stormwater discharges** to Lowe’s Pit **does not contain maximum contaminant discharge limits.**”

Our view is that the best short term approach for managing this discharge is to focus on identifying and high risk sites within the stormwater catchment area, and to require management of contaminants at the source.

Setting of discharge limits is not a mandatory requirement of a rule in the plan,”

Ref: Letter from Hawke’s Bay Regional Council 16 September 2019

[Emphases added]

[This allows any amount of contaminants to be discharge into freshwater and groundwater]

Asking for pre-hearing and to be heard

David W. Renouf. ‘Researcher’

D.W. Renouf.

30/06/2020

Person Making Submission

Submission on Proposed Plan Change 9.

David W. Renouf.

603A Ballantyne Street, Hastings 4120. Telephone 06-8783239

[No. 18]

My Submission relates to:

5.7 Groundwater Quantity – POL 78A

Water Permits – Matters for consideration in catchments other than the Tukituki River catchment and the Tutaekuri, Ahuriri, Ngaruroro and Karamu River Catchments

I seek the following decision from the Regional Council

At POL 78A Water Permits after (1) (b)

Add '(c) Where possible positive artesian be maintained under abstraction conditions'

Reason for decision requested:

Water Takes and the Use of Groundwater should consider the maximum volume of water which can be taken during conditions that can cause detrimental effects of this activity, which can effect the groundwater quality.

Examples:

1. Dry conditions
2. Reduction of water volume from the river recharge
3. Low river flows
4. Abstraction numbers and the rate of increases in volume
5. Voids appearing in the aquifer layers
6. Young water being found
7. Reversal of Upward Pressure

Quoting wording which the Hastings District Council has recognised

Positive artesian pressure

“A further consideration has been to ensure that, where possible, positive artesian pressure can be maintained under abstraction conditions. This is considered a key risk management approach to minimise the potential for near-source surface activities to influence groundwater quality”.

Ref: Hastings District Water Strategy March 2018

See submission 11 for referenced details on

- 1.1 Young Water At Depth of >100m
- 1.2 Young Water Found in Hastings District Council Drinking Water Wells
- 1.3 Discrete sampling may not occur at the time of young water being present
- 1.4 Young Water found in well. Location Orchard Road Hastings
- 1.5 Potential for local groundwater level to exceed the first confined aquifer within part of the Omahu Industrial zone.
- 1.6 *E. coli* detected in Hastings District Council Drinking Water Bores
- 1.7 Gravel aquifers are not considered effective
- 1.8 Despite impermeable aquicludes
- 1.9 Reversal of Upward Pressure
- 1.10 Modelling Holocene fans

Asking for pre-hearing and to be heard

David W. Renouf. – ‘Researcher’

David W. Renouf.

30/06/2020

Person Making Submission

Submission on Proposed Plan Change 9.

David W. Renouf.

603A Ballantyne Street, Hastings 4120. Telephone 06-8783239

[No. 19]

My Submission relates to:

Rule TANK 9 Groundwater Take – Heretaunga Plains

I seek the following decision from the Regional Council:

At Rule TANK 9

Add '(h) Where possible positive artesian be maintained under abstraction conditions'

Reason for decision requested:

Water Takes and the Use of Groundwater should consider the maximum volume of water which can be taken during conditions that can cause detrimental effects from this activity, which can effect the groundwater quality in the Heretaunga Plains

Examples:

1. Dry conditions
2. Reduction of water volume from the river recharge
3. Reduction of water volume from the river recharge
4. Low river flows
5. Abstraction at a high number and the increase in volume
6. Voids appearing in the aquifer layers
7. Young water being found
8. Reversal of Upward Pressure

Quoting wording which the Hastings District Council has recognised about

Positive artesian pressure

“A further consideration has been to ensure that, where possible, positive artesian pressure can be maintained under abstraction conditions. This is considered a key risk management approach to minimise the potential for near-source surface activities to influence groundwater quality”.

Ref: Hastings District Water Strategy March 2018

See submission 11 for referenced details on

- 1.1 Young Water At Depth of >100m
- 1.2 Young Water Found in Hastings District Council Drinking Water Wells
- 1.3 Discrete sampling may not occur at the time of young water being present
- 1.4 Young Water found in well. Location Orchard Road Hastings
- 1.5 Potential for local groundwater level to exceed the first confined aquifer within part of the Omaha Industrial zone.
- 1.6 *E. coli* detected in Hastings District Council Drinking Water Bores
- 1.7 Gravel aquifers are not considered effective
- 1.8 Despite impermeable aquicludes
- 1.9 Reversal of Upward Pressure
- 1.10 Modelling Holocene fans

Water Demand

“In some parts of the TANK catchments there is insufficient freshwater to meet all the abstraction demands placed on the resource all of the time, including as a result of population growth and there may be opportunities for more efficient use, conserving, harvesting, storing and augmenting supplies”.

Ref: Page 3. Proposed PC-9 TANK

Asking for pre-hearing and to be heard

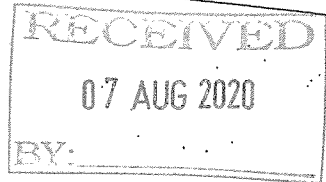
David W. Renouf. – ‘Researcher’

D.W. Renouf

30/06/2020

07 AUG 2020

Submission on Proposed Plan Change 9: Hawke's Bay Regional Resource Management Plan



PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: (required) David W. Renouf

Organisation/Iwi/Hapu: _____

Postal address: (required) _____

603 A. Ballantyne Street
Hastings 420

Email address: _____

Phone number: 06-8783239

Contact person and address if different to above: _____

Trade Competition

Pursuant to Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

- adversely affects the environment; and
- does not relate to trade competition or the effects of trade competition.

Please tick the sentence that applies to you:

- I could not gain an advantage in trade competition through this submission; or
- I could gain an advantage in trade competition through this submission.

If you have ticked this box please select one of the following:

- I am directly affected by an effect of the subject matter of the submission.
- I am not directly affected by an effect of the subject matter of the submission.

Do you wish to be heard in support of your submission? Yes / ~~No~~

If others make a similar submission, would you consider presenting a joint case with them at a hearing? Yes / No

Signature: D.W. Renouf Date: 7th August 2020

NB: Space for writing submissions is overleaf.

Send written submissions to:

Hawke's Bay Regional Council
Private Bag 6006
NAPIER

or fax to:
(06) 835-3601

or email to:
eTANK@hbrc.govt.nz

Deadline for Submissions:

14th August 2020
~~5pm Fri 3 July 2020~~

No submissions will be accepted after this deadline. The deadline will not be further extended.

OFFICE USE ONLY

SUBMISSION ID#

Date Received:

Database Entry Date:

Database Entry Operator:

HAWKES BAY

REGIONAL COUNCIL

TE Kaitiaki Heiahi Kōwhiri o Te Matiu-a-Māui

Submission Details

Please attach more pages if necessary. If you do not wish to use this form, please ensure that the same information required by this form is covered in your submission. Further information on how to make a submission and the submission process is available on the Regional Council website.

1. PC-9 Schedule 35: Source Protection for Drinking Water Supplies

Plan provision (eg. objective, policy or rule number) 2. TANK PC-9 Map 1 SPZ and HDC SPZ-3 Map

I Support Oppose Amend

I seek the following decision from the Regional Council: [Please give precise details to ensure your views are accurately represented in submission summary documents to be prepared by the council as part of the submission and hearing process]

That the Hawkes Bay Regional Council and that the Hastings District Council Amend TANK PC-9 SPZ Map 1 and Hastings District Council SPZ-3 Map areas and form up Source Protection Consecutive Zones.

Reason for decision requested: Because: Hawkes Bay Regional Council TANK PC-9 SPZ Map 1 does not protect all registered drinking water wells and has no SP Consecutive Zones on the Map And Hastings District Council SPZ-3 Map does not protect all registered drinking water wells and has no SP Consecutive Zones on the Map.

Because of the robust evidence and information in Booklet attached,

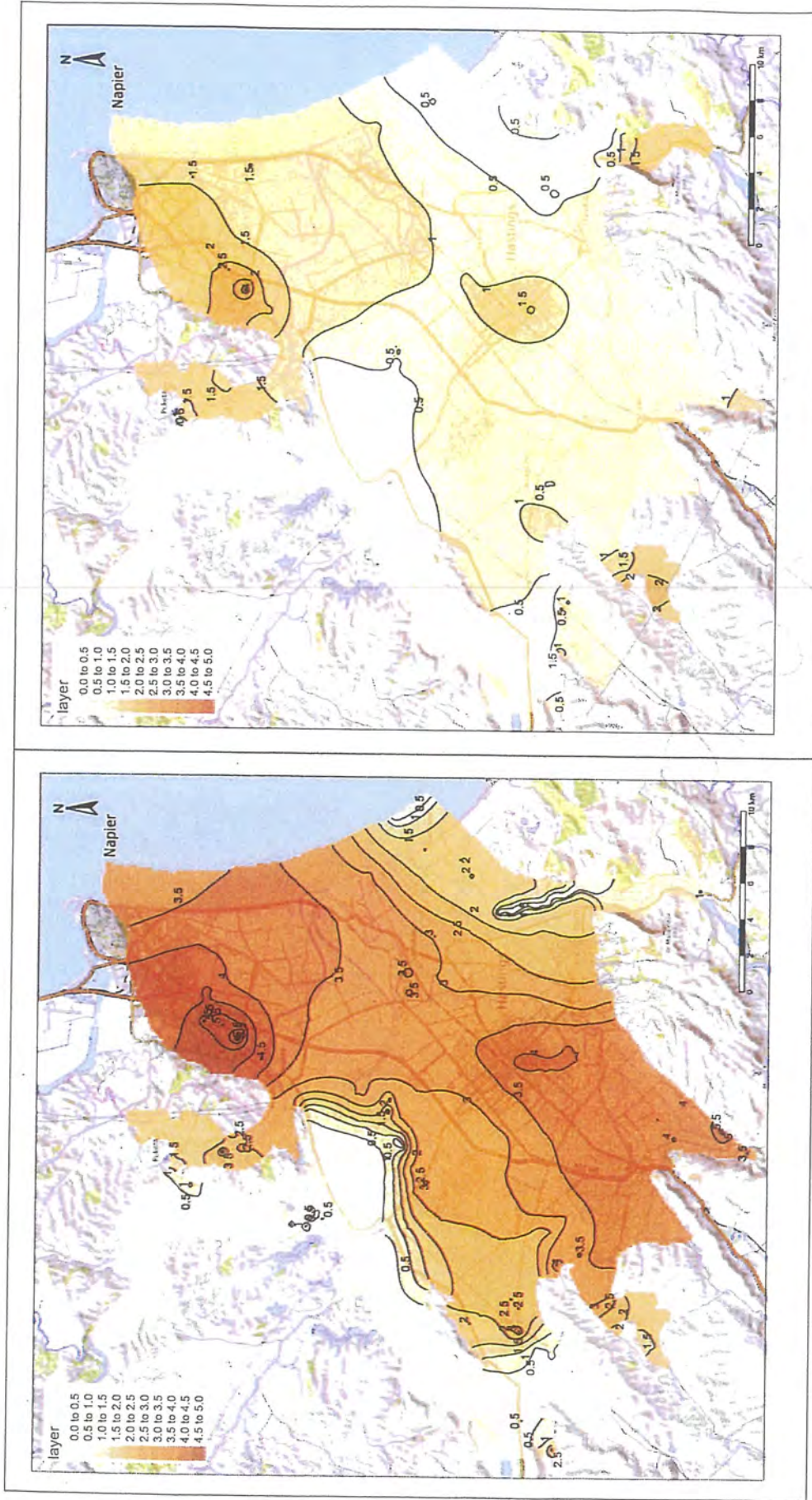


Figure 3-26: Groundwater drawdown (m) in Heretaunga Aquifer during summer (March 2013).

Figure 3-27: Groundwater drawdown (m) in Heretaunga Aquifer during winter (August 2012).

Pear Shape Points in a Northerly Direction

Figure 3-27: Groundwater drawdown in Heretaunga Aquifer during the winter.

Shows a pear shape that points in a Northerly Direction.
BUT the main recharge source of groundwater comes from the Ngaruroro River that is in the West.

So the groundwater drawdown figure 3-27 showing the pear shape that points towards in a Northerly Direction may mean that a large quantity of groundwater is in a Northerly Direction.

Hastings District Council Drinking Water wells are at Eastbourne Street East.

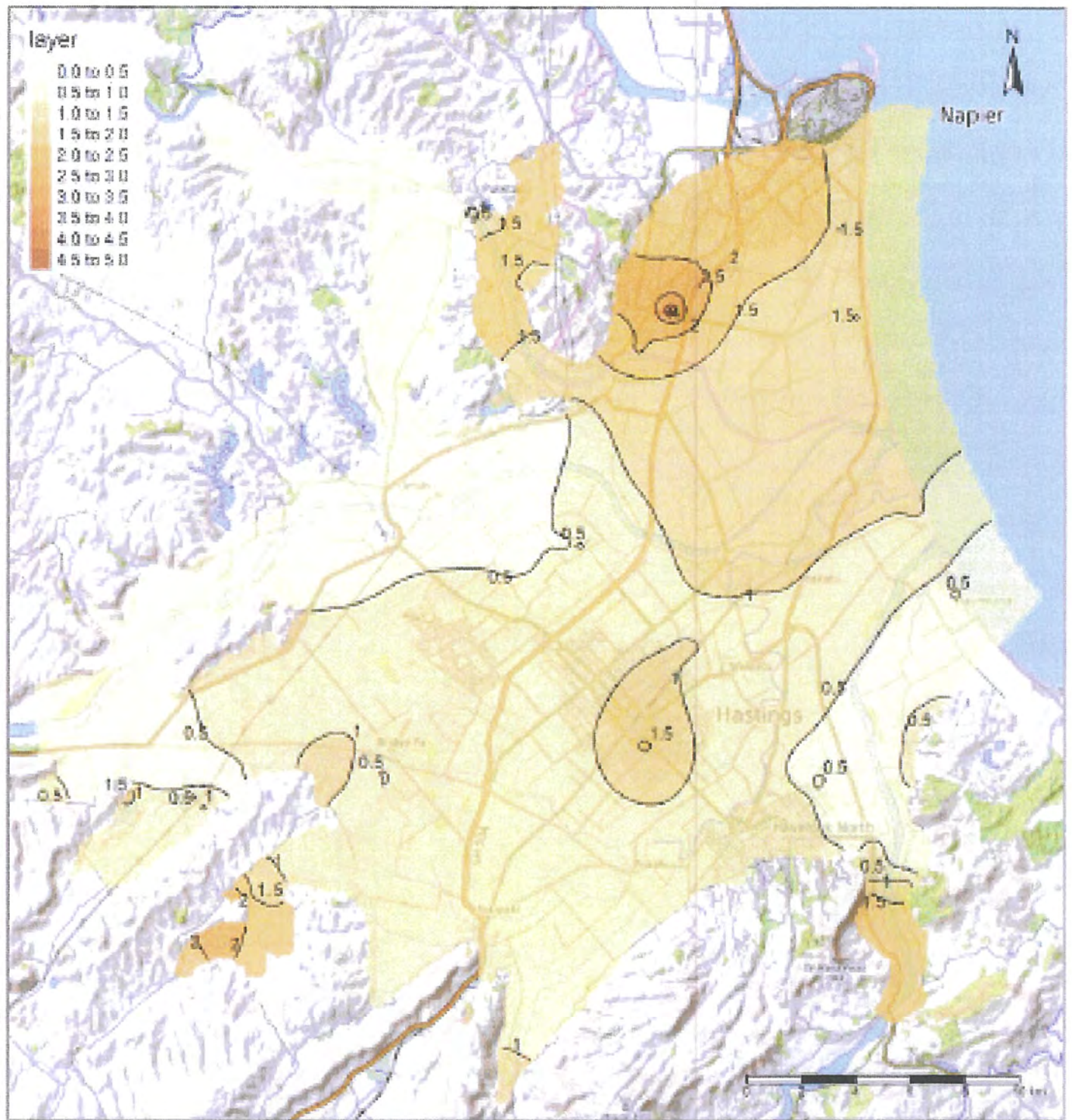


Figure 3-27: Groundwater drawdown (m) in Heretaunga Aquifer during winter August 2012).

HBRC Heretaunga Aquifer Groundwater Model 2015

Robust evidence that shows why the Source Protection Zone-3 Maps require to be revised and why a Source Protection Conjunctive Zone needs to be outlined.

Contents

- (A) Source of Napier's Groundwater
- (B) Loss of Ngaruroro River water below Fernhill
- (C) Bottling Plants
- (D) Heinz Wattie Borefield
- (E) Hastings District Council Bore 4151 at Brookvale Road Havelock North
- (F) Extent of Cone of Depression. Meaning of Cone of Depression.
- (G) 'Minor Recharge Area'
- (H) Potential of Stream Depletion Effects
- (I) 'Capture Zone'
- (J) Outlined is the recharge area between Maraekakaho Stream and Roys Hill
- (K) The extent of subsurface Holocene alluvial fans
- (L) Holocene gravels surface and subsurface
- (M) Figure 2-1: "Losing sections of rivers are shown in red"

Other Evidence

1. Velocity of Groundwater
 - 1A. Actual Example of Velocity of Groundwater
2. Mean Residence Times (MRT)
3. Hydraulic Conductivity Zone >975-m/day for gravel
Heretaunga Plains Max 42200 m/d
4. 'Age of Water'
5. 'Actual' Groundwater Drawdown in Heretaunga Aquifer Summer – Winter
Transparency used to highlight that the drawdown is outside SPZ-3 areas
6. Sensitivity Analysis #2
7. Two different methods and calculations used to compile SPZ Maps
8. List of some things that are used to form up Source Protection Zones
9. Based on evidence, robust data and information some listed below

NOTE: Local Government Minister 'Hon Nanaia Mahuta' words
Compiled a *DRAFT* SPZ-3 Map and SP Conjunctive Zone

10. Some things that are missing from SPZ-3 Maps
11. Two submissions onto HBRC Plan Change 9.
 - 11A. PC-9 Schedule 35. Source Protection for Drinking Water
 - 11B. TANK PC-9 Map 1. SPZ and HDC SPZ-3 Map
12. Meanings



TAMK

Terveystieteiden tutkimuskeskus, Tampere

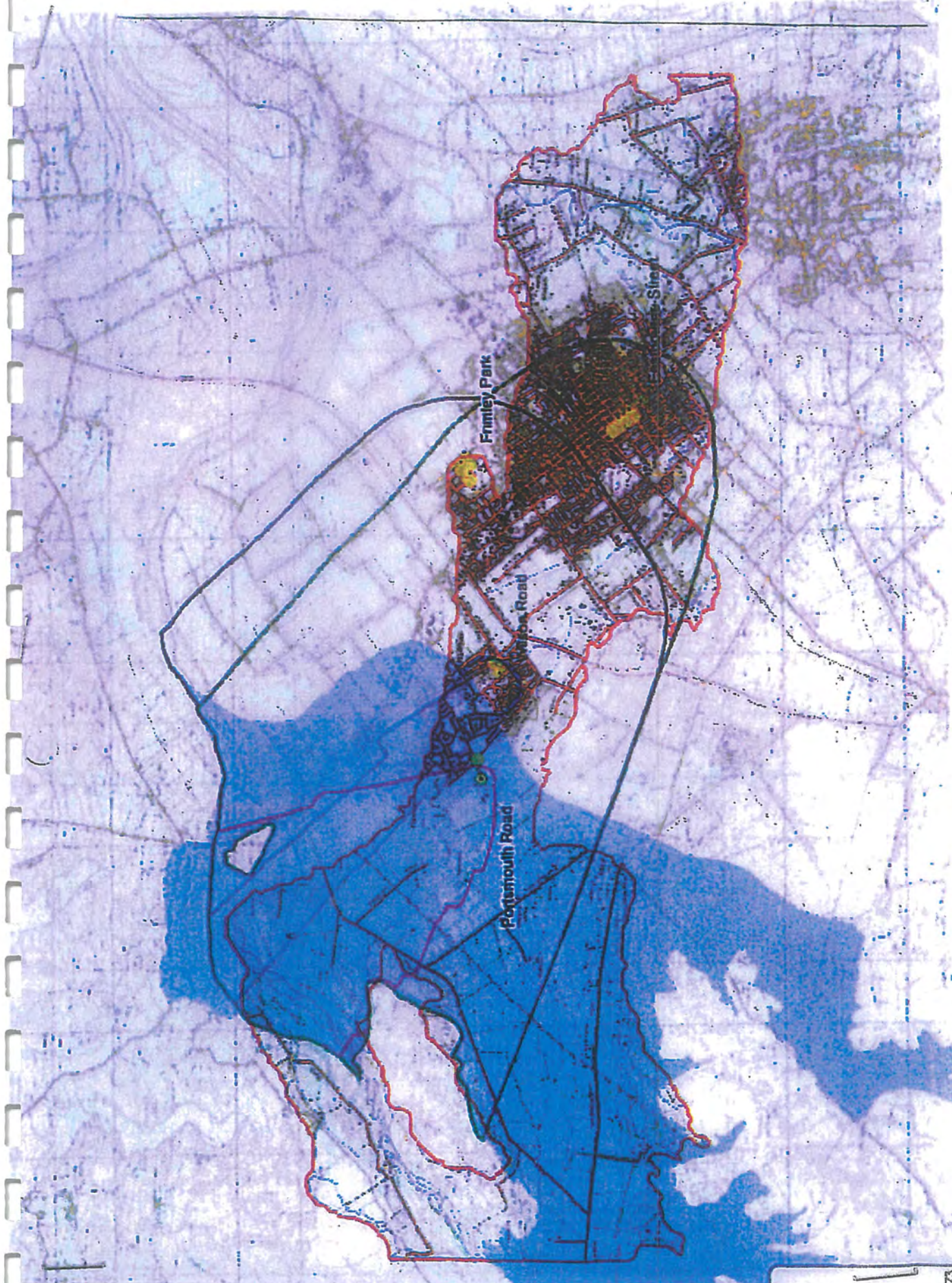
Proposed Plan Change 9

Map 1

Source Protection Zones
Hastings

Legend

- Drinking Water Source Protection Zone
- Drinking Water Source Protection Point



Over lay with HPC SP2.3 - green/black outside lines. - Transparency Applied

List of attached pages

3.10.2 Sources of Aquifer Recharge – Napier area
Page 96. Heretaunga Groundwater Model. HBRC 13 June 2018

Figure 19: Shows groundwater flow arrows one arrow goes towards Napier
Page 29. HBRC Groundwater Quantity SOE 5 yearly report 2003-2008

Figure 15: Shows area of loss from Ngaruroro River between Fernhill and Hill Road.
Groundwater flow direction arrows
Page 22. HBRC Twford Consent Area Technical Report 10 October 2009

Figure 3-24: Tukituki River loss between River Road and Tennants Road
Page 55. HBRC Heretaunga Springs. June 2018

Plan View showing Total extent of Lower Tukituki River gravel fan
Page 59. HBRC Heretaunga Springs June 2018

Cone of depression extents beneath the Karamu and Irongate Streams and other tributaries
Page 59. Council Agenda Item: 9. 25/05/2017

Cone of depression – Wikipedia 18/07/2020

Page 11. Potential of stream depletion effects
Hastings District Water Strategy March 2018.

Figure 5.6 Roys Hill-Maraekakaho minor recharge area
Page 104. HBRC GNS Heretaunga Plains Groundwater Study

Minor recharge channel between Maraekakaho and south of Roys Hill
Page 113. HBRC GNS Heretaunga Plains Groundwater Study

Figure 3-32 showing start of loss in the Ngaruroro River
Page 70. HBRC Heretaunga Springs June 2018

Figure 2.3 Recharges Zones in Ngaruroro River and Lower Tukituki River
Enlarge copy. Page 8. Heretaunga Plains Aquifers GNS Report 2017

Figure A 5.7 The extent of subsurface Holocene alluvial fans Ngaruroro & Tukituki River
GNS Report November 2016

Figure 5: Map of surface and subsurface of Holocene gravels
Page 13. A 3D Geological Model of the Greater Heretaunga/Ahuriri Groundwater
Management Zone HB GNS May 2014

Figure 2-1: Losing sections of rivers are shown in red
Page 19. HBRC Heretaunga Aquifer Groundwater Model 31 August 2018

Figure 3-53 Velocity of groundwater
Page 100. HBRC Heretaunga Aquifer Groundwater Model 13 June 2018

Fernhill Flow Rate – Flamere 3737 Depth from well head on same day
HBRC – Hydro Tel Web Server 17/03/2015

Figure 4.4 more vigorous groundwater flow
page 39. Heretaunga Plains Aquifers GNS Report April 2018

Table 5: Hydraulic Conductivity >975 m/d gravel
Page 13. Heretaunga Plains Transmissivity and Storativity Pattle Delamore Partners
August 2014. For HBRC

Table A 2.2 Hydraulic Conductivity Hawke's Bay Heretaunga Plains 42200 m/d
Page 47. Capture Zone guidelines for New Zealand GNS Report April 2014

Figure 3.1: Interpreted Transmissivity Zones m^2/day red >10,000 – gravel bores <35m
Figure 3.4: Interpreted Transmissivity Zones m^2/day red >10,000 – gravel pumping tests
Pattle Delamore Partners Ltd for HBRC August 2014

Mean Transit Times (MTT) of usually less than 2 years – Ngaruroro River
Page V Heretaunga Plains Aquifers GNS Report April 2018

Figure 4.1 Map of Mean Transit Times (MTT) of surface water
The very young water with a MTT of <2 years - Ngaruroro River
Page 35. Heretaunga Plains Aquifers GNS Report 2017

4.0 Groundwater Residence Time Determination showing minimum residence time in years and Young Fraction (i.e. water less than one year old) of Flaxmere and some Hastings wells. Page 8. Table 4.1 GNS Report 2016

Figure 3-26: Groundwater drawdown (m) in Heretaunga Aquifer during summer
On Cover-Figure 3-27: Groundwater drawdown (m) in Heretaunga Aquifer during winter
Page 52. Figures 3-26/7 HBRC Heretaunga Aquifer Groundwater Model 31 August 2018

Opposite point 5 transparency has been used of HDC SPZ-3 over Figure 3-27.
This shows that the pointed area of groundwater drawdown is outside of SPZ-3 area.

Pumping from the well lowers the water table, reverses the hydraulic gradient and hence the direction of flow.
Page 29.3 Figure 29.4 Groundwater Systems Freshwaters of New Zealand 2004

Policy 33 (a)/(b) taking of shallow groundwater within and beyond 400 metres
Page 13. 5.2 Policy 33 (a) and (b) HBRC Twyford Technical Report 10 October 2009

Eastbourne St wells flow direction rotated anti-clockwise and clockwise by 25 degrees
Sensitivity Analysis #2 Tonkin+Taylor for Hastings District Council

Sensitivity Analysis – SP2 zones

Protection of Drinking-Water Sources under a Multi-Barrier Risk based approach

Following the Havelock North Outbreak. Development of SPZ for HDC Drinking-Water Supply. Tonkin+Taylor for Hastings District Council

Groundwater Quality and Risks

- Immediate protection zone (SPZ1) a 5m setback zone around each bore head to allow for specific control (by statute, regulation, planning rule) of activities within the immediate vicinity of the bore heads
- Microbial protection zone (SPZ2) defined by analytic modelling that represents a 1-year groundwater travel time from the bore field
- Capture zone (SPZ3) defined by a catchment or hydrogeological boundary, which in this case is based on a 10-year travel time

Ref: Pages 24/5 –43 Hastings District Water Strategy March 2018

Transparency overlay of Hastings District Council SPZ-3 Map dated October 2018 over SPZ Map 1 of Hawke's Bay Regional Council from Proposed Plan Change 9.

Opposite point 9 attached.

'DRAFT' Map of Heretaunga Plains showing Source Protection Zone 3 and Source Protection Conjunctive Zones. 24/07/2020

(A) Source of Napier's Groundwater

"The geochemistry study concluded that groundwater in the Napier area originates from the Ngaruroro River, with no contribution from the Tukaekuri River or rainfall recharge"

Ref: page 96. HBRC Heretaunga Aquifer Groundwater Model June 2018
See HBRC Fig 19 in Groundwater Quantity SOE 5 yearly report 2003-2008
This shows flow direction arrow from Ngaruroro River to the Napier area.

(B) Loss of Ngaruroro River water below Fernhill

Figure 15 shows the groundwater flow direction arrows from the area of loss from the Ngaruroro River in the unconfined aquifer between Fernhill and Hill Road, this extends approximately 3-km.

Ref: Figure 15 Twyford Consent Area Technical Report 10 October 2009.

(C) Bottling Plants

115B Elwood Road well no. 5982
44 Johnston Road Whakatu well no. 5977
3 Railway Road Whakatu well no. 4767
38 Whakatu Road well no. 15853
2 Anderson Road well no's. 16545/16546

All these wells can supply drinking water to over 501 people
Some of this bottled drinking water is being sold in NZ.

(D) Heinz Wattie Borefield

One SPZ-3 map has left out Heinz Wattie Borefield that contains 8 wells. The close proximity (817 metres) of these 8 Heinz Wattie wells to the HDC Eastbourne Street and Frimley Park wells surely shows that there can be combined effects on groundwater travel times and flow directions.

"The approach to defining SPZs for each of the bore fields was to not only consider them independently of each other but to consider the combined effects on groundwater travel times and flow direction for the following reasons:

- **The relatively close proximity of the four bore fields to one another.**
 - The terms of the combined groundwater take consent. The SPZ for each bore field based on the maximum capacity of the bore up to the consented take volume.
 - The **observed** seasonal variation in groundwater flow directions.
 - The slope of the groundwater surface (i.e. hydraulic gradient).
 - **The recharge from the Ngaruroro River.**
 - **The location and magnitude of the large Heinz Wattie's Ltd take.**
 - The relatively consistent geological/hydrogeological conditions".
- Ref: pages 24/5 Hastings District Water Strategy March 2018. [emphasis added]

(E) Hastings District Council Bore 4151 at Brookvale Road Havelock North

HDC Bore 4151- supplies over 501 people therefore requires Source Protection Zones. Recharge area for this bore see figure 3-24 from page 55 of Heretaunga Springs June 2018. This shows the start and end of the water loss in Tukituki River See figure 3-26 from page 59 Heretaunga Springs June 2018. This shows the total extent of the gravel fan of the lower Tukituki River

NOTE: There is already a Map (Figure 2) that contains Protection Zone, Capture Zone with a groundwater flow arrow for Hastings District Council's Drinking Water well 4151 at Brookvale Road Havelock North, which is not included on SPZ-3 Maps. Ref: Fig 2. Hastings District Council Well No 3 Protection Area. Tonkin+Taylor August 2016

(F) Extent of Cone of Depression

This extends from Eastbourne Street bores to Karamu and Irongate Streams and other Tributaries.

“The Eastbourne Street bore abstracts groundwater from the leaky-confined aquifer. When pumping, the cone of depression is located beneath the confined aquifer area and extends beneath the Karamu and Irongate streams and other tributaries.”

Ref: page 59. HDC Agenda Item 9. 25/05/2017

Meaning of Cone of Depression

“A cone of depression occurs in a aquifer when groundwater is pumped from a well.”

“When a well is pumped, the water level in the well is lowered. By lowing this water level, a gradient occurs between the water in the surrounding aquifer and the water in the well. Because water flows from high to low water levels or pressure, this gradient **produces a flow from the surrounding aquifer into the well.**”

Ref: Wikipedia 18/07/2020 [**Emphasis added**]

(G) 'Minor Recharge Area'

Robust evidence why this recharge area needs to be included into the SPZ-3 Map.

- “In the Roys Hill-Maraekakaho minor recharge area the piezometric surface is about 3 m deep and gradually deepens to 12 m where it merges with the main flow.”

Ref: page 104. Heretaunga Plains Groundwater Study- GNS/HBRC May 1997

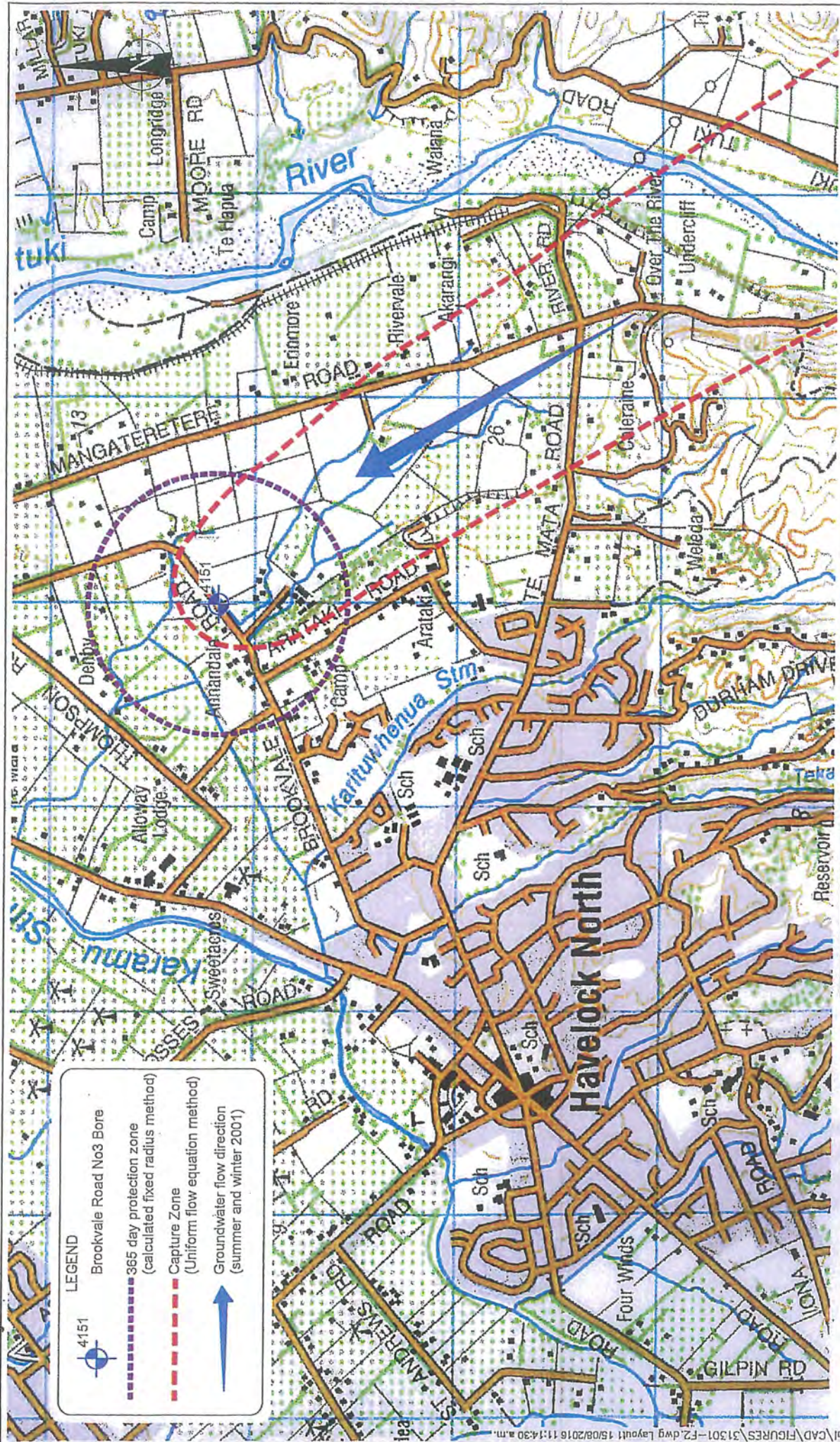
- “The minor recharge channel between Maraekakaho and south of Roys Hill is carved in the mudstone basement and intersects the major channel near Flaxmere”

Ref: page 113. Heretaunga Plains Groundwater Study- GNS/HBRC May 1997

- By the Maraekakaho Stream discharge to the Ngaruroro River the loss of water starts.

See Fig 3.32 page 70 HBRC Heretaunga Springs June 2018

Figure 2.



LEGEND

- 4151
- Brookvale Road No3 Bore
- 365 day protection zone (calculated fixed radius method)
- Capture Zone (Uniform flow equation method)
- Groundwater flow direction (summer and winter 2001)

SCALE 1:25,000
 0 500 1000 1500 (m)

Topomap sourced from Land Information New Zealand data (Crown Copyright Reserved).

DRAWN	RBS	Aug.16
DRAFTING CHECKED		
APPROVED		
CORFILE: \\31301-F2.dwg		
SCALES (AT A4 SIZE)		
1:25000		

T+T
Tonkin+Taylor
 105 Carlton Gore Road, Newmarket, Auckland

HASTINGS DISTRICT COUNCIL
 WELLHEAD PROTECTION AREA
 BROOKVALE ROAD No3 WELL
 Protection Area

(H) **Potential of Stream Depletion Effects**

“It was found that the Portsmouth Road Bore (which was the primary supply bore) had a significant greater stream depleting effect on the Irongate Stream than occurred with the use of Wilson Road Bore.”

Ref: page 11. Hastings District Water Strategy March 2018

(I) **‘Capture Zone’**

“CZ using steady-state conditions that delineate the entire recharge area of a feature, truncated as appropriate by flow boundary criteria. Alternatively, the CZ can be delineated using a TOT criterion of 10-years for management purposes or 50-years or flow boundary criteria.

The 50-year threshold is based on groundwater age tracer information suggesting that a **TOT of between 50-100 years is appropriate for New Zealand.**”

Ref: page 45. Envirolink Tools Project- Capture Zone Delineation Technical Report GNS Report April 2014. **[Emphasis added]**

(J) **Outlined is the recharge area between Maraekakaho Stream and Roys Hill**

This recharge area is clearly outlined especially above the Maraekakaho Stream discharge point to the Ngaruroro River and the area of recharge above and by Roys Hill.

This is shown in Figure 2.3 the extent of the recharge zone/s which includes the recharge zone of the lower Tukituki River.

Ref: page 8. Figure 2.3 Heretaunga Plains Aquifers GNS Science Report April 2018

(K) **The extent of subsurface Holocene alluvial fans**

Figure A 5.7

“The extent of subsurface Holocene alluvial fans from the Ngaruroro and Tukituki rivers is shown in this map image.”

Ref: Figure A 5.7 Groundwater residence time assessment of HDC water supply wells in the context of the Drinking-water Standards for NZ. GNS Report 2016

(L) **Holocene gravels surface and subsurface**

Figure 5

“A map view of the surface and subsurface distribution of Holocene gravels identified from the borelogs. Beach gravels south of Napier and at Haumoana (reddish brown) and inland alluvial fan deltas (green) were deposited by the Ngaruroro and Tukituki rivers.”

Ref: page 13. A 3D Geological Model of the Greater Heretaunga / Ahuriri Groundwater Management Zone HB GNS May 2014

Both Figures A 5.7 and Figure 5 show the extent of surface and subsurface of the Lower Tukituki River.

(M) Figure 2-1:

“Losing sections of rivers are shown in red”

Ref: page 19. Heretaunga Aquifer Groundwater Model 31 August 2018 10:52 a.m.

This Figure 2-1: Highlights precisely the rivers in red that need to be in
Source Protection Conjunctive Zone Map

Example:

- Lower Tukituki River between River Road and Tennant Road
- Ngaruroro River between Fernhill and Hill Road
- Ngaruroro River between Roys Hill and Fernhill
- Ngaruroro River between Maraekakaho Stream and Roys Hill

These are recharge areas of our Drinking Water that require robust protection

Other Evidence

1. Velocity of Groundwater in the Heretaunga Plains— *‘This may be under estimated’*

“Ngaruroro River water moves rapidly through the aquifer towards Hastings with velocity of approximately 3 km/year, resulting in relatively young groundwater in Hastings water supply bores, even at depths below 60 m.”

Ref: page 100. Heretaunga Aquifer Groundwater Model June 2018

1A. Actual Example of Velocity of Groundwater

Same day flow rate up at river the result being 5.76-km (Google Ruler) away.
Well water height increased the same day.

An significant increase rate of flow of water in the Ngaruroro River at Fernhill peaked on the 17/03/2015 to a flow rate of about 64 m³/s at Fernhill from a flow rate of about 2 m³/s. [Flows that are labelled m³/s multiply by 1000 to get L/s]

The result of this significant increase of the rate of flow in the Ngaruroro River was that the depth of water rose in the well head of the Flaxmere well 3737, which is a distance of about 5.76-km from the Ngaruroro River

So what happened on the same *DAY* 17/03/2015. Ngaruroro River flow rate on the 17/03/2015 increased to >64 m³/s up by 61 m³/s shown on page of HBRC Hydro Tel Web Server graph as nearly vertical line. Flaxmere well 3737 depth of water from land surface rose up by 420 mm on the 17/03/2015.

This is shown on the page of HBRC Hydro Tel Web Server graph as a vertical line

2. Mean Residence Times (MRT)

“More vigorous groundwater flow in the confined aquifer towards the coast is indicated further south in the centre of the Plains by a tongue of very young groundwater (MRT <5 years) which reaches up to the Hospital”

Ref: page 39. Heretaunga Plains Aquifer GNS Science Report 2018

3. Hydraulic Conductive Zone >975-m/day for gravel

Table 5: shows Equivalent Hydraulic Conductivity Zone (m/day) of >975 for gravel
 These zones of above 975-metres day are shown in red in figure 3.1 and 3.4
 Ref: page 13. Fig 3.1, 3.4 Heretaunga Plains Transmissivity and Storativity Maps by
 Pattle Delamore Partners for HBRC August 2014
 [So clearly groundwater in these RED ZONES are moving faster than 3 km/year]

Hydraulic Conductivity

Heretaunga Plains Max 42200 (m/d)

Ref: page 47. Table A 2.2 Capture Zone Guidelines for NZ GNS Report April 2014

“Analysis indicated the presence of a high transmissivity zone in the central area of the Heretaunga Plains. However, the analysis also showed high variability of hydraulic conductivity, changing between 100 m/d to 3,000 m/d over a short distance in multiple location.”

Ref: page 65 Heretaunga Aquifer Groundwater Model June 2018

4. ‘Age of Water’

NOTE:

‘When the age of underground water is stated at the well/bore, the calculation needs to minus the age of the surface water that has entered into that groundwater’
 This then will give an accurate age of that water being underground

“In the surface water discharges, tritium-derived mean ages show consistent patterns for the main rivers with mean transit times (MTT) of usually less than 2 years in the Tukituki, Waipawa and Ngaruroro rivers.”

Ref: page v Heretaunga Plains Aquifers GNS Science Report 2017/April 2018

“The very young water with a MTT of <2 years in Tukituki, Waipawa and Ngaruroro Rivers,”

Ref: page 35. Heretaunga Plains Aquifers GNS Science Report 2017/April 2018

Example:

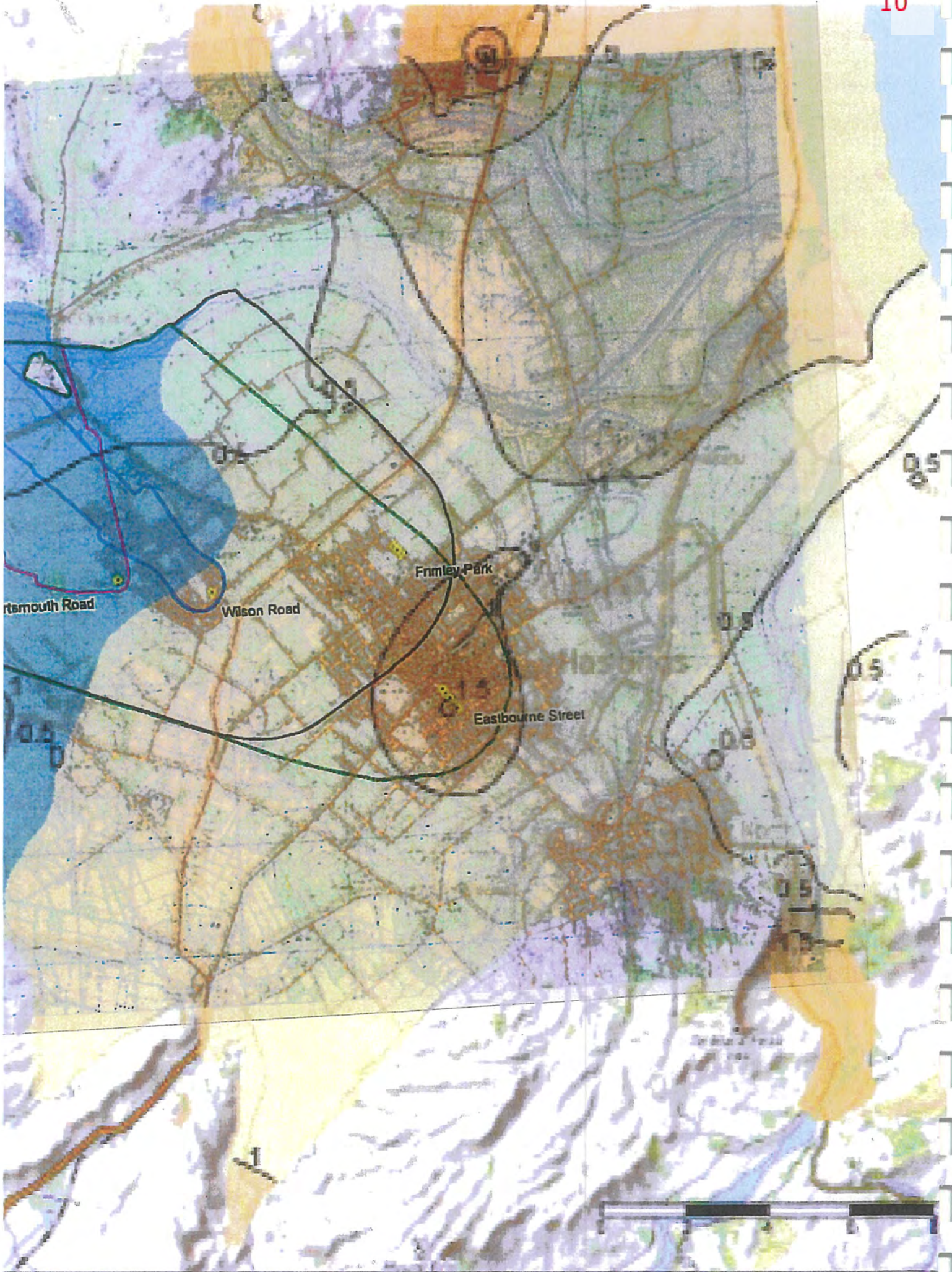
[If the Ngaruroro River water at Fernhill has a MTT of less than 2 years and the MRT is 3 years at the HB Hospital well no. 4497, this may mean the actual MRT is less than 1 year. The distance of HB Hospital well no. 4497 is about 8.4 km from the Ngaruroro River.]

Some MRT that may help to understand the velocity of actual groundwater when taking away the age of the surface water that enters the groundwater.

Lyndhurst well No. 5 MRT 2.5/1.0

Eastbourne well No. 5 MRT 2.4

Ref: page 8. Table 4.1 Groundwater residence time assessment of HDC water supply wells in the context of the Drinking-water Standards for NZ. GNS Science Consultancy Report November 2016



H&C SP2-3 map overlain; Figure 3-27 Groundwater drawdown in Haslemere Aquifer during winter
Ref: Haslemere Aquifer Groundwater Model August 2018, page 52, H&C.

5. **'Actual' Groundwater Drawdown in Heretaunga Aquifer Summer - Winter**
 Figures 3-26: 3-27: show in colour layers the metre drawdown in Heretaunga Plains
 These coloured figures show the extent of effects especially during summer
 drawdown, therefore these areas of significant effects require to be included into the
 source protection maps.
 Ref: page 52. Fig 3-26: 3-27: Heretaunga Aquifer Groundwater Model Scenarios
 Report 31 August 2018

NOTE: Sideways direction effect shown in both figures in the Eastbourne Street well area.
 The winter drawdown sideways direction length is about 5 km, which is significant
 The summer drawdown is higher. The direction shows to the north is about 5 km
 but there is a greater direction of about 10 km to the south.

The groundwater drawdown figures 3-26-3-27 show no pointed drawdown towards the Ngaruroro River

Transparency Used

To highlight this Hastings District Council Source Protection Zone 3 map over laid onto
 Figure 3-27 Groundwater drawdown in Heretaunga Aquifer during winter.
 Ref: Page 52. HBRC Heretaunga Aquifer Groundwater Model August 2018

Reverses the hydraulic gradient

Figure 29.4 – states when “Pumping from the well lowers the water table, reverses the
 hydraulic gradient and hence the direction of flow”
 Ref: Figure 29.4 Groundwater Systems Freshwaters of New Zealand 2004

Taking of shallow groundwater within and beyond 400 metres

“Policy 33 (a) Any taking of shallow groundwater within 400 metres of a river, lake or
 wetland as measured from the edge of the bed will be treated as if it were a direct take
 unless the extent to which the groundwater will deplete water in the surface water body
 has been assessed using an appropriate scientific procedure in which case the effects on
 surface water will be assessed on that basis.”

“Policy 33 (b) Any taking of shallow groundwater beyond 400 metres may require an
 assessment of effects in the river, lake or wetland if the scale of the take, the groundwater
 flow direction and the transmissivity and storativity characteristics of the aquifer indicate
 interaction is likely to occur, in which case it may be treated as if it were a direct take.”

Ref: page 60 HBRC RRMP August 2006

Be careful if the assumptions are based on that there is one underground source of water in front of a group of wells, which may satisfy all the submersible pump consent limits.

In some cases there may be groups of wells on the same source. Most sources have limitations and do not have the capacity to supply all the wells water in a zone at the same time.

6. Sensitivity Analysis #2

This information shows the blue outside line across the Ngaruroro River, which takes in the flat land to foot of the hills.

There are two rings flow direction rotated anti-clockwise by 25 degrees and flow direction rotated clockwise by 25 degrees.

As stated on the page headed Parameter - Change

Flow direction Rotate clockwise by 25°

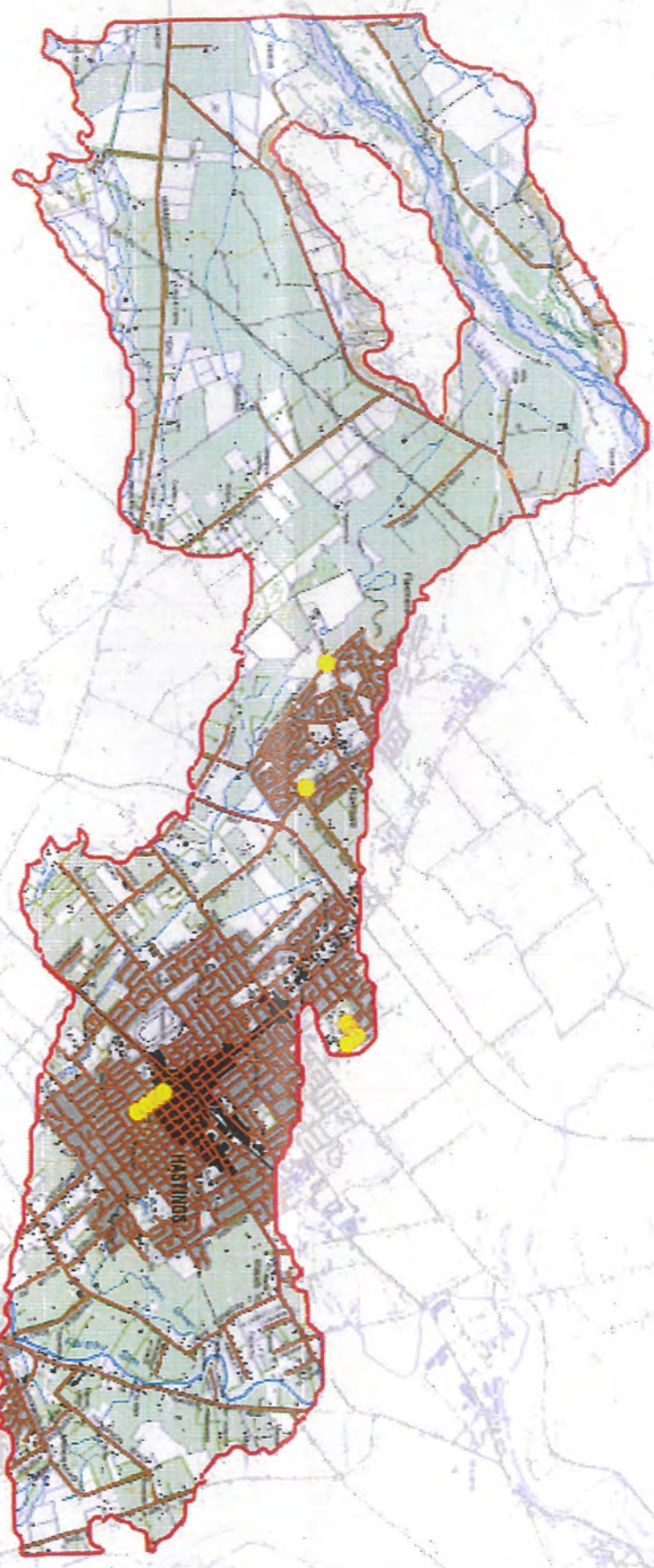
Rotates entire zone to align with groundwater flow from north-westerly direction.
[BUT this groundwater flow from north-westerly direction is not included on the SPZ 3 Map]

Flow direction Rotate anti-clockwise by 25°

Rotates entire zone to align with groundwater flow from east south-easterly direction.

[But this groundwater flow from east south-easterly direction has not included the full winter groundwater drawdown area shown in Heretaunga Aquifer Groundwater Model 31 August 2018 figure 3-27 this area needs to be included into SPZ 3 Map]

Ref: to Sensitivity Analysis #2 Protection of Drinking-Water Sources under a Multi-Barrier Risk based Approach following the Havelock North Out Break.
Development of SPZ for HDC Drinking-Water Supply. T+T- no date





TANK

Tunwell, Abbot, Higdene, Seaman

Proposed Plan Change 9

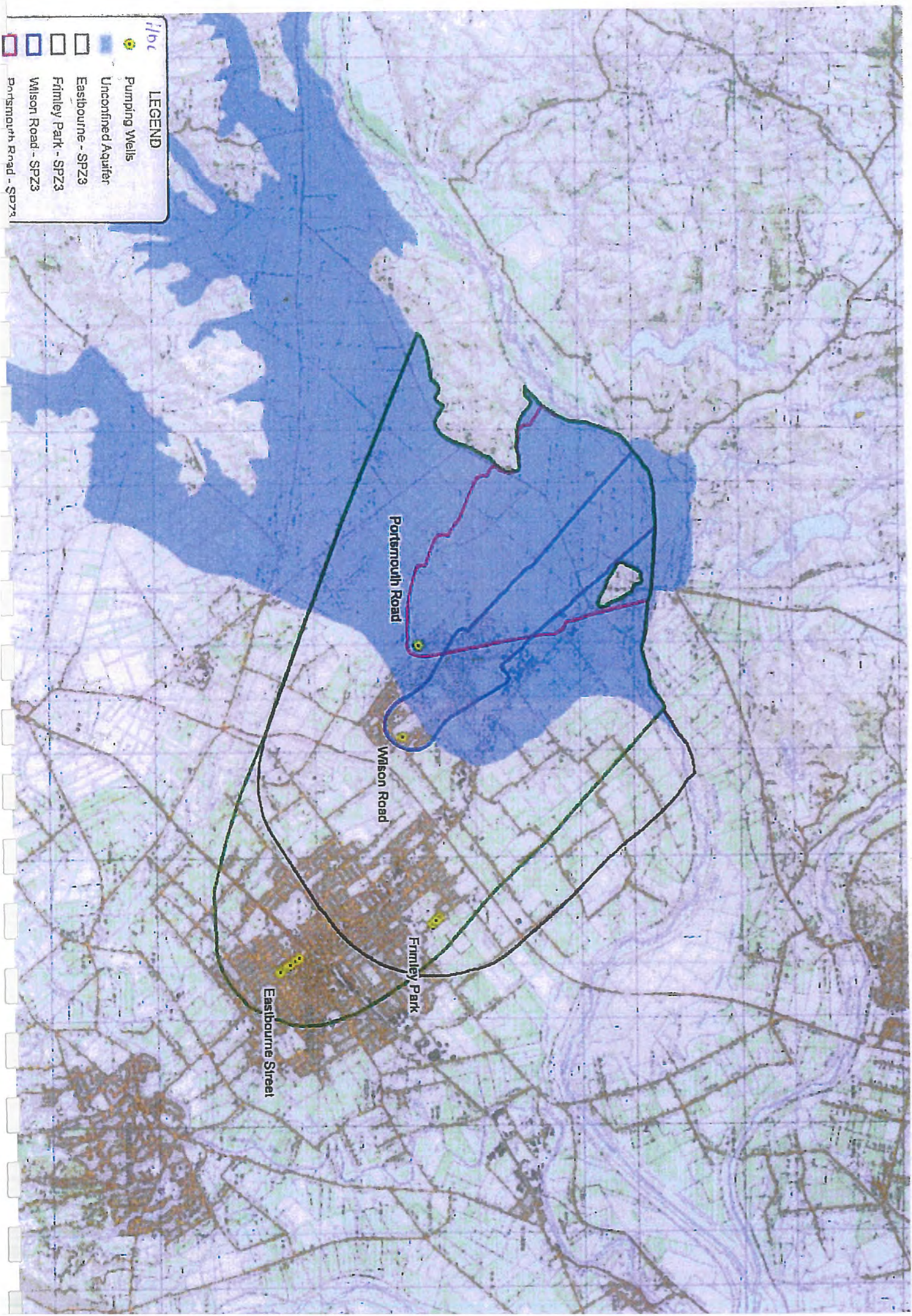
Map 1

Source Protection Zones
Hastings

- Legend**
-  Outline Zone - Super Source Zone
 -  Hastings Water District Pumping Wells



100% of the water supply for Hastings is sourced from the Hastings Water District. The Hastings Water District is a public utility company that provides water supply to Hastings and surrounding areas.



- LEGEND**
-  Pumping Wells
 -  Unconfined Aquifer
 -  Eastbourne - SPZ3
 -  Frimley Park - SPZ3
 -  Wilson Road - SPZ3
 -  Parkmouth Road - SPZ3

7. Two different methods and calculations used to compile SPZ Maps

	(A)	(B)
SPZ-1:	5-m set back around each bore head. (Protection Zone)	Draw Z-1: 5 to 30-m radius around well head.
SPZ-2	Microbial Protection Zone 1 – year travel time	Draw Z-2 Microbial Protection Time of travel 2.5 km
Capture Zone:	10-year or 50-year See CZ extent#	Draw Z-3 <u>entire capture zone/ catchment groundwater catchment Including catchments of any recharging surface water bodies</u>
Conjunctive Zone:	Not found	Conjunctive Zone: see 7.3*
Ref:	(A) Capture zone guidelines for NZ Drinking GNS Report April 2014	Ref: (B) Technical Guidelines for Water Source Protection Zones Prepared for Ministry for the Environment By Pattle Delamore Partners Ltd June 2018

SP Conjunctive Zone: Hydraulic-connected groundwater and surface water in the Heretaunga Plains Aquifer System.

*7.3 Conjunctive Zones

“The term ‘conjunctive’ relates to situations where both hydraulically-connected groundwater and surface water are draw into an intake.

Where public drinking water supplies abstract water that is a combination of groundwater and surface water such as a gallery or a well that is receiving water from an adjacent surface water source, then source protection zones should be delineated for each component as if each were a single source using the above methods. In this case, there will be overlapping of the groundwater and surface water zones and these should first be defined separately.

Ref: page 37. Technical Guidelines for Drinking Water Source Protection Zones
Prepared for Ministry for the Environment June 2018

#CZ extent

“The CZ extent should be defined by a catchment or hydrogeological boundary. However, to implement methods that delineate a TOT CZ, **the 50-year TOT threshold should be used.**” Ref: page 32 Capture Zone Delineation Technical GNS Report April 2014

[Emphasis added]

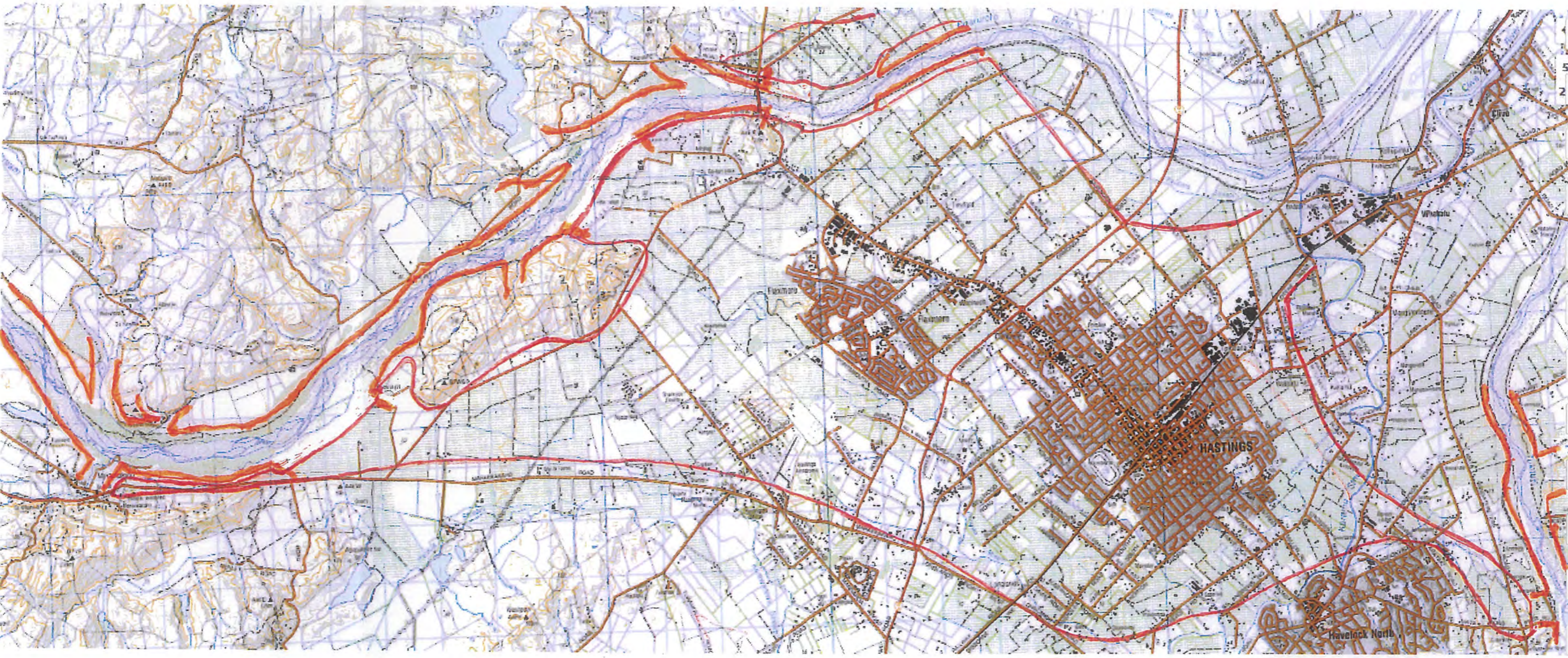
8. List of some things that are used to form up Source Protection Zones

1. The wording that is underlined may not have be used. There are current national Technical Guidelines and international best practices for delineating which shows how to implement source protection zones for drinking water sources.
2. The topography, geography and geology of the site
3. The depth of the well
4. The depth of the first screen
5. The construction of the well, age of well casing and diameter
6. Maximum pumping capacity, consented pumping rate
7. The type of aquifer- e.g. gravel, hydraulic conductivity m/d
8. Include all the recharge areas
9. Quantity of water available to well
10. The rate of flow in the surface water body
11. The rate of flow and velocity of the groundwater
12. Extent of the cone of depression and effects
13. Extent and the amount of drawdown in an radius area of >6 km
14. The types of actual or potential contaminates
15. Any potential risk to water quality
16. Any previous or present contamination of this well water
17. Any existing aquifer water quality testing results, and age dating, water levels
18. Any breaches of Drinking Water Standards of New Zealand
19. Results of effects on any other wells, waterways during **peak** abstraction rates
20. The existing level of treatment that the well water is receiving

21. Conjunctive Zone.

Because of the hydraulic-connected groundwater and surface water such as the Heretaunga Plains Aquifer System.

DRAFT



- Red line Source Protection Zone 3.
- Orange line Source Protection Conjunctive Zones

9. Based on evidence, robust data and information some listed below.
Compiled a *DRAFT* SPZ-3 Map and SP Conjunctive Zone.

Source of Napier's Groundwater

Loss of Ngaruroro River water below Fernhill

Bottling Plants

Heinz Wattie Borefield

HDC Drinking Water Bore 4151 at Brookvale Road Havelock North

Extent of Cone of Depression

Potential of Stream Depletion Effects

'Minor Recharge Area'

Using all available data. E.g. Figure 2.3 Heretaunga Plains Aquifer GNS Report 2018 which shows recharge areas of Lower Tukituki and Maraekakaho area

Outlined is the recharge area by the Maraekakaho Stream to Roys Hill

Velocity of Groundwater in the Heretaunga Plains

Actual Example of Velocity of Groundwater

Mean Residence Times (MRT)

Hydraulic Conductive Zone >975-m/day for gravel

'Age of Water'

'Actual' Groundwater Drawdown in Heretaunga Aquifer Summer – Winter
The effects on other wells from the centre of the high drawdown

Sensitivity Analysis #2

Significant differences between HBRC and HDC SPZ-3 Maps

T+T Figure 2. Map contains Protection Zone, Capture Zone for HDC
Drinking Water well no. 4156

Need for having Conjunctive Zone

The Local Government Minister 'Hon Nanaia Mahuta' words that
'so that no matter where you live you will have safe Drinking Water'

Ref: Parliament Thursday 23rd July 2020

10. Some things that are missing from SPZ-3 Map/s

Source Protection Conjunctive Zones

Because the groundwater and surface water in the Heretaunga Plains Aquifer System are hydraulically-connected

All the recharge areas. Example:

1. Maraekakaho to Roys Hill – 5.32-km (Goggle Ruler)
2. Roys Hill to Fernhill – 5-km (4.02-km Google Ruler)
3. Fernhill to Hill Road – 3-km (Ref: page 33. Heretaunga Aquifer Groundwater Model 2018)
4. Lower Tukituki River. River Rd to Tennant Rd – 4-km (see fig 3-7 Heretaunga Aquifer Groundwater Model 2018)

Source of Napier's Groundwater

The extent of the recharge area of HDC Bore at Havelock North

SP-Zones for HDC Bore 4151 at Havelock North it supplies over 501 people

Maraekakaho area of recharge to where it merges with the main underground flow

The extent of summer and winter groundwater drawdown.

Shown in Heretaunga Aquifer Groundwater Model figures 3-26 and 3-27 at page 52

Groundwater drawdown figures show no pointed drawdown towards the Ngaruroro River

Basing the maps on the latest Hydraulic Conductive Zone m/day

Cone of Depression 'Quote'

"Because water flows from high to low water levels or pressure, this gradient produces a flow from the surrounding aquifer into the well"

Capture Zone – 'Quote'

"The 50-year threshold is based on groundwater age tracer information suggesting that a

TOT of between 50-100 years is appropriate for New Zealand."

[Emphasis added]

Mean Residence Time of under groundwater in HDC wells

Actual Velocity of Groundwater

Age of Water – Ngaruroro River water less than 2-years – Eastbourne well MRT 2.4

Having one SPZ-3 line on the Map that encompass all HDC Drinking Water wells

11. Two submissions onto Hawke's Bay Regional Council Plan Change 9

11A. PC-9 Schedule 35. Source Protection for Drinking Water Supplies.

This sets out the consequence (effect) of SP Zones to 'Hawke's Bay Regional Resource Management Plan' 28th August 2006

- The full extent of the Heretaunga Unconfined Aquifer areas **are not shown** in the present 'Hawke's Bay Regional Resource Management Plan'

Information found about Unconfined Aquifers

- Young Water at Depth of >100 m
- Young Water Found in Hastings District Council Drinking Water Wells
- Discrete sampling may not occur at the time of young water being present
- Young Water found in well. Location Orchard Road Hastings
- Potential for the local groundwater level to exceed the first confined aquifer within part of the Omaha Industrial zone.
- *E. coli* detected in Hastings District Council Drinking Water Bores
- Gravel aquifers are not considered effective
- Despite impermeable aquicludes
- Reversal of upward pressure
- Modelling Holocene fans

11B. TANK PC-9 Map 1 SPZ and HDC SPZ-3 Map

Requirement is to have Source Protection Zone-3 Map and Source Protection Conjunctive Zone Map.

Because of the hydraulically-connected groundwater and surface water in the Heretaunga Plains Aquifer system.

Meaning of Conjunctive Zone:

where groundwater and surface water systems are hydraulically-connected.

There has been different methods and calculations used to form up these SPZ Maps. This is OUR Drinking-water therefore the most robust method/s based on current national and international best practices for calculating SPZ's must be used.

'The Numbers Game'

Playing the numbers game does not help. Even where there is a **registered** well, which is supplying a small number of people, these people have the right to safe potable drinking water.

Person Making Submission

Submission Proposed on Plan Change 9.

David W. Renouf.

603A Ballantyne Street, Hastings 4120

Telephone 06-8783239

[No. 13]

My submission relates to:

PC-9 Schedule 35: Source Protection for Drinking Water Supplies

The consequence (effect) of SP Zones to

'Hawke's Bay Regional Resource Management Plan' 28th August 2006

- Schedule IV Known Productive Aquifer systems in the Hawke's Bay Region
- Schedule Va Heretaunga Unconfined Aquifer Map.
- Schedule VIb Catchments sensitive to animal effluent discharges

I seek the following decision from the Regional Council:

That the alignment of the Heretaunga Plains Unconfined Aquifer boundary be updated.

That the Hawke's Bay Regional Council updates the Schedule maps and includes the **full extent** of the Heretaunga Unconfined Aquifer areas in all 'Hawke's Bay Regional Resource Management Plan' Maps - example Schedule IV, Va, VIb

Delay PC-9 if required so that SkyTEM Aquifer Mapping Project data can be included into PC-9 so that there is no need for a separate time wasting and costly process at some latter date.

Reason for decision requested:

So that the full extent of Heretaunga Unconfined Aquifer areas are identified on all HBRC and Regional Resource Management Plan Maps.

So that planning, rules and policies are updated to provide more robust protection for OUR Drinking Water. e.g. animal faeces in waterways – Re Havelock-North

As stated "The current boundary was drawn reasonably conservatively around 10 years ago" Ref: 6.16 HBRC Maori Committee 26 May 2009

Because we need to protect OUR vulnerable (at risk) groundwater by having the fullest extent of all the Heretaunga Unconfined Aquifer areas identified

"Likewise, the plan change project for the Greater Heretaunga / Ahuriri catchment area (a.k.a. the 'TANK' plan change) will present an earlier opportunity for maps of the Heretaunga aquifer system to be updated." Ref: HBRC letter dated 29 August 2017

HDC Fig 22 SPZ and HBRC TANK PC9 SPZ Map 1.

Both show unconfined areas outside the present Heretaunga Unconfined Aquifer area

Evidence and information gathered

Evidence shows the full extent of the Heretaunga Unconfined Aquifer areas, and information shows gravel pathways where once streams ran. E.g. areas of fluvial deposits.

The full extent of the Heretaunga Unconfined Aquifer areas **are not shown** on the present 'Hawke's Bay Regional Resource Management Plan' especially Schedule Va Heretaunga Unconfined Aquifer Map

(A). Soil Map of Heretaunga Plains Hawke's Bay – Sheet 2

Compiled from data obtained from the Lands and Survey Department and from Aerial Survey by Piet van Asch and Air Department. Additional surveys and soils by H.A. Hughes of the Soil Survey Division of the Department of Scientific and Industrial Research. Agriculture notes by I.L. Elliott. Drawn by K.A. Bell 1938.

This Soil Map shows Pathways of stony gravels - Omahu Stony gravels 1 – 1a – 1b

1 – Omahu – Main channel and active flood plain of Ngaruroro until 1867.

Infiltration rate: 1 very rapid, 1a rapid, 1b rapid

Ref: p 48. Soils of the Heretaunga Plains E. Griffiths 2001. (HBRC plan no. 3042)

(B). The extent of subsurface Holocene alluvial fans from the Ngaruroro and Tukituki rivers is shown on this map image.

Ref: Figure A 5.7 Groundwater residence time assessment of Hastings District Council water supply wells in the context of the Drinking water Standards for New Zealand.

GNS Science Consultancy Report November 2016

(C) The 3D electromagnetic survey technology called SkyTEM Aquifer Mapping Project will provide new information, which needs to be included into PC9

To HELP:

Information found and some meanings of **Unconfined** and Confined Aquifers

Unconfined Aquifer – An aquifer which has its upper boundary at the Earth's surface

Confined Aquifer – An aquifer which is confined between aquitards and therefore contains water under pressure

Ref: Page 215 HBRC RRMP

Unconfined Aquifer – Aquifer containing unconfined groundwater, that is, having a water table and an unsaturated zone

Confined Aquifer – Aquifer overlain and underlain by an impervious formation

Ref: Glossary Freshwaters of NZ

[No. 13]

D.W. Renouf

2 of 4

Information 'Referenced' found about Unconfined Aquifers

1.1 Young Water At Depth of >100 m

"It is obvious that tritium, an indicator of young water, occurs at significantly greater depth (>100 m) in the Heretaunga Plains aquifers, compared to other aquifers (typically <50 m). This implies significantly higher hydraulic conductivities in the Heretaunga Plains aquifers, as indicated in Brown et al. (1999)."

Ref: Page 13 Heretaunga Plains Aquifers GNS Science Report April 2018

1.2 Young Water Found in Hastings District Council Drinking Water Wells

	Well no.	Depth m	Screen Depth m	Young Fraction
Whakatu	473	38.4	32.3-38.4	Yes
Lyndhurst	130	63.4	51.7-54.1	Yes
Eastbourne	1302	85.5	69.4-76.4	Yes

Ref: Page 8. GNS Science Consultancy Report November 2016

NOTE: The significant different & deep depths at which young water is being detected

1.3 Discrete sampling may not occur at the time of young water being present

"The recharge pattern of groundwater to a well will vary throughout the year. A discrete sample taken at a particular time will not reflect this variability in water age and may not occur at a time when the greatest proportion of young water may be reaching the well".

Ref: Page 33. Technical Guidelines for Drinking Water Source Protection Zones. Pattle Delamore Partners Ltd. 27 June 2018

1.4 Young Water found in well. Location Orchard Road Hastings

It is stated that this well sits in unconfined aquifer area

Well no. 4497	Depth 51 m	Screen Depth 45-51 m	Young Fraction Yes
---------------	------------	----------------------	--------------------

1.5 Potential for the local groundwater level to exceed the first confined aquifer within part of the Omaha Industrial zone.

"That within the part of the Omaha Industrial zone between Kirkwood Road and the vicinity of Lowes Pit there is potential for the local groundwater level to exceed the first confined aquifer's local piezometric level during periods of aquifer drawdown (from reduced recharge or high groundwater extraction rates) and high water level (from local heavy rainstorms)". Ref: Page 15 MWH Stormwater Discharges to Land over the Heretaunga Plains Unconfined Aquifer September 2010

1.6 E. coli detected in Hastings District Council Drinking Water Bores

E. coli detected at Wilson Road and Frimley Park bores	August 2016
E. coli detected at Wilson Road	September 2016
E. coli detected at Eastbourne bore 1.	October 2016

All investigated and unable to determine the cause

Ref: Page 83. Agenda Item 9 HDC 25/05/2017

1.7 Gravel aquifers are not considered effective

“Retardation of bacteria is reported between 1 and 2 but the filter process in gravelly aquifers are not considered effective for small diameters of bacteria.”

Ref: Tonkin +Taylor Report Bacteriological Contamination Investigation November 2016

1.8 Despite impermeable aquicludes

“Static water levels did not show any significant change with depth, suggesting hydraulic connection despite apparent separation of aquifers by impermeable aquicludes”

Ref: Page 68. Heretaunga Plains Groundwater Study HBRC-GNS May 1997

1.9 Reversal of Upward Pressure

“In the northern and eastern parts the Heretaunga Plains aquifers merge with the peripheral aquifer systems. In the aquifer overlap areas, the upwards piezometric pressure gradient in the main aquifer normally prevent seepage from shallow inter-bedded aquifer. However on the margin of the main aquifer system during the summer periods when there is increased groundwater abstraction, reversal of the upward hydraulic gradient occurs, thereby creating the potential for discrete groundwater mixing zones of local recharged shallow groundwater and underlying peripheral limestone aquifer groundwater with the intervening stressed main Heretaunga Plains aquifer system.”

Ref: pages 99/100. Heretaunga Plains Groundwater Study HBRC-GNS May 1997

1.10 Modelling Holocene fans

“Modelling of the Holocene fans of the Ngaruroro and Tukituki rivers suggest that Last Glacial gravels are overlain by Holocene fan gravels of Ngaruroro and Tukituki rivers at twelve of the production bore sites (Omahu Pa, Omahu, Portsmouth Road, Wilson Road, Brookvale 1, Brookvale 3, Waipatu, Whakatu and Napier Rd/Hastings, but possibly also Lyndhurst Rd 3 and Eastbourne 5). Where this is the case, there is some potential for hydraulic continuity between the Holocene fan gravels and underlying Last Glacial gravels.” Ref: Page 12. Heretaunga Plains Aquifers GNS Report April 2018

Attached: Soil Map of Heretaunga Plains HB and Figure A 5.7 GNS, which shows the extent of subsurface Holocene alluvial fans from the Ngaruroro and Tukituki rivers is shown on this map image.

Asking for pre-hearing and to be heard

David W. Renouf. - ‘Researcher’

30/06/2020

Person Making Submission

Submission on Proposed Plan Change 9.

David W. Renouf.

603A Ballantyne Street, Hastings 4120

Telephone 06-8783239

[No. 14]

My Submission relates to:

TANK PC-9 Map 1 SPZ and HDC Fig 22 SPZ Map

Hawke's Bay Regional Council and Hastings District Council jointly form up Source Protection Zone 3 and **Source Protection Conjunctive Zone maps**

Because of the hydraulically-connected groundwater and surface water in the Heretaunga Plains Aquifer system

I seek the following decision from the Regional Council:

That the Hawke's Bay Regional Council and Hastings District Council jointly form up Source Protection Zone 3 for all HDC registered drinking water wells and Source

Protection Conjunctive Zone, which will comply with the ('Technical Guidelines')

Because –

“The Technical Guidelines for Drinking Water Source Protection Zones ('Technical Guidelines') are based on current national and international best practices for delineating and implementing source protection zones for drinking water sources.

The Technical Guidelines recommend default source protection zones to which the regulations within the NES could apply.”

Ref: Page iii. Technical Guidelines for Drinking Water Source Protection Zones.

Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

Schedule 35: At Source Protection Zones

Add the wording “That ‘**Registered**’ drinking water wells that provide small communities with less than 501 people shall have Source Protection Zones.”

Add to

Hawke's Bay Regional Council PC-9 - SPZ Map Hastings District Council **registered** drinking water wells 542, 1658, 16671 at Clive, 473 at Whakatu, 10334 at Omaha

Reason/s for decision requested:

Because some of these wells have had young water detected.

“The Technical Guidelines recommend default source protection zones to which the regulations within the NES could apply”.

Ref: Page iii Technical Guidelines for Drinking Water Source Protection Zones

Prepared for Ministry for the Environment. By Pattle Delamore Partners Ltd 27 June 2018

Reason for decision requested:

Because different methods are being used for calculating Source Protection Zones.

This is OUR Drinking-water therefore the most robust method/s based on current national and international best practices for calculating SPZ's must be used

The Heretaunga Plains Aquifer system is the most important resource and is very vulnerable.

Substantive data that needs to be taken seriously**Sideways** influence

That when establishing SPZ's they must consider **sideways** influence and distance of pumping from single and groups of wells especially when wells are using the same water source

Example:

Sideways influence distance from bore pumping

HBRC water level logging of BH10496.

“HBRC installed a groundwater level data logger into BH10496 (located approximately **370 m** south of BH1). Groundwater levels within BH10496 are presented on Plot 9.1 along with pumping rates of BV1 and BV2. The results indicate that water levels within BH10496 are influenced by pumping at BV1, then show a signature that matches pumping regimes in BV2. This clearly indicates that a hydraulic connection exists between BH10496, BV1 and BV2 and indicates that a hydraulic connection between BV3 and BH10496 is highly likely.

Ref: Page 24.9.2 Contamination Investigation Brookvale Bore 3, Havelock North. T+T December 2016

HDC Eastbourne Street bores are approximately **817.90 meters** from the Heinz Watties bore field. Found no details about this

Cone of Depression

This cone of depression **extends at least 4.61 km** from Eastbourne Street bores to the Karamu Stream using Google Ruler

- “The Eastbourne Street bore abstracts groundwater from the leaky-confined aquifer. When pumping, the cone of depression is located beneath the confined aquifer area and extends beneath the Karamu and Irongate streams, and other tributaries.

Ref: Page 59. HDC Water Safety Plan. Council 25/05/2017

Sensitivity Analysis Map includes the Karamu Stream.

Map of Sensitivity Analysis # 2 shows when flow direction is rotated anti-clockwise by 25 degrees towards the south it then includes the Karamu Stream.

The Map of Sensitivity Analysis # 2 also shows when flow direction is rotated anti-clockwise by 25 degrees towards the north it includes a significant group of Heinz Wattie's Ltd eight wells at King Street, Hastings.

Ref: Sensitivity Analysis # 2 Tonkin + Taylor map for HDC

[No. 14]

D.W. Renouf

2 of 5

This sideways influence, the extent of the cone of depression, sensitivity analysis map includes the Karamu Stream, is substantive data that needs to be taken seriously when forming up source protection maps for the protection of all HDC drinking water wells.

At the moment the Heretaunga Plains aquifer does not get the required protection, which will give us safe quality and quantity of OUR Drinking Water for the future.

There are Hastings District Council **registered** drinking water wells, which do not have Source Protection Zones.

Note: As at 6 March 2020 HDC **registered** drinking water wells 542, 1658, 16671 at Clive, 473 at Whakatu, 10334 at Omahu have no Source Protection Zones.

The latest Hastings District Council SPZ3 map Figure 22 in HDC letter of 6 March 2020 And the Hawke's Bay Regional Council TANK Proposed Plan Change 9 Map 1 Source Protection Zones

Both these SPZ Maps **do not** meet what is required for Source Protection Zone 3.
Example of what is required:

“Source Protection Zone 3: This zone encompasses the entire upper catchment for **surface water** sources and / or the entire capture zone or catchment for **groundwater** sources.”

Ref: iv Technical Guidelines for Drinking Water Source Protection Zones. Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

Protect the whole Capture Zone/Groundwater Catchment Including Catchments of any Recharging Surface Water Bodies is important because its OUR RAW Drinking Water “Raw water – Water intended for drinking that is after the abstraction point but has not yet received treatment to make it suitable for drinking.” Ref: Definition DWSNZ

Important to follow – because of the very vulnerable Heretaunga Plains Aquifer system
“Step 5: Define Whole Capture Zone/Groundwater Catchment Including Catchments of any Recharging Surface Water Bodies

Draw Zone 3: Entire capture zone/catchment

Figure 4: Default groundwater source protection zone delineation process

Ref: Page 37. Technical Guidelines for Drinking Water Source Protection Zones.

Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

There is a very good reason (requirement) on the SPZ map for having Conjunctive Zone as wording states in the PDP ‘Technical Guidelines’ June 2018

‘The Numbers Game’

Playing the numbers game does not help. Even where there is a **registered** well, which is supplying a small number of people, these people have the right to safe potable drinking water.

To protect the raw source of drinking water before it is abstracted there is a need for SPZ
 “Safe drinking-water, available to everyone, is a fundamental requirement for public health” Ref: Page 1 Drinking-water Standards for New Zealand 2005

So, why not be proactive and provide small communities that have registered wells with safe drinking water, by having Source Protection Zones.

These are real people so provide them with robust protection they deserve.

“7.3 Conjunctive Zones.

As outlined previously, the term ‘conjunctive’ relates to situations where both hydraulically-connected groundwater and surface water are drawn into an intake. Where public drinking water supplies abstract water that is a combination of groundwater and surface water such as a gallery or a well that is receiving water from an adjacent surface water source, then source protection zones should be delineated for each component as if each were a single source using the above methods. In this case, there will be overlapping of the groundwater and surface water zones and these should first be defined separately.”
 Ref: page 37. Technical Guidelines for Drinking Water Source Protection Zones. Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

PC-9 Schedule 35 Table 3: Methodology for Determining Source Protection data does not recognise the data found - some examples

1. Conjunctive Zones.

“source protection zones should be delineated for each component as if each were a single source using the above methods”

“there will be overlapping of the groundwater and surface water zones and these should first be defined separately”

Ref: page 37. Technical Guidelines for Drinking Water Source Protection Zones. Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

“Conjunctive Source”

“Zone 3: Entire Catchment/Capture Zone”

“The total extent of the groundwater and surface water catchments contributing to the well or surface water way”.

- “In addition, where a number of wells draw from the same groundwater system, it may be more pragmatic to make Zone 3 the entire groundwater catchment”.

Ref: Page i. Specifications for Default Drinking Water Source Protection Zones
 Technical Guidelines for Drinking Water Source Protection Zones. Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

2. **Step 5: Define Whole Capture Zone/Groundwater Catchment Including Catchments of any Recharging Surface Water Bodies**

3. **“Source Protection Zone 3:** This zone encompasses the entire upper catchment for surface water sources and / or the entire capture zone or catchment for groundwater sources.”

Ref: iv Technical Guidelines for Drinking Water Source Protection Zones. Prepared for Ministry for the Environment by Pattle Delamore Partners Ltd June 2018

4. Modelling Holocene fans

“Modelling of the Holocene fans of the Ngaruroro and Tukituki rivers suggest that Last Glacial gravels are overlain by Holocene fan gravels of Ngaruroro and Tukituki rivers at twelve of the production bore sites (Omahu Pa, Omahu, Portsmouth Road, Wilson Road, Brookvale 1, Brookvale 3, Waipatu, Whakatu and Napier Rd/Hastings, but possibly also Lyndhurst Rd 3 and Eastbourne 5). Where this is the case, there is some potential for hydraulic continuity between the Holocene fan gravels and underlying Last Glacial gravels.” Ref: Page 12. Heretaunga Plains Aquifers GNS Report April 2018

5. Young Water At Depth of >100 m

“It is obvious that tritium, an indicator of young water, occurs at significantly greater depth (>100 m) in the Heretaunga Plains aquifers, compared to other aquifers (typically <50 m). This implies significantly higher hydraulic conductivities in the Heretaunga Plains aquifers, as indicated in Brown et al. (1999).”

Ref: Page 13 Heretaunga Plains Aquifers GNS Science Report April 2018

6. Young Water Found in Hastings District Council Drinking Water Wells

	Well no.	Depth m	Screen Depth m	Young Fraction
Whakatu	473	38.4	32.3-38.4	Yes
Lyndhurst	130	63.4	51.7-54.1	Yes
Eastbourne	1302	85.5	69.4-76.4	Yes

Ref: Page 8. GNS Science Consultancy Report November 2016

NOTE: The significant different & *deep* depths at which young water is being detected

Because of the hydraulically-connected groundwater and surface water in the Heretaunga Plains Aquifer system

NOTE: ‘Contamination of the raw water has severe consequences’

Attached:

Coloured - Fig 22 SPZ3 HDC Map and TANK PC9 SPZ HBRC Map 1 on a A3 page

Coloured – Sensitivity analysis # 2 Map for HDC Tonkin + Taylor

Asking for pre-hearing and to be heard
David W. Renouf. – ‘Researcher’

30/06/2020

[14]

5 of 5

Meanings

Alluvium: sediment (gravel, sand, silt deposited by rivers and streams.

Ref: page 165. Heretaunga Aquifer Groundwater Model June 2018

Catchment: the total area from which a single water body collects surface and subsurface runoff. Ref: Glossary HBRC RRMP

Conductivity: (Hydraulic) ability of aquifer material to transmit water.

Ref: page 165. Heretaunga Aquifer Groundwater Model June 2018

Conjunctive Zone:

where groundwater and surface water systems are hydraulically-connected.

Cone of Depression: occurs in an aquifer when groundwater is pumped from a well.

When a well is pumped, the water level in the well is lowered.

By lowering this water level, a gradient occurs between the water in the surrounding aquifer and the water in the well. Because water flows from high to low water levels or pressure, this gradient produces a flow from the surrounding aquifer into the well.

Ref: Wikipedia – 18/07/2020

Darcy's Law: expression of the proportionality of the specific discharge of water flowing through a porous medium to the hydraulic gradient under laminar flow.

Ref: Freshwaters of NZ

Gravel: coarse particle 2-20mm in diameter

Ref: Glossary Soils of the Heretaunga Plains E. Griffiths 2001

Holocene: of the second of the two epochs of the Quaternary period lasting from about 10,000 years ago to the present day. Ref: Oxford Dictionary

Hydraulic Conductivity: property of a saturated porous medium which determines the relationship, called Darcy's Law, between the specific discharge and the hydraulic gradient causing it. Ref: Freshwaters of NZ

Laminar Flow: smooth flow without turbulence or mixing. Ref: Freshwaters of NZ

MRT: mean residence time

MTT: mean transit time

Ref: Heretaunga Plains Aquifers GNS Science Report 2017/April 2018

NOTE: that these two times are related. Exit time – Stationary state of the system

Palaeochannels: are old flow paths which eventually become buried. Some of these palaeochannels have larger spaces between the gravel and cobbles, providing a preferential flowpath for faster movement of groundwater.
Ref: page 8. Heretaunga Springs

Piezometer: an observation well designed to measure the elevation of the water table or hydraulic head of groundwater at a particular level. The well is normally quite narrow and allows groundwater to enter only at a particular depth, rather than through its length. Ref: Glossary HBRC RRMP

Recharge: the downwards movement of water that is added to the groundwater system, which may be directly from rainfall, rivers or the upflow or a leakage from an overlying or deeper aquifer. Ref: HPGS

Residence time: period during which water or a substance remains in a component part of the hydrological cycle. Ref: Freshwaters of NZ

SPZ: Source Protection Zones

SPZ-1: Setback area around each bore head

SPZ-2: Microbial Protection

SPZ-3: Entire Catchment

SPC: Capture Zone* - [10-year or 50-year Ref: page 31/2. GNS Report 2013]

*"The term 'Capture Zone' was introduced by Keely and Tsang (1983) to define the entire area of an aquifer that contributes groundwater to a pumping well"

Ref: page 4. Envirolink Tools Project- Capture Zone Delineation Technical Report GNS Report April 2014

Transmissivity: rate at which water is transferred through a unit width of an aquifer under a unit hydraulic gradient. It is expressed as the product of the hydraulic conductivity and the thickness of the saturated portion of the aquifer. Ref: Freshwaters of NZ

Tritium: is produced naturally in the atmosphere by cosmic rays, but large amounts were also released into the atmosphere in the early 1960s during nuclear bomb tests, giving rain and surface water high tritium concentration at this time."
Tritium is a conservative tracer in groundwater. It is not affected by chemical or microbial processes, or by reactions between the groundwater, soil sediment and aquifer material. Tritium is a component of the water molecule, and age information is therefore not distorted by any processes occurring underground."
Ref: page 74/5 Heretaunga Plains Aquifers. GNS Report April 2018
Used as an indicator of young water

TOT: Time-of-Travel

David W. Renouf

David W. Renouf. 28th August 2020

3.10 Geochemistry

3.10.1 Overview of the study

GNS Science, with collaboration from HBRC, completed an investigation of groundwater age along with the isotopic and hydrochemical composition of water in the Heretaunga Aquifer System (Morgenstern *et al.*, 2018). The aims of the investigation were to explore rates of groundwater flow through the aquifer, along with interaction of groundwater with streams and rivers. The study used available age tracer data for the Heretaunga Plains, including tritium, CFCs, SF₆, δ²H, δ¹⁸O, Ar, N₂, CH₄, radon and major/minor ion hydrochemistry data.

At a time of writing this report, the geochemistry study was subject to a final report review. Consequently, some of the findings of the geochemistry study were not available when this modelling work was completed and could not be fully integrated into the groundwater models.

Some of the findings of the geochemistry study have been discussed in earlier sections (3.4 and 3.5) of this report (e.g. sources of water in lowland springs, along with interconnection between various parts of the aquifer). In this section (below), other relevant elements of the geochemistry investigation are discussed.

3.10.2 Sources of Aquifer Recharge

Napier area

The geochemistry study concluded that groundwater in the Napier area originates from the Ngaruroro River, with no contribution from the Tutaekuri River or rainfall recharge. This conclusion is based mainly on stable isotopes of oxygen (δ¹⁸O) and major/minor ion hydrochemistry data. The conclusion appears to be supported by strong evidence, with strong contrast between chemistry of water in this area compared to other parts of the aquifer (Figure 3-51 and Figure 3-52).

This conclusion is not surprising, given that there is no unconfined aquifer area between the Ngaruroro River and Napier that could contribute rainfall recharge and there is a lack of detectable Tutaekuri river losses (see discussion in Section 3.4). However, it is remarkable that Ngaruroro River water can be clearly identified in groundwater more than 10 kilometres from the source.

Southern Part of Heretaunga Plains

The southern part of the Heretaunga aquifer has a distinct water chemistry signature that indicates limestone geology (see Figure 3-52) and local rainfall recharge (Figure 3-53). The interpretation of Morgenstern *et al.* (2018) is that this entire area is primarily recharged only by rainfall. However, there is not enough contrast in water chemistry to distinguish recharge from the Tukituki River water and rainfall recharge. Moreover, there is evidence that the Tukituki River recharges this area (see discussion in Section 3.4) and there is also evidence for a contribution from the Ngaruroro River (Wilding, 2017).

Morgenstern *et al.* (2018) do not discuss potential mixing of water from different sources. Wilding (2017) discussed this issue and estimated that as little as 10% hill country derived water may significantly alter the composition of aquifer water in this area. This may mean that the contribution of recharge from nearby hill country may be relatively minor, but a limestone geology signature may still be observed in groundwater samples.

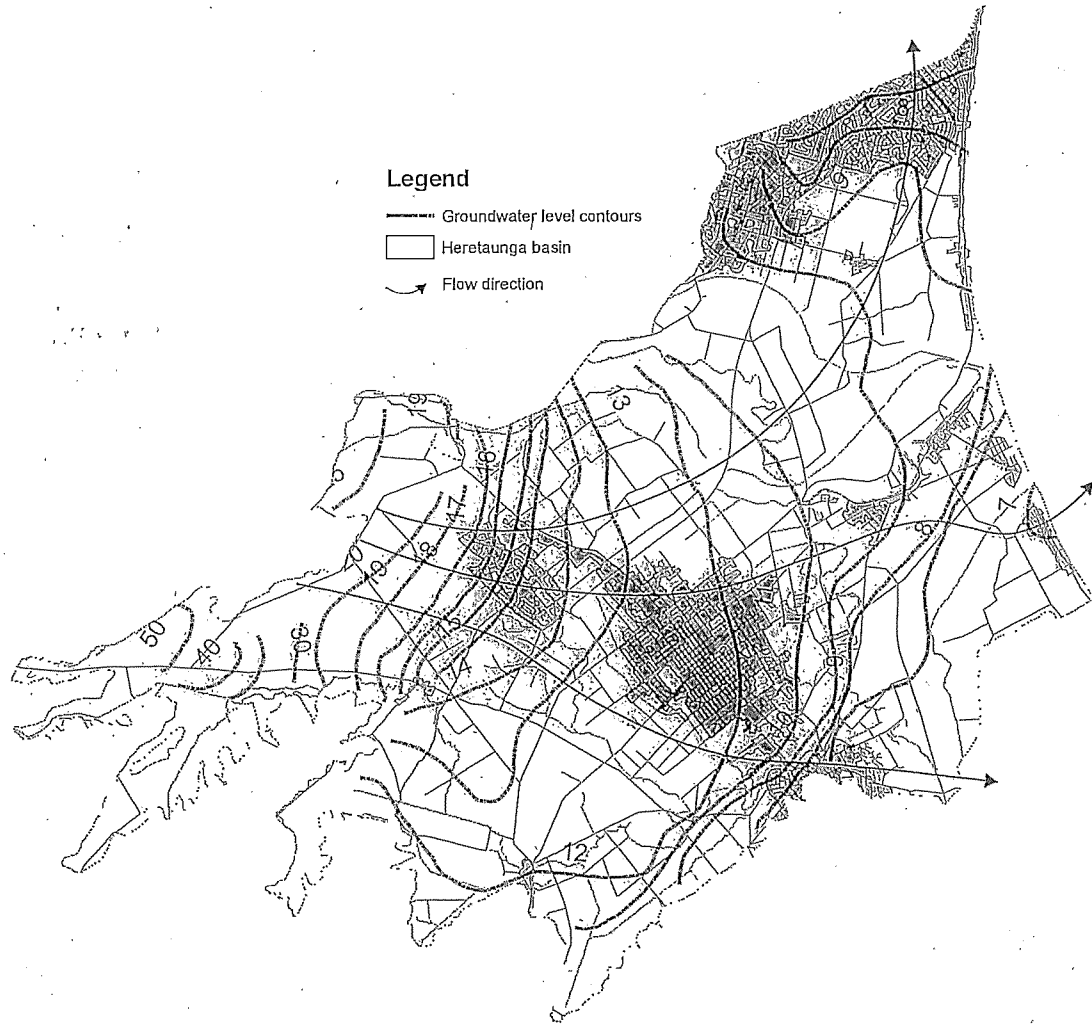


Figure 19: Heretaunga Basin summer groundwater levels 1995 (m.a.s.l.) [4].

3.5. Long term trends

In order to assess long-term trends hydrographs were created from 29 wells with historical water levels ranging from 1969 to 2008. To account for seasonality, a linear trend line was fitted to both the annual maximums and minimums using Microsoft Excel. The magnitude of trends were standardised and expressed as a rise or decline over a 10-year period. Table 4 shows the wells assessed and their calculated trends.

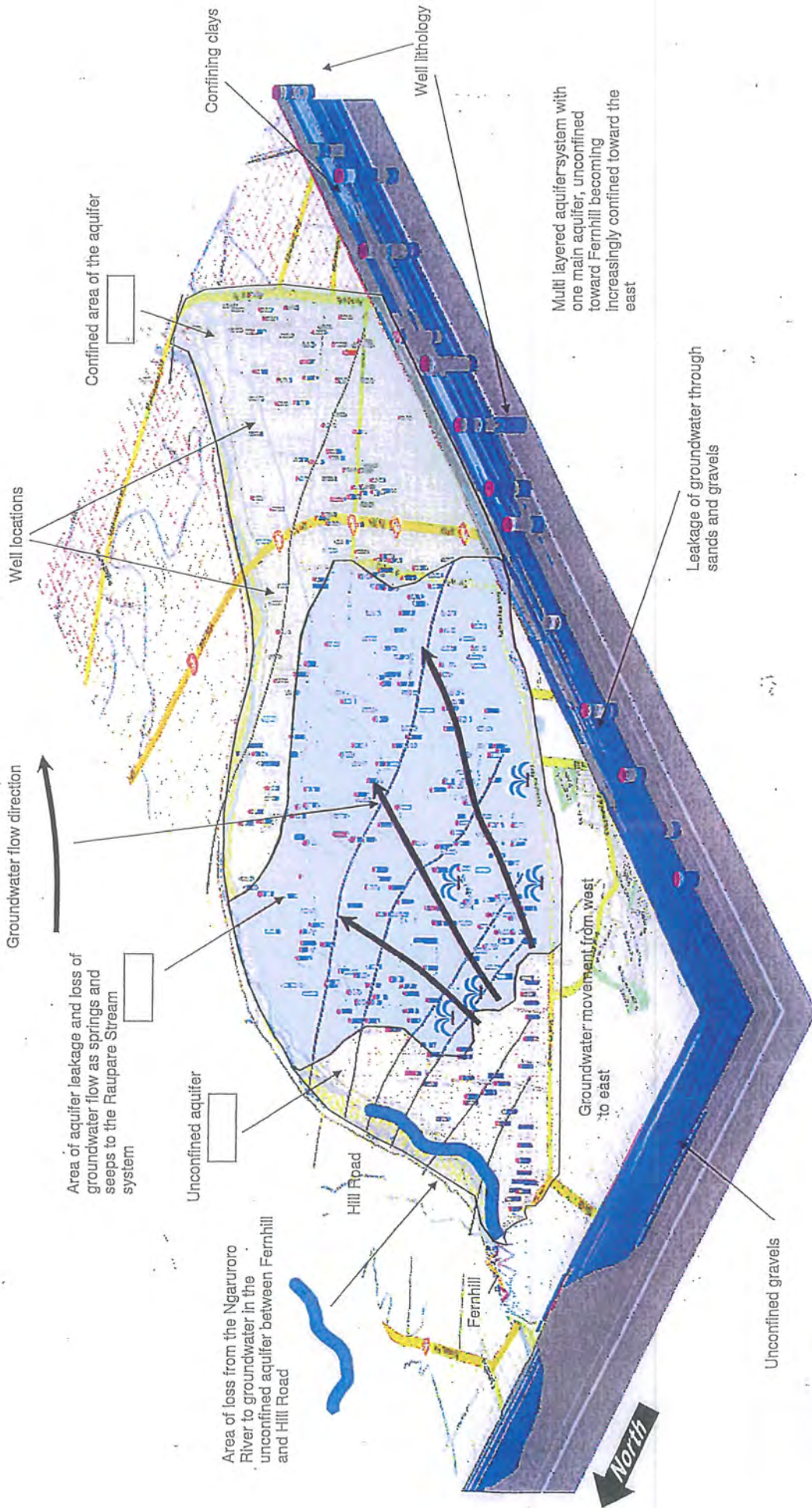


Figure 15: Conceptual model illustrating the surface water and groundwater interaction in the Twyford Consent Area.

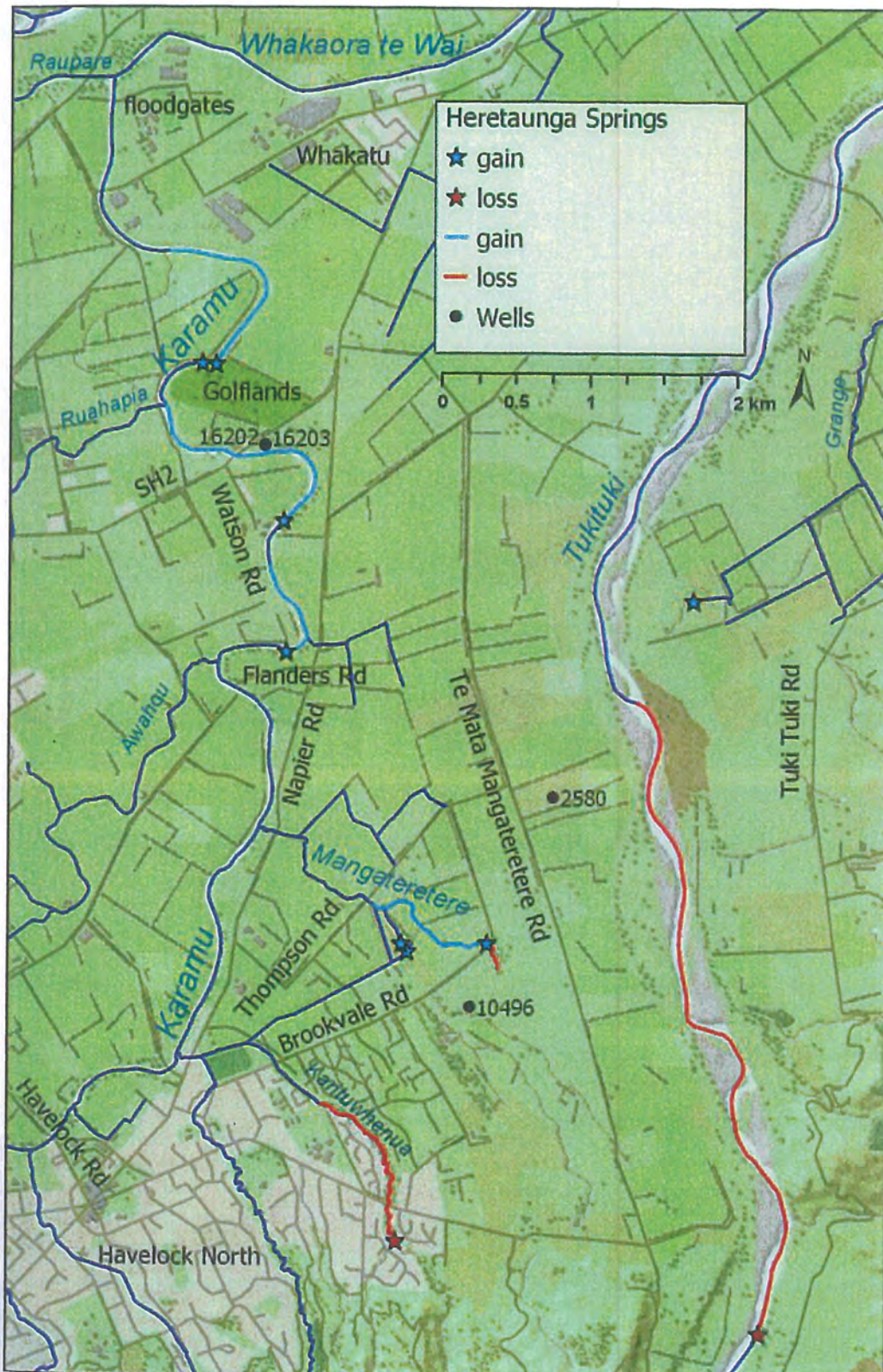


Figure 3-24: Karamu Stream flow gains and losses. Springs were located using the change in electrical conductance, with blue stars indicating the start of a gaining section. The losing section of the Tukituki River (red star at start) was located using concurrent gaugings (see Section 3.2). Selected wells are mapped.

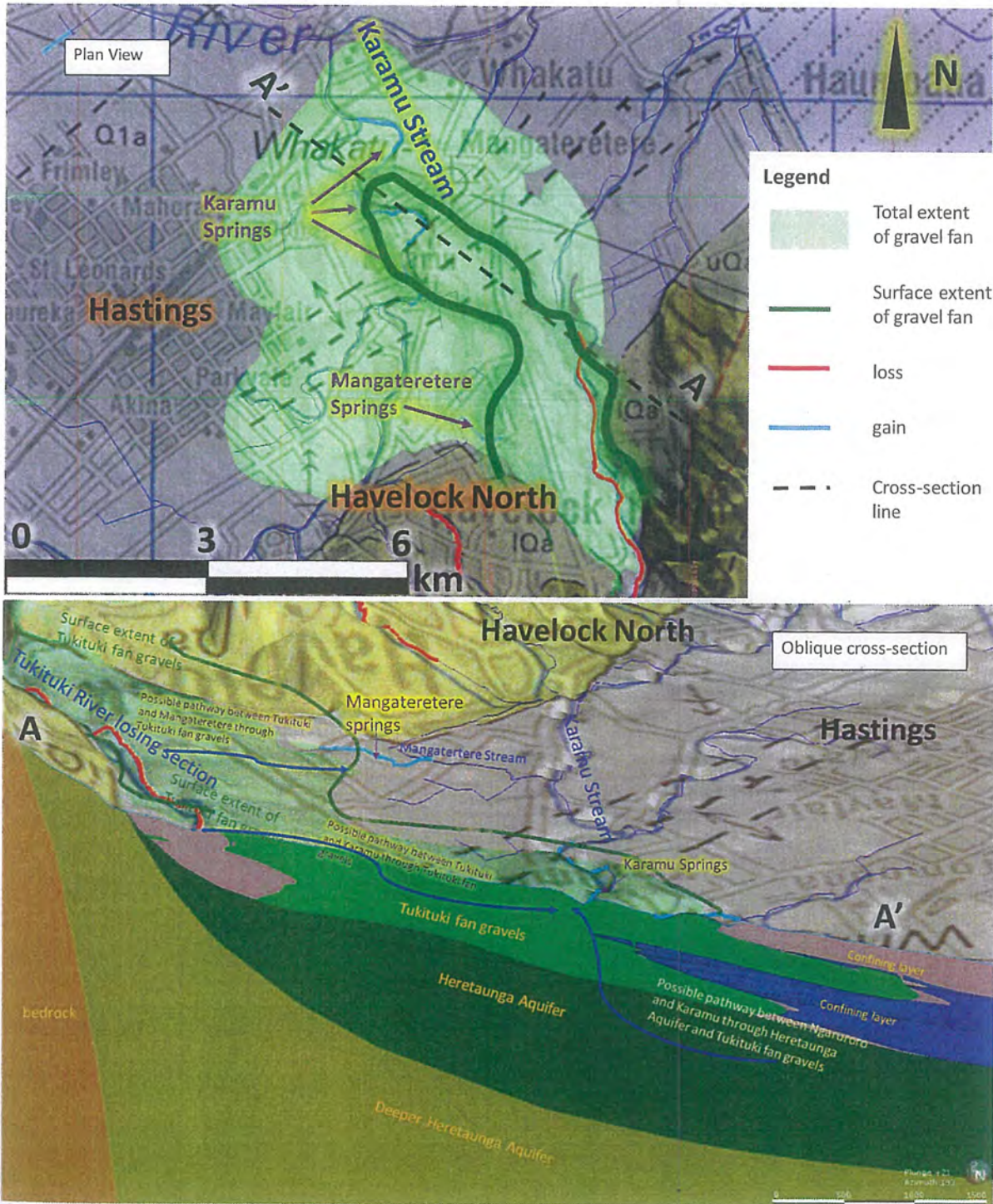


Figure 3-26: Shallow gravels between the Tukituki and Karamu. A 3-dimensional geological model was constructed from well logs, which reveals the shallow layer of gravel (“Tukituki fan shallow gravels”) connecting the losing reach of the Tukituki River to the gaining reach of the Karamu Stream. These maps were prepared by Rakowski (in prep 2018) based on John Beck’s September 2017 revision of the Heretaunga geological model (Lee *et al.*, in prep 2018). The dashed cross-section line shown in the plan-view shows the orientation of the cross-section in the lower oblique image.

- The Eastbourne Street bore abstracts groundwater from the leaky-confined aquifer. When pumping, the cone of depression is located beneath the confined aquifer area and extends beneath the Karamu and Irongate streams, and other tributaries. Drawdown testing indicates that the Karamu and Irongate stream flows would not be affected by Eastbourne Road pumping. (EarthinMind, 2011).
- The geological profile at the Brookvale Road Bores generally consists of an approximately 3m thick aquitard overlying a gravel aquifer. Breaches in the confining layer occur in the Mangateretere Stream, which results in artesian springs. The flows in these springs were shown to reduce during pump testing, particularly from bores 1 and 2². This indicates that the bores may abstract some groundwater sourced from Mangateretere Stream. Other surface water features within the vicinity of the Brookvale bores include shallow swale drains, 2 unnamed streams and numerous small springs. Earthworks and quarries in the vicinity may have damaged the aquitard. (Tonkin & Taylor, 2016)

Contamination can enter the Heretaunga Plains and Te Mata aquifer systems in a number of ways:

- Surface contamination has potential to leach into unconfined areas of the aquifer or in confined areas where the aquitard is thinner or breached.
- There are a large number of operational and decommissioned private bores which intercept the aquifer system that may have poor bore head security or be constructed in a way that provides a direct or less restricted pathway into groundwater. The security of the operational bores, which are thought to be primarily used for industrial purposes, and the decommissioned bores (understood to be capped) is unknown.
- Contamination of springs and spring feed streams could provide a source of contamination to the bores that are shown to be hydraulically connected when pumping (Brookvale Road, Wilson Road and Portsmouth Road): Contamination could occur through stock access to unfenced water ways or run-off during high rainfall events.
- Breaches or damage to the aquitard could open pathways for contamination of the aquifer. Damage could occur from earthworks, removal of tree roots, drainage improvements, new bore installations, quarrying, etc.

2.2.2 Management of Water Resources

The Hawkes Bay Regional Council (HBRC) is responsible for managing, protecting and monitoring all water resources in the Hawkes Bay region, including groundwater in the Heretaunga Plains. HBRC issues and enforces the consent conditions for all activities that either directly or indirectly affect groundwater quality and availability. Additionally, the HBRC's Resource Management Plan describes the approach to the management of all Hawke's Bay water resources and in particular in the area of the unconfined aquifer. The HDC's own District Plan also sets restrictions on activities that can occur over the unconfined aquifer system to minimise the potential for contamination of the source water.

There are currently no Source Protection Zones (SPZs) in place. Previously SPZs were used to minimise the risk of groundwater contamination. These were abandoned by the HBRC based on the understanding that existing Regional and District Plans would provide the same level of protection.

² Tonkin and Taylor, 2016, referenced the following report in relation to the drawdown findings: Luba, L D, March 2003, *Draft 4, Report on Aquifer Test in the Brookvale Borefield*, prepared for East Water by East Coast Environmental and Associates Ltd

WIKIPEDIA

Cone of depression

A **cone of depression** occurs in an aquifer when groundwater is pumped from a well. In an unconfined aquifer (water table), this is an actual depression of the water levels. In confined aquifers (artesian), the cone of depression is a reduction in the pressure head surrounding the pumped well.

When a well is pumped, the water level in the well is lowered. By lowering this water level, a gradient occurs between the water in the surrounding aquifer and the water in the well. Because water flows from high to low water levels or pressure, this gradient produces a flow from the surrounding aquifer into the well.

As the water flows into the well, the water levels or pressure in the aquifer around the well decrease. The amount of this decline becomes less with distance from the well, resulting in a cone-shaped depression radiating away from the well. This, in appearance, is similar to the effect one sees when the plug is pulled from a bathtub. This conical-shaped feature is the cone of depression.

Contents

Physical properties

Analysis and utility

See also

References

Physical properties

The size and shape (slope) of the cone of depression depends on many factors. The pumping rate in the well will affect the size of the cone. Also, the type of aquifer material, such as whether the aquifer is sand, silt, fractured rocks, karst, etc., also will affect how far the cone extends. The amount of water in storage and the thickness of the aquifer also will determine the size and shape of the cone of depression.

As a well is pumped, the cone of depression will extend out and will continue to expand in a radial fashion until a point of equilibrium occurs. This usually is when the amount of water released from storage equals the rate of pumping. This also can occur when recharge to the aquifer equals the amount of water being pumped.

We typically think of a cone of depression as being a circular feature surrounding the pumped well. However, aquifer characteristics can affect the shape of the cone of depression. For example, if there is a steep ground-water gradient in the area of pumpage, the cone will tend to be shorter in the upgradient direction and elongated in the downgradient direction. This is because the water is already flowing towards the well from

Sustainable Aquifer Limits

In August 2017, Hawkes Bay Regional Council announced that “new scientific advice... indicates the effects of current groundwater takes from the Heretaunga Aquifer are at the limit of what is environmentally acceptable”². The Regional Council also stated that the science advice indicates that all groundwater takes from the Heretaunga Plains Aquifer are ultimately connected to surface water flow, albeit that the effect of the takes vary with location. It noted that “at the current usage levels, the groundwater is not being used unsustainably as there is still considerably more water entering the aquifer every year providing spring flows and flowing out to sea than is taken for use. However, the current groundwater volumes abstracted over a year have a significant effect on the Ngaruroro River and spring-fed streams and a detrimental effect on in-stream ecology.”

In the context of this information, the strategy is focused on ensuring that the Hastings water supply system draws water from sources that are considered to have the least potential effect on the groundwater and surface water resources; water is used efficiently and effectively; and that the water system is supplied within the current consented limit. That current consented limit is an annual volume available for abstraction for public water supply purposes. Council intends to provide for current and future growth, including the development of any new bore supplies, within the current consented limit for the system.

Stream Depletion Effects

Within the Hastings supply network, there are three bores which are known to have stream depleting effects. These are the Brookvale borefield along with the two Flaxmere bores (Wilson Road and Portsmouth Road).

The Brookvale borefield is partially decommissioned following the August 2016 contamination event, however, the remaining bore (Brookvale Bore 3) supplies water via the Brookvale Water Treatment Plant (installed in March 2017) and is therefore potentially the lowest risk supplied water within the network. The existing resource consent for the Brookvale Borefield expires in May 2018, and Council investigated whether or not maintaining the use of Bore 3 at lower than historic abstraction rates would appropriately address stream depletion effects. It was considered that a lower abstraction rate (80 L/s compared to the previous rate of 200 L/s) and use of Bore 3 only, being the furthest bore from the Mangateretere Stream, may significantly reduce potential stream depletion effects. However, recent investigations have determined that stream depletion effects from the use of Bore 3 only are greater than previously assessed, and still considered to be more than minor³. As a result of these findings and the known aquifer risks, the decision has been made to decommission the Brookvale bore field in the near future. The decommissioning of the Brookvale borefield requires significant new infrastructure to be constructed in order to augment supply to Havelock North and enable the strategic withdrawal from this supply by 2020.

For the Flaxmere bores (Wilson & Portsmouth), the issue of potential stream depletion effects was addressed in the 2012 Hastings consent process. It was found that the Portsmouth Road bore (which was the primary supply bore) had a significantly greater stream depleting effect on the Irongate Stream than occurred with the use of Wilson Road Bore. The result was that Council switched the functions of these two bores – such that Wilson Road bore is now the primary supply bore and Portsmouth Road is retained as a backup supply. The use of Portsmouth Road bore is restricted during times of low flow in the Irongate Stream and, from January 2020, the Portsmouth Road bore is to be used in emergency situations only.

Council acknowledges that the ongoing use of Wilson Road bore may have a minor stream depleting effect on the Irongate Stream. However, modelling and operational experience has shown that a supply bore in the Flaxmere area is required to maintain an adequate level of supply in this area, at least in the short-medium term. Decision making processes as to the ongoing role of the Wilson Road and Portsmouth Road bores will need to take in to account their potential effects on the Irongate Stream, particularly during times of low flow.

² Hawkes Bay Regional Council, Press Release, 18 August 2017.

³ The revised assessment and updated understanding of stream depletion effects has been possible due to the decommissioning of bores 1 and 2 thereby allowing the effects of Bore 3 by itself to be measured for the first time, and due to improved understanding of the aquifer as a result of scientific investigations associated with the contamination event inquiry.

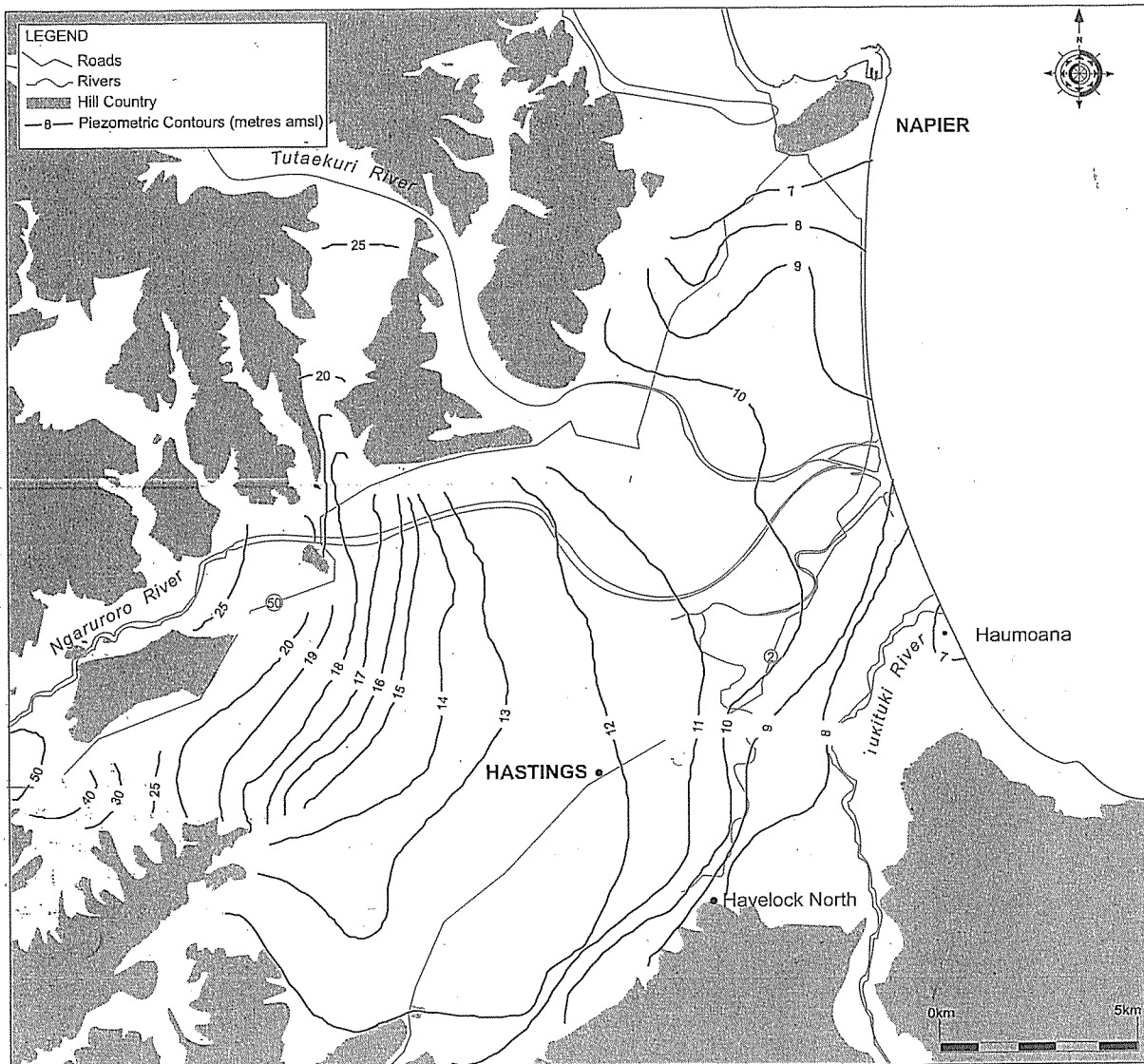


Figure 5.6: The Heretaunga Plains summer 1995 piezometric map.

- Over the entire aquifer system the piezometric surface during winter is about 1.5 - 2.5 m higher than during summer.
- In the Roys Hill - Fernhill major recharge area the piezometric gradients are very steep near the river being 27×10^{-3} . At a distance of 2 km from the river the gradient flattens to 2×10^{-3} . At 3 km from the river the gradient is 4×10^{-4} and remains essentially constant over the remaining confined aquifer area.
- In the Roys Hill-Maraekakaho minor recharge area the piezometric surface is about 3 m deep and gradually deepens to 12 m where it merges with the main flow.
- The piezometric surface coincides with the ground

surface at about 2 km east of the unconfined - confined aquifer boundary and further to the east confined aquifer bores free flow at the surface. Free flowing bores occur over 70% of the Plains area (Fig. 5.2).

The overall regional piezometric contour patterns is similar from winter to summer except for the outlying areas on the fringes of the main aquifer system where localised reversal of upward hydraulic gradients and of groundwater flow directions can occur. This is shown by the August 1980 piezometric contours (Fig. 5.7) for the Karamu area between Hastings and the Tukituki River.

ess and is likely to produce different responses in the unconfined and confined Heretaunga Plains aquifers depending on the location of wells in relation to the river.

Water level data obtained from wells in the groundwater recharge areas suggests that a flood in the Ngaruroro River creates three near simultaneous pressure waves which are transmitted at differential rates along three main buried groundwater recharge channels. The major recharge channels between Roys Hill and Fernhill and underlying Flaxmere have a very high transmissivity in the order of 20 000 to 30 000 m²/day (Fig. 5.4), and are able to transmit a large volume of groundwater to the confined aquifer. In the unconfined aquifer area the recharge channel is at least 137 m thick and between Roys Hill and Fernhill (2 km), this channel could be up to about 1 km wide. The transmissivity contour map (Fig. 5.4) suggests other high transmissivity recharge channels occur northeast of Fernhill through to the Awatoto coast. The transmissivity of this channel is less (< 20 000 m²/day) than the main channel but still very high in terms of volume of water stored and transmitted to the confined aquifer.

The minor recharge channel between Maraekakaho and south of Roys Hill is carved in the mudstone basement and intersects the major recharge channel near Flaxmere (see Fig. 4.2). Several bores on the southern margin of the Heretaunga Plains encounter the mudstone basement at a depth of about 30 to 40 m (see Fig. 5.39). Fine sand and silt in the matrix in the gravels in the Maraekakaho - Ngatarawa area result in a low transmissivity in the order of 100 to 3000 m²/day. Within the unconfined aquifer, gravels are often well sorted with minimal silt content, but there are commonly irregular localised lens shaped sandy clay layers distributed throughout the aquifer horizon especially near the ground surface, which impede groundwater flow and reduce transmissivity.

Figure 5.12 illustrates the transmission of a pressure wave transmitted along paleochannels south of Roys Hill towards Flaxmere and Ngatarawa in groundwater in the minor recharge area between Maraekakaho and Roys Hill. The Ngaruroro River gaugings suggest a river flow loss between Maraekakaho and south of Roys Hill in the order of 0.8 m³/s (see 6.3.1.1). Flooding in the Ngaruroro River results in increased infiltration into groundwater recharge channels and groundwater levels in the unconfined aquifer adjacent to the river show a steep rise. The effect is similar to an increase in bank storage when the river is in flood.

Wellwood well (well no. 164) located immediately adjacent to the river in the minor recharge channel shows a response to a flood in the Ngaruroro River with a steep rise in well water level almost equal to the increase in river stage followed by a relatively slow decline in water level. However wells NG4 (well no. 3739), NG9 (well no. 1659) and NG10 (well no. 3744) located in the minor recharge area all show a rise in well water level more than the amplitude of increase in river stage. The maximum rise in well water level occurs in well NG4, which is located immediately adjacent to a water race about 500 m south of Roys Hill, with an increase almost twice that of increase in river stage. The hydrograph of well NG4 also shows that the subsequent decline in water level is delayed. The rise in well water level in well NG9 is less than NG4 but increases by about 50% more than the amplitude of the river stage. The well water level in well NG9 declines more rapidly than for NG4 and NG10. The recession is slowest in well NG10. The wells NG9 and NG4 are located adjacent to a major water race.

A number of inferences can be drawn from the above observations on transmission of the recharge pulse, the nature of the recharge channel and the permeability of aquifer material. The anomalously large rise and decline in well water level in well NG4 could be due to several factors:

- ⇒ Susceptibility of the aquifer at this location on the fringe of the Heretaunga Plains aquifer system to be more affected by changes in groundwater storage related to abstraction (as occurs at Pakipaki (see 5.3.3)).
- ⇒ Increase in bank storage and differential rate of dispersion.
- ⇒ Leakage from the water race.
- ⇒ Limited channel capacity.

The well NG10 is located on the edge of the major recharge channel and therefore the well water level is probably affected by excess water spilled out of the main recharge channel. More observations are necessary in order for recharge and the propagation of recharge pulses in the minor recharge area to be investigated.

Pressure waves also originate from high Ngaruroro River flows in the major recharge area between Roys Hill and Fernhill. Figure 5.13 shows a wavefront induced water level fluctuation in well 7D, Portsmouth Road, Flaxmere. A pressure wave effect emanating from the recharge area would be expected to show lagged and dampened water level fluctuations in wells along an

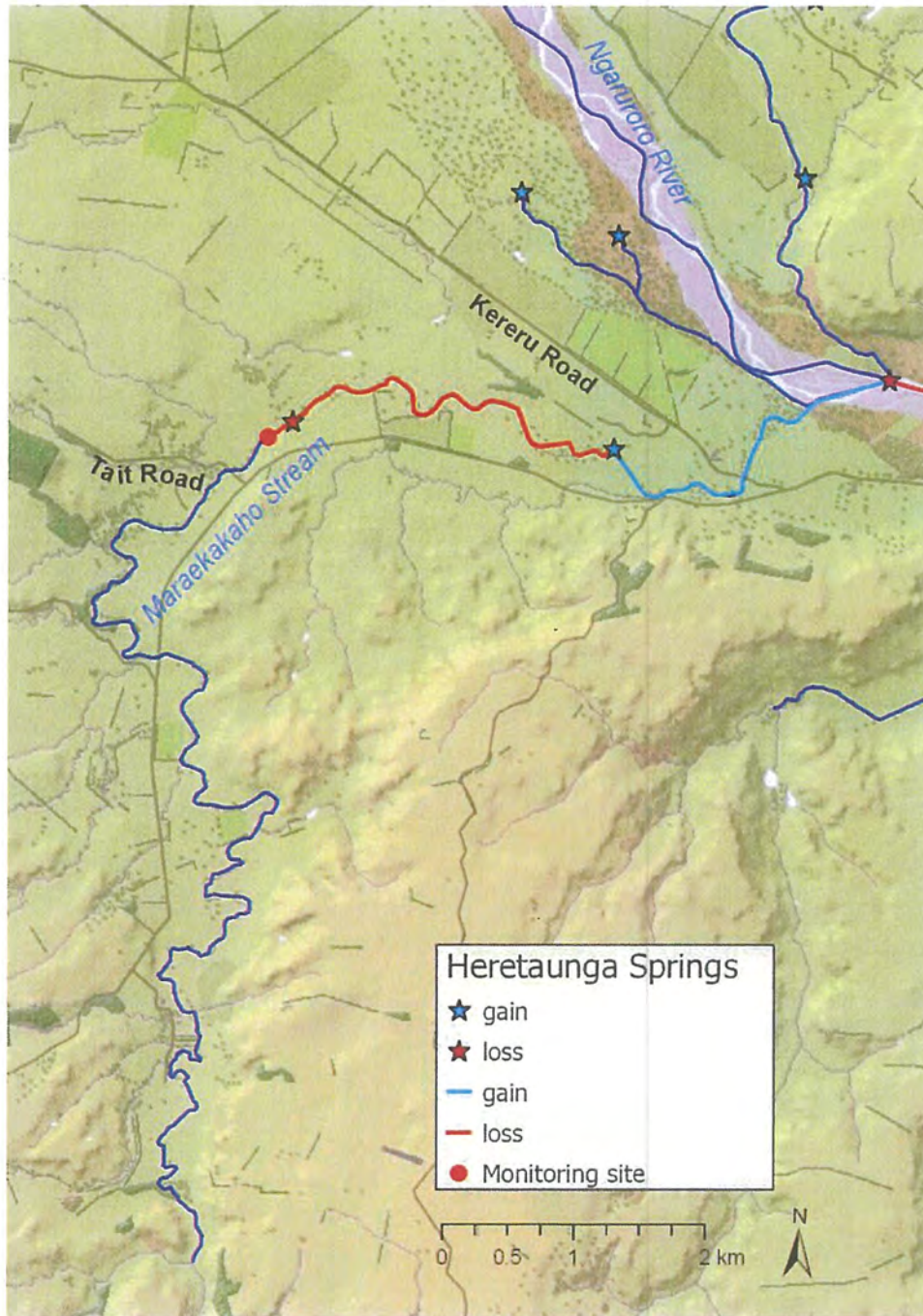


Figure 3-32: Maraekakaho Stream. The existing flow monitoring site is located downstream of Tait Rd. The section of stream that loses flow to groundwater is displayed as a red line, with the gaining reach is a light-blue line.

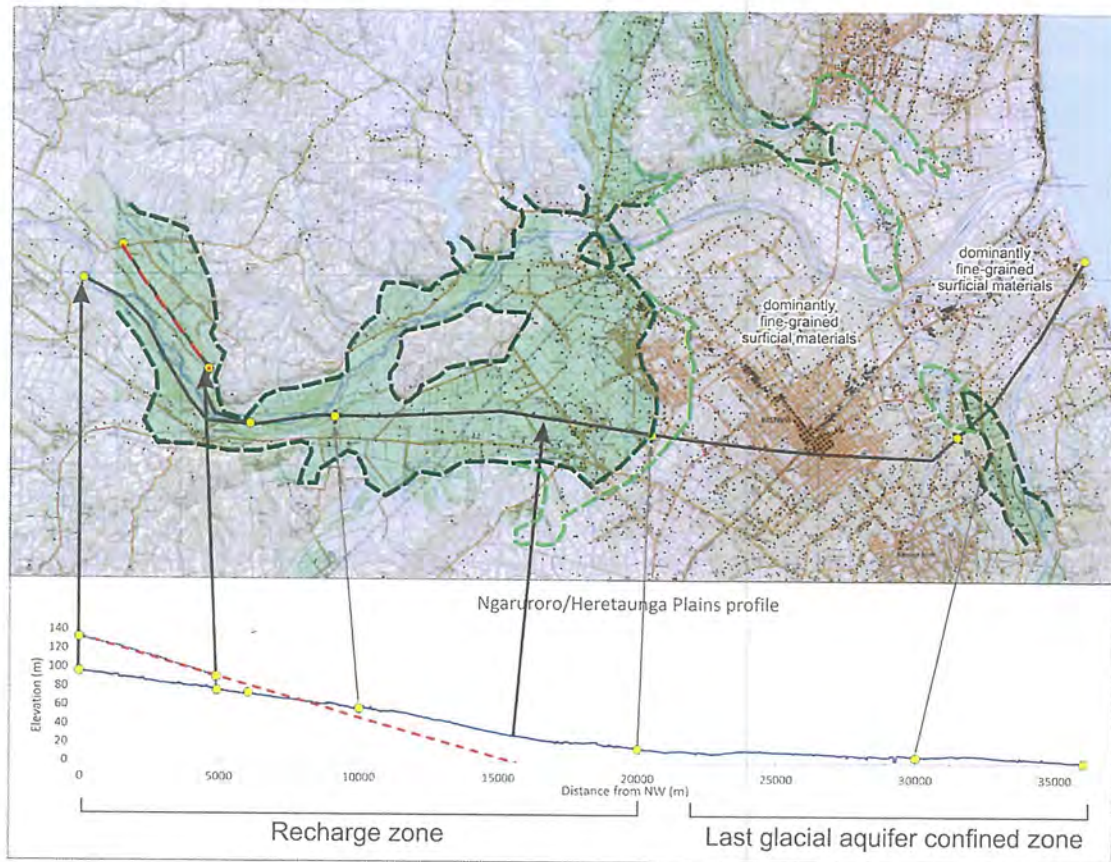
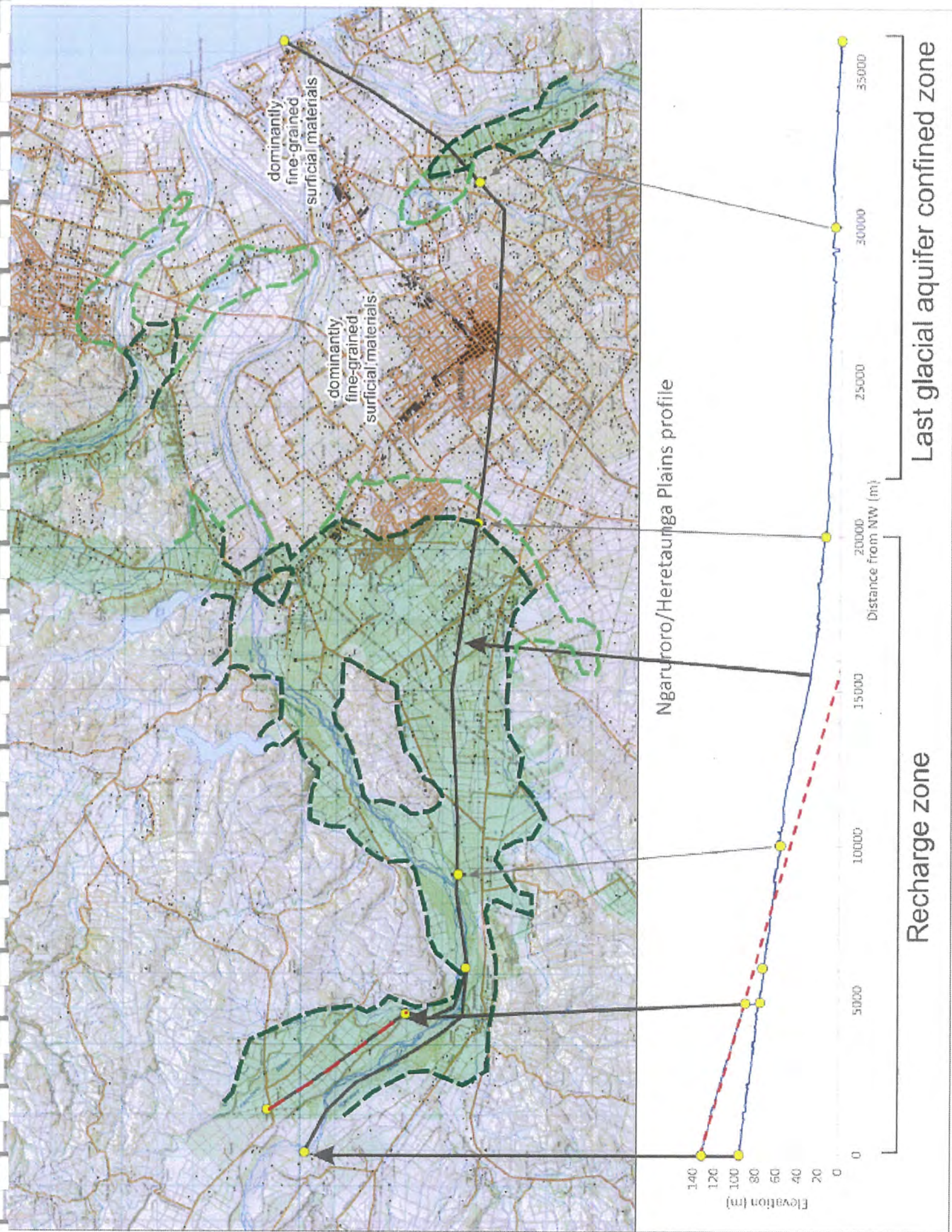


Figure 2.3 Profiles derived from a LiDAR-based DEM across the Heretaunga Plains showing the extent of the unconfined Last Glacial gravels (green shaded, with dashed green outline) The Last Glacial gravel surface lies above the current river elevation above the Maraekakaho Gorge (dashed red line in the profile located northeast of the river) and dips down-valley steeper than the present river elevation (extrapolated beneath the surface as a dashed red line). The volume between the surface (dark blue line in the profile) and the dashed red line, where it lies below the surface, is occupied by Holocene gravels of the Ngaruroro River. The light green dashed line represents the generalised eastern extent of Holocene river gravels close to the surface. East of this line, the Last Glacial aquifer is confined beneath dominantly fine-grained materials (uncoloured). Arrows between the map and profile, and yellow points relate the two elements of the figure. The base map is the LINZ TOPO50 map.



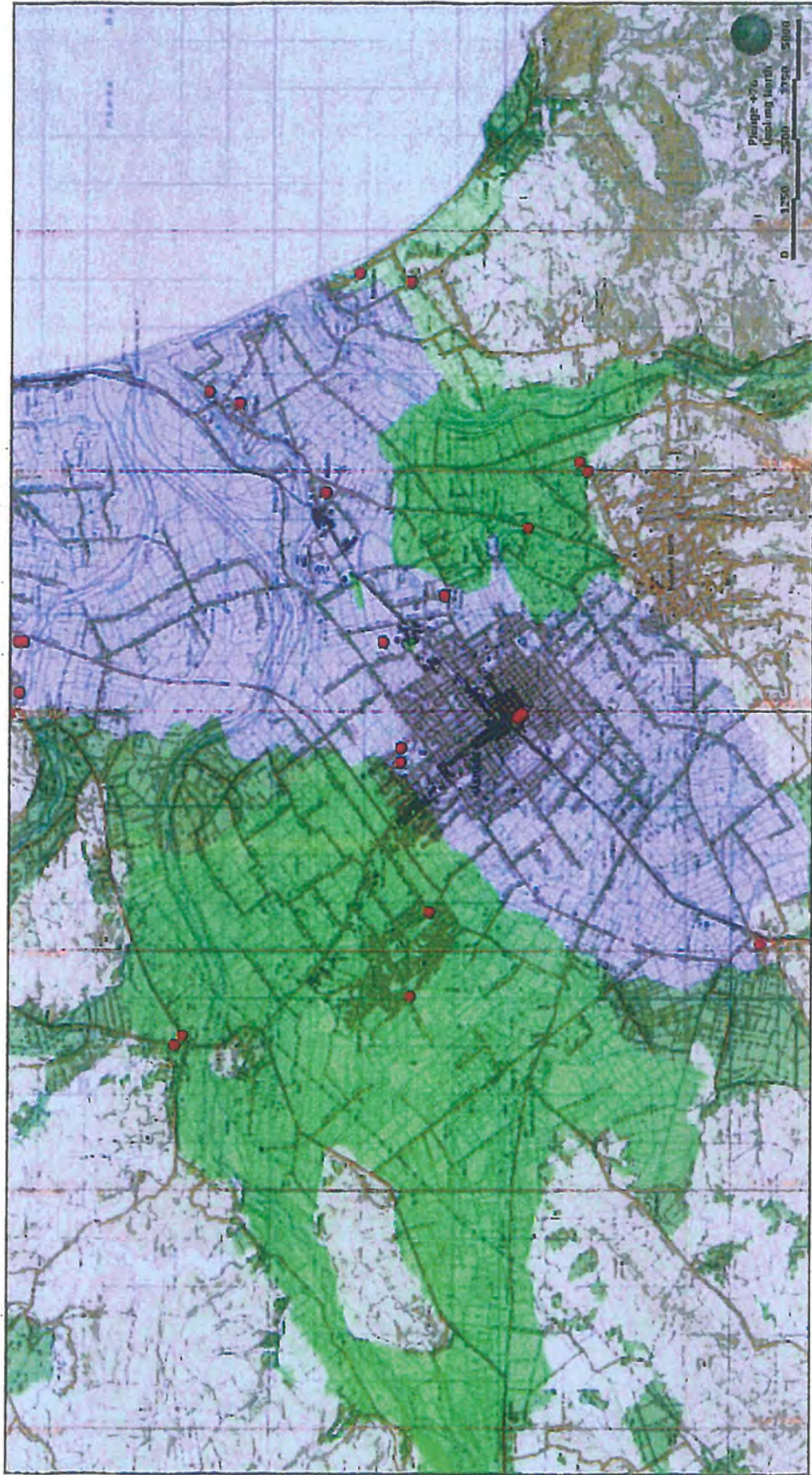


Figure A 5.7

The extent of subsurface Holocene alluvial fans from the Ngaruroro and Tukituki rivers is shown in this map image. The area coloured blue indicates the extent of the Holocene marine incursion, and the light green colour (with a solid line border) the lateral extent of the loose gravel fans from these two rivers. The slightly darker green areas (with dotted line borders) show the extent of Holocene fan gravels older than c. 6500 years. The named red points represent production water bore sites.

Ref: GNS Science Consultancy Report 2016

November

Groundwater residence time assessment of Hastings District Council water supply wells in the context of the Drinking-water Standards for New Zealand.

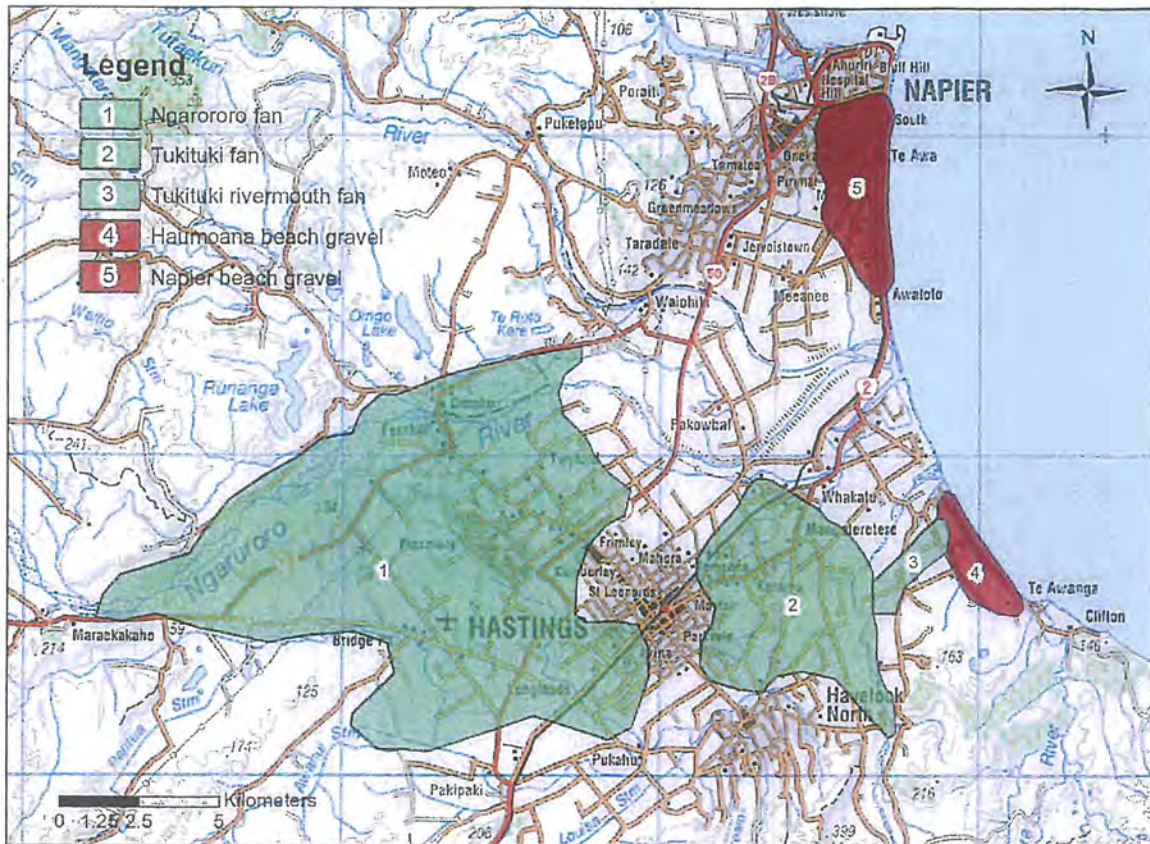


Figure 5 A map view of the surface and subsurface distribution of Holocene gravels identified from the borelogs. Beach gravels south of Napier and at Haumoana (reddish brown) and inland alluvial fan deltas (green) were deposited by the Ngaruroro and Tukituki rivers.

2.6 HOLOCENE BEACH GRAVELS

Holocene beach gravels developed through redeposition of river gravels by longshore drift currents and in places form a barrier bar separating sea from land. Borelogs show the presence of a lens of such Holocene barrier bar gravels about 10 m thick along the coastline south of Napier Hill to Awatoto at around 10 m below the ground surface. These barrier bar gravels are underlain and overlain by Holocene marine silt and clay.

Beach gravels at Haumoana lie just beneath the ground surface and are 5–10 m thick. The southern end of this gravel unit overlies last glacial gravels but interfingers with marine sediments towards the Tukituki River.

2.7 UNDIFFERENTIATED QUATERNARY DEPOSITS

QMAP geology (Figure 2) shows areas of undifferentiated Quaternary alluvium and fan deposits around the margins and outside of the Heretaunga Plains. They represent grouped areas of late Quaternary deposits aged from Holocene to 186 000 years. These areas were grouped because of scale or the ages of the deposits were not well constrained.

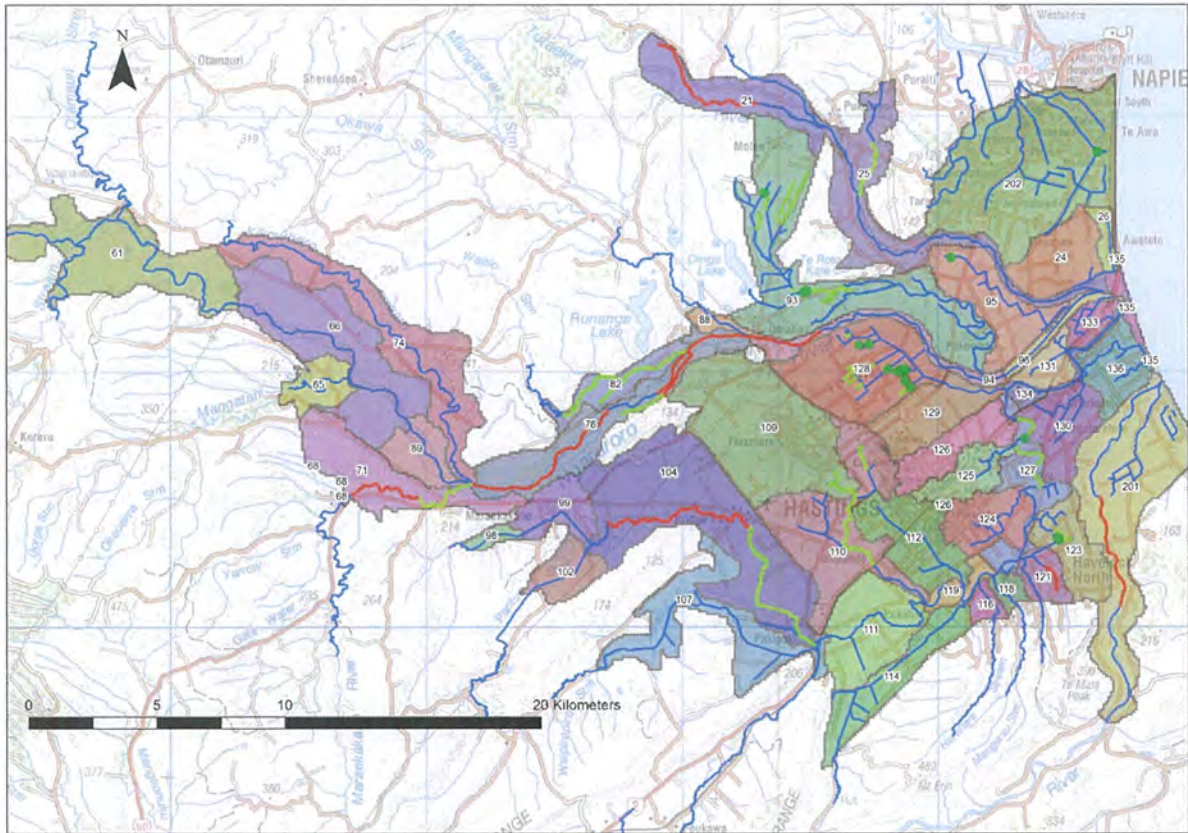


Figure 2-1: Catchments used for calculating surface water - groundwater exchanges. Catchments are shown with the various coloured regions, and include corresponding SOURCE catchment numbers (catchment numbers 201 and 202 are additional catchments that are not part of the SOURCE model but are part of the MODFLOW model). Gaining sections of rivers and point springs are shown in light green. Losing sections of rivers are shown in red. Conservative sections are shown in blue.

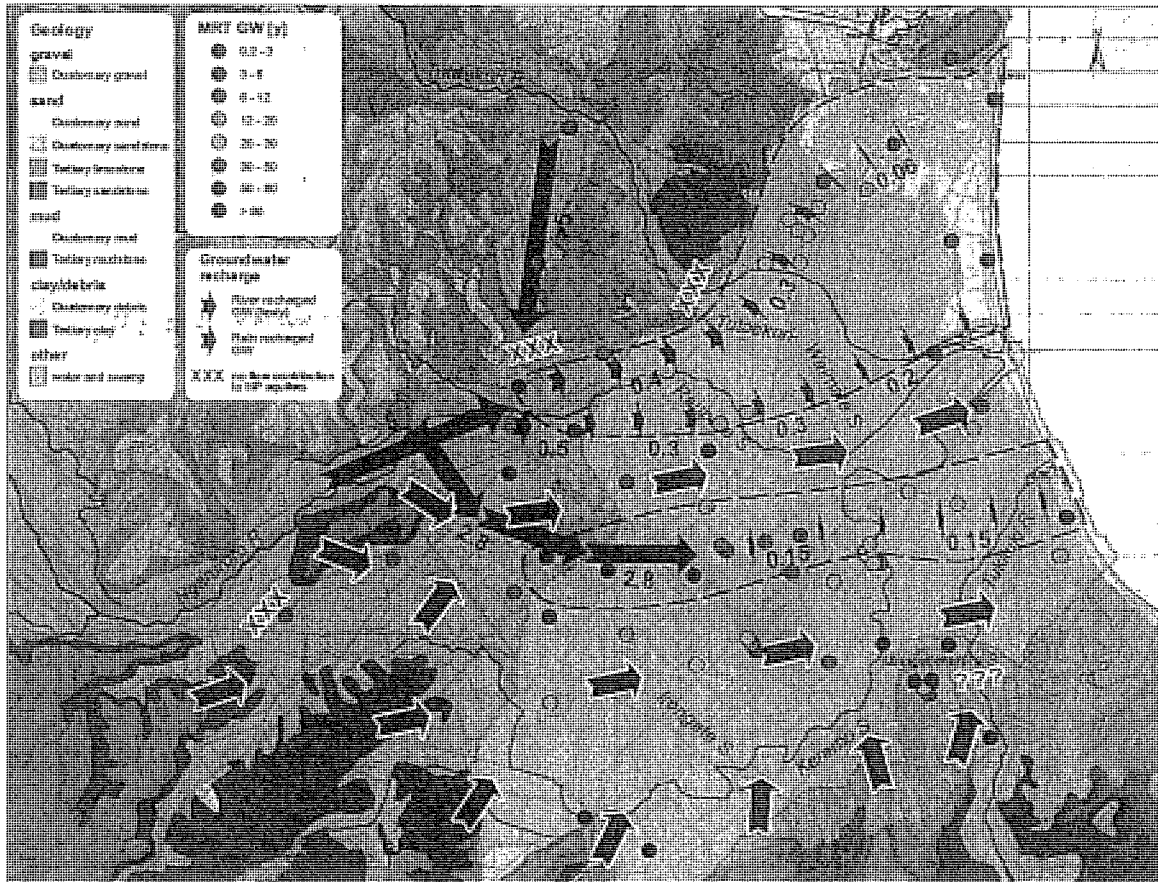


Figure 3-53: Water dynamics in the Heretaunga Plains hydrologic system inferred from groundwater ages (circles). Green arrows indicate rain recharged groundwater flow direction in general, without information on flow velocity. Red crosses indicate no connection of potentially lost surface water to the main aquifer. Red question marks indicate unknown contribution of the river to the main aquifer due to lack of data. The two areas indicated by blue dotted lines are the areas of clear Ngaruroro River-recharge signature (after Morgenstern *et al.*, 2018).

3.10.3 Age of water

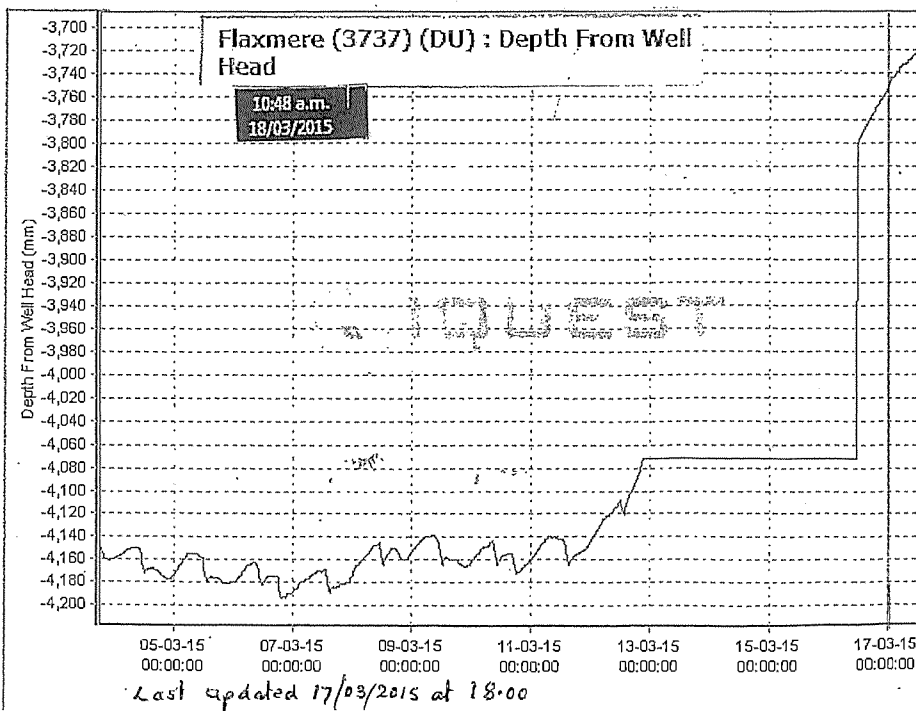
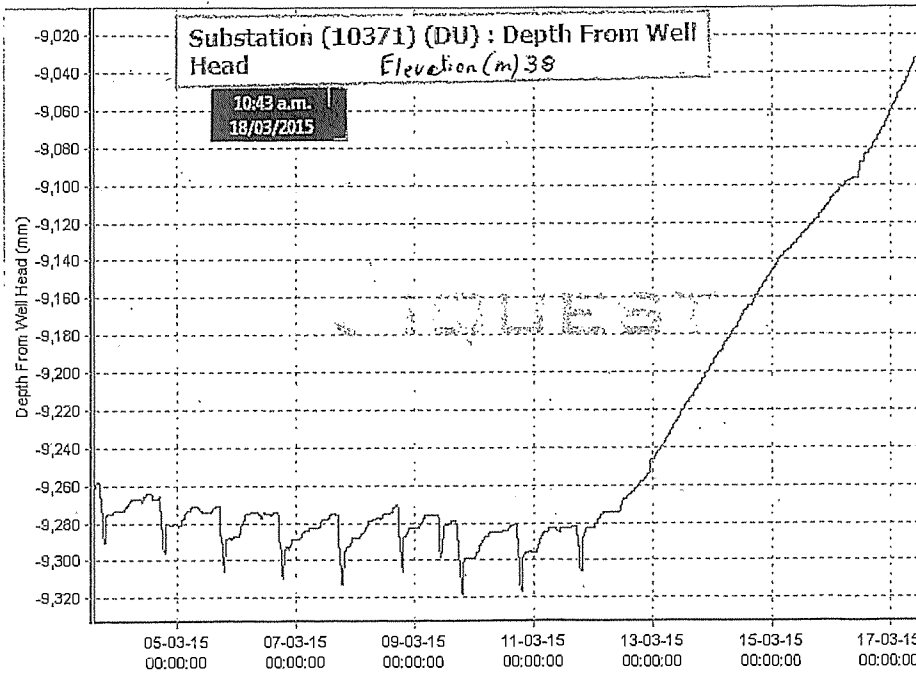
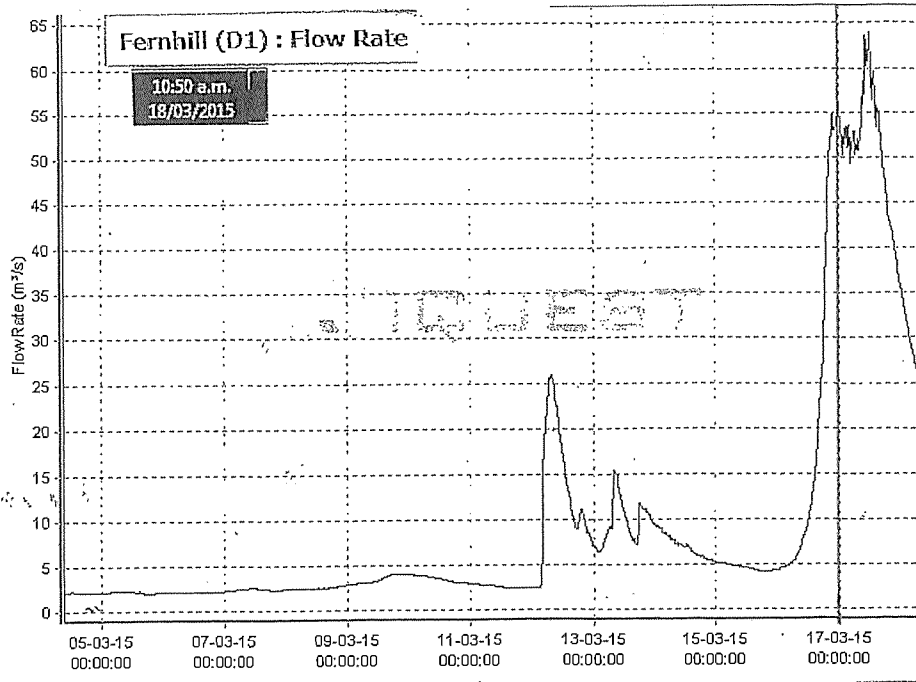
The age of water based on tritium analysis (Figure 3-53) gives an indication of velocity and travel times of water through the aquifer.

Figure 3-53 shows very young water entering the aquifer in the unconfined zone, through Land Surface Recharge to the main unconfined aquifer area west of Hastings, the unconfined area near Tukituki River and the Moteo Valley area, along with river leakage from Ngaruroro, Tutaekuri and Tukituki Rivers.

Ngaruroro River water moves rapidly through the aquifer towards Hastings with velocity of approximately 3 km/year, resulting in relatively young groundwater in Hastings water supply bores, even at depths below 60 m. Further east beyond Hastings, the velocity decreases significantly to about 0.15 km/year.

The velocity of water flowing toward Napier is much less, resulting in much older groundwater being present there.

Morgenstern *et al.* (2018) reports that tritium, which is an indicator of young water, occurs at significantly greater depth in Heretaunga Plains aquifers, than in other New Zealand aquifers (Figure



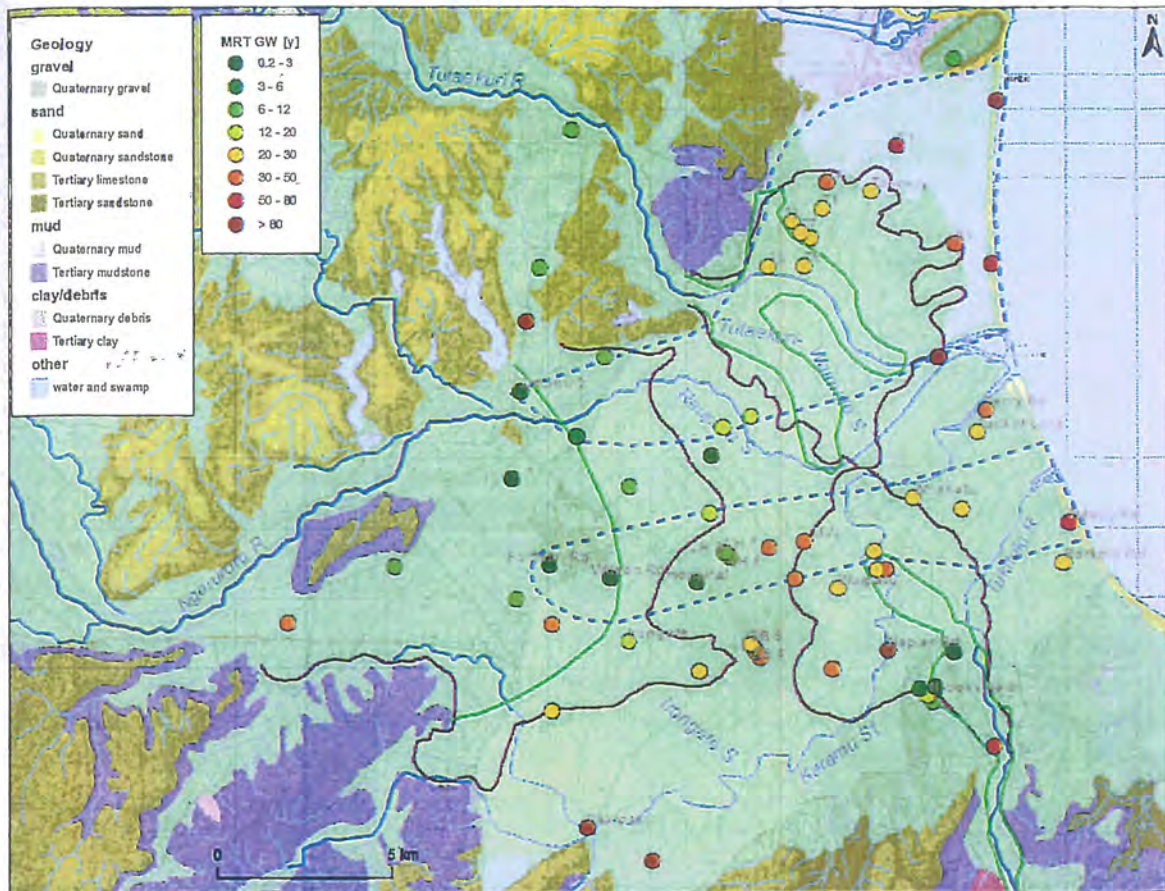


Figure 4.4 Map of groundwater MRT in years. Green and purple lines indicate surface and subsurface extension of the Holocene river gravel fans, respectively. Confined aquifer is indicated in light green. The two areas indicated by blue dotted lines are the areas of clear Ngaruroro River-recharge signature (Figure 4.18).

More vigorous groundwater flow in the confined aquifer toward the coast is indicated further south in the centre of the Plains by a tongue of very young groundwater (MRT <5 years) which reaches up to the Hospital, and the groundwater near the coast at Tucker Lane and Ferry Road, which is relatively young (MRT 27–34 years).

At the southern margin of the confined aquifer, older water (MRT 73 years) near the coast at Beach Road again indicates more sluggish flow. However, the nearby Parkhill Road bore contains significantly younger water, with MRT 21 years, despite that the well has its screen set c. 10 m deeper than the Beach Road bore. This indicates inhomogeneous groundwater flow conditions near the coast, potentially through aquifer heterogeneity, or impact by active faults (Figure 2.1).

Further inland along the southern margin of the confined aquifer, very old water (MRT 88–150 years) at Pakipaki and Napier Road indicates low hydraulic conductivity in this part of the confined aquifer. In the unconfined area of the Tukituki River gravel fan, very young groundwater (MRT <10 years) occurs only around Brookvale (BV), indicating that this groundwater is related to the Holocene gravel fan of the Tukituki River.

Figure 4.5 shows a general positive relationship between water age and well depth. Shallow wells usually contain younger water, but old water can also be found in shallow wells, indicating confined or upwelling groundwater conditions. Oxic, young water occurring at depths of >100 m indicates very high hydraulic conductivity and fast vertical groundwater flow rates in parts of the aquifer.

HERETAUNGA PLAINS TRANSMISSIVITY AND STORATIVITY MAPS

An effort was made to fit specific capacity data to the sandstone and limestone lithologies. However very few data points are available and no adequate statistical fit could be obtained for any suitable transmissivity estimates to be made.

4.0 Hydraulic Conductivity

4.1 Hydraulic Conductivity Calculation

Hydraulic conductivity cannot be easily calculated directly from pumping test analysis. However, estimates can be made because transmissivity (T) is the integral of hydraulic conductivity (K) over the aquifer thickness (b). In general, transmissivities derived from pumping test results represent the properties of the strata around the bore screened interval. Therefore, assuming that hydraulic conductivity is constant, estimates of hydraulic conductivity were made by dividing the transmissivity obtained from the pumping tests by the screen length, and allowing an additional 2 m above and 2 m below the top and bottom of the screen. The result is therefore the assumed aquifer thickness.

Screen data is unavailable for 13 bores with pumping test data. For gravel bores lacking screen data, the screen length was assumed to be 6 m, the modal screen length across all gravel bores. For sandstone and limestone bores, the screen length was assumed to be equal to the screen length in a nearby bore screened in limestone/sandstone of similar depth. Note that many of the sandstone and limestone bores are open hole for a large proportion of their depth.

Zones of hydraulic conductivity were set to be equivalent to the zones of transmissivity. Figure 4.1 shows a graph of hydraulic conductivity against transmissivity values for gravel bores. An empirical statistical power law was applied to the data and the equivalent hydraulic conductivities for the different ranges of transmissivity zones could then be determined from the graph. The four hydraulic conductivity zones and their corresponding transmissivity zones are presented in Table 5.

Transmissivity Zone (m ² /day)	Equivalent Hydraulic conductivity zone (m/day)	Equivalent theoretical strata ¹
< 100	<10 m/day	Medium to fine sand
100 to 1500	10 to 140	Coarse sand / Sand and gravel mixes
1,500 to 10,000	140 to 975	Gravel
>10,000	>975	Gravel

Notes. 1: Based on estimates from Kruseman and de Ridder

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Meaning of Conductivity - or specific conductance, an indirect measure of charged particles (electrolytes) in water

Ref: Freshwaters of New Zealand,

Table A 2.2 Hydraulic conductivity values determined in sub-regions within New Zealand (Moore *et al.*, 2010).

Region	Sub-region	Hydraulic conductivity (m/d)		
		Mean	Min	Max
Auckland	Kaawa	148	13	2026
	Basalt	136	20	1416
	Waitemata	1.2	0.12	33
Waikato	Waikato River	67	0.2	2237
	Hamilton	57	0.091	1400
	Pauanui	4.3		
	Matamata	155	1.3	1622
	Wairakei	121	1.12	1685
	Whitianga	5.5	0.195	94
Hawke's Bay	Ruataniwha Plains	2847	34	3129
	Heretaunga Plains	379	4.7	42200
Taranaki	Patea	1.5		
	Waverley	4.8		
	Deer Park	0.031		
Wellington	Wairarapa	898	5	17270
	Paraparaumu	119	24	2400
Marlborough	Wairau Aquifer	2215	16.7	21450
	Rarangi	402	282	648
Tasman	Motueka	5369	132	92928
	Takaka-Pupu Springs			
	Well 6535	58212		
	Appleby	11965	3217	22000
Canterbury	Burwood	10		
	Canterbury Plains	1300	10	7200
Otago	Alexandra	139	1.03	2172
	Clinton	79	2.14	2384
	Cromwell-Tarras	2043	13.3	45723
	Pomohaka Basin	37	3.7	3204
	Lake Hawea-Luggate	1010	0.7	43440
	Wakatipu Basin	281	5.2	18938
Southland	Roxborough	1156	461	4992
	Riversdale-Gore	1505		
	Edendale	1596		
	Mossburn	1174		

Capture Zone guidelines for New Zealand April 2014

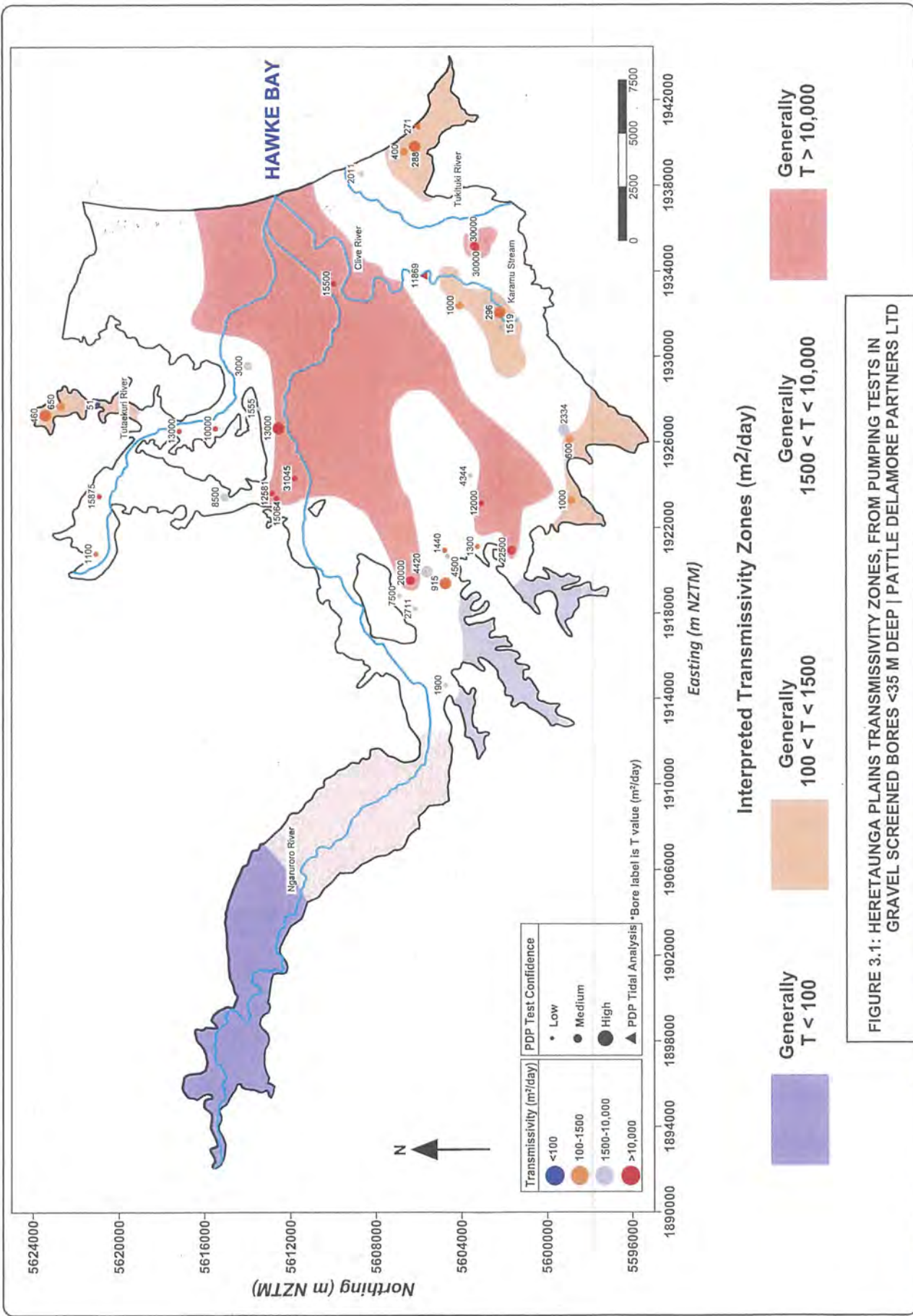
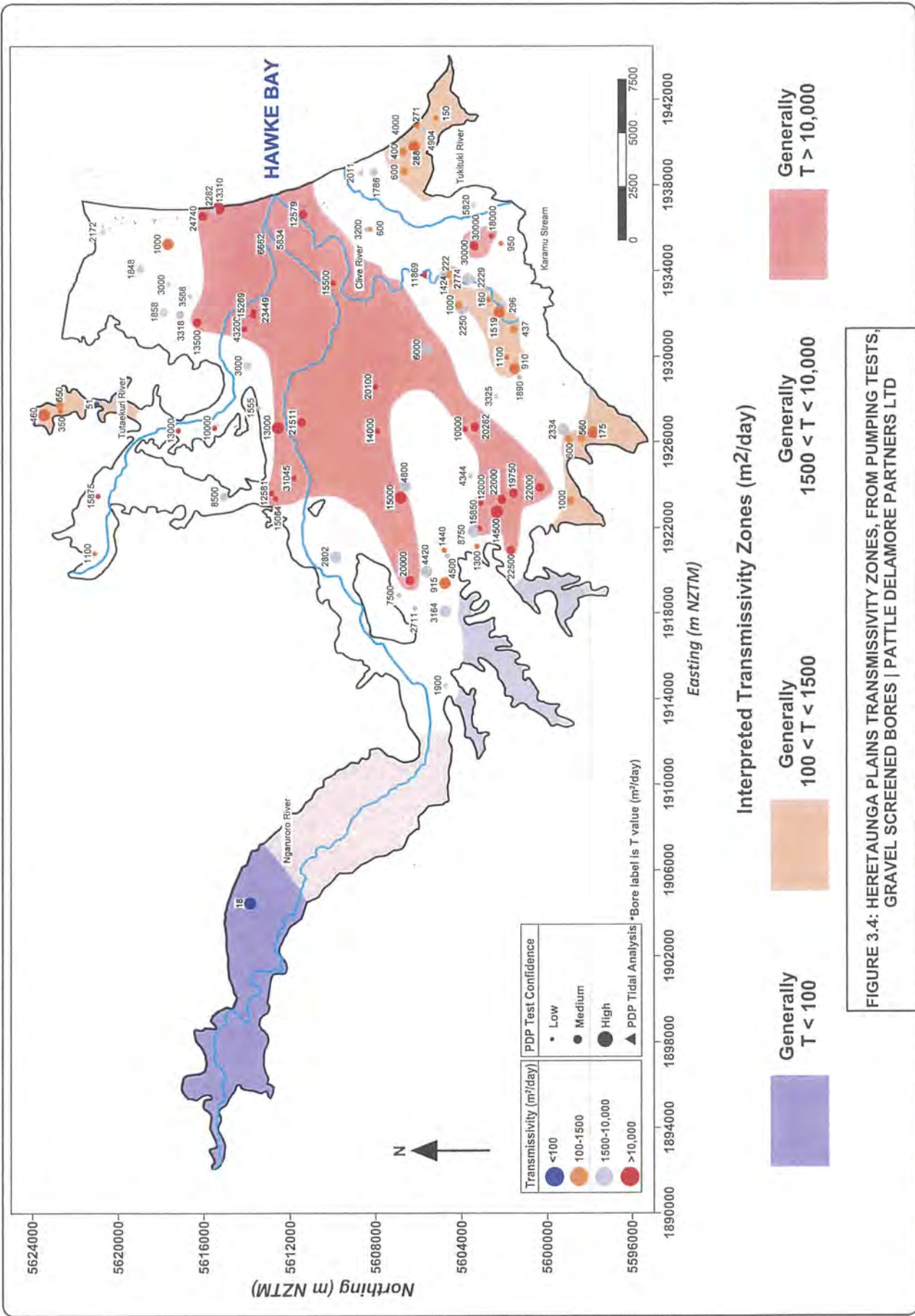


FIGURE 3.1: HERETAUNGA PLAINS TRANSMISSIVITY ZONES, FROM PUMPING TESTS IN GRAVEL SCREENED BORES <35 M DEEP | PATTLE DELAMORE PARTNERS LTD

Pattle Delamore Partners Ltd for HBRC August 2014



Pattle Delamore Partners Ltd for HBRC August 2014

ABSTRACT

Hawke's Bay Regional Council (HBRC) is presently undertaking a range of groundwater science investigations as part of its on-going focus on sustainable management of the hydrologic system of the Heretaunga Plains to inform policy development and a new Regional Resource Management Plan framework. This report provides enhanced conceptualisation of the regional groundwater-surface water system for the development of groundwater flow and transport models for the Heretaunga Plains aquifers.

This collaborative study between Hawke's Bay Regional Council, Hastings District Council, Napier City Council, and GNS Science aims to improve our understanding of the Heretaunga Plains aquifers in regard to groundwater recharge sources, flow dynamics, and interaction between groundwater and surface water.

Three main rivers discharge to the sea across the Heretaunga Plains. These rivers have large catchments that extend significantly beyond the Heretaunga Plains. Spring-fed streams and drains form sizeable perennial streams.

The Heretaunga Plains is underlain by Quaternary fluvial, estuarine-lagoonal, and marine deposits in-filling a subsiding syncline. Borehole data indicate that the deposition during the low sea level stands of the Last Glaciation was dominated by alluvial gravels accumulated from the bed load of the braided river systems of the Ngaruroro, Tutaekuri and Tukituki rivers. These materials make up the primary aquifer of the Heretaunga Plains. Overlying fine-grained materials deposited subsequently across much of the eastern Heretaunga Plains comprise an aquitard that confines the aquifer. Within the depositional sequence, river-channel gravels form an interconnected unconfined-confined aquifer system containing groundwater recharged from land surface recharge and the Ngaruroro River bed at the inland margin of the plain, 20 km from the coast. At the coast, gravel aquifers extend to a depth of 250 m. The multiple gravel layers are in general highly transmissive.

Tritium, CFCs, SF₆, ²H, ¹⁸O, Ar, N₂, CH₄, radon and major/minor ion hydrochemistry data are utilised with respect to understanding the dynamics of the groundwater from recharge to discharge and interaction with surface water, and understanding the processes that control the hydrochemical properties (quality) of the groundwater including denitrification. Age tracer and isotope data are available from c. 160 groundwater and surface water sites across the Heretaunga Plains.

Hierarchical Cluster Analysis (HCA) results provide context for the main drivers of hydrochemistry including oxic rivers and river-recharged groundwaters with little or no elevation of nutrient concentrations, association with limestone or carbonate geology, oxic rainfall-recharged groundwaters with moderate land-use impact and anoxic groundwater with chemistry typical of natural conditions. If suitable, the combination of these drivers can provide additional evidence for identification of recharge source. A combination of hydrochemistry, stable isotopes, and excess air was able to distinguish between recharge sources.

In the surface water discharges, tritium-derived mean ages show consistent patterns for the main rivers with mean transit times (MTT) of usually less than 2 years in the Tukituki, Waipawa, and Ngaruroro rivers, and somewhat older water with a MTT around 10 years discharging via the Tutaekuri River. Surface water discharging in proximity to limestone, sandstone and mudstone formations between the Ruataniwha and the Heretaunga Plains contain significantly older water, with a MTT of up to 140 years, including the Karamu tributaries which collectively drain this area, indicating drainage through considerable groundwater reservoirs.

Heretaunga Plains contain significantly older water, with a MTT of up to 140 years (red symbols), including the Karamu tributaries, which collectively drain this area.

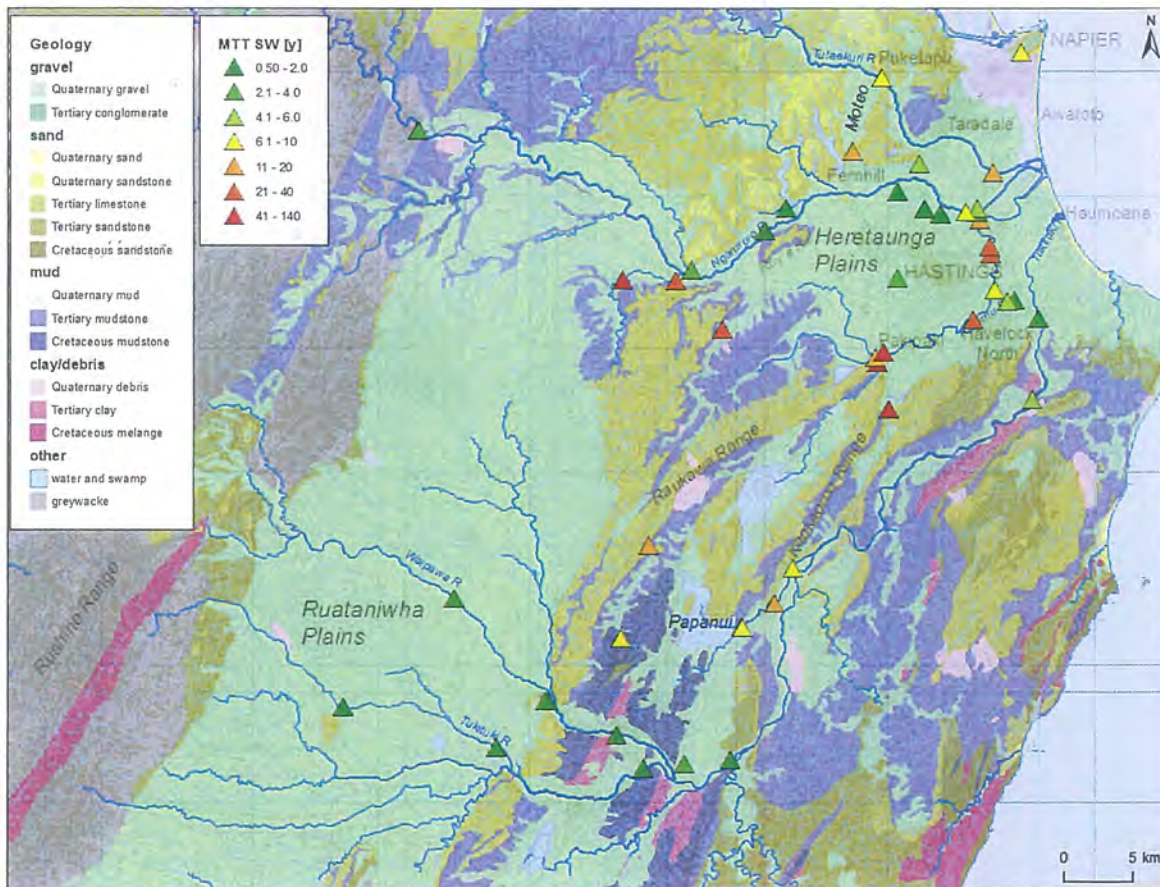


Figure 4.1 Map of mean transit times (MTT) of surface water.

The very young water with a MTT of <2 years in the Tukituki, Waipawa, and Ngaruroro Rivers, draining the eastern Ruahine and Kaimanawa Ranges (north-west of area shown in figure), reflects the nature of their upstream catchments, which have impermeable basement rock such as greywacke near the surface or are covered with only a thin layer of high-permeability gravels, which have short water-retention times. All of these rivers drain consistently young water throughout most of their course, except in the lower reaches where the water is slightly older, with a MTT of c. 3 years, indicating some older water contribution, such as from the limestone formation (Tukituki) or backflow from the Heretaunga Plains groundwater system (Ngaruroro). The drains that contribute to the Raupare Stream also contain very young water, indicating their source is likely the young Ngaruroro River water lost downstream of Roy's Hill.

The Tutaekuri River drains water with a MTT 8–12 years, reflecting its origin from mainly sandstone/mudstone formations. The relatively older age of the Tutaekuri River water indicates a considerable upstream groundwater reservoir, with active throughflow within its catchment. This is consistent with results from the neighbouring Horizons Region, which has similar geology and MTTs (Morgenstern et al. 2017).

The Tutaekuri-Waimate Stream at its upper site (Moteo Road) displays similar MTTs to the Tutaekuri River, supporting its origin from this river. Further downstream (Goods Bridge and Chesterhope), younger MTTs of 6–7 years indicate an additional contribution of younger water to the older Tutaekuri River water in the Tutaekuri-Waimate Stream, also originating from the Ngaruroro River.

4.0 GROUNDWATER RESIDENCE TIME DETERMINATION

Calculated groundwater model ages (Table 4.1) are based on lumped-parameter flow models (Maloszewski and Zuber 1982). The model outputs are matched to the measured age tracer concentrations presented in Table 3.1 and Table 3.3, as well as previous data held by GNS Science available for the wells (Appendix 2). Models have been fitted to the data using the Microsoft Excel-based TracerLPM software from the United States Geological Survey (Jurgens et al., 2012). This software finds the best fitting model for the data by minimising the total error between model tracer output concentrations and measured concentrations.

Table 4.1 Groundwater mean residence time (MRT) and young fraction (i.e., water less than one year old).

Well name	Exponential mixed flow %	MRT [years]	Minimum residence time [years] ²	Young Fraction <0.005%
Waipatiki	50	115	58	Yes
Whirinaki	72	10	2.8	Yes
Omahu	50	0.2	0.1	No
Portsmouth Road	19	2.1	1.7	Yes
Wilson Road	56	2.1	0.9	No
Pakipaki	71	149	43	Yes
Parkhill	BMM ¹	20.8	3.3	Yes
Beach Rd, Haumoana	53	73	34	Yes
Tucker Lane, Clive	BMM ¹	26.6	5.4	Yes
Ferry Road, Clive	BMM ¹	34.1	5.0	Yes
Whakatu	BMM ¹	29.9	2.0	Yes
Waipatu	BMM ¹	29.9	2.0	Yes
Brookvale No.1	BMM ¹	4.3	0.1	No
Lyndhurst No.5	50	5	2.5	Yes
	BMM ¹	9.0	1.0	No
Eastbourne No.5	BMM ¹	25.0	2.4	Yes

¹ BMM denotes a binary mixing model.

² Minimum residence time is the age of the youngest water present in the well outflow. Values in red indicate non-compliance with the DWSNZ:2005 residence time criterion.

The age tracer data from the seven Waipatiki, Whirinaki, Omahu, Portsmouth Road, Wilson Road, Pakipaki, and Beach Road wells can be matched to an exponential piston flow model (EPM) with parameters as given in Table 4.1

For the remaining eight wells, the currently available time series tracer data cannot be matched to a single EPM. Therefore, for these wells a binary mixing model (BMM) has been applied (Plummer et al., 2006; Jurgens et al., 2012). The BMM is a combination of two EPM models, each with a distinct MRT and residence time distribution (Figure 4.1). The parameters for each EPM, as well as the proportion of each EPM contributing to the BMM, are specific to each individual well. This type of residence time distribution could be expected for wells with multiple

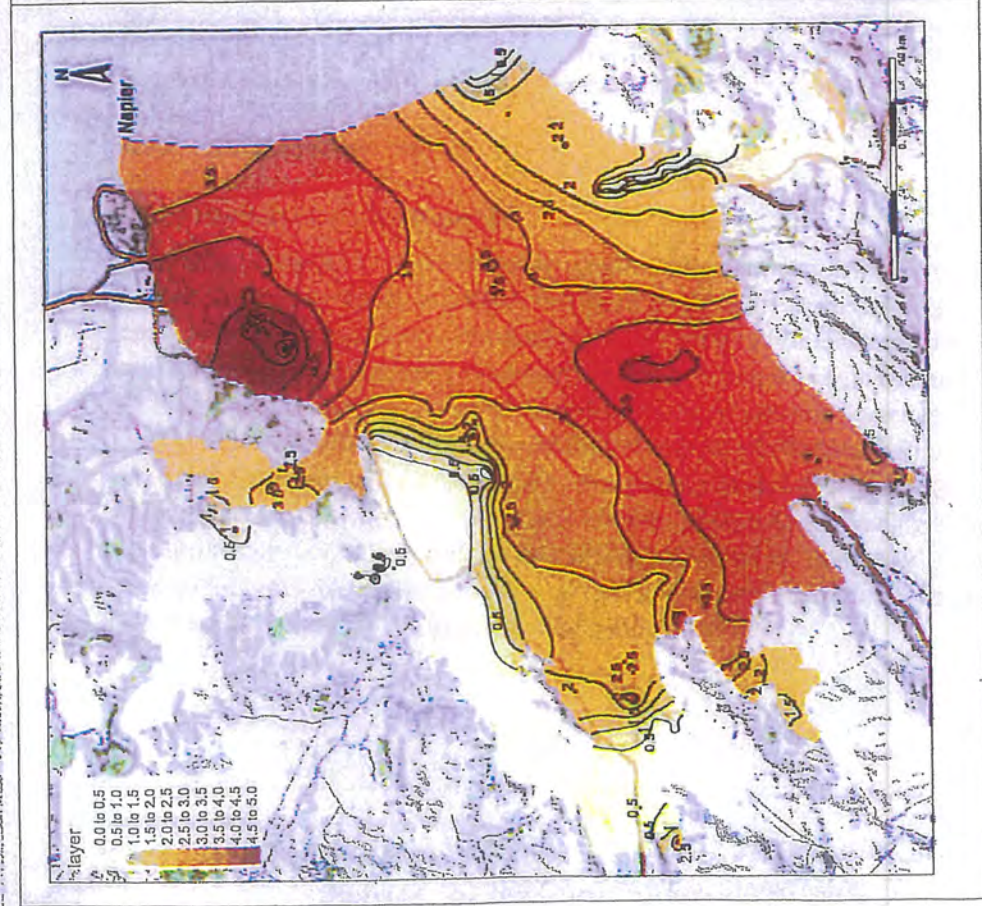


Figure 3-26: Groundwater drawdown (m) in Heretaunga Aquifer during summer (March 2013).

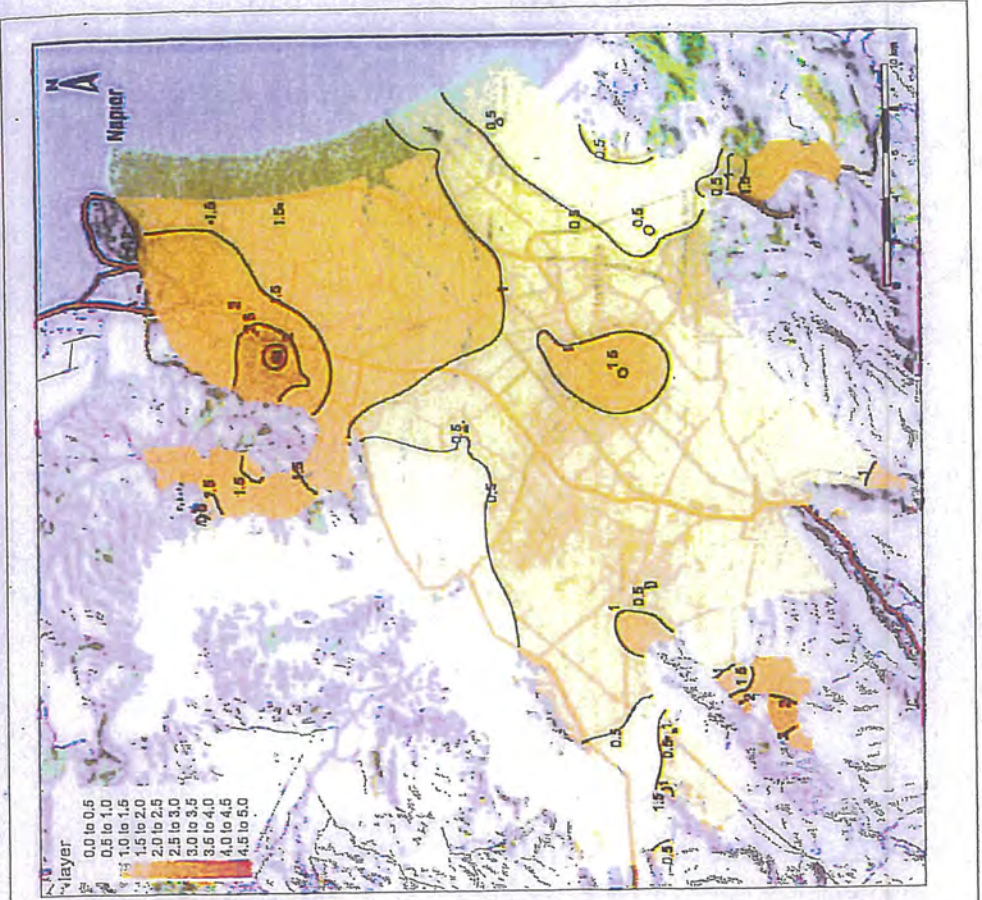


Figure 3-27: Groundwater drawdown (m) in Heretaunga Aquifer during winter (August 2012).

Heretaunga Aquifer Groundwater Model

Scenarios Prepared by Jeff Smith
 Reviewed by Stephen Swabey
 Prepared by Pawel Rakowski
 Approved by Hugh Middlemis
 Stephen Swabey

31 August 2018 10:52 a.m.

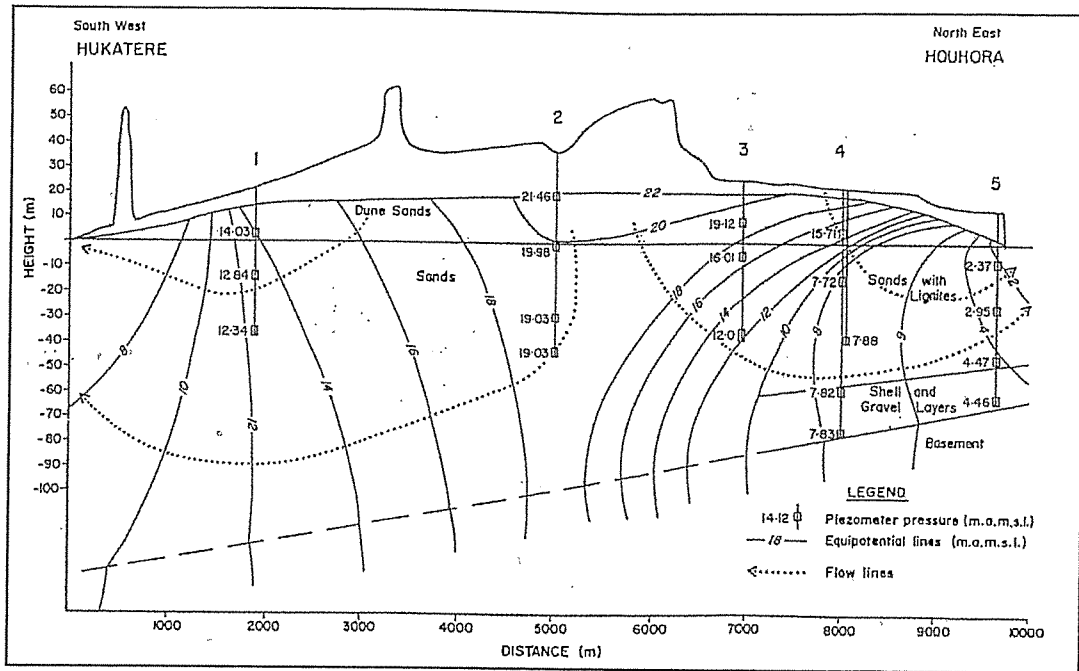
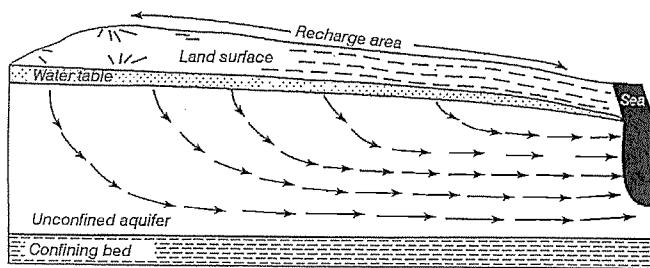
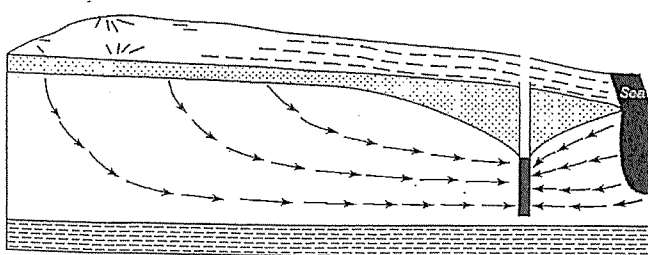


Figure 29.3 Hydrogeological cross-section of the Aupori Peninsula near Houhora, Northland. The Tasman Sea is to the left and the Pacific Ocean is to the right (Groundwater Consultants New Zealand 1987, from Thorpe 1992). Heights are in metres above mean sea level. Numbers 1 to 5 mark exploratory bores.



Undisturbed aquifer



Pumping from the well lowers the water table, reverses the hydraulic gradient and hence the direction of flow.

Figure 29.4 The mechanism of sea water intrusion into an aquifer.

supplemented by infiltrating rainfall. The natural discharge is to springs near the boundary of the confined aquifers or to submarine springs, which may be many kilometres offshore. In the case of the Heretaunga Plains, recharge is mostly from the Ngaruroro River between Fernhill and Maraekakaho, at an average rate of about $6 \text{ m}^3/\text{sec}$. Water from this system irrigates some 26,000 ha of New Zealand's most fertile soils, and supplies domestic and industrial water to Napier and Hastings. There are about 9,000 bores on the Hawkes Bay Regional Council data base.

Waimea Plains

Possibly the most studied aquifer system in New Zealand lies beneath the Waimea Plains near Nelson. It has a relatively small area of around 7,500 ha, but the soils and climate make it one of the most potentially productive agricultural/horticultural areas of New Zealand (Thomas 2001). The productivity is dependent largely on irrigation from bores, which also supply industrial, municipal and rural domestic users. Three aquifers have been delineated beneath the Waimea Plains: the Lower Confined, the Upper Confined and the Unconfined Appleby Gravel aquifers (Fig. 29.5). There are also minor aquifers in the Hope Gravels at the foot of the eastern hills (Thomas 2001). River recharge to this system is mostly from the Wairoa River after it emerges from its gorge. Water passes into the shallow unconfined Appleby Gravel aquifer and then leaks downward into the two confined aquifers.

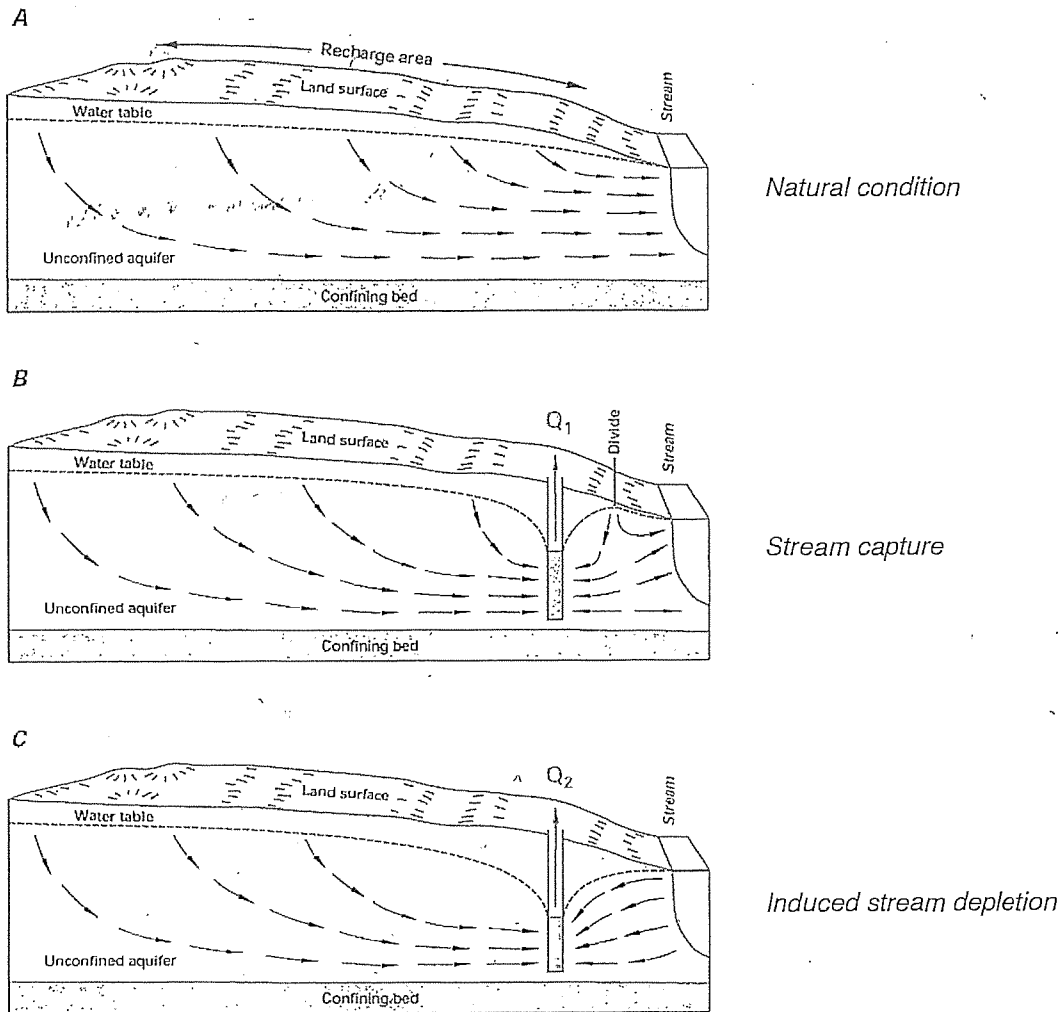


Figure 8: Effect of groundwater abstraction on stream flow.

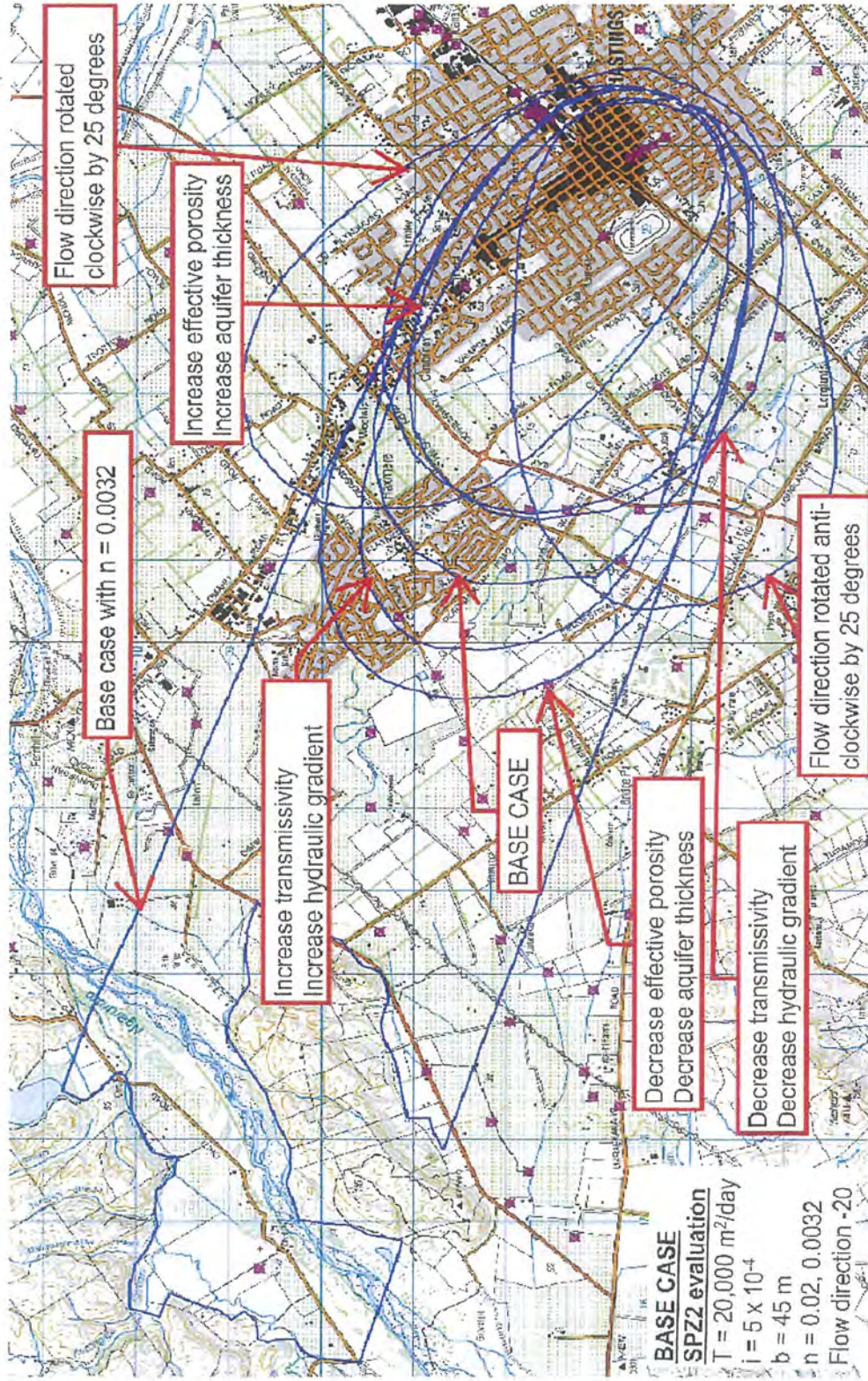
5.2 Managing groundwater and surface water interaction in the Hawke's Bay

To manage the potential effects of groundwater abstraction on stream flows, Council regards any groundwater take from an unconfined or semi-confined aquifer in the vicinity of a surface water body in accordance with the following RRMP policies:

Policy 33 (a) Any taking of shallow groundwater within 400 metres of a river, lake or wetland as measured from the edge of the bed will be treated as if it were a direct take unless the extent to which the groundwater will deplete water in the surface water body has been assessed using an appropriate scientific procedure in which case the effects on surface water will be assessed on that basis.

Policy 33 (b) Any taking of shallow groundwater beyond 400 metres may require an assessment of effects in the river, lake or wetland if the scale of the take, the groundwater flow direction, and

Sensitivity analysis #2



Sensitivity analysis - SPZ2 zones

Parameter	Change	Sensitivity comment
Effective porosity	Increase to 0.025	Reduces size of capture zone to 80% of the base case area
	Decrease to 0.015	Increases the size of the capture zone to 133% of the base case area
	Decrease to 0.0032	Capture zone extends beyond river, and therefore hydrogeological judgement needed to allow for features such as the Ngaruroro River. Capture area increases by over 250%.
Aquifer thickness	Increase by 25%	Reduces size of capture zone to 80% of the base case area
	Decrease by 25%	Increases the size of the capture zone to 133% of the base case area
Hydraulic gradient	Increase by 25%	Increases size of capture zone by approximately 1%. Moves entire zone slightly up-gradient.
	Decrease by 25%	No measurable change in size of capture zone from base case. Moves entire zone slightly down-gradient.
Transmissivity	Increase by 25%	Increases size of base case capture zone by approximately 1% from base case. Moves entire zone slightly up-gradient.
	Decrease by 25%	No measurable change in size of capture zone from base case. Moves entire zone slightly down-gradient.
flow direction	Rotate clockwise by 25°	No change in size of capture zone from base case. Rotates entire zone to align with groundwater flow from north-westerly direction
	Rotate anti-clockwise by 25°	No change in size of capture zone from base case. Rotates entire zone to align with groundwater flow from east south-easterly direction

Protection of Drinking - Water Sources under a Multi-Barrier Risk based Approach following the Flavelock North Outbreak Development of SPZ for HDC Drinking - Water Supply

Quantity of Source Water

Assessments have been made for each of the source supplies as to how much water may be sustainably abstracted from the borefields. These assessments have been undertaken by Tonkin + Taylor Ltd and have involved the following steps⁴:

- Review of published geological and hydrogeological records for the area.
- Collation and review of published bore log information held by Hawkes Bay Regional Council and development of conceptual hydrogeological cross sections.
- Collation and review of existing permitted and consented groundwater take information for the area, including pumping test information where available.
- Determination of the likely aquifer parameters in the area, including aquifer transmissivities and potential aquifer yields and potential production zones.
- Assessment of potential drawdown based on the adopted transmissivity and storativity characteristics of the potential production zones
- Assessment of potential for saline intrusion.
- Assessment of potential effects on surface water courses from groundwater abstraction

Groundwater Quality & Risks

Tonkin + Taylor Ltd has undertaken groundwater quality and risk assessments of the existing sources. This work has focused on understanding the groundwater aquifer and area from which water is sourced including all available information on the aquifer properties and groundwater quality, and developed Source Protection Zones (SPZs) for the Eastbourne, Frimley, Wilson Road and Portsmouth borefields. The work has also included identifying existing land uses within each SPZ that may pose a risk to drinking water safety.

The source protection zones for each bore field comprise 3 individual zones, an immediate protection zone, a microbial protection zone, and a capture zone as follows:

- Immediate protection zone (SPZ1) – a 5m setback zone around each bore head to allow for specific control (by statute, regulation, planning rule) of activities within the immediate vicinity of the bore heads
- Microbial protection zone (SPZ2) - defined by analytic modelling that represents a 1 year groundwater travel time from the bore field
- Capture zone (SPZ3) – defined by a catchment or hydrogeological boundary, which in this case is based on a 10-year travel time.

The SPZs have been developed based on published hydrogeological information. Potential contaminant sources within each SPZ have been identified - through catchment investigations and GIS mapping, incorporating land use and discharge consenting information; sites listed on the HBRC land use register of sites in Hawke's Bay (which reflects the New Zealand Standard Industrial Classification 1987 (NZSIC)), wastewater and water supply infrastructure. Once identified, each potential contaminant source has been semi-quantitatively ranked, considering aquifer vulnerability mapping, proximity to the water supply bore and individual factors relating to the source (for example the age, type and material of wastewater infrastructure).

The approach to defining SPZs for each of the bore fields was to not only consider them independently of each other but also to consider the combined effects on groundwater travel times and flow direction for the following reasons:

- The relatively close proximity of the four bore fields to one another.
- The terms of the combined groundwater take consent. The SPZ for each bore field is based on the maximum capacity of the bore up to the consented take volume.

⁴ Refer eg Tankin + Taylor Groundwater Feosibility Assessment, Tamoana

- The observed seasonal variation in groundwater flow directions.
- The slope of the groundwater surface (i.e. hydraulic gradient).
- The recharge from the Ngaruroro River.
- The location and magnitude of the large Heinz Wattie's Foods Ltd take.
- The relatively consistent geological/hydrogeological conditions.

Groundwater age testing undertaken by GNS has also been used to inform the understanding of groundwater quality and associated risks. Prior to 2016, Council was commissioning age testing on a 5 yearly basis in accordance with the Drinking Water Standards. Since the 2016 Havelock North contamination event, HDC has implemented a programme of quarterly age testing. The recent testing has indicated a minimum and mean residence time for groundwater that is significantly lower than previous results. Groundwater age is more variable than previously thought and there is a greater portion of younger water in the groundwater. Chemical water quality data has also suggested a significant influence of surface water in the aquifer.

Figures 10 and 11 show the SPZs developed and the overall risk profile for the various sources.



Figure 10 - Preliminary Source Protection Zones (SPZs)

TANK PLAN SUBMISSION

From the perspective of a fruitgrower, my comments are as follows:

A. Agreed Changes

1. Moving to annual allocations.
2. Reducing the daily allowance without a consent to 5000litres from 20,000Litres for any new application after May 2020.
3. Requiring greater efficiency of use by fruitgrower consent holders.

B. Disagreed Changes

1. Reporting by telemetry for all consents taking above 5l/sec - certainly for the very large takes . But what's wrong with reporting direct into the council database via the internet for the smaller takes? I would agree that dishonest or persistent tardy reporting could lead to it being mandatory for such consent holders. But why impose this additional cost on the smaller takes?
2. Ninety-five percent reliability of water availability. Would you be happy to see your income drastically reduced once in 20 years? No reason appears to be given for this criteria. You say the ground water resource is over allocated but you can guarantee water 19 years out of 20? Really?
3. No further allocations from the Heretaunga Plains aquifer. It seems Council has in general denied resource consent applications for water since 2017. For applications pertaining to production of saleable export commodities, how is this an acceptable situation? This policy will put the brakes on production development to the detriment of the Hawke's Bay people and NZ. It also has the effect of devaluing land for which water is not available for irrigation. Suppose the Hawke's Bay Station was to be subdivided into smaller blocks. Would you be happy to own some of that land which would support cropping but you can't take water for necessary irrigation from under your feet because someone else requires it?
4. With respect to the urban areas, further reduction of available water for irrigation into the future . How the available 90 million cubic metres of water is divided between the sectors is pertinent but I could not get information on this

from Council despite asking. The Tank Plan is to further exacerbate this situation because there is provision to increase the amount available for the urban areas to provide for population growth. This will have the effect of further restrictions being applied to the amount of water available for irrigation further inhibiting crop production and therefore income into H . Bay.

5. Reduction of existing Resource Consent water allocation for cropping. The plan is to reduce the allocated amount to an 'actual and reasonable' annual amount – generally as verified by 10 years of water meter records prior to 2017. We only installed a meter in 2014 so how is this a reliable guide? We certainly didn't go through a drought up to 2017. For land owners who are not currently cropping all the land they could, this is a barrier to increasing production and prevents the full potential of the land being realised with the same consequences as outlined above.

C. Suggestions:

1. What efficiency gains are you asking the urban areas to make? Nothing really tangible in the plan other than a plea to try and reduce leakage. How about urban properties having a decent sized water tank to collect some of the roof runoff? Not the little 200litre ones being promoted for use in the event of a civil emergency situation which will only last a few days at best. This stored water would reduce flow in the storm water systems and could be used for garden irrigation, car washing etc and for domestic supply in an emergency.
2. The future of Water Bottling. A contentious topic. This activity is OK if there is plenty of water but if not it should be phased out as it doesn't have to be located locally. There's plenty of good water elsewhere, it will just cost more to make use of alternative sources for this activity.
3. Augmentation. If developed this would alleviate the situation for some time. I believe Mike Glazebrook has made you an offer. Weren 't you also offered money from the Provincial Growth Fund as well? No answer on this topic when I put the question . Is this going to be another Ruataniwha with millions wasted? More water was needed yesterday, not tomorrow. I cannot understand why construction isn't proceeding right now, with urgency.

FORM 5

Submission on publicly notified proposal for policy statement or plan, change or variation under Clause 6 of Schedule 1, Resource Management Act 1991

To: Hawkes Bay Regional Council

Name of submitter: Ministry of Education

Address for service: C/- Beca Limited
PO Box 448
Hamilton 3240

Attention: Alec Duncan

Phone: (07) 960 7259

Email: alec.duncan@beca.com

Ministry of Education Submission on Proposed Plan Change 9: Hawke's Bay Regional Resource Management Plan

Pursuant to Schedule 1 of the Resource Management Act 1991, the Ministry of Education could not gain an advantage in trade competition through its submission.

Background:

The Ministry of Education (the Ministry) is the Government's lead advisor on the education system, shaping direction for education agencies and providers and contributing to the Government's goals for education. The Ministry's overall purpose is:

We shape an education system that delivers equitable and excellent outcomes / He mea tārai e mātou te mātauranga kia rangatira ai, kia mana taurite ai ōna huanga.

The Ministry has responsibility for managing all education property owned by the Crown. This principally involves managing the existing property portfolio, upgrading and improving the portfolio, purchasing and constructing new property to meet increased demand, identifying and disposing of surplus State school sector property and managing teacher and caretaker housing. The Ministry also has a role in ensuring education providers have all resources and support they need to deliver services to students, including water supply.

The Ministry is therefore a considerable stakeholder in terms of activities that may impact on educational facilities and assets in the Hawkes Bay region.

The Ministry's submission on TANK Plan Change 9 to the Regional Resource Management Plan is:

The Ministry understands that the TANK Plan Change 9 proposes a package of objectives, policies and rules to apply to the use of land and water in the TANK catchments. New objectives for water quantity are included, with new and amended allocation limits and minimum flow regimes for the surface and groundwater in the TANK catchments. These new limits mean no further water can be allocated from most of the water bodies in these catchments. In some catchments - including the Heretaunga Plains groundwater and surface takes from the Ngaruroro River - water allocation is to be reduced. New applications for water in many areas will be prohibited, and existing water permits can only be re-newed for actual and reasonable water use.

The Ministry recognises the need for Hawkes Bay Regional Council to set clear direction for consent holders and other water users regarding the freshwater resource on the greater Heretaunga Plains. However, the

Ministry is concerned that the new provisions will have a significant impact on the 91 schools located in the TANK catchments, particularly those schools that rely on groundwater or surface water for water supply.

The new provisions proposed, and amendments to, the allocation limits will significantly impact on the ability for school growth and for new schools to be developed in the TANK catchments that are located outside of public reticulated water supply areas, which will affect the ability for the Ministry to provide for education.

Relief Sought:

The Ministry's relief sought is set out in **Attachment 1** below. The Ministry requests that the proposed changes to the provisions set out be accepted. The Ministry considers that the proposed changes better enable the Ministry to continue to provide for education within the Hawkes Bay region.

Should you wish to discuss any aspect of this submission, please do not hesitate to contact the undersigned as the consultant on behalf of the Ministry.

The Ministry wishes to be heard in support of its submission. If others make a similar submission, the Ministry would consider presenting a joint case with them at the hearing.

Should you have any more queries please do not hesitate to contact the undersigned on behalf of the Ministry.



Alec Duncan

Planner (Beca Limited)

Email: alec.duncan@beca.com

Ph: 07 960 7259

Date: 2 July 2020

Attachment 1: Ministry of Education submission points on Proposed Plan Change 9

The following table sets out the decisions sought by Ministry of Education, including specific amendments to provisions of PC9. These amendments are shown as **red** (for new text sought) and **word** (for deletion).

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
Chapter 5.10 Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments			
General Objectives OBJ TANK 2	Support	The Ministry supports OBJ TANK 2 (d) sofar as the responsibilities of people and communities for sustainable resource use and development is recognised and supported. The Ministry supports sustainable resource use and development.	Retain as proposed.
Catchment Objectives OBJ TANK 10	Support subject to addition	<p>The Ministry supports OBJ TANK 10 (d) insofar that it enables people and communities to safely meet their domestic water needs in the Ahuriri freshwater catchments.</p> <p>However, communities are more than just a collection of houses providing shelter, they include marae, schools, halls and other social infrastructure facilities that contribute to the well-being of the community. These have limited use of water and may be considered as being of a domestic scale. It should be clear throughout the Plan Change that activities such as these that meet the domestic reasonable use definition should also be permitted activities.</p> <p>The Ministry therefore request that OBJ TANK 10 is amended as suggested and that there are subsequent amendments to the Plan Change to enable the social infrastructure that supports communities.</p>	<p>Amend OBJ TANK 10 as below:</p> <p>Catchment Objectives OBJ TANK 10 <i>In combination with meeting the water quality states specified in Schedule 26, the use and development of land, the discharge of contaminants and nutrients, and the taking, using damming and diverting of freshwater is carried out in the Ahuriri freshwater catchments so that the mauri, water quality and water quantity are maintained and enhanced where necessary to enable:</i></p> <p><i>a) Ahuriri estuary sediments to be healthy and not accumulate excessively;</i> <i>b) healthy ecosystems that contribute to the health of the estuary;</i> <i>c) healthy and diverse indigenous aquatic plant, fish and bird populations;</i> <i>d) people and communities to safely meet their domestic water needs and provide for the social infrastructure necessary to support these people and communities;</i> <i>e) primary production water for community social and economic well-being; and provide for;</i> <i>f) contribution to the healthy functioning of the Ahuriri estuary ecosystem and enable people to safely carry out a wide range of social, cultural and recreational activities including swimming and the collection of mahinga kai in the estuary.</i></p>

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
Catchment Objectives OBJ TANK 11	Support subject to addition	<p>The Ministry supports OBJ TANK 11 (f) insofar that it enables people and communities to safely meet their domestic water needs in the Ngaruroro River catchment.</p> <p>However, communities are more than just a collection of houses providing shelter, they include marae, schools, halls and other social infrastructure facilities that contribute to the well-being of the community. These have limited use of water and may be considered as being of a domestic scale. It should be clear throughout the Plan Change that activities such as these that meet the domestic reasonable use definition should also be permitted activities.</p> <p>The Ministry therefore request that OBJ TANK 11 is amended as suggested and that there are subsequent amendments to the Plan Change to enable the social infrastructure that supports communities.</p>	<p>Amend OBJ TANK 11 as below:</p> <p>Catchment Objectives OBJ TANK 11 <i>In combination with meeting the water quality states specified in Schedule 26, the use and development of land, the discharge of contaminants and nutrients, and the taking, using damming and diverting of freshwater is carried out in the Ngaruroro River catchment so that the mauri, water quality and water quantity are maintained in the mainstem above the Whanawhana Cableway and in the Taruarau River, and are improved in the tributaries and lower reaches where necessary to enable;</i></p> <ul style="list-style-type: none"> a) <i>healthy ecosystems;</i> b) <i>healthy and diverse indigenous aquatic plant, animal and bird populations especially whitebait, torrent fish, macroinvertebrate communities, bird habitat on braided river reaches and a healthy trout fishery;</i> c) <i>people to safely carry out a wide range of social, cultural and recreational activities especially swimming and cultural practices of Uu and boating, including jet-boating in the braided reaches of the Ngaruroro;</i> d) <i>protection of the natural character, instream values and hydrological functioning of the Ngaruroro mainstem and Taruarau and Omahaki tributaries;</i> e) <i>collection of mahinga kai to provide for social and cultural well-being;</i> f) <i>people and communities to safely meet their domestic water needs <u>and provide for the social infrastructure necessary to support these people and communities;</u></i> g) <i>primary production water needs and water required for associated processing and other urban activities to provide for community social and economic well-being;</i> <p><i>and provide for;</i></p> <ul style="list-style-type: none"> h) <i>contribution to water flows and water quality in the connected Heretaunga Plains Aquifers;</i> i) <i>contribution to the healthy functioning of Waitangi Estuary ecosystem and to enable people to safely carry out a wide range of social, cultural and recreational activities and the collection of mahinga kai in the estuary.</i>
Catchment Objectives OBJ TANK 12	Support subject to addition	<p>The Ministry supports OBJ TANK 12 (f) insofar that it enables people and communities to safely meet their domestic water needs in the Tūtaekurī River catchment.</p>	<p>Amend OBJ TANK 12 as below:</p> <p>Catchment Objectives OBJ TANK 12 <i>In combination with meeting the water quality states specified in Schedule 26, the use and development of land, the discharge of</i></p>

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
		<p>However, communities are more than just a collection of houses providing shelter, they include marae, schools, halls and other social infrastructure facilities that contribute to the well-being of the community. These have limited use of water and may be considered as being of a domestic scale. It should be clear throughout the Plan Change that activities such as these that meet the domestic reasonable use definition should also be permitted activities.</p> <p>The Ministry therefore request that OBJ TANK 12 is amended as suggested and that there are subsequent amendments to the Plan Change to enable the social infrastructure that supports communities.</p>	<p><i>contaminants and nutrients, and the taking, using damming and diverting of freshwater is carried out in the Tūtaekurī River catchment so that the mauri, water quality and water quantity are maintained in the upper reaches of the mainstem and are improved in the tributaries and lower reaches where necessary to enable:</i></p> <ul style="list-style-type: none"> <i>a) healthy ecosystems;</i> <i>b) healthy and diverse indigenous aquatic and bird populations especially, whitebait, torrent fish, macroinvertebrate communities and a healthy trout fishery;</i> <i>c) people to safely carry out a wide range of social, cultural and recreational activities, especially swimming and cultural practices of Uu and boating;</i> <i>d) protection of the natural character, instream values and hydrological functioning of the Tūtaekurī mainstem and Mangatutu tributary;</i> <i>e) collection of mahinga kai to provide for social and cultural well-being;</i> <i>f) people and communities to safely meet their domestic water needs <u>and provide for the social infrastructure necessary to support these people and communities;</u></i> <i>g) primary production water needs and water required for associated processing and other urban activities to provide for community social and economic well-being;</i> <i>and provide for;</i> <i>h) contribution to the healthy functioning of Waitangi Estuary ecosystem and to enable people to safely carry out a wide range of social, cultural and recreational activities and the collection of mahinga kai in the estuary.</i>
<p>Catchment Objectives OBJ TANK 13</p>	<p>Support subject to addition</p>	<p>The Ministry supports OBJ TANK 13 (e) insofar that it enables people and communities to safely meet their domestic water needs in the Karamū and Clive Rivers catchment.</p> <p>However, communities are more than just a collection of houses providing shelter, they include marae, schools, halls and other social infrastructure facilities that contribute to the well-being of the community. These have limited use of water and may be considered as being of a domestic scale. It should be clear throughout the Plan Change that activities such as these that meet the domestic reasonable use definition should also be permitted activities.</p>	<p>Amend OBJ TANK 13 as below:</p> <p>Catchment Objectives OBJ TANK 13 <i>In combination with meeting the water quality states specified in Schedule 26, the use and development of land, the discharge of contaminants and nutrients, and the taking, using damming and diverting of freshwater is carried out in the Karamū and Clive Rivers catchment so that the mauri, water quality and water quantity are improved to enable:</i></p> <ul style="list-style-type: none"> <i>a) healthy ecosystems;</i> <i>b) healthy and diverse indigenous aquatic and bird populations, especially black patiki, tuna and whitebait, and healthy macroinvertebrate communities;</i> <i>c) people to safely carry out a wide range of social, recreational, and cultural activities, including swimming and cultural practices of Uu and rowing and waka ama in the Clive/Karamū;</i>

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
		<p>The Ministry therefore request that OBJ TANK 13 is amended as suggested and that there are subsequent amendments to the Plan Change to enable the social infrastructure that supports communities.</p>	<p>d) collection of mahinga kai to provide for social and cultural well-being; e) people and communities to safely meet their domestic water needs <u>and provide for the social infrastructure necessary to support these people and communities</u>; f) primary production water needs and water required for associated processing and other urban activities to provide for community social and economic well-being; and provide for; g) contribution to the healthy functioning of the Waitangi Estuary ecosystem and to enable people to safely carry out a wide range of social, cultural and recreational activities and the collection of mahinga kai in the estuary.</p>
<p>Catchment Objectives OBJ TANK 14</p>	<p>Support subject to addition</p>	<p>The Ministry supports OBJ TANK 14 (e) insofar that it enables people and communities to safely meet their domestic water needs in the Groundwater connected to the Ngaruroro, Tūtaekurī and Karamū rivers and their tributaries.</p> <p>However, communities are more than just a collection of houses providing shelter, they include marae, schools, halls and other social infrastructure facilities that contribute to the well-being of the community. These have limited use of water and may be considered as being of a domestic scale. It should be clear throughout the Plan Change that activities such as these that meet the domestic reasonable use definition should also be permitted activities.</p> <p>The Ministry therefore request that OBJ TANK 14 is amended as suggested and that there are subsequent amendments to the Plan Change to enable the social infrastructure that supports communities.</p>	<p>Amend OBJ TANK 14 as below:</p> <p>Catchment Objectives OBJ TANK 14 In combination with meeting the water quality states specified in Schedule 26, the use and development of land, the discharge of contaminants and nutrients, and the taking and using of freshwater is carried out so that the mauri, water quality, water quantity and groundwater levels are maintained in the Groundwater connected to the Ngaruroro, Tūtaekurī and Karamū rivers and their tributaries to enable; a) people and communities to safely meet their domestic water needs and to enable the provision of safe and secure supplies of water for municipal use <u>including provision for the social infrastructure necessary to support these people and communities</u>; b) primary production water needs and water required for associated processing and other urban activities to provide for community social and economic well-being; and provide for; c) the maintenance of groundwater levels at an equilibrium that accounts for annual variation in climate and prevents long term decline or seawater intrusion; d) contribution to water flows and water quality in connected surface waterbodies.</p>
<p>Water quantity OBJ TANK 16</p>	<p>Support subject to addition</p>	<p>The Ministry supports OBJ TANK 16 (a) and (b) insofar that it prioritises water for the essential needs of people and the allocation and reservation of water for domestic supply including for marae and papakāinga.</p>	<p>Amend OBJ TANK 16 as below:</p> <p>Water quantity</p>

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
		<p>However, the Ministry consider that provision for social infrastructure necessary to support people should also be prioritised. This includes schools, halls and other social infrastructure facilities that contribute to the well-being of the community. These have limited use of water and may be considered as being of a domestic scale. It should be clear throughout the Plan Change that activities such as these that meet the domestic reasonable use definition should also be permitted activities.</p> <p>The Ministry therefore request that OBJ TANK 14 is amended as suggested and that there are subsequent amendments to the Plan Change to enable the social infrastructure that supports communities.</p>	<p>OBJ TANK 16 Subject to limits, targets and flow regimes established to meet the needs of the values for the water body, water quantity allocation management and processes ensure water allocation in the following priority order;</p> <p>a) Water for the essential needs of people;</p> <p>b) The allocation and reservation of water for domestic supply including for marae and papakāinga and for municipal supply <u>including provision for the social infrastructure necessary to support these people and communities</u> so that existing and future demand as described in HPUDS (2017) can be met within the specified limits;</p> <p>c) Primary production on versatile soils;</p> <p>d) Other primary production food processing, industrial and commercial end uses;</p> <p>e) Other non-commercial end uses.</p>
<p>Water quantity OBJ TANK 17</p>	Support	<p>The Ministry supports OBJ TANK 17 so far as it requires the allocation and use of water to result in water being available for abstraction at agreed reliability of supply standards. The Ministry also support efficient water use.</p>	Retain as proposed.
<p>Water quantity OBJ TANK 18</p>	Support	<p>The Ministry supports OBJ TANK 18 so far as it requires that the current and foreseeable water needs of future generations and for mauri and ecosystem health are secured. This is important for the current and future use of schools within the TANK catchments.</p> <p>The Ministry further note that schools are low use activities. For example, school toilets are not used for approximately 165 days of a year and schools only use approximately 2.3% of the amount of water as an average household. On this basis, the Ministry are supportive of this objective.</p>	Retain as proposed.
<p>5.10.2 Policies: Surface Water and Groundwater Quality Management</p>			
<p>Priority Management Approach Policy 1</p>	Support	<p>The Ministry are responsible for supplying safe drinking water to students and staff in accordance with the New Zealand Drinking Water Standards 2008.</p> <p>The Ministry, as a key stakeholder, supports Policy 1 as it recognises the need to regulate or manage land use activities and surface and groundwater bodies so that water quality attributes are maintained at their current state or where required show an improving trend towards the</p>	Retain as proposed.

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
		water quality targets shown in Schedule 26. Policy 1 will protect the water quality and intum, the health and safety of pupils and staff.	
Protection of Source Water Policy 6	Support	The Ministry supports Policy 6 on the basis that it seeks to protect water supplies by identifying a source protection extent for small scale drinking water supplies.	Retain as proposed.
Protection of Source Water Policy 7	Support	The Ministry supports Policy 7 on the basis that it seeks to protect the source water for water supplies.	Retain as proposed.
Protection of Source Water Policy 8	Support	The Ministry supports Policy 8 on the basis that it seeks to protect the source water for water supplies.	Retain as proposed.
Protection of Source Water Policy 9	Support	The Ministry supports Policy 9 on the basis that it requires Council to collaborate with agencies which have roles and responsibilities for the provision of safe drinking water to protect source water and associated water supplies.	Retain as proposed.
Chapter 6 New Regional Rules			
6.10 Tūtaekurī, Ahuriri, Ngauroro and Karamū Catchment Rules (TANK)			
6.10.2 Water – Take and Use TANK 7 Surface Watertake	Support with addition	<p>The Ministry supports TANK 7 insofar as it provides for the take and use of surface water in the TANK water Management Zones.</p> <p>However, the Ministry consider that the Plan Change could be clearer around the use of water for activities that support the community i.e. those activities that are not industrial or commercial and water use is usually well within the 15m³ per 7 day criteria (or could be made to be by averaging) and should therefore be permitted.</p> <p>These include activities such as marae, schools, halls and other social infrastructure facilities that contribute to the well-being of the community. These have limited use of water and may be considered as being of a domestic scale. It should be clear throughout the Plan Change that activities such as these that meet the domestic reasonable use definition should also be permitted activities.</p>	<p>Amend TANK 7 Surface Watertake as below:</p> <p>6.10.2 Water – Take and Use Rule: TANK 7 Surface Water take Activity: <i>The take and use of surface water in the TANK water Management Zones including under Section14(3)(b) of the RMA</i> Status: <i>Permitted</i> Conditions/Standards/Terms a) <i>Any take first commencing after 2 May 2020 is not from any of the following:</i> <i>Maraekakaho Water Management Unit</i> <i>Ahuriri Water Management Unit</i> <i>Awanui Stream and its tributaries</i> <i>Poukawa Water Management Unit</i> <i>Louisa Stream and its tributaries</i></p>

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
		<p>The Ministry therefore request that TANK 7 is amended as suggested and that there are subsequent amendments to the Plan Change to enable the social infrastructure that supports communities.</p> <p>Please also note numeric error under (b) as notified.</p>	<p>b) <i>The take does not exceed 5 cubic metres per day per any one property except:</i></p> <p>(i) <i>Takes existing as at 2 May 2020 may continue to take up to 20 cubic metres per property per day and to meet the reasonable needs of animals for drinking water;</i></p> <p>(iii) (ii) <i>Takes occurring for a period of less than 28 days within any 90 day period, the total volume taken on any property shall not exceed 200 cubic metre per 7 day period.</i></p> <p><i><u>(iii) Takes existing as at 2 May 2020 may continue to take up to 20 cubic metres per property per day and to meet the reasonable needs of social infrastructure.</u></i></p> <p>c) <i>The taking of water does not cause any stream or river flow to cease.</i></p> <p>d) <i>Fish, including eels shall be prevented from entering the reticulation system.</i></p> <p>e) <i>The activity shall not cause changes to the flows or levels of water in any connected wetland.</i></p> <p>f) <i>The take shall not prevent from taking water any other lawfully established efficient groundwater take, or any lawfully established surface water take, which existed prior to commencement of the take.</i></p> <p>A Means of Compliance for Condition d)</p> <p><i>Installation of a screen or screens on the river intake that has a screen mesh size not greater than 3 millimetres and is constructed so that the intake velocity at the screen's outer surface is less than 0.3 metres per second and is maintained in good working order at all times.</i></p>
<p>6.10.2 Water – Take and Use</p> <p>TANK 8 Groundwater take</p>	<p>Support with addition</p>	<p>The Ministry supports TANK 8 insofar as it provides for the take and use of groundwater in the TANK water Management Zones.</p> <p>However, the Ministry consider that the Plan Change could be clearer around the use of water for activities that support the community i.e. those activities that are not industrial or commercial and water use is usually well within the 15m³ per 7 day criteria (or could be made to be by averaging) and should therefore be permitted.</p> <p>These include activities such as marae, schools, halls and other social infrastructure facilities that contribute to the well-being of the community. These have limited use of water and may be considered as being of a</p>	<p>Rule: TANK 8</p> <p>Groundwater take</p> <p>Activity: <i>The take and use of groundwater in the TANK Water Management Zones including under Section 14(3)(b) of the RMA</i></p> <p>Status: <i>Permitted</i></p> <p>Conditions/Standards/Terms</p> <p>a) <i>Any take first commencing after 2 May 2020 is not from the Poukawa Freshwater Management Unit (quantity).</i></p> <p>b) <i>There is only one point of take per property and the take does not exceed 5 cubic metres per day except;</i></p> <p>(i) <i>takes existing as at 2 May 2020 may continue to take up to 20 cubic metres per property per day and to meet the reasonable needs of animals for drinking water.</i></p>

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
		<p>domestic scale. It should be clear throughout the Plan Change that activities such as these that meet the domestic reasonable use definition should also be permitted activities.</p> <p>The Ministry therefore request that TANK 8 is amended as suggested and that there are subsequent amendments to the Plan Change to enable the social infrastructure that supports communities.</p>	<p>(ii) Takes occurring for a period of less than 28 days within any 90 day period, the total volume taken on any property shall not exceed 200 cubic metre per 7 day period.</p> <p>(iii) The taking of water for aquifer testing is not restricted</p> <p><u>(iv) Takes existing as at 2 May 2020 may continue to take up to 20 cubic metres per property per day and to meet the reasonable needs of social infrastructure.</u></p> <p>c) The rate of take shall not exceed 10 l/s other than aquifer testing for which the rate of take is not restricted.</p> <p>d) The take shall not prevent from taking water, any other lawfully established efficient groundwater take, or any lawfully established surface water take, which existed prior to commencement of the take.</p> <p>e) The take shall not cause changes to the flows or levels of water in any connected wetland.</p> <p>f) Backflow of water or contaminants into the bore shall be prevented.</p>

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

Clause 6 of Schedule 1, Resource Management Act 1991

To: Hawkes Bay Regional Council

Submission on: Proposed Plan Change 9 - Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments

Name of submitter: Fire and Emergency New Zealand

Fire and Emergency New Zealand (Fire and Emergency) is not a trade competitor for the purposes of section 308B of the Resource Management Act 1991 (RMA).

Background:

Fire and Emergency is a unified fire organisation that brings together New Zealand's urban and rural fire services. The formation of Fire and Emergency represents a once in a generation opportunity to enable New Zealand to have a fit for purpose 21st century fire and emergency organisation that is flexible, adaptable and efficient.

As outlined in Section 10 of the Fire and Emergency New Zealand Act 2017 (FENZ Act), the principal objectives of Fire and Emergency are to; reduce the incidence of unwanted fire and the associated risk to life and property, protect and preserve life, and prevent or limit injury, damage to property land, and the environment.

The main functions of Fire and Emergency, as identified in Section 11 of the FENZ Act, are:

- to promote fire safety, including providing guidance on the safe use of fire as a land management tool;
- to provide fire prevention, response, and suppression services;
- to stabilise or render safe incidents that involve hazardous substances;
- to provide for the safety of persons and property endangered by incidents involving hazardous substances;
- to rescue persons who are trapped as a result of transport accidents or other incidents;
- to provide urban search and rescue services; and
- to efficiently administer the FENZ Act.

Fire and Emergency is also to assist in the below additional functions, as identified in Section 11 of the FENZ Act, to the extent it has capability and capacity to do so:

- responding to medical emergencies;
- responding to maritime incidents;
- performing rescues, including high angle line rescues, rescues from collapsed buildings, rescues from confined spaces, rescues from unrespirable and explosive atmospheres, swift water rescues, and animal rescues;
- providing assistance at transport accidents (for example, crash scene cordoning and traffic control);
- responding to severe weather-related events, natural hazard events, and disasters;

- responding to incidents in which a substance other than a hazardous substance presents a risk to people, property, or the environment;
- promoting safe handling, labelling, signage, storage, and transportation of hazardous substances; and
- responding to any other situation, if Fire and Emergency has the capability to assist.

As such, Fire and Emergency must perform and exercise the functions, duties, and powers conferred or imposed on Fire and Emergency as a main function by or under the FENZ Act and any other enactment; and perform any other functions conferred on Fire and Emergency as a main function by the Minister in accordance with section 112 of the Crown Entities Act 2004.

This submission seeks to enable Fire and Emergency to carry out its requirements under the FENZ Act more effectively in the protection of lives, property and the surrounding environment. This submission addresses matters relating to activities required to be undertaken to enable effective firefighting training, emergency response and to provide for the health and safety of people and communities in the Hawkes Bay region.

The Fire and Emergency submission is that:

Due to operational and training requirements, Fire and Emergency has an interest in regional plan provisions, particularly as they relate to the take and use of water to ensure that, where necessary, appropriate consideration is given to fire safety and operational firefighting requirements.

The provision for adequate water supply is critical to the operation of Fire and Emergency. It is important that water supply (whether reticulated or non-reticulated) is available at sufficient quantities for firefighting use across the Hawkes Bay region. This essential emergency water supply will provide for the health, safety and wellbeing of people and the wider community, and therefore achieves the purpose of the RMA.

It is also important that regional plans provide for Fire and Emergency to operate during emergency events (such as fires) and that plan provisions do not affect their ability to operate as effectively as needed. Given that emergencies are unplanned, it is unrealistic and impracticable to expect Fire and Emergency to apply for resource consent to take water above the permitted thresholds.

Whilst section 14(3)(e) of the RMA provides for water takes for firefighting and training purposes, it is considered appropriate that Fire and Emergency also seeks clarity through rules in regional plans to provide certainty and a level of assurance that they can continue to operate without the risk of infringing statutory requirements in order to meet their own statutory functions under the FENZ Act.

As such, Plan Change 9 (PC9) provides Fire and Emergency an opportunity within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, in relation to their operational requirements, to better facilitate the health, safety and wellbeing of people and communities by appropriately providing for fire safety, fire extinction, and associated training. This will enable Fire and Emergency to better achieve their principle objective which include reducing the incidence of unwanted fire and the associated risk to life and property, protecting and preserving life, and preventing or limiting injury, damage to property land, and the environment.

Appendix A to this submission sets out the Fire and Emergency submission in detail, including the amendments sought by Fire and Emergency to specific provisions of PC9, and the reasons for the amendments.

Fire and Emergency seeks the following decision from the local authority:

Amend the provisions of PC9 to better provide for the safety and wellbeing of people and communities in the Hawkes Bay region by making the changes set out in Appendix A to this submission, including any further or consequential relief that may be necessary to address the matters raised in this submission.

Fire and Emergency wishes to acknowledge the opportunity to comment on PC9 and also welcomes the opportunity to discuss, or provide further clarification, in relation to its submission.

Fire and Emergency wishes to be heard in support of its submission.

If others make a similar submission Fire and Emergency will consider presenting a joint case with them at a hearing.



.....

(Signature of person authorised to sign on behalf of Fire and Emergency New Zealand)

Date: 2 July 2020

Address for service of submitter:	c/- Beca Limited PO Box 448 Hamilton 3240
Telephone:	+64 7 960 7259
Email:	alec.duncan@beca.com
Contact person:	Alec Duncan, Planner

Appendix A: Fire and Emergency New Zealand Submission Points on Proposed Plan Change 9

The following table sets out the decisions sought by Fire and Emergency, including specific amendments to provisions of PC9. These amendments are shown as **red** (for new text sought) and **word** (for deletion).

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
Chapter 5.10 Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments			
Climate change OBJ TANK 3	Support	<p>Fire and Emergency supports OBJ TANK 3 as it promotes community resilience requiring effects from climate change on water supply, human health, infrastructure and the environment to be taken into account.</p> <p>This objective is in keeping with the principles of Fire and Emergency and consider that the subsequent policies effectively give effect to this objective to achieve the purpose of the RMA and the principles of Fire and Emergency by providing for the safety of people and communities across the Hawkes Bay region.</p>	Retain as proposed.
Catchment Objectives OBJ TANK 10	Support	<p>Fire and Emergency support OBJ TANK 10 on the basis that it requires the use and development of land and the taking of freshwater to be carried out in the Ahuriri freshwater catchments so that water quantity is maintained and enhanced where necessary to enable people and communities to safely meet their domestic water needs and primary production water for community social and economic well-being.</p> <p>It is important that access to sufficient water supply and provision for Fire and Emergency to take water (whether reticulated or non-reticulated) during essential Fire and Emergency activities is provided for.</p>	Retain as proposed.
Catchment Objectives OBJ TANK 11	Support	<p>Fire and Emergency support OBJ TANK 11 on the basis that it requires the use and development of land and the taking of freshwater to be carried out in the Ngaruroro River catchment so that water quantity is maintained and enhanced where necessary to enable people and communities to safely meet their domestic water needs and primary production water for community social and economic well-being.</p>	Retain as proposed.

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
		It is important that access to sufficient water supply and provision for Fire and Emergency to take water (whether reticulated or non-reticulated) during essential Fire and Emergency activities is provided for.	
Catchment Objectives OBJ TANK 12	Support	<p>Fire and Emergency support OBJ TANK 12 on the basis that it requires the use and development of land and the taking of freshwater to be carried out in the Tūtaekurī River catchment so that water quantity is maintained and enhanced where necessary to enable people and communities to safely meet their domestic water needs and primary production water for community social and economic well-being.</p> <p>It is important that access to sufficient water supply and provision for Fire and Emergency to take water (whether reticulated or non-reticulated) during essential Fire and Emergency activities is provided for.</p>	Retain as proposed.
Catchment Objectives OBJ TANK 13	Support	<p>Fire and Emergency support OBJ TANK 13 on the basis that it requires the use and development of land and the taking of freshwater to be carried out in the Karamū and Clive Rivers catchment so that water quantity is maintained and enhanced where necessary to enable people and communities to safely meet their domestic water needs and primary production water for community social and economic well-being.</p> <p>It is important that access to sufficient water supply and provision for Fire and Emergency to take water (whether reticulated or non-reticulated) during essential Fire and Emergency activities is provided for.</p>	Retain as proposed.
Catchment Objectives OBJ TANK 14	Support	<p>Fire and Emergency support OBJ TANK 14 on the basis that it requires the use and development of land and the taking of freshwater to be carried out so that water quantity and groundwater levels in the Groundwater connected to the Ngaruroro, Tūtaekurī and Karamū rivers and their tributaries are maintained to enable people and communities to safely meet their domestic water needs and to enable the provision of safe and secure supplies of water for municipal use.</p> <p>This is particularly important to Fire and Emergency as adequate firefighting water supply is essential to the efficient operation of Fire and Emergency. As municipal supplies are the primary source of firefighting water supply in reticulated urban areas, secure supply and adequate water pressure during an emergency is fundamental to the health, safety and</p>	Retain as proposed.

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
<p>Water quantity OBJ TANK 16</p>	<p>Support in part</p>	<p>wellbeing of people in the Hawkes Bay communities and to the ability for Fire and Emergency to effectively fight a fire, should fire occur.</p> <p>Fire and Emergency support OBJ TANK 16 to the extent that it sets out a priority order for water allocation, subject to the limits, targets and flow regimes established.</p> <p>However, Fire and Emergency seek that they are given priority for water allocation under Objective TANK 16, in recognition of section 14(3)(e) of the RMA.</p>	<p>Amend OBJ TANK 16 as follows:</p> <p>OBJ TANK 16 Subject to limits, targets and flow regimes established to meet the needs of the values for the water body, water quantity allocation management and processes ensure water allocation in the following priority order;</p> <ul style="list-style-type: none"> a) Water for the essential needs of people; b) The allocation and reservation of water for domestic supply including for marae and papakāinga, Fire and Emergency New Zealand activities and for municipal supply so that existing and future demand as described in HPUDS (2017) can be met within the specified limits; c) Primary production on versatile soils; d) Other primary production food processing, industrial and commercial end uses; e) Other non-commercial end uses.
<p>5.10.6 Policies: Heretaunga Plains Groundwater Levels and Allocation Limits</p>	<p>Support</p>	<p>Fire and Emergency generally support the proposed policies in 5.10.6 to the extent that they seek to manage the allocation and use of groundwater levels in the region to protect the supply of water as a finite resource.</p> <p>The Management of water supply (regardless of the source) will provide security for Fire and Emergency in terms of the availability of water supply for use by Fire and Emergency during an emergency.</p>	<p>Retain as proposed.</p>
<p>5.10.7 Policies: Surface Water Low Flow Management</p> <p>Water Allocation – Priority</p> <p>Policy 50</p>	<p>Support</p>	<p>Fire and Emergency generally support the proposed policies in 5.10.7 to the extent that they seek to manage the allocation and use of surface water levels in the region to protect the supply of water as a finite resource.</p> <p>Policy 50 requires Council to ensure the water needs of future community growth are met within water limits when making decisions about resource consent applications for municipal and papakāinga water supply. Fire and Emergency further support this policy as it requires Council to manage water demand and supply and the identification of communities at risk of low water reliability.</p>	<p>Retain as proposed.</p>

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
		<p>This is particularly important to Fire and Emergency as adequate firefighting water supply is essential to the efficient operation of Fire and Emergency. As municipal supplies are the primary source of firefighting water supply in reticulated urban areas, secure supply and adequate water pressure during an emergency is fundamental to the health, safety and wellbeing of people in the Hawkes Bay communities and to the ability for Fire and Emergency to effectively fight a fire, should fire occur.</p>	
<p>5.10.7 Policies: Surface Water Low Flow Management</p> <p>Water Allocation – Priority</p> <p>Policy 51</p>	<p>Support in part</p>	<p>Fire and Emergency generally support Policy 51 to the extent that when making water shortage directions under Section 329 of the RMA, Council will establish and consult with an emergency water management group that include representatives from the former New Zealand Fire Service to make decisions about providing for water uses in a priority order.</p> <p>As outlined above, the New Zealand Fire Service (now Fire and Emergency New Zealand) was established by the FENZ Act on 1 July 2017. Fire and Emergency therefore request that a minor amendment is made to better align with the current unified structure of Fire and Emergency. Fire and Emergency supports Policy 51(c) to the extent that recognition is given to the well-being and health of communities in terms of priority use of water.</p> <p>However, Fire and Emergency recommends that the wording better reflects section 5 of the RMA which also refers to the ‘safety’ of the community.</p> <p>Fire and Emergency also supports Policy 51 as it sets out ‘firefighting uses’ as being an exclusion to water shortage restrictions. This is also consistent with section 14(3)(e) of the RMA in respect of water is required to be taken or used for emergency or training purposes in accordance with section 48 of the FENZ Act.</p>	<p>Amend Policy 51 as follows:</p> <p>51. When making water shortage directions under Section 329 of the RMA, occurring when rivers have fallen below minimum flows and water use has decreased or ceased according to permit conditions, the Council will establish and consult with an emergency water management group that shall have representatives from Napier City and Hastings District Councils, NZ Fire Service Fire and Emergency New Zealand, DHB, iwi and MPI, to make decisions about providing for water uses in the following priority order;</p> <ul style="list-style-type: none"> a) water for the maintenance of public health; b) water necessary for the maintenance of animal welfare; c) water essential for community safety, well-being and health; d) water essential for survival of horticultural tree crops; e) uses where water is subject to seasonal demand for primary production; f) uses for which water is essential for the continued operation of a business, except where water is subject to seasonal demand for primary production or processing. <p>The following uses will not be authorised under a water shortage direction:</p> <ul style="list-style-type: none"> g) use of water not associated with the continued operation of a business or community well-being;

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
			<p>h) non-essential amenity uses such as private swimming pools and car washing.</p> <p>Takes not subject to any restrictions are:</p> <p>i) firefighting uses;</p> <p>j) non-consumptive uses;</p>
Chapter 6 New Regional Rules			
6.10.2 Water – Take and Use	Oppose	<p>The Operative Regional Resource Management Plan includes a note in the permitted activity Rule 53 'Minor takes & uses of groundwater' that states:</p> <p><i>“The total volume taken shall not exceed 20m³/d per property (other than for aquifer testing, for which the volume of take is not restricted). The take and use of water for reasonable domestic needs, stock drinking purposes and fire fighting, including from locations within the groundwater management zones in Schedule VI is not required to be included in this measurement.</i></p> <p><i>When the permitted activity limit of 20m³ per day is exceeded a consent is required for the total take.”</i></p> <p>In contrast, the PC9 rules to take water do not provide for Fire and Emergency to operate as required and could therefore affect their ability to operate as effectively as needed. Given that emergency events (such as fires) are unplanned, it is unrealistic and impracticable to expect Fire and Emergency to apply for resource consent to take water above the permitted thresholds.</p> <p>PC9 as notified puts Fire and Emergency in a position where responding to large emergency events could result in a breach of the RMA through the take of water for emergency or training purposes. Consequently, non-compliance with the Regional Resource Management Plan provisions could see Fire and Emergency prosecuted, should the Regional Resource Management Plan provisions be enforced during temporary emergency events.</p> <p>Whilst section 14(3)(e) of the RMA provides for water takes for firefighting and training purposes, it is considered that PC9 should explicitly recognise this. Providing clarity through the rules of the Regional Resource</p>	<p>Amend PC9 as follows:</p> <p>6.10.2 Water – Take and Use</p> <p><u>The following rules do not apply to the taking and use of water that occurs in accordance with section 14(3)(e) of the RMA:</u></p> <ul style="list-style-type: none"> • <u>Tank 7 - 17</u> <p><u>The take and use of water for emergency or training purposes in accordance with section 48 of the Fire and Emergency New Zealand Act 2017, including from locations within the groundwater management zones in Schedule 31 is exempt from the water take and use provisions and restrictions as provided for within section 14(3)(e) of the Resource Management Act 1991.</u></p>

PC9 Provision	Support / Oppose	Submission / Reasons	Decision Sought
		<p>Management Plan provides certainty for Fire and Emergency and its ability to fulfil its statutory objectives and also community expectations, and amongst other matters, the ability to efficiently and effectively respond to emergencies. Fire and Emergency therefore require a level of assurance that they can continue to operate without the risk of infringing statutory requirements in order to meet their own statutory functions under the FENZ Act.</p>	
Schedule 31: Flows, Levels and Allocation Limits			
Minimum and Trigger Flows and Allocation Limits	Support in part	<p>This Schedule specifies the amount of water that may be authorised for abstraction from the specified water management units and the flows at which water abstraction is subject to restrictions or requirements and relates to Rules TANK 9-11.</p> <p>Fire and Emergency's support of schedule 31 is subject to the inclusion of the amendment sought above relating to the exemption of the take and use of water for firefighting purposes from the water take and use provisions Rules TANK 9-11 above, and as provided for within section 14(3)(e) of the Resource Management Act 1991.</p>	Retain as proposed.

Proposed TANK Plan Change 9

Submitter Details

Submission Date: 07/07/2020

First name: Ryan **Last name:** Fraser

Phone number: 0276345174

I could not
 Gain an advantage in trade competition through this submission
 I am not
 directly affected by an effect of the subject matter of the submission that :
 a. adversely affects the environment, and
 b. does not relate to the trade competition or the effects of trade competitions.
 Note to person making submission:

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

Would you like to present your submission in person at a hearing?

- Yes
- I do NOT wish to speak in support of my submission and ask that the following submission be fully considered.

Consultation Document Submissions

Proposed TANK Plan Change 9

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

1. I SUPPORT the overall framework of PC9, to the degree that it reflects agreements reached by the TANK Group community representatives, developed over more than 6 years of intensive dialogue and providing an integrated catchment solution that best balances the values and interests of the Hawke's Bay community.
2. I OPPOSE elements of PC9 that do not reflect those agreements reached by the TANK Group community representatives.

Reason for decision requested:

Chapter 9 Glossary of Terms Used

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

Plan Provision & general description of issue	Amendment Sought
OBJ TANK 7 Requirement to	Amend to reflect that some land use types including viticulture on low-slope land already have negligible contaminant losses (& especially soil losses) and would be unable to achieve any

reduce contaminant losses	reductions in contaminant loss including soil loss.
OBJ TANK 16 Priority order for water allocation	Amend to accord viticultural soils equal priority with versatile soils. Amend to include water bottling in the lowest priority use category.
Policy 5.10.2.1 & Policy 5.10.5.34 Overall catchment governance approach	Amend to require Council to establish and maintain a community catchment governance body to oversee subcatchment activities within the TANK catchments.
Policy 5.10.3.21 Assessing resource consents in subcatchments exceeding nitrogen objectives or targets	Amend so that Catchment Collectives and Industry Programmes may manage land use change in accordance with the 2040 timeline for meeting water quality objectives.
Policy 5.10.6.37.d(ii) “Actual & Reasonable” water allocation approach	Amend the definition of “Actual and Reasonable” to provide that the volume allocated at consent renewals is the lesser of: <ul style="list-style-type: none"> • the amount calculated by a Hawke’s Bay-specific IRRICALC model at 95% security of supply; • the expiring consent being replaced.
Policy 5.10.6.39 Requirement for flow maintenance (augmentation)	Amend to apply flow maintenance requirement only to suitable lowland streams, remove the presumption that the mainstem of the Ngaruroro River should be augmented in whole or in part and require Council to take a central role in establishment of flow maintenance schemes in an equitable manner over a reasonable timeframe that apportions the cost equally and concomitantly across all takes affecting groundwater levels (excluding an allowance for basic human needs), based on annual consent volume.
Policy 5.10.7.51 Water Use and Allocation - Priority	Require inclusion of primary sector representatives in any emergency water management group when making water shortage directions under Section 329 of the RMA.
Policy 5.10.8.59 High Flow Reservation	Require rewrite of the policy to distinguish clearly between water for environmental enhancement and water for Māori development, reduce the proposed Māori development reservation for the Ngaruroro River from 1600L/s to 1200L/s in line with the 20% new-water allocation agreed at TANK and remove the presumption that the private sector will fund the

	infrastructure costs in relation to exercise of the Māori development portion of the high flow allocation.
Rule TANK 5 Land use change	Rewrite to provide clarity about what constitutes a change to production land use activity.
Rule TANK 6	Review the Table 2 Schedule 29 grape figures to account for the effects of autumn/winter sheep grazing.
RRMP Chapter 6.9 - 6.3.1 Bore Drilling & Bore Sealing, Rule 1	Provide that replacement of existing bores within a Source Protection Zone is a Controlled activity.
RRMP Chapter 6.9 - 6.3.3 Vegetation clearance and soil disturbance, Rule 7	Allow for cultivation required to facilitate machinery movement for permanent crops within the new 5-15m waterbody cultivation exclusion strips.
RRMP Chapter 6.9 - 6.7.3 Transfer of Water Permits Rule 62a	Remove the proposed Condition excluding downstream transfers of groundwater takes within the Heretaunga Plains Water Management Unit (restoring Controlled rather than Discretionary status). Introduce a materiality test for nature and scale of drawdown effects on neighbouring bores or connected waterbodies as a result of transfers in the Heretaunga Plains Water Management Unit.
Schedule 30 Landowner Collective, Industry Programme and Farm Environment Plan	Modify Schedule 30 to better align its requirements to work with Industry Programmes, particularly Sustainable Winegrowing NZ.
Schedule 31 Flows, Levels and Allocation Limits	Retain existing low flows and allocation limits for the Ngaruroro and Tūtaekurī Rivers

Reason for decision requested:

Attached Documents

File
Proposed TANK Plan Change 9

Submission on Proposed Plan Change 9 (PC9): Hawke's Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: Meridiem Trust.

Organisation:

Postal address: 195 Ngatarawa Road, RD5, Hastings

.....
Email address: andrea.cranswick@xtra.co.nz

Phone number: (06) 8799877

Contact person and address if different to above:

Andrea and Phil Cranswick

Submission Summary:

1. I SUPPORT the overall framework of PC9, to the degree that it reflects agreements reached by the TANK Group community representatives, developed over more than 6 years of intensive dialogue and providing an integrated catchment solution that best balances the values and interests of the Hawke's Bay community.
2. I OPPOSE elements of PC9 that do not reflect those agreements reached by the TANK Group community representatives.
3. I SEEK AMENDMENTS to the following provisions and SUPPORT THE AMENDMENTS proposed by Hawke's Bay Winegrowers' Association Inc. in their submission dated 14 August 2020.
- 4.** I am concerned that PC9 will have significant negative effects on me and/or my business and I have detailed this concerns below.

Submission Details:

Plan Provision & general description of issue	Amendment Sought
OBJ TANK 7 Requirement to reduce contaminant losses	Amend to reflect that some land use types including viticulture on low-slope land already have negligible contaminant losses (& especially soil losses) and would be unable to achieve any reductions in contaminant loss including soil loss.
OBJ TANK 16 Priority order for water allocation	Amend to accord viticultural soils equal priority with versatile soils. Amend to include water bottling in the lowest priority use category.
Policy 5.10.2.1 & Policy 5.10.5.34 Overall catchment governance approach	Amend to require Council to establish and maintain a community catchment governance body to oversee subcatchment activities within the TANK catchments.
Policy 5.10.3.21 Assessing resource consents in subcatchments exceeding nitrogen objectives or targets	Amend so that Catchment Collectives and Industry Programmes may manage land use change in accordance with the 2040 timeline for meeting water quality objectives.
Policy 5.10.6.37.d(ii) “Actual & Reasonable” water allocation approach	Amend the definition of “Actual and Reasonable” to provide that the volume allocated at consent renewals is the lesser of: <ul style="list-style-type: none"> - the amount calculated by a Hawke’s Bay-specific IRRICALC model at 95% security of supply; - the expiring consent being replaced.
Policy 5.10.6.39 Requirement for flow maintenance (augmentation)	Amend to apply flow maintenance requirement only to suitable lowland streams, remove the presumption that the mainstem of the Ngaruroro River should be augmented in whole or in part and require Council to take a central role in establishment of flow maintenance schemes in an equitable manner over a reasonable timeframe that apportions the cost equally and concomitantly across all takes affecting groundwater levels (excluding an allowance for basic human needs), based on annual consent volume.
Policy 5.10.7.51 Water Use and Allocation - Priority	Require inclusion of primary sector representatives in any emergency water management group when making water shortage directions under Section 329 of the RMA.
Policy 5.10.8.59 High Flow Reservation	Require rewrite of the policy to distinguish clearly between water for environmental enhancement and water for Māori development, reduce the proposed Māori development reservation for the Ngaruroro River from 1600L/s to 1200L/s in line with the 20% new-water allocation agreed at TANK and remove the presumption that

	the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the high flow allocation.
Rule TANK 5 Land use change	Rewrite to provide clarity about what constitutes a change to production land use activity.
Rule TANK 6	Review the Table 2 Schedule 29 grape figures to account for the effects of autumn/winter sheep grazing.
RRMP Chapter 6.9 - 6.3.1 Bore Drilling & Bore Sealing, Rule 1	Provide that replacement of existing bores within a Source Protection Zone is a Controlled activity.
RRMP Chapter 6.9 - 6.3.3 Vegetation clearance and soil disturbance, Rule 7	Allow for cultivation required to facilitate machinery movement for permanent crops within the new 5-15m waterbody cultivation exclusion strips.
RRMP Chapter 6.9 - 6.7.3 Transfer of Water Permits Rule 62a	Remove the proposed Condition excluding downstream transfers of groundwater takes within the Heretaunga Plains Water Management Unit (restoring Controlled rather than Discretionary status). Introduce a materiality test for nature and scale of drawdown effects on neighbouring bores or connected waterbodies as a result of transfers in the Heretaunga Plains Water Management Unit.
Schedule 30 Landowner Collective, Industry Programme and Farm Environment Plan	Modify Schedule 30 to better align its requirements to work with Industry Programmes, particularly Sustainable Winegrowing NZ.
Schedule 31 Flows, Levels and Allocation Limits	Retain existing low flows and allocation limits for the Ngaruroro and Tūtaekurī Rivers

Personal Impact:

I am concerned that PC9 will impact on me and/or my business in the following ways:

1. We were a mixed pip and stone fruit orchard and in 2000/2001 following several difficult years we took up an opportunity to remove the trees and grow grapes. These have now run their course and we wish to return to orcharding. We are concerned that we will not be able to do this if our water supply is limited to our recent previous volume.

Do you wish to be heard in support of your submission? No

If others make a similar submission, would you consider presenting a joint case with them at a hearing? Yes

Signature: *P. M Cranswick for Meridiem Trust* Date: 19th July 2018

**Submission on Proposed Plan Change 9 (the TANK Plan)
to the Hawke's Bay Regional Resource Management Plan
Pursuant to Clause 6 of the First Schedule, Resource Management Act 1991**

To: Hawke's Bay Regional Council
Private Bag 6006
NAPIER

Email: eTANK@hbrc.govt.nz

Name of submitter(s): _ Bernadette Hamlin

Organisation (if applicable): _

Address for Service: _ 802 Collinge Road, Mayfair.
Hastings 4122

Contact Person: _

Email: _ baebhame@hotmail.co.nz

Phone: _ 027 8782775

1. This submission is on the proposed TANK plan change, Plan Change 9.

The specific provisions of the proposed plan that my submission relates to are those provisions relating to:

- a) Water Quality
- b) Water Quantity Issues
- c)

3. I ~~support~~/oppose the provisions in Plan Change 9 relating to these matters.

4. My submission points are:

- a) Too many contaminants entering water, resulting in ^{lack of} quality.
- b) Economic profits should not be a high priority before the "quality" of water.
- c) Without quality and people ~~of~~ and flora and fauna, there will be no future.

5. Relief sought:

I seek the following relief from the hearings panel considering these matters on behalf of the Hawke's Bay Regional Council:

- a) Reduce allocations and abstractions that contribute to low flow - that are affecting traditional water bodies.
 - b) Limit amount of nutrients that discharge into rivers
 - c) affecting the habitat and aquatic life in all rivers.
- Raise minimum flow in the Ngaruroro River to provide 90% habitat provision for species that prefer fast-flows.

6. Reasons:

- a) The proposed Tank Plan Change does not give effect to the National Policy Statement for Fresh Water Management.
- The proposed Tank Plan does not promote sustainable management of freshwater resources.
- The proposed Plan Change 9 has ~~caused~~ ^{shown} the disregard Council has in providing for the relationship of Māori with their ancestral waters and other taonga. Need to have assessment criteria introduced.
- Resource consent criteria should be created to ensure quality protection.
- Marae (local) should be able to manage own areas of influence.
- When rivers are depleted (eg. Paritua) there needs to be strategy implemented to restore to original state.
- Yearly review of adherence to plans.

Signature of submitter (required for hard copies only)

BR Seal.

Date: 20/07/2020

Submission on Proposed Plan Change 9: Hawke's Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: (required) RICHARD + REBECCA RIDDELL

Organisation/Iwi/Hapu: OLRIG LIMITED

Postal address: (required) 1233 KERGUY ROAD, MARAKAKAKAHO
HASTINGS 4171

Email address: richard.riddell@gmail.com

Phone number: 021 379006

Contact person and address if different to above: _____

Trade Competition

Pursuant to Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

- a) adversely affects the environment; and
- b) does not relate to trade competition or the effects of trade competition.

Please tick the sentence that applies to you:

- I could not gain an advantage in trade competition through this submission; or
- I could gain an advantage in trade competition through this submission.

If you have ticked this box please select one of the following:

- I am directly affected by an effect of the subject matter of the submission
- I am not directly affected by an effect of the subject matter of the submission.

Do you wish to be heard in support of your submission?

Yes / No

If others make a similar submission, would you consider presenting a joint case with them at a hearing?

Yes / No

Signature: [Signature] Date: 3.8.20

NB: Space for writing submissions is overleaf.

Send written submissions to:

Hawke's Bay Regional Council
Private Bag 6006
NAPIER

or fax to:
(06) 835-3601

or email to:
eTANK@hbrc.govt.nz

Deadline for Submissions:

5pm Fri 14 August 2020

No submissions will be accepted after this deadline. The deadline will not be further extended.

OFFICE USE ONLY

SUBMISSION ID#

Date Received:

Database Entry Date:

Database Entry Operator:


HAWKES BAY
REGIONAL COUNCIL

TE KAUNIHERA Ā ROHE O TE MATAU-A-MĀUI

HAWKES BAY REGIONAL COUNCIL PROPOSED PLAN CHANGE 9 (TANK)

Submission on Hawkes Bay Regional Councils publicly notified proposed Plan Change 9 (TANK).

On: Hawkes Bay Regional Council – proposed Plan Change 9 (TANK).

To: Hawkes Bay Regional Council

Personal Information

Company name: Orlig Limited

Given names*: Richard and Rebecca

Surname: Riddell

Contact person: Richard Riddell

Address: 1233 Kereru Road, Maraekakaho, Hastings 4171

Region*: Hawkes Bay

Country:

Phone: 021379006

Email*: richard1riddell@gmail.com

Submission

- Thank you for the opportunity to provide feedback on the proposed Plan Change 9 (TANK).

Background about our farm

We farm Orlig Station, an 859ha property situated 12.3 km up Kereru Road from Maraekakaho. The property has the Mangatahi stream on its western boundary and the Okauawa Stream enters the property on its southern boundary and flows out its eastern boundary.

We are a beef and sheep finishing unit with some dryland arable cropping: peas and barley. At the time of writing this submission, we have the equivalent of 6000 stock units on the property and 55ha in cereal barley. Currently we are applying for a water consent to store water so that we can look to potentially irrigate in excess of 250 ha. Irrigation will allow more flexibility for arable crops and potentially some horticultural crops. Irrigation will not only increase productivity and but also create employment.

We purchased Orlig in 2018 and since then have planted 55ha of pine trees, a large part being riparian and erosion plantings, and this year with the help of 1BT and HBRC will plant approximately 14 ha of bush (also riparian and erosion plantings), which when fenced off will see 98% of our permanent flowing waterways fenced off from stock. The balance will be fenced off in the coming year.

Why am I making this submission?

From your HBRC records you will note the video we at Orlig did in conjunction with MPI and HBRC (used on both websites). We are firm believers in farming sustainably and farming in a manner so productivity gains are achieved but not at the expense of the environment and waterways.

General responses to the proposals:

- We support the purpose of Plan Change 9 to give effect to the Hawkes Bay Regional Council Policy Statement as well as the National Policy Statement for Freshwater Management. We

recognise that this requires Council to identify values, and establish methods, including limits, to ensure those objectives are met.

- We support provisions (Obj TANK 1 & 2) which recognise that successful environment outcomes for freshwater ecological health require landowner and community support and leadership. We ask for these to be retained as proposed, and for policies to be amended or included to enable catchment collective approaches to management. Provisions need to recognise that people are critical to maintaining and enhancing freshwater ecological health and acknowledge the importance of respecting and fostering the contribution of landowners as custodians and Kaitiaki to these catchments.
- We support provisions (policies 5.10.3 Industry Programmes & Catchment Management) which recognise farmers and communities contributions to achieving environmental outcomes and give landowners the opportunity to continue to grow and develop 'ground up' approaches both individually or collectively. We ask for these to be retained as proposed.
- We are deeply concerned that stock water is not appropriately provided for (Obj TANK 16, 17, and 18, associated policies 5.10.7, and rules). The continuous provision of water is critical to animal welfare and should be a priority take above other non-essential takes. We oppose provisions which relate to water takes and management which fail to provide for stock drinking water as a priority take. The proposed levels are inadequate for a property of our size, and the number of stock we run. Please see Horizons Regional Council Reasonable Stock Water Requirements which states the Suggested Range as follows;

Bulls/Steers Average Daily Demand is 30 litres per day and Peak Daily Demand is 55 litres per day, For Ewes this is 3 litres and 4,5litres per day respectively.

- We are also deeply concerned about the nitrogen leaching limits set in Schedule 29 which place an upper limit to how much nitrogen can be leached specific to a productive land use. We oppose provisions which restrict innovation and remove the opportunity for landowners to achieve environmental outcomes while remaining adaptable to change in circumstances. We consider sector averaging to be effectively the "grandparenting" of land which locks farmers in at their existing farm systems and land uses, preventing the ability to adjust stocking rates, inputs or change land use. Flexibility and the ability to adapt and innovate is an integral part of the resilience of the sector.
- We support with amendments objectives to increase riparian planting and wetlands (policies 5.10.2). We seek that these provisions are implemented through non regulatory methods and not regulation. We seek more information as to how Council intends to facilitate meeting the targets specified i.e. funding assistance and support.
- We oppose provisions which are ambiguous and where the implications for my farm or community are not clear (Rule TANK 3, TANK 7). We seek that these are deleted, or alternatively amended to provide clarity and ensure that they can be implemented on farm in a practicable way.
- We oppose the freshwater allocation for the Ngaruroro River surface water and groundwater specified in Schedule 31. These limits are overly restrictive and do not give sufficient flexibility for staged adaptive management of our farming operation.

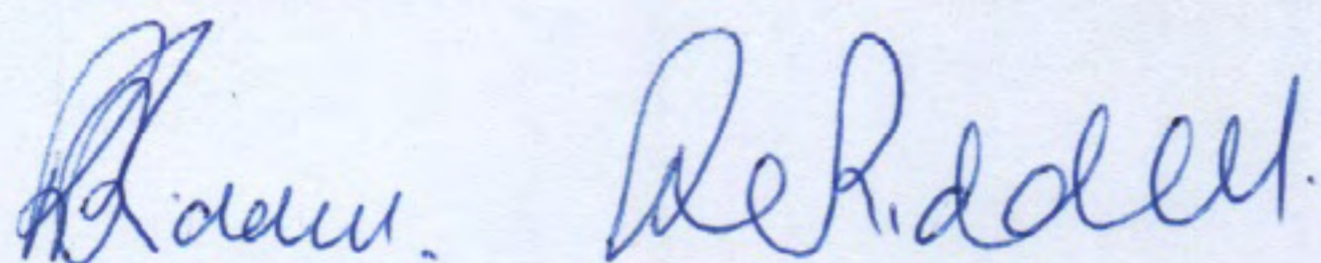
We ask that the Council give consideration and be flexible to the merits of each individual surface water and groundwater storage request in Schedule 31 C area. Where it can be shown that water storage from above median flow events has minimal effect on the Ngaruroro River,

properties will be allowed to store water for irrigation at other times of the year. This will lead to higher productivity from the land e.g. high value arable crops or horticulture, as opposed to simply pastoral grazing and/or some low yielding dryland arable crops. Such productivity gains will also enhance employment in the wider HB region.

Thank you again for the opportunity to comment on the proposed changes. we welcome the opportunity to further discuss any of the points above with Hawkes Bay Regional Council and would like to be able to make our submission in person when the hearings take place.

For any inquiries relating to this feedback please contact us directly.

Yours faithfully



Richard and Rebecca Riddell

3 August 2020.

Submission on Proposed Plan Change 9 (PC9): Hawke's Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: Mark Cairns

Organisation: MD Cairns & AR Wright Partnership

Postal address: *(required)* PO Box 8718, Havelock North 4157

Email address: mark@magnitudewines.co.nz

Phone number: 027 532 0482

Contact person and address if different to above:

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Submission Summary:

1. I SUPPORT the overall framework of PC9, to the degree that it reflects agreements reached by the TANK Group community representatives, developed over more than 6 years of intensive dialogue and providing an integrated catchment solution that best balances the values and interests of the Hawke's Bay community.
2. I OPPOSE elements of PC9 that do not reflect those agreements reached by the TANK Group community representatives.
3. I SUPPORT THE AMENDMENTS proposed by Hawke's Bay Winegrowers' Association Inc. in their submission dated 14 August 2020.
4. I SEEK AMENDMENTS as set out in Section A of this submission below.
5. I am concerned that PC9's approach to allocation of water and control of farming emissions unfairly penalises viticultural landowners as very low water users and very low emitters compared to other major primary production systems.

Submission Details:

A. General impact on the wine sector

Plan Provision	Concerns and Reasons	Decision Sought
<p>OBJ TANK 7 Requirement to reduce contaminant losses</p>	<p>This Objective, as currently drafted, could be interpreted to require a reduction in contaminant loss including soil loss from all land use types. Some land use types including viticulture on low-slope land already have negligible contaminant losses (& especially soil losses) and would be unable to achieve any reductions.</p>	<p>Amend OBJ TANK 7 to read “...reduces <u>reduceable</u> contaminant loss...”; or similar wording to achieve the outcome sought in this submission.</p>
<p>OBJ TANK 16 Priority order for water allocation</p>	<p>This Objective establishes a priority order for water allocation which ranks primary production on versatile soils ahead of other primary production.</p> <p>Some viticultural production is on soils that are not considered to be versatile (e.g. LUC 7 stony soils) but is the highest and best primary production use of such soils, is highly efficient low water-use & low- contaminant activities that contribute strongly to community socio-economic development and should rank equally with primary production on versatile soils.</p> <p>The Objective also does not make it clear what the ranking of water bottling activities would be. The Hawke’s Bay community has clearly indicated that water bottling should not be a priority use of water, so should be amended to explicitly record a lower priority, ranking below all other activities involving the economic use of water.</p>	<p>Amend OBJ TANK 16.c to read “Primary production on versatile and <u>viticultural</u> soils”, or similar wording to achieve the outcome sought in this submission.</p> <p>Amend OBJ TANK 16.e to read “<u>Water bottling and</u> other non-commercial end uses”, or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.2.6/7/8 Protection of source water</p>	<p>These three policies adopt a strengthened approach to protection of the quality and quantity of drinking water supplies.</p> <p>I support a precautionary approach to such protection but consider that the policies and rules are unnecessarily onerous and reflect an over-response to the 2016 Havelock North water crisis.</p> <p>The Plan Change draws source protection zones expansively and the control exerted by Council through matters of discretion under TANK rules 2/4/5/6/9/10</p>	<p>Remove the references to assessment of actual or potential effects of activities in the SPZs on Registered Drinking Water Supplies from Rules TANK 4/5/6/9/10. Address risks via Farm Environment Plans, Catchment Collectives and Industry Programmes.</p>

	<p>is uncertain and potentially onerous, particularly on winery point source discharges but also on vineyard farming practices.</p> <p>In addition to the uncertain scope of control, there is a duplication in control because risks to drinking water will also need to be addressed in Farm Environment Plans, Catchment Collectives and Industry Programmes.</p> <p>Retaining the reference in TANK 2 will ensure that a risk assessment will still be made in the event that a property does not have a Farm Environment Plan or is not part of an Industry Programme or Catchment Collective.</p>	
<p>Policy 5.10.3.21 Assessing resource consents in sub catchments exceeding nitrogen objectives or targets</p>	<p>This policy requires Council to have regard to any relevant Industry or Catchment Collective plans in place when assessing resource consents for effect on diffuse discharge of nitrogen. However, as currently drafted, clause 21.d appears to prevent the issuance of any resource consent for any land or water use change that may result in any increased nitrogen loss, where a sub catchment exceeds dissolved nitrogen objectives or targets in Schedule 26.</p> <p>This is unnecessarily constraining of land use change, undermines the role of community collectives, discriminates heavily against viticulture as a particularly low nitrogen source and fails to recognise the 2040 timeline for meeting water quality objectives.</p>	<p>Amend so that Catchment Collectives and Industry Programmes may manage land use change in accordance with the 2040 timeline for meeting water quality objectives.</p> <p>Amend 21.d to read “<u>subject to Policy 21 a)-c)</u>, avoid land use change....” or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.6.36 Heretaunga Plains Aquifer Management</p>	<p>This policy requires Council to “adopt a staged approach to groundwater management that includes: f) avoiding further adverse effects by not allowing new water use and g) reducing existing levels of water use”.</p> <p>The requirement to “not allow new water use” is needlessly restrictive and ostensibly prohibits ANY new [take and] use, including use of new water stored under the high flow allocation provisions of the Plan, as well as potentially the replacement of expiring consents.</p> <p>Similarly, the requirement to “reduced existing levels of water use” precludes use of new stored water and fails to recognise that the interim allocation limit of 90 million cubic meters is intended to align with previous actual water usage and that the Heretaunga Plains Aquifer is considered to be overallocated based on</p>	<p>Amend Policy 36.f to read “avoiding further adverse effects by <u>controlling net groundwater use within the interim allocation limit set out in Policy 37</u>” or similar wording to achieve the outcome sought in this submission.</p> <p>Amend Policy 36.g to read “<u>reducing existing levels of encouraging</u> water use <u>efficiency.</u>” or similar wording to achieve the outcome sought in this submission.</p>

	cumulative consented volume (sometimes referred to as “paper volume”) but not on cumulative consented actual use.	
Policy 5.10.6.37.d(ii) “Actual & Reasonable” water allocation approach	<p>This policy requires Council to “when considering applications in respect of existing consents due for expiry, or when reviewing consents, to; ... (ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to August 2017...”.</p> <p>The intent of this policy is understood to be to provide for replacement consent volumes not exceeding the highest use in the driest year in recent history (generally considered to be the 2012/13 water year), for land use as at August 2017 (the point at which HBRC publicised the decision to cap groundwater usage at current peak dry-year levels). However, since TANK completed and the Plan was drafted, Hawke’s Bay has experienced a severe drought in 2019/20 water year. Given this recent experience and vastly improved water meter data collection in the most recent years, I consider that the 2019/20 water year data should be available as a benchmark dry year.</p> <p>More fundamentally, I disagree with the definition of “Actual and Reasonable” and its inequitable and unworkable approach to allocation of water for replacement of consents that existed as at August 2017.</p> <p>Due to the lack of reliable and comprehensive water metering data from 2012/13 and the impact of vine age and redevelopment timing on actual annual vineyard irrigation requirements, practical difficulties in evidencing historical land use activities and the risk of penalising efficient users at the expense of inefficient ones, I consider that there should be a presumption that the Hawke’s Bay-specific IRRICALC model is the appropriate measure of “Actual and Reasonable” for the purpose of calculating allocations for those replacement consents.</p>	<p>Amend Policy 37.d(ii) to read “(ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to <u>August 2017 30 June 2020 (the end of the 2020 water year)</u>...” or similar wording to achieve the outcome sought in this submission.</p> <p>Amend the Glossary definition of “Actual and Reasonable to provide that the volume allocated at consent renewals is the lesser of:</p> <ul style="list-style-type: none"> - the amount calculated by a Hawke’s Bay-specific IRRICALC model at 95% security of supply; - the volume of the expiring consent being replaced.”, <p>or similar wording to achieve the outcome sought in this submission.</p>
Policy 5.10.6.39	This policy subjects consented water users in the Heretaunga Plains Water Management Unit to a regime which requires them to either participate in	I understand that HBRC will be submitting a proposed alternative approach to the requirements in Policy 39. I support, in principle, jointly-funded

<p>Requirement for flow maintenance (augmentation)</p>	<p>stream flow maintenance and habitat enhancement schemes or cease abstraction once a stream flow maintenance trigger is reached.</p> <p>When this policy was conceived in TANK, it was intended to apply initially to 3 named lowland streams which HBRC science indicated were suitable for a stream flow maintenance scheme. Post-TANK, the Plan has incorporated all streams as well as the mainstem of the Ngaruroro River and I OPPOSE this policy on five main grounds:</p> <ol style="list-style-type: none"> 1. The flow maintenance requirement now proposed, extends far beyond that supported in TANK and the need for such extension has not been justified. 2. In TANK, it was envisaged that HBRC would play a central role in establishing the 3 then-proposed lowland stream augmentation schemes. As HBRC hold all the relevant scientific and technical information required to operationalise such schemes, it is critical that HBRC takes on a central role in their development. 3. Large temporal and spatial spread of consent expiries and large consent numbers make it impractical and inequitable to require consent holders to take full responsibility for the development. 4. No allowance for an orderly transition to any new stream augmentation has been made. The currently proposed provisions could apply immediately from notification of the Plan Change, including to a very large number of currently expired consents (particularly groundwater takes in the unconfined aquifer), whereas stream augmentation schemes may be reasonably expected to take years to commission, particularly the kind of large-scale schemes that would be required to maintain flows in the Ngaruroro River. 5. Consent reallocations under the “Actual and Reasonable” provision of the Plan based on 95% certainty of supply do not provide sufficient water volume to support stream augmentation in dry years and so would decrease the effective certainty of supply of consents. 	<p>collective stream flow maintenance schemes on suitable lowland streams, facilitated by HBRC.</p>
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<p>Policy 5.10.7.51 Water Use and Allocation - Priority</p>	<p>This clause provides for an emergency water management group when making water shortage directions under Section 329 of the RMA, with the group including representatives from various sectors of the community but not including the primary sector. As decisions made in consultation with this group relate inter alia to the provision of water essential for the maintenance of animal welfare and survival of horticultural tree crops and to seasonal demand for primary production, the primary sector should also be represented in the group.</p>	<p>Amend 5.10.7.51 to read “...emergency water management group that shall have representatives from Napier City and Hastings District Councils, NZ Fire Service, DHB, iwi, <u>affected primary sector groups</u> and MPI, to make decisions ...” or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.8.59 High Flow Reservation</p>	<p>This policy requires Council to allocate “20% of the total water available at times of high flow in the Ngaruroro or Tūtaekurī River catchments for abstraction, storage and use for” contributions to environmental enhancement and Māori development.</p> <p>This policy originated in an agreement in TANK to reserve 20% of any NEW high flow allocation for Māori development, then underwent significant development and change as Council explored ways to operationalise it and through iwi and RPC consultations.</p> <p>The resulting policy has some fundamental differences to that were originally agreed in TANK:</p> <ol style="list-style-type: none"> 1. The Policy refers to the Ngaruroro OR Tūtaekurī River catchments” (emphasis added), whereas the intention in TANK was for it to apply to BOTH rivers. This may just be a drafting error. 2. The Policy now covers water for both Māori development and environmental enhancement, but Schedule 32 only refers to Māori development. 3. The allocation rate of 1600L/s for the Ngaruroro River in Schedule 32 represents 20% of the total high flow allocation limit for that river, whereas the TANK agreement was for 20% of the new allocation (6000L/s), i.e. 1200L/s. 	<p>Policy 59 needs significant re-write to address the above inconsistencies between the policy as it now stands, and the framework agreed in TANK. It should distinguish clearly between water for environmental enhancement and water for Māori development, reduce the proposed Māori development reservation for the Ngaruroro River from 1600L/s to 1200L/s in line with the 20% new-water allocation agreed at TANK and remove the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the high flow allocation.</p>

	<p>4. Policy 60 now embodies the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the allocation.</p> <p>5. The Policy now requires “allocation” rather than “reservation”, with uncertain implications for private sector interests</p>	
<p>Rule TANK 5 Land use change</p>	<p>This rule controls land use change to production land use activity over more than 10% of a property or farming enterprise.</p> <p>The rule gives no guidance on what constitutes “change to the production land use activity”, with the result that it is highly uncertain what types of activity are controlled and the rule cannot be practically enforced. For example, is a change from conventional farming to organic farming captured? A change in planting density?</p> <p>Also the rule fails to account for the possibility that a farming enterprise may span multiple water quality management units within a Surface Water Allocation Zone, which may then unintentionally permit land use change beyond 10% of the farming enterprises’ properties within a water quality management unit</p>	<p>The rule needs further development to give more guidance on what changes are intended to be controlled and to control change by farming enterprises within a water quality management unit more appropriately.</p>
<p>Rule TANK 6</p>	<p>This rule restricts change to production land use activity over more than 10% of a property or farming enterprise where there is no Catchment Collective or Industry Programme operative, where modelled land use change effect on total property nitrogen loss exceeds the figures in Table 2 of Schedule 29. Table 2 is populated from per-hectare figures for common primary production systems. The per-hectare figure of 1kg/ha/yr provided for Grapes for Esk/Omahu/Pakipaki Soils is unrealistically low & clearly fails to account for the autumn/winter sheep grazing rotation that commonly occurs on vineyards.</p> <p>Also, the Plan Change does not record the version of the models employed to derive the crop loss figures, so is not future-proofed against the effect of future model changes.</p>	<p>Adjust the Grape kg/ha/yr for all soils to recognise winter sheep grazing rotation.</p> <p>Include details of crop model versions used to derive the crop loss figures in Schedule 29 and include a mechanism to address the effects of model and/or version changes to modelled outputs.</p>

<p>Rule TANK 13 Taking water – high flows</p>	<p>This rule provides for capture, storage and use of surface water at times of high flow. I consider this to be a critical element of the overall Plan Change, providing the opportunity to re-engineer the Heretaunga Plains water use profile in a way that multiple & often conflicting interests and values can be addressed.</p>	<p>Supported, subject to amendments to POL 59 & 60 to address concerns about drafting details relating to the 20% Maori/environment reservation.</p>
<p>RRMP Chapter 6.9 - 6.3.1 Bore Drilling & Bore Sealing, Rule 1</p>	<p>This rule change has the effect of making bore drilling within a Source Protection Zone (SPZ) a Restricted Discretionary activity, as opposed to a Controlled activity. The proposed SPZs cover extensive areas of the Heretaunga Plains, particularly in the unconfined aquifer zone where many vineyards are located. The proposed Plan brings in intensive controls over activities in the SPZs and are specifically drawn to capture areas of unconfined aquifer upstream of protected water takes. Given the already-permeable nature of the unconfined aquifer area that comprises the bulk of the SPZs and other substantial controls over land use activities, there is negligible additional benefit in controlling bore drilling in this area where the bore is a replacement for existing infrastructure. Also, the additional expense and uncertainty of Restricted Discretionary status is likely to act as a deterrent to bore replacement as part of a normal maintenance cycle. Accordingly, bore drilling for the purpose of replacement of existing infrastructure in the SPZs should remain a Controlled activity.</p>	<p>Add a Condition to 6.3.1 Rule 1 reading: “<u>c. The bore is located within a Source Protection Zone but is a replacement for an existing bore that will be decommissioned.</u>” or similar wording to achieve the outcome sought in this submission.</p>
<p>Schedule 30 Landowner Collective, Industry Programme and Farm Environment Plan</p>	<p>Schedule 30 sets out the requirements for Farm Environment Plans, Landowner Collectives and Industry Programmes, as a method primarily to address the cumulative effects of land use. I support this general approach over more prescriptive approaches, as it provides flexibility for landowners to achieve environmental objectives in the most efficient ways.</p> <p>The NZ wine industry has a longstanding and highly respected industry sustainability programme (Sustainable Winegrowing New Zealand - SWNZ), which the industry intends to further develop to achieve equivalency with a Farm Environment Plan. However, as the environmental profile of vineyards is dramatically different from (and in most respects lower than) that of other major primary industries, SWNZ does not comfortably fit within the PC9 framework and</p>	<p>Schedule 30 should be less prescriptive, more facilitative and more industry risk profile-based in respect of Industry Programmes. The Programme Requirements in Section B of Schedule 30 as they relate to Industry Programmes should be re-cast as a more of a guideline, with an acknowledgement that detailed requirements can vary depending on the Industry’s risk and emissions profile as it relates to catchment objectives.</p> <p>Amend all references to Farm Environment Plan in this Plan Change to “freshwater farm plan” and otherwise align the Plan Change requirements to</p>

	<p>it is inefficient and counterproductive to apply an essentially pastoral-farming approach to viticulture.</p> <p>Schedule 30 also does not recognise the recent policy advances made nationally via the government's Essential Freshwater package and in particular the Resource Management Amendment Act 2020, which provides for a national framework of "freshwater farm plans", to be operationalised via S.360 regulations.</p> <p>I consider that the references to and requirements for a Farm Environment Plan in this Plan Change ought to be aligned with the Resource Management Amendment Act 2020 and related S.360 regulations and that these national requirements should be adopted by the Plan Change, in the interests of national standardisation and longer-term efficiency.</p>	<p>those of the Resource Management Amendment Act 2020 and related S.360 regulations.</p>
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Do you wish to be heard in support of your submission? No
If others make a similar submission, would you consider
presenting a joint case with them at a hearing? Yes

Signature: 

..... Date: 05/08/2020

Submission to hearing on Tank Proposal plan change 9

Date 5th August 2020
Submitter John Palmer
Address 80 Aorangi road RD1 Hastings
Tel 021 474 833
Email jpalmer.awarua@xtra.co.nz

I wish to be heard in support of my submission.

My submission concerns the mechanism for reduction in allocation for surface takes in the Ngaruroro catchment.

As a first position I support the Ngaruroro Irrigation Society 's view that there should be no reduction in the rates of take. But in the event that it is still deemed necessary to reduce the takes then I submit the following:

The current proposal is that new allocations will be based on actual and reasonable water use over the last 10 years.

I consider this approach penalises those people who have either yet to fully develop their land or who may wish to change crops, particularly those already growing crops with low water demand.

I believe a mechanism based on pro rata reduction across all stream depleting takes would be fairer to all users.

My understanding is the maximum take rate is required to drop from 15 81 L/s to 1300 L/s. This is just under a 18% drop in flow which could be uniformly applied to all takes.

I shall use my own situation as an example to explain why.

I bought my property 14 years ago. At the time it comprised approximately 10 hectares of apples (which had recently been decommissioned), 6 hectares of grapes and 12 hectares of undeveloped land. It also had sufficient consented water to enable future plantings of apples (or of course grapes).

The value of the property was of course in part determined by the water availability, thus allowing future expansion flexibility.

The present position, which has been constant for the last 11-12 years is 18 hectares of grapes and 10 hectares of bare land (where the apples were). So our higher water use period, when the apples were being actively cropped, falls outside the 10 year window used to determine actual and reasonable use.

Thus the amount of water we have used over the last 10 years has been well below both our consent volume/rate and the amount we used to use and might wish to use in the future – because whilst we have another 12 hectares of grapes, which use trickle irrigation hence little water, we no longer have any apples.

The proposed mechanism for reducing the Ngaruroro allocation would result in us losing a substantial amount of water which in turn would prevent us from developing the 10 hectares (previously in apples) and also changing from grapes to apples (or other crops) in other areas of the property.

This in turn will have the effect of reducing the value of our property because of reduced flexibility.

In essence we are being penalised for relatively efficient water use.

My contention is that a much fairer and more flexible approach both for individuals and for the area as a whole is the pro rata reduction mechanism I have previously outlined.

This would have the added benefit of being quick and simple to administer.

John Palmer

Proposed TANK Plan Change 9

Submitter Details

Submission Date: 04/08/2020

First name: Bruce **Last name:** Nimon

Phone number: 0274998178

I could not

Gain an advantage in trade competition through this submission

I am not

directly affected by an effect of the subject matter of the submission that :

- a. adversely affects the environment, and
- b. does not relate to the trade competition or the effects of trade competitions.

Note to person making submission:

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

Would you like to present your submission in person at a hearing?

- Yes
- I do NOT wish to speak in support of my submission and ask that the following submission be fully considered.

Additional requirements for hearing:

Attached Documents

File
TANK_Submission_on_PC9_draft2
Proposed TANK Plan Change 9

Kokako Farms Ltd

Submission on Proposed Plan Change 9 (PC9): Hawke’s Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: *(required)* Bruce Nimon.....

Organisation: Kokako Farms Ltd.....

Postal address: *(required)* 680 Ohiti Road.....

..... RD9.....

..... Hastings.....

Email address: Bruce@kokakofarms.co.nz.....

Phone number: 0274998178.....

Contact person and address if different to above:

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Submission Summary:

1. I SUPPORT the overall framework of PC9, to the degree that it reflects agreements reached by the TANK Group community representatives, developed over more than 6 years of intensive dialogue and providing an integrated catchment solution that best balances the values and interests of the Hawke’s Bay community.
2. I OPPOSE elements of PC9 that do not reflect those agreements reached by the TANK Group community representatives.
3. I SEEK AMENDMENTS to the following provisions and SUPPORT THE AMENDMENTS proposed by Hawke’s Bay Winegrowers’ Association Inc. in their submission dated 14 August 2020.
4. I am concerned that PC9 will have significant negative effects on my business and I have detailed this concerns below.

Submission Details:

Plan Provision & general description of issue	Amendment Sought
OBJ TANK 7 Requirement to reduce contaminant losses	Amend to reflect that some land use types including viticulture on low-slope land already have negligible contaminant losses (& especially soil losses) and would be unable to achieve any reductions in contaminant loss including soil loss.
OBJ TANK 16 Priority order for water allocation	Amend to accord viticultural soils equal priority with versatile soils. Amend to include water bottling in the lowest priority use category.
Policy 5.10.2.1 & Policy 5.10.5.34 Overall catchment governance approach	Amend to require Council to establish and maintain a community catchment governance body to oversee subcatchment activities within the TANK catchments.
Policy 5.10.3.21 Assessing resource consents in subcatchments exceeding nitrogen objectives or targets	Amend so that Catchment Collectives and Industry Programmes may manage land use change in accordance with the 2040 timeline for meeting water quality objectives.
Policy 5.10.6.37.d(ii) “Actual & Reasonable” water allocation approach	Amend the definition of “Actual and Reasonable” to provide that the volume allocated at consent renewals is the lesser of: <ul style="list-style-type: none"> - the amount calculated by a Hawke’s Bay-specific IRRICALC model at 95% security of supply; - the expiring consent being replaced.
Policy 5.10.6.39 Requirement for flow maintenance (augmentation)	Amend to apply flow maintenance requirement only to suitable lowland streams, remove the presumption that the mainstem of the Ngaruroro River should be augmented in whole or in part and require Council to take a central role in establishment of flow maintenance schemes in an equitable manner over a reasonable timeframe that apportions the cost equally and concomitantly across all takes affecting groundwater levels (excluding an allowance for basic human needs), based on annual consent volume.
Policy 5.10.7.51 Water Use and Allocation - Priority	Require inclusion of primary sector representatives in any emergency water management group when making water shortage directions under Section 329 of the RMA .
Policy 5.10.8.59 High Flow Reservation	Require rewrite of the policy to distinguish clearly between water for environmental enhancement and water for Māori development, reduce the proposed Māori development reservation for the Ngaruroro River from 1600L/s to 1200L/s in line with the 20% new - water allocation agreed at TANK and remove the presumption that

	the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the high flow allocation.
Rule TANK 5 Land use change	Rewrite to provide clarity about what constitutes a change to production land use activity.
Rule TANK 6	Review the Table 2 Schedule 29 grape figures to account for the effects of autumn/winter sheep grazing.
RRMP Chapter 6.9 - 6.3.1 Bore Drilling & Bore Sealing, Rule 1	Provide that replacement of existing bores within a Source Protection Zone is a Controlled activity.
RRMP Chapter 6.9 - 6.3.3 Vegetation clearance and soil disturbance, Rule 7	Allow for cultivation required to facilitate machinery movement for permanent crops within the new 5-15m waterbody cultivation exclusion strips.
RRMP Chapter 6.9 - 6.7.3 Transfer of Water Permits Rule 62a	Remove the proposed Condition excluding downstream transfers of groundwater takes within the Heretaunga Plains Water Management Unit (restoring Controlled rather than Discretionary status). Introduce a materiality test for nature and scale of drawdown effects on neighbouring bores or connected waterbodies as a result of transfers in the Heretaunga Plains Water Management Unit.
Schedule 30 Landowner Collective, Industry Programme and Farm Environment Plan	Modify Schedule 30 to better align its requirements to work with Industry Programmes, particularly Sustainable Winegrowing NZ.
Schedule 31 Flows, Levels and Allocation Limits	Retain existing low flows and allocation limits for the Ngaruroro.

Personal Impact:

I am concerned that PC9 will impact on me and/or my business in the following ways:

1. Grape growing on light soils in Hawkes Bay produces world class wines, these sites require consistent water. We are already operating under water bans that have cost us financially with crop loss but also with vine loss, any further reductions would make farming these soil impossible.
2. Kokako Farm supports five families as full time labour, plus nine more on a seasonal basis. These families are all living permanently in Hawkes Bay. We are the largest contract grower for our winery that produces wines for domestic and international markets.
3. Kokako Farms is about to invest in High Flow water storage which is a massive cost undertaking and certainty around the ability to farm is paramount for large investments like this.

Do you wish to be heard in support of your submission? Yes
If others make a similar submission, would you consider
presenting a joint case with them at a hearing? Yes

Signature: Date:



July 2020

Farmer Submission Template: Hawkes Bay Regional Council Plan Change 9 – TANK Plan.

Beef + Lamb New Zealand will be making a submission on behalf of the sheep and beef sector on Hawkes Bay Regional Council's Proposed Plan Change 9 (TANK).

Many farmers want to also make their own submission to the Government. This template is designed to help those sheep and beef farmers wishing to make their own submission.

Steps for writing your own submission :

1. Review the Proposed Plan Change 9 (TANK) document here:
<https://www.hbrc.govt.nz/assets/Document-Library/TANK/TANK-Key-Reports/Proposed-TANK-Plan-Change-9.pdf>
2. Populate this submission template.
 - a. Review the suggested feedback. *Delete any comments that you disagree with.*
 - b. Remember to personalise your submission by using the prompts in the text box below to help you.
3. Head to <https://www.consultations.nz/hbrc/the-proposed-tank-plan/> to complete your submission.

Why personalise your submission?

Including your personal story and talking about how the proposal could impact you is really important. It leaves a lasting impression with policy makers, and helps the Council to understand how its proposal will affect people.

How did B+LNZ develop the suggested comments for farmers to use?

The comments for you to cut and paste were developed by B+LNZ using:

- Farmer feedback, collected from 12 nationwide workshops run by B+LNZ over the past month;
- Advice from consultation with policy and planning experts ;
- Engagement with approx. 100 local farmers specifically on TANK through workshops held in Patoka, Puketapu and Maraekakaho.



July 2020

HAWKES BAY REGIONAL COUNCIL PROPOSED PLAN CHANGE 9 (TANK)

Submission on Hawkes Bay Regional Councils publicly notified proposed Plan Change 9 (TANK).

On: Hawkes Bay Regional Council – proposed Plan Change 9 (TANK).

To: Hawkes Bay Regional Council

Personal Information

Newstead Farm Ltd

Robert & Helen Pattullo

1192 Puketitiri Road

R.D.4.

Napier 4184

newstead@ruralinzone.net

0274 962720

06 8445858



July 2020

Submission

- Thank you for the opportunity to provide feedback on the proposed Plan Change 9 (TANK).

Background about my farm

(Keep this section brief. It is not required for your submission, but does help set the scene)

Newstead Farm is a 930ha property in the foothills west of Napier in the Ahuriri catchment. It comprises mainly rolling to steep coastal hill country. Our family purchased this property in 1911 and I am the 4th generation to farm it.

This property has evolved to a cattle trading policy over winter and spring with cattle being sold going into the summer. The property is virtually destocked over the summer and autumn before replacements are then bought on. A reticulated stock water scheme services the whole property and there is an intensive infrastructure of single and multi wire electric fencing.

I completed an Environmental Plan (HBRC Plan No. 3978) in 2007 and from that instigated an ongoing riparian and wetland planting programme that has been generously supported by HBRC. Waterways are progressively being retired.

In addition there is a programme of retiring our steeper pastoral country and planting in pinus radiata and indigenous forestry. We are now at the stage of peak livestock numbers and will start to gradually reduce these as more land is retired to forestry.

Why am I making this submission?

(Keep this section brief. It is not required for your submission, but does help set the scene)

It is very important for us as a multi generational land owning family to do the right thing by way of our farming practices, our management of the freshwater resource that leaves this property and to be able to look our neighbours in the eye and those surrounding the Ahuriri lagoon with pride that we are conscious of our environmental responsibilities.

Newstead is on the back door of Napier and the many tourists and cyclists that travel past our farm, it is vital that we showcase the highest environmental standards so as not to jeopardise our continued right to farm this land.

I attended the TANK consultation meeting in Puketapu on July 22nd.

Section A: General responses to the proposals:

Review the following comments. Delete any comments that you disagree with. It is not essential to personalise every aspect of your submission, however prompts have been included in a text box at the end of each section for you to consider and to get you thinking about how PC9 may impact your farm.

- I support the purpose of Plan Change 9 to give effect to the Hawkes Bay Regional Council Policy Statement as well as the National Policy Statement for Freshwater Management. I recognise that this requires Council to identify values, and establish methods, including limits, to ensure those objectives are met.



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- I support provisions (Obj TANK 1 & 2) which recognise that successful environment outcomes for freshwater ecological health require landowner and community support and leadership. I ask for these to be retained as proposed, and for policies to be amended or included to enable catchment collective approaches to management as a priority. Provisions need to recognise that people are critical to maintaining and enhancing freshwater ecological health and acknowledge the importance of respecting and fostering the contribution of landowners as custodians and Kaitiaki to these catchments.
- I support provisions (policies 5.10.3 Industry Programmes & Catchment Management) which recognise farmers and communities contributions to achieving environmental outcomes and give landowners the opportunity to continue to grow and develop 'ground up' approaches both individually or collectively. I ask for these to be retained as proposed.

As farmers we are being given, both through TANK and at a National level, the responsibility to implement change on our own terms without bureaucratic one size fits all policy. Those landowners that shun this responsibility and opportunity need to be held to account if they refuse to implement change. All of our reputations are at stake and we can't be dragged down by the non compliers.

- I am deeply concerned that stock water is not appropriately provided for (Obj TANK 16, 17, and 18, associated policies 5.10.7, and rules). The continuous provision of water is critical to animal welfare and should be a priority take above other non-essential takes. I oppose provisions which relate to water takes and management and which fail to provide for stock drinking water as a priority take.

This is seriously concerning that my farm system of cattle finishing may be compromised by uncertainty around livestock water. As it is I deliberately destock over the summer months and one of the reasons for this is to conserve our freshwater resource at a time of peak demand. I must have certainty around livestock water supplies which in my case is water that is reticulated around the farm in troughs, not water that is being accessed through streams.

- I am deeply concerned about the nitrogen leaching limits set in Schedule 29 which place an upper limit to how much nitrogen can be leached specific to a productive land use. I oppose provisions which restrict innovation and remove the opportunity for landowners to achieve environmental outcomes while remaining adaptable to change in circumstances. I consider sector averaging to be effectively the 'grandparenting' of land which locks farmers in at their existing farm systems and land uses, preventing the ability to adjust stocking rates, inputs or change land use. Flexibility and the ability to adapt and innovate is an integral part of the resilience of the sector .

Another serious concern as to the accuracy of N leaching that can be recorded on a farm by farm basis. We have improved our pastures and maintain a good clover content by way of cattle grazing as opposed to sheep. How much nitrogen is "fixed" through this natural, biological process in which I have no control over. There could be all sorts of unintended consequences here around pasture quality to meet any Nitrogen limits, seriously affecting our economic viability.

- I support with amendments objectives to increase riparian planting and wetlands (policies 5.10.2). I seek that these provisions are implemented through non regulatory methods and



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not regulation. I seek more information is provided as to how Council intends to facilitate meeting the targets specified i.e. funding assistance and support.

My experience is that there has been very good support from HBRC but your human resources especially will need to be boosted to assist and ultimately regulate all that is being proposed.

- I oppose provisions which are ambiguous and where the implications for my farm or community are not clear (Rule TANK 3, TANK 7). I seek that these are deleted, or alternatively amended to provide clarity and ensure that they can be implemented on farm in a practicable way. In particular, I seek clarity about what waterways will need to be excluded from stock access.

There is a lot of confusion about this when the National policy statement and TANK proposal aren't aligning on slope limits, waterway width and description and setback requirements. This is going to hard enough as it is to get farmers on board with this without this sort of muddle.

- The specific provisions of the proposal that this submission relates to and the decisions it seeks are as detailed in the table in Section B below.

-



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Section B: Specific responses to the proposals:

Specific Provision in the Proposed Plan	Submission	Decision sought
<i>The specific provisions my submission relates to are:</i>	<i>My submission is that:</i>	<i>The decision I would like Hawkes Bay Regional Council to make is:</i>
Review the following comments. Delete any comments that you disagree with. Remember to personalise your submission by using the prompts in the grey box below to help you.		
<p>TANK 1 (The use of productive land greater than 10ha.)</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> I support with amendments. I support that farmers are provided a Permitted Activity pathway and are able to continue to farm without requiring a Resource Consent in recognition that location solutions and innovative and flexible responses are effective in managing water quality outcomes. I support provisions which recognise and empower ground up, landowner and community led conservation actions, and which prioritise non-regulatory over regulation management frameworks. I support provisions which incentivise farmers (by means of a permitted activity pathway) to develop a Farm Plan or be part of a Catchment Collective . I support the recognition that people and communities are critical to achieving good environmental outcomes. 	<ul style="list-style-type: none"> The preparation of a Farm Environmental Plan must not become an expensive, beauracatic document that is a barrier to getting them done. However there must be some consistency around targets and goals in each FEP that meet the objectives of TANK. Farmers should be involved in the preparation of their own Farm Plan and 'own' the document. By being involved in the preparation, the implementation of them is more likely to be successful. Most definitely. Farms Plans prepared by professionals with little appreciation of the day to day operation of the Farm are less likely to be affective. Agree <p>In my case there has been an enormous amount of satisfaction by all involved including farm staff from the wetland and riparian work we have done. Try and capture the emotion around this and it becomes a whole lot easier to implement.</p>



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<p>Schedule 29: Land Use Change</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> • I oppose this provision. • Management frameworks should be equitable across land uses and focussed on environmental outcomes/ effects. • I oppose land use specific Nitrogen Loss restrictions. Farmers should be able to remain flexible and adaptive to change in circumstances. • Allocating nutrients in such a way that unnecessarily limits land use change constrains the ability of land users to respond to those changes and optimially utilise the land resource. • Including land use specific Nitrogen restrictions places unfair advantage on some land uses over others, and limits farmers ability to adapt to change in circumstances. 	<ul style="list-style-type: none"> • I seek that Table 1 in Schedule 29 is deleted and propose that a 'flat rate per hectare' permitted threshold is applied (e.g. 20kgN/ha/yr) irrespective of land use and land use change. • Any Nitrogen risk threshold should be tailored to the catchment and specific to working towards achieving freshwater values. • This approach will ensure that those land uses which contribute unsustainable amounts bear the cost of reducing the overallocation while those discharging at or below the sustainable level (<20kgN/ha) are enabled to continue and are flexible to adapt to change in circumstances. <p>Nitrogen fixed by legumes through the natural biological process must be exempt from any N limits.</p>
<p>•</p>		
<p>TANK 2</p> <p>The use of productive land greater than 10ha.</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> • I support this Rule. • I support the controlled activity status given to use of productive land that does not meet TANK 1 (is operated without a farm environment plan or part of a catchment collective). This gives landowners options where they do not favour a FEP or 	<ul style="list-style-type: none"> • I seek that TANK 2 is retained as proposed.



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	<p>working collectively. This provides Council the ability to impose conditions bespoke to the farm in its catchment context but also gives certainty to farmers that their consent will be granted.</p>	
•		
<p>TANK 3 Stock Access to rivers, lakes and wetlands.</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> • Support with amendments. • I support requirements to avoid adverse effects on waterways caused by stock but need the rule to be amended to provide clarity and be practicable when implemented. • I don't support all stock crossings be bridged or culverted on steep hill country as long as the waterways themselves are fenced off. What constitutes a waterway combined with slope and accessibility needs to be clarified in a practicable way. • I don't support the limit of 18SU per hectare in any form. Our farm has a higher stocking rate over winter months but at any one time only 7% of the total farm area is being grazed. We are conscious of areas which we graze during heavy rainfall events and when soils are saturated. With our fencing infrastructure we are able to move cattle onto northerly faces and away from any waterways. This could be implemented across any 	<ul style="list-style-type: none"> • I seek that the word 'bed' in TANK 3 & 4 is defined and that the definition used by Horizon s Council is adopted being '<i>Active bed means the bed of a river that is intermittently flowing and where the bed is predominantly unvegetated and comprises sand, gravel, boulders or similar material</i>' . • I seek that the provision is changed to align with the National Policy Statement for Essential Freshwater Management, specifically that exclusion only apply to waterways greater than 1m wide, the stocking rate of 18su/ha is deleted and that hill country farms are excluded . • This provides clarity to landowners when implementing the rule and is a practical and reasonable definition. • This definition ensures stock are not unnecessarily excluded from certain areas of the farm which would lead to unnecessary cost and loss of productive land. • Areas that are very sensitive around slope aspects should be retired and the cabon market provides a similar or better



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	farm.	financial outcome for that land.
<p>TANK 5 Use of Production Land (change in use of more than 10% of land on a property greater than 10ha)</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> I support with amendments. I support the Controlled Activity Status given to Change in Land Use but oppose the requirement for landowners to be part of a Catchment Collective to be a Controlled Activity when changing the use of their land. This is confronting and challenging to the long held norm of private property rights. Most farmers have changed their farming systems to some degree in the last 30 years to meet climatic, family, environmental or financial objectives. This provision needs to be sold well. 	<ul style="list-style-type: none"> I seek that Condition b) be amended to include Farm Environment Plans meeting the requirements of Schedule 30C. I seek that this rule is amended so that the threshold for change is 20ha or 20% of the property whichever is greater. This is consistent with TANK 1 & 2 which encourage the development of Farm Environment Plans or landowners to be part of Catchment Collectives.
<p>Stock Drinking Water Section 6.10.2 Water Take and Use.</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> I oppose that the TANK Plan does not appropriately provide for stock drinking water as a permitted activity and priority take. <p>It is crucial that we have continued availability to stock water for our animals. I have invested \$100's of thousands of dollars in a reticulated water scheme, one of the main benefits being in respect of TANK that all stock no longer need access to waterways for freshwater. Our farm businesses will be become unviable without it, job losses and reduced exports would ensue and the unintended consequence of large scale forestry planting would take</p>	<ul style="list-style-type: none"> I propose that the taking of water for reasonable domestics needs and the needs of animals for drinking water is appropriately provided for and that taking of water for these purposes is prioritised above other non-essential takes. This ensures the welfare of animals is protected.



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	over.	
•		

Conclusion

- I can't help comparing what is being required of the productive pastoral farming sector, in my case, with the completely unrestricted growth of the urban "two legged animal" and enormous pressure on the resources that TANK professes to wish to protect. No limits on water use in any suburb of Napier or Hastings, certainly more than 18SU equivalent per hectare, totally unrestricted leaching of rubbish and plastic into our landfills, stormwater runoff which goes unchecked into the Ahuriri lagoon, housing, concrete and tarseal continue spreading at pace. Just an observation from the hills overlooking Napier and a reminder that we are all in this together.
- Thank you again for the opportunity to comment on the proposed changes. I welcome the opportunity to further discuss any of the points above with Hawkes Bay Regional Council, should you wish for more information.
- For any inquiries relating to this fee dback please contact:
- Robert Pattullo, newstead@ruralinzone.net 0274 962720

Yours faithfully,

R. B Pattullo

Robert Pattullo

9th August, 2020

Submission on Proposed Plan Change 9: Hawke's Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: (required) PETER CLAYTON
 Organisation/Iwi/Hapu: PB + B9 CLAYTON
 Postal address: (required) 214 Swamp Rd
 RD 3 Napier 4183
 Email address: pbclayton@xtra.co.nz
 Phone number: 0274 578470
 Contact person and address if different to above:

Trade Competition

Pursuant to Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

- adversely affects the environment; and
- does not relate to trade competition or the effects of trade competition.

Please tick the sentence that applies to you:

- I could not gain an advantage in trade competition through this submission; or
- I could gain an advantage in trade competition through this submission.

If you have ticked this box please select one of the following:

- I am directly affected by an effect of the subject matter of the submission
- I am not directly affected by an effect of the subject matter of the submission.

Do you wish to be heard in support of your submission?

Yes / ~~No~~

If others make a similar submission, would you consider presenting a joint case with them at a hearing?

Yes / ~~No~~

Signature:  Date: 9/8/20

NB: Space for writing submissions is overleaf.

Send written submissions to:

Hawke's Bay Regional Council
Private Bag 6006
NAPIER

or fax to:
(06) 835-3601

or email to:
eTANK@hbrc.govt.nz

Deadline for Submissions:

5pm Fri 14 August 2020

No submissions will be accepted after this deadline. The deadline will not be further extended.

OFFICE USE ONLY

SUBMISSION ID#

Date Received:

Database Entry Date:

Database Entry Operator:


HAWKES BAY
REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-A-MĀUI

SUBMISSION DETAILS

Plan provision

Water allocation reductions

I Support

oppose

amend

Yes

I seek the following decision from Regional Council

I recommend the irracalc model is used for water allocation purposes and the 90% allocation level be raised, preferably to 100%

Reason for decision requested.

I currently live on and farm a 174 hect property in Swamp Rd, Fernhill. The flat land, being part of the above, has been leased to Bostocks over recent years in which a variety of crops grown, onions, squash, peas and maize.

The use of water over those years, particularly by a lessee, has no relevance to my future plans for likely crops to be grown on this land.

In fact 10 hect of this land is being developed into kiwifruit in 2020/21.

I am against my water consent being based on previous use records, which may or may not be accurate and in a time period not reflecting current land use options.

The potential opportunity cost to HB and its community of restricting future land use change options is huge.

The suggested option to use the irracalc model based on fair and reasonable use for a particular crop, now and in future if and when climate change effects become apparent, under different soil type conditions etc is good.

The benefit of using the science based Irracalc model is sensible, but why then only allow an arbitrary 90% of the irracalc number for a crop, either irracalc is accurate or not.

It appears to me one of the main issues this plan change wishes to achieve is the over allocation of water rights not over use, then why put limits on fair and reasonable use of our district's land and water when by default irracalc will achieve the allocation reduction by default.

Attached are 2 other submissions but overall I appreciate the tremendous amount of time and energy by all concerned in getting to this stage. I am generally in favour of the plan but wish to reserve the opportunity to submit on future versions of the plan where and when this is appropriate.

SUBMISSION DETAILS

Plan Provision High flow allocation and water harvesting

I Amend yes

I seek the following decision from the Regional Council

Greater direction be given to minimising residual flows in high flow periods whilst water harvesting.

Reason for decision requested

In 2020 I will have constructed 2 water harvesting dams and gained consent for a third dam on my Maraekakaho property.

As per MWH Repot,20/5/10, section 1.3 “High flow, or supplementary, allocation provides access to water at times when river flows are higher and water is sufficiently abundant” ie in winter and spring between 1 June and 30 November.

I agree with this policy.

Since becoming involved I have found there is a difference between the above policy and implementation, ie consent conditions.

The river flow levels at which harvesting can take place is high, ie plenty of water in the catchment, yet for 1 particular dam the consent conditions require a by pass to be operative at 4 L/sec during high flow period.

This is an empheral stream with catchment area of 100 hect within the total farm area of 637 hect.

I suggest harvesting water in a high flow time from this 100hect catchment will have next to no effect on water flows in the Ngaroro River and limited environmental effect on the streams as they leave my property.

Effectively we will only be harvesting the water until such time as the dam is full, whereas allowing water to go to waste when dam is not full is inefficient during a high flow period.

I ask that the rules be reviewed to allow more flexible rules allowing and encouraging the utilisation of high water flows for the benefit of our HB community.

SUBMISSION DETAILS

Plan provision Planting of stream banks, Rule 7 condition I

I **support** **oppose** **amend** Yes

I seek the following decision from Regional Council

Amend the rules to allow flexibility in implementation of achieving minimum standards.

Reason for decision requested.

I don't believe a set of rules can reflect the variability that occurs in our streams and riverbeds.

Catchment Plans and FEP's address the issues relevant to the particular piece of land.

It is important to allow for variations from minimum standards to permit landowners to create better effects, where applicable, in the circumstances of that catchment.

For instance planting both sides of a stream may not be necessary and a waste of money which could have been redirected into other better environmental outcomes.

The Plan already recognises the differing issues between and within catchments hence I suggest it is important to invest where we achieve the best return, ie no wastage.

To: Hawke's Bay Regional Council
C/o etank@hbrc.govt.nz

Name of Submitter: Kerry Sixtus, Pattullo's Nurseries Limited.

This is a submission on the following Proposed Plan Change to the Hawke's Bay Regional Resource Management: Plan Change 9 – Tutaekuri, Ahuriri, Ngaruroro and Karamu Catchments .

I could not gain an advantage in trade competition in making this submission.

My submission is:

- I generally support the overall framework of Plan Change 9, to the degree that it reflects a staged approach to improving the management of the TANK Catchments freshwater resources.
- Horticulture is critically important to the future sustainability of the TANK Catchments, and there are some changes required to the proposed plan to ensure that sufficient water is available to provide for that. The value of horticulture and its role in providing for domestic food supply and security, and the ability to feed people in the future is not currently reflected in the proposed Plan Change 9.
- The real freshwater improvements come from the practices I adopt to manage discharges from land I manage (in some cases only temporarily), and my water use. I support requiring all growers to operate at good management practice .
- I also support the ability for a group of landowners to be able to manage environmental issues collectively to improve the effectiveness of the response to water issues. I consider Plan Change 9 should better enable collective approaches to water and nutrient management by reducing the level of detail and specificity in the plan, as every collective grouping will be slightly different and work in a slightly different way, and it is important that this is enabled.
- Where this submission aligns with that of Horticulture New Zealand's submission, I support that submission.
- I oppose the provisions set out in the table below as currently drafted, and seek the amendments set out in the table. I also note that there are likely to be consequential amendments arising from these that may affect the whole plan.

The specific provisions of the proposal that my submission relates to are:

Provisions & general description of issue	Amendments sought
<p><i>Policy 36, 37, 46, 52, TANK 9, TANK 10, TANK 11, Schedule 31 and the Glossary</i></p> <p>Replacement of water permits based on actual and reasonable use</p>	<p>Definition of 'actual and reasonable' is amended to just refer to 'reasonable' and in relation to applications to take and use water is the lesser of:</p> <ol style="list-style-type: none"> a) the quantity specified on the permit due for renewal or any lesser amount applied for; or b) for irrigation takes, the quantity required to meet the modelled crop water demand for the irrigated area with an efficiency of application of no less than 80% as specified by the IRRICALC water demand model (if it is available for the crop and otherwise an equivalent method) and to a 95% reliability of supply. <p>Everywhere that the term 'actual and reasonable' is currently used, it is amended to refer to 'reasonable'.</p>

<p><i>Policy 54, 55, 56, 57, TANK 13, TANK 14, TANK 15 and Schedule 32</i> High flow takes and storage</p>	<p>The allocation limit for high flow takes should be revisited. I understand that the TANK collaborative group did not reach a consensus position on the allocation limit and I believe that more water should be made available, as the high flow water currently provides the only means of obtaining new water which will be critical to provide for the future of horticulture – whether that be irrigation of new land, or more water to irrigate existing or new types of crops, and also for use in stream flow maintenance and augmentation schemes. High flow allocations should also be specified for the Karamu, and Ahuriri Catchments (if storage is physically feasible within the Ahuriri Catchment).</p>
<p><i>Policy 51, 52, TANK 7 and TANK 8</i> Availability of water for survival of permanent horticultural crops</p>	<p>A specific exemption should be provided in TANK 7 and 8 to allow up to 20m³ to continue to be taken per day to assist the survival of permanent horticultural crops.</p>
<p><i>Policy 48, 52, RRMP 61, RRMP 62, RRMP62a, RRMP62b</i> Transfers of water permits</p>	<p>Transfers of all water permits that have been exercised should be enabled.</p>
<p><i>Policy 37 and 38</i> Restriction on re-allocation of water</p>	<p>The re-allocation of any water that might become available within the interim groundwater allocation limit or within the limit of any connected water body should be enabled (ie. can be re-allocated before a review of the relevant allocation limits in the plan is undertaken) where it is to be used for primary production purposes (and would be allocated in accordance with proposed definition of 'reasonable' outlined above), or used for a stream flow maintenance and augmentation scheme. Water should also be able to be re-allocated to any applicant – not restricted to existing water permit holders (as at 2020).</p>
<p><i>Policy 37, 39, 40, 41, TANK 18 and Schedule 36</i> Stream flow maintenance and augmentation schemes</p>	<p>Schemes should be developed by the regional council in a progressive manner based on when water permits expire, in an equitable manner over a reasonable timeframe that apportions the cost equally and concomitantly across all takes affecting groundwater levels rather than relying on consent applicants to develop schemes, as they don't have the resources or arguably much of the information to do so. Amendments are also required to ensure that flow maintenance requirements only apply to lowland streams where it is feasible, and the presumption should be removed that the mainstem of the Ngaruroro River will be augmented in whole or in part. The requirement to augment the Ngaruroro was not a consensus position of the TANK collaborative group. The position that the group reached was that augmentation should be investigated and I believe amendments should be made to reflect that.</p>
<p><i>Policy 17, 18, 19, 23, 24, TANK 1, TANK 2, Schedule 28, Schedule 30 and the Glossary</i></p>	<p>Amend all provisions that relate to industry schemes to better align requirements with existing and established industry programmes such as GAP schemes.</p>

Industry programmes and landowner collectives	
<i>Policy 21, TANK 5, TANK 6, Schedule 26, Schedule 28 and Schedule 29</i> Land use change and nutrient loss	A definition of what a change to production land use is needs to be provided to clarify what the provisions actually relate to. I also believe that management of nutrients needs to be done at the collective level, because that will enable some land use change to occur, because it could be offset within the collective. Some changes in land must be enabled to allow the horticultural sector in the TANK Catchments to remain sustainable.

My horticultural operations are based/located at 1023 Links Road, 64 Otene Road, 330 St Georges Road, 125 West Road, 194 Rosser Road and 41 Matapiro Road;

and comprises of the following crops and acreage,

Fruit Tree Nursery, covering approximately 60 hectares

Plan Change 9/TANK is likely to affect my business in the following ways: The ability to access the reliable supply of water in sufficient quantities to irrigate my crop to enable adequate growth to ensure that my crop meets industry/customer quality standards is absolutely critical to the pip and stone fruit industries of Hawkes Bay. Insufficient growth of the nursery tree impacts on the long term productivity of an orchard, the financial ramifications are significant, especially when you consider the investment and the flow on effects re employment. Without new cultivars we don't have an export pipfruit industry.

I seek the following decision from the local authority:

That the impacts on the Proposed Plan Change to the Hawke's Bay Regional Resource Management: Plan Change 9 – Tutaekuri, Ahuriri, Ngaruroro and Karamu Catchments, that the current proposals fail to adequately take into account the impacts on the horticultural industries and the subsequent flow on effects of these impacts on the horticultural industries based on the Heretaunga Plains, and that the proposals need to be amended as per my submission.

Signature of submitter: Kerry Sixtus

Date:10/08/2020

Electronic address for service: office@appletrees.co.nz

Contact phone number: 0274-440-887

Postal address: 1023 Links Road, RD 3 Napier 4183

Contact person (if submission on behalf of a business or organisation): Kerry Sixtus

The TANK Plan _Comment to HBRC from SCHNEG_10 August 2020

TO Hawke's Bay Regional Council
Private Bag 6006,
Napier 4142

FROM Saint Columba's Havelock North Environment Group (SCHNEG)*
P O Box 8487, Havelock North 4157

Re: The TANK Plan (May-July 2020) - 'Have Your Say':
Over-view and Comment as at 10th August 2020,

1. OVERALL APPRECIATION

The documents on Plan Change 9 (TANK catchments) that we have sighted:

- Provide an over-arching and appreciated account of HBRC's proposals for protecting and improving freshwater QUALITY, healthy ecosystems, and the management of water QUANTITY. But they also provide a level of bureaucratic detail (Rules and Schedules) that is beyond lay comprehension. We take the latter as subordinate to the former and trust in its professional and exacting detail.
- Define VALU ES for water QUALITY that include Te Ao Maori and therein the care for water as a life-giving partner, intrinsically beautiful in itself. This conversation makes it more likely that we will achieve a balance between 'wealth creation' dependant on water use and 'care for water' as a cherished resource.
- Include an excellent Glossary of Terms that, even on their own defines the SCOPE of the proposals.
- Establish a solid framework, thanks to an early and a necessarily committed involvement with the COMMUNITY over some 6 years.
- Culminate in a COMPLEX of policies, rules, and schedules that make up the proposed Plan Change 9 of the Regional Resource Management Plan. - but all difficult to comment on without detailed and professional study.

2. IMPLEMENTATION

Putting the Plan Change into action in the field is the next critical step.

- SCHNEG questions whether HBRC have the optimum staff structure to do this. We do not question technical competence or the technical planning, but we do ask whether the same people are the ones to be on the ground helping the rural community to 'come on board' and effect change.
- We respectfully suggest that HBRC reviews its connections and considers the possible practicality of having a dedicated field staff member in each catchment to act as the ears and eyes of Council, and who would act as the first link in a communication network. The right person would liase with land owners with knowledge, insight, and good humour, and act as the latter's prime point of contact with Council.
- Having the right staff who actually "KNOW Hawke's Bay", viz: WHERE things are located, WHO the land managers are; WHAT the issues are and the paddocks and water in question; HOW to meet the new challenge of effecting Plan Change 9. We suggest that this Plan Change could be most practically put into effect at this field level first and foremost.

3. RELATED ISSUES

- The Plan Change makes no reference to **head-water areas** and management policies which protect these areas in good hydrologic condition. The ash soils of the headwaters of the Ngaruroro and Tutaekuri are fundamental in their ability to sustain low base flows in dry periods. Is there an understanding between DoC and HBRC on headwater responsibility?
- Likewise, it is not apparent as to what **analyses** have been made of **river flows in true time sequences**. The natural TIMING of flows is a dynamic to which water use must be in tune.
- Although The TANK Plan addresses pressing water quality and quantity issues in the waterways of the Heretaunga Plains, an **equal** issue is that **of water conservation and water storage**. While the day for large storage facilities might have passed, the opportunity remains for smaller and many initiatives on all properties, both rural AND urban.

END

* SCHNEG has existed from the early 1990's. Over the years we have been both critic and advocate for HBRC on several occasions, especially during early visioning, later annual plan reviews, and the millennial Park's Reach initiative on the Karamu. .
As a church related environmental group we hold particular values in the sanctity of all life, biodiversity, good resource husbandry, connectedness, and the inclusion of Maori spiritual and ecological perspectives.

Jim Watt (SCHNEG Convenor) jpc.watt@gmail.com
Rev Wayne Toleafoa (Minister, St Columba's Havelock North)
Wayne Rewcastle (Church Council Co-ordinator)

(Submit by email at eTANK@hbrc.govt.nz or post to HBRC, by 5pm Friday August 14th)

Submission on Proposed Plan Change 9 (PC9): Hawke’s Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: *(required)*Xan Harding.....

Organisation:

Postal address: *(required)*2091 Maraekakaho Road, RD 1 Hastings.....

.....

Email address:
.....xan.harding@xtra.co.nz.....

.....

Phone number:027 6127927.....

Contact person and address if different to above:
.....

.....

.....

Submission Summary:

1. I SUPPORT the overall framework of PC9, to the degree that it reflects agreements reached by the TANK Group community representatives, developed over more than 6 years of intensive dialogue and providing an integrated catchment solution that best balances the values and interests of the Hawke’s Bay community.
2. I OPPOSE elements of PC9 that do not reflect those agreements reached by the TANK Group community representatives.
3. I SUPPORT THE AMENDMENTS proposed by Hawke’s Bay Winegrowers’ Association Inc. in their submission dated 14 August 2020.
4. I SEEK AMENDMENTS as set out in Section A of this submission below.
5. I am concerned that PC9’s approach to allocation of water and control of farming emissions unfairly penalises viticultural land owners as very low water users and very low emitters compared to other major primary production systems.
6. I am concerned that PC9 will have significant negative effects on me and/or my business and I have detailed my concerns in Section B below.

Submission Details:

A. General impact on the wine sector

Plan Provision	Concerns and Reasons	Decision Sought
OBJ TANK 7 Requirement to reduce contaminant losses	This Objective, as currently drafted, could be interpreted to require a reduction in contaminant loss including soil loss from all land use types. Some land use types including viticulture on low-slope land already have negligible contaminant losses (& especially soil losses) and would be unable to achieve any reductions.	Amend OBJ TANK 7 to read "...reduces <u>reduceable</u> contaminant loss..."; or similar wording to achieve the outcome sought in this submission.
OBJ TANK 16 Priority order for water allocation	<p>This Objective establishes a priority order for water allocation which ranks primary production on versatile soils ahead of other primary production. Some viticultural production is on soils that are not considered to be versatile (eg. LUC 7 stoney soils) but is the highest and best primary production use of such soils, is highly efficient low water-use & low- contaminant activities that contribute strongly to community socio-economic development and should rank equally with primary production on versatile soils.</p> <p>The Objective also does not make it clear what the ranking of water bottling activities would be. The Hawke's Bay community has clearly indicated that water bottling should not be a priority use of water, so should be amended to explicitly record a lower priority, ranking below all other activities involving the economic use of water.</p>	<p>Amend OBJ TANK 16.c to read "Primary production on versatile and <u>viticultural</u> soils", or similar wording to achieve the outcome sought in this submission.</p> <p>Amend OBJ TANK 16.e to read "<u>Water bottling and</u> other non-commercial end uses", or similar wording to achieve the outcome sought in this submission.</p>
Policy 5.10.2.6/7/8 Protection of source water	<p>These three policies adopt a strengthened approach to protection of the quality and quantity of drinkingwater supplies.</p> <p>I support a precautionary approach to such protection but considers that the policies and rules are unnecessarily onerous and reflect an over-response to the 2016 Havelock North water crisis.</p> <p>The Plan Change draws source protection zones expansively and the control exerted by Council through matters of discretion under TANK rules 2/4/5/6/9/10</p>	Remove the references to assessment of actual or potential effects of activities in the SPZs on Registered Drinking Water Supplies from Rules TANK 4/5/6/9/10. Address risks via Farm Environment Plans, Catchment Collectives and Industry Programmes.

	<p>is uncertain and potentially onerous, particularly on winery point source discharges but also on vineyard farming practices.</p> <p>In addition to the uncertain scope of control, there is a duplication in control because risks to drinkingwater will also need to be addressed in Farm Environment Plans, Catchment Collectives and Industry Programmes.</p> <p>Retaining the reference in TANK 2 will ensure that a risk assessment will still be made in the event that a property does not have a Farm Environment Plan or is not part of an Industry Programme or Catchment Collective.</p>	
<p>Policy 5.10.3.21 Assessing resource consents in subcatchments exceeding nitrogen objectives or targets</p>	<p>This policy requires Council to have regard to any relevant Industry or Catchment Collective plans in place when assessing resource consents for effect on diffuse discharge of nitrogen. However, as currently drafted, clause 21.d appears to prevent the issuance of any resource consent for any land or water use change that may result in any increased nitrogen loss, where a subcatchment exceeds dissolved nitrogen objectives or targets in Schedule 26.</p> <p>This is unnecessarily constraining of landuse change, undermines the role of community collectives, discriminates heavily against viticulture as a particularly low nitrogen source and fails to recognise the 2040 timeline for meeting water quality objectives.</p>	<p>Amend so that Catchment Collectives and Industry Programmes may manage land use change in accordance with the 2040 timeline for meeting water quality objectives.</p> <p>Amend 21.d to read “<i>subject to Policy 21 a)-c)</i>, avoid land use change....” or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.6.36 Heretaunga Plains Aquifer Management</p>	<p>This policy requires Council to “adopt a staged approach to groundwater management that includes: f) avoiding further adverse effects by not allowing new water use and g) reducing existing levels of water use”.</p> <p>The requirement to “not allow new water use” is needlessly restrictive and ostensibly prohibits ANY new [take and] use, including use of new water stored under the high flow allocation provisions of the Plan, as well as potentially the replacement of expiring consents.</p> <p>Similar, the requirement to “reduced existing levels of water use” precludes use of new stored water and fails to recognise that the interim allocation limit of 90 million cubic meters is intended to align with previous actual water usage and that the Heretaunga Plains Aquifer is considered to be overallocated based on</p>	<p>Amend Policy 36.f to read “avoiding further adverse effects by <i>controlling net groundwater use within the interim allocation limit set out in Policy 37</i>” or similar wording to achieve the outcome sought in this submission.</p> <p>Amend Policy 36.g to read “<i>reducing existing levels of encouraging</i> water use <i>efficiency</i>.” or similar wording to achieve the outcome sought in this submission.</p>

	cumulative consented volume (sometimes referred to as “paper volume”) but not on cumulative consented actual use.	
Policy 5.10.6.37.d(ii) “Actual & Reasonable” water allocation approach	<p>This policy requires Council to “when considering applications in respect of existing consents due for expiry, or when reviewing consents, to; ... (ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to August 2017...”.</p> <p>The intent of this policy is understood to be to provide for replacement consent volumes not exceeding the highest use in the driest year in recent history (generally considered to be the 2012/13 water year), for landuse as at August 2017 (the point at which HBRC publicised the decision to cap groundwater usage at current peak dry-year levels). However, since TANK completed and the Plan was drafted, Hawke’s Bay has experienced a severe drought in 2019/20 water year. Given this recent experience and vastly improved water meter data collection in the most recent years, I consider that the 2019/20 water year data should be available as a benchmark dry year.</p> <p>More fundamentally, I disagree with the definition of “Actual and Reasonable” and its inequitable and unworkable approach to allocation of water for replacement of consents that existed as at August 2017.</p> <p>Due to the lack of reliable and comprehensive water metering data from 2012/13 and the impact of vine age and redevelopment timing on actual annual vineyard irrigation requirements, practical difficulties in evidencing historical landuse activities and the risk of penalising efficient users at the expense of inefficient ones, I consider that there should be a presumption that the Hawke’s Bay-specific IRRICALC model is the appropriate measure of “Actual and Reasonable” for the purpose of calculating allocations for those replacement consents.</p>	<p>Amend Policy 37.d(ii) to read “(ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to August 2017 30 June 2020 (the end of the 2020 water year)...” . or similar wording to achieve the outcome sought in this submission.</p> <p>Amend the Glossary definition of “Actual and Reasonable to provide that the volume allocated at consent renewals is the lesser of:</p> <ul style="list-style-type: none"> - the amount calculated by a Hawke’s Bay-specific IRRICALC model at 95% security of supply; - the volume of the expiring consent being replaced.”, <p>or similar wording to achieve the outcome sought in this submission.</p>
Policy 5.10.6.39 Requirement for flow maintenance (augmentation)	This policy subjects consented water users in the Heretaunga Plains Water Management Unit to a regime which requires them to either participate in stream flow maintenance and habitat enhancement schemes, or cease abstraction once a stream flow maintenance trigger is reached.	I understand that HBRC will be submitting a proposed alternative approach to the requirements in Policy 39. I support, in principle, jointly-funded

	<p>When this policy was conceived in TANK, it was intended to apply initially to 3 named lowland streams which HBRC science indicated were suitable for a stream flow maintenance scheme. Post-TANK, the Plan has incorporated all streams as well as the mainstem of the Ngaruroro River and I OPPOSE this policy on five main grounds:</p> <ol style="list-style-type: none"> 1. The flow maintenance requirement now proposed, extends far beyond that supported in TANK and the need for such extension has not been justified. 2. In TANK, it was envisaged that HBRC would play a central role in establishing the 3 then-proposed lowland stream augmentation schemes. As HBRC hold all the relevant scientific and technical information required to operationalise such schemes, it is critical that HBRC takes on a central role in their development. 3. Large temporal and spatial spread of consent expiries and large consent numbers make it impractical and inequitable to require consent holders to take full responsibility for the development. 4. No allowance for an orderly transition to any new stream augmentation has been made. The currently proposed provisions could apply immediately from notification of the Plan Change, including to a very large number of currently expired consents (particularly groundwater takes in the unconfined aquifer), whereas stream augmentation schemes may be reasonably expected to take years to commission, particularly the kind of large-scale schemes that would be required to maintain flows in the Ngaruroro River. 5. Consent reallocations under the “Actual and Reasonable” provision of the Plan based on 95% certainty of supply do not provide sufficient water volume to support stream augmentation in dry years and so would decrease the effective certainty of supply of consents. 	<p>collective stream flow maintenance schemes on suitable lowland streams, facilitated by HBRC.</p>
<p>Policy 5.10.7.51</p>	<p>This clause provides for an emergency water management group when making water shortage directions under Section 329 of the RMA, with the group including representatives from various sectors of the community but not</p>	<p>Amend 5.10.7.51 to read “...emergency water management group that shall have representatives from Napier City and Hastings District Councils, NZ</p>

Water Use and Allocation - Priority	including the primary sector. As decisions made in consultation with this group relate inter alia to the provision of water essential for the maintenance of animal welfare and survival of horticultural tree crops and to seasonal demand for primary production, the primary sector should also be represented in the group.	Fire Service, DHB, iwi, <i>affected primary sector groups</i> and MPI, to make decisions ...” or similar wording to achieve the outcome sought in this submission.
Policy 5.10.8.59 High Flow Reservation	<p>This policy requires Council to allocate “20% of the total water available at times of high flow in the Ngaruroro or Tūtaekurī River catchments for abstraction, storage and use for” contributions to environmental enhancement and Māori development.</p> <p>This policy originated in an agreement in TANK to reserve 20% of any NEW high flow allocation for Māori development, then underwent significant development and change as Council explored ways to operationalise it and through iwi and RPC consultations.</p> <p>The resulting policy has some fundamental differences to that originally agreed in TANK:</p> <ol style="list-style-type: none"> 1. The Policy refers to the Ngaruroro OR Tūtaekurī River catchments” (emphasis added), whereas the intention in TANK was for it to apply to BOTH rivers. This may just be a drafting error. 2. The Policy now covers water for both Māori development and environmental enhancement but Schedule 32 only refers to Māori development. 3. The allocation rate of 1600L/s for the Ngaruroro River in Schedule 32 represents 20% of the total high flow allocation limit for that river, whereas the TANK agreement was for 20% of the new allocation (6000L/s), ie 1200L/s. 4. Policy 60 now embodies the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the allocation. 5. The Policy now requires “allocation” rather than “reservation”, with uncertain implications for private sector interests 	Policy 59 needs significant re-write to address the above inconsistencies between the policy as it now stands and the framework agreed in TANK. It should distinguish clearly between water for environmental enhancement and water for Māori development, reduce the proposed Māori development reservation for the Ngaruroro River from 1600L/s to 1200L/s in line with the 20% new-water allocation agreed at TANK and remove the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the high flow allocation.

<p>Rule TANK 5 Land use change</p>	<p>This rule controls land use change to production land use activity over more than 10% of a property or farming enterprise.</p> <p>The rule gives no guidance on what constitutes “change to the production land use activity”, with the result that it is highly uncertain what types of activity are controlled and the rule cannot be practically enforced. For example, is a change from conventional farming to organic farming captured? A change in planting density?</p> <p>Also the rule fails to account for the possibility that a farming enterprise may span multiple water quality management units within a Surface Water Allocation Zone, which may then unintentionally permit land use change beyond 10% of the farming enterprises’ properties within a water quality management unit</p>	<p>The rule needs further development to give more guidance on what changes are intended to be controlled and to control change by farming enterprises within a water quality management unit more appropriately.</p>
<p>Rule TANK 6</p>	<p>This rule restricts change to production land use activity over more than 10% of a property or farming enterprise where there is no Catchment Collective or Industry Programme operative, where modelled land use change effect on total property nitrogen loss exceeds the figures in Table 2 of Schedule 29. Table 2 is populated from per-hectare figures for common primary production systems. The per-hectare figure of 1kg/ha/yr provided for Grapes for Esk/Omahu/Pakipaki Soils is unrealistically low & clearly fails to account for the autumn/winter sheep grazing rotation that commonly occurs on vineyards.</p> <p>Also the Plan Change does not record the version of the models employed to derive the crop loss figures, so is not future-proofed against the effect of future model changes.</p>	<p>Adjust the Grape kg/ha/yr for all soils to recognise winter sheep grazing rotation.</p> <p>Include details of crop model versions used to derive the crop loss figures in Schedule 29 and include a mechanism to address the effects of model and/or version changes to modelled outputs..</p>
<p>Rule TANK 13 Taking water – high flows</p>	<p>This rule provides for capture, storage and use of surface water at times of high flow. I consider this to be a critical element of the overall Plan Change, providing the opportunity to re-engineer the Heretaunga Plains water use profile in a way that multiple & often conflicting interests and values can be addressed.</p>	<p>Supported, subject to amendments to POL 59 & 60 to address concerns about drafting details relating to the 20% Maori/environment reservation.</p>
<p>RRMP Chapter 6.9 - 6.3.1 Bore Drilling & Bore Sealing, Rule 1</p>	<p>This rule change has the effect of making bore drilling within a Source Protection Zone (SPZ) a Restricted Discretionary activity, as opposed to a Controlled activity.</p> <p>The proposed SPZs cover extensive areas of the Heretaunga Plains, particularly in the unconfined aquifer zone where many vineyards are located. The proposed Plan brings in intensive controls over activities in the SPZs and are specifically</p>	<p>Add a Condition to 6.3.1 Rule 1 reading: “<u>c. The bore is located within a Source Protection Zone but is a replacement for an existing bore that will be decommissioned.</u>” or similar wording to achieve the outcome sought in this submission.</p>

	<p>drawn to capture areas of unconfined aquifer upstream of protected water takes. Given the already-permeable nature of the unconfined aquifer area that comprises the bulk of the SPZs and other substantial controls over landuse activities, there is negligible additional benefit in controlling bore drilling in this area where the bore is a replacement for existing infrastructure. Also the additional expense and uncertainty of Restricted Discretionary status is likely to act as a deterrent to bore replacement as part of a normal maintenance cycle. Accordingly, bore drilling for the purpose of replacement of existing infrastructure in the SPZs should remain a Controlled activity.</p>	
<p>Schedule 30 Landowner Collective, Industry Programme and Farm Environment Plan</p>	<p>Schedule 30 sets out the requirements for Farm Environment Plans, Landowner Collectives and Industry Programmes, as a method primarily to address the cumulative effects of landuse. I support this general approach over more prescriptive approaches, as it provides flexibility for landowners to achieve environmental objectives in the most efficient ways.</p> <p>The NZ wine industry has a longstanding and highly respected industry sustainability programme (Sustainable Winegrowing New Zealand - SWNZ), which the industry intends to further develop to achieve equivalency with a Farm Environment Plan. However, as the environmental profile of vineyards is dramatically different from (and in most respects lower than) that of other major primary industries, SWNZ does not comfortably fit within the PC9 framework and it is inefficient and counterproductive to apply an essentially pastoral-farming approach to viticulture.</p> <p>Schedule 30 also does not recognise the recent policy advances made nationally via the government's Essential Freshwater package and in particular the Resource Management Amendment Act 2020, which provides for a national framework of "freshwater farm plans", to be operationalised via S.360 regulations.</p> <p>I consider that the references to and requirements for a Farm Environment Plan in this Plan Change ought to be aligned with the Resource Management Amendment Act 2020 and related S.360 regulations and that these national requirements should be adopted by the Plan Change, in the interests of national standardisation and longer-term efficiency.</p>	<p>Schedule 30 should be less prescriptive, more facilitative and more industry risk profile-based in respect of Industry Programmes. The Programme Requirements in Section B of Schedule 30 as they relate to Industry Programmes should be re-cast as a more of a guideline, with an acknowledgement that detailed requirements can vary depending on the Industry's risk and emissions profile as it relates to catchment objectives.</p> <p>Amend all references to Farm Environment Plan in this Plan Change to "freshwater farm plan" and otherwise align the Plan Change requirements to those of the Resource Management Amendment Act 2020 and related S.360 regulations.</p>

B. Specific impact on me and/or my business

I am concerned that PC9 will impact on me and/or my business in the following ways and seek the following decision:

Plan Provision	Impact, Concerns and Reasons	Decision Sought
<p>“Actual and Reasonable” water allocation approach: POL 37d(ii), POL 46, POL 52, Rule TANK 9, Rule TANK 10, Glossary</p>	<p>The proposed water allocation ‘grandfathering’ of water permits unfairly allocates water by penalising my low & efficient water use on my versatile soils, denying me access to the amount of water required to produce alternative crops. It is bad public policy in a number of respects, including that it undermines land use versatility in the Heretaunga Plains, one of the foodbowls of New Zealand.</p> <p>Please refer to attached diagrams depicting:</p> <ol style="list-style-type: none"> 1. Location and distribution of versatile soils on the Heretaunga Plains and the Bridge Pa Triangle. 2. Location of my vineyard property on versatile soils in the Bridge Pa Triangle. 3. HBRC IRRICALC model results for viticulture for my property (the existing use). 4. HBRC IRRICALC model results for other cropping systems currently being undertaken on the versatile soils of the area, evidencing a 181-375% higher water allocation than viticulture. <p>The key constraint to land use versatility on my property and in the wider Bridge Pa Triangle area is access to irrigation water.</p> <p>Simply put, other commercially viable crops on my versatile soils require a 2-4x higher water allocation, which is denied by this Plan Change. Thus the Plan Change severely affects the land use versatility of my property.</p>	<p>An integrated and holistic Plan Change that promotes flexibility of land use for Hawke’s Bay’s versatile soils, recognising the fundamental importance of broad access to affordable irrigation water as a key versatility constraint and a key public good on large tracts of the soils of the Heretaunga Plains.</p>

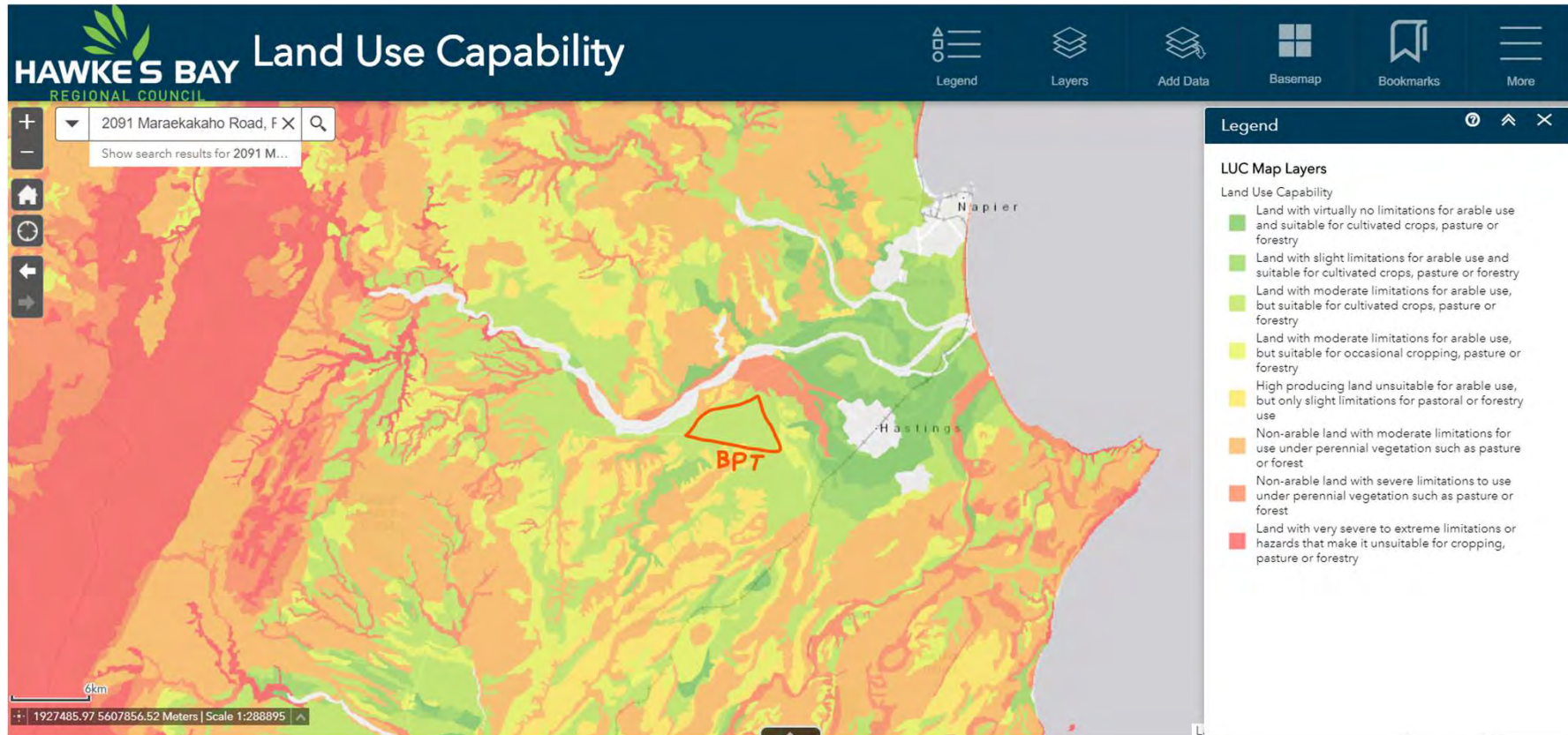
	<p>Current patterns of land use and water access across the Heretaunga Plains reflect historical conditions whereby water access decisions were made simply on the basis of cost and convenience (eg. the relatively low cost and ease of well drilling) and lack of appreciation of the impact of diffuse discharge. The resulting pattern is an overwhelming reliance on groundwater extraction, with negligible use of water storage, along with a legacy diffuse pollution load that does not reflect either current or future best farming practices.</p> <p>From an equity standpoint, I would prefer to see a reallocation of farming water and 'rights to pollute' on an equal per-hectare basis, for all versatile and viticultural soils on the Heretaunga Plains. However, I concede that this is unlikely to be politically achievable in this Plan Change.</p> <p>A lesser solution that nevertheless helps to preserve land use versatility, is to ensure that reasonable supplies of high-flow water can be captured from the Ngaruroro and Tutaekuri Rivers and be made available throughout the hydrological system, along with effective policies to drive improvements in farming practices that influence the level of diffuse discharges.</p> <p>In the interests of overall community justice, equity and democracy, water storage policies should prioritise community water storage over private.</p>	
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Do you wish to be heard in support of your submission? Yes
If others make a similar submission, would you consider
presenting a joint case with them at a hearing? No

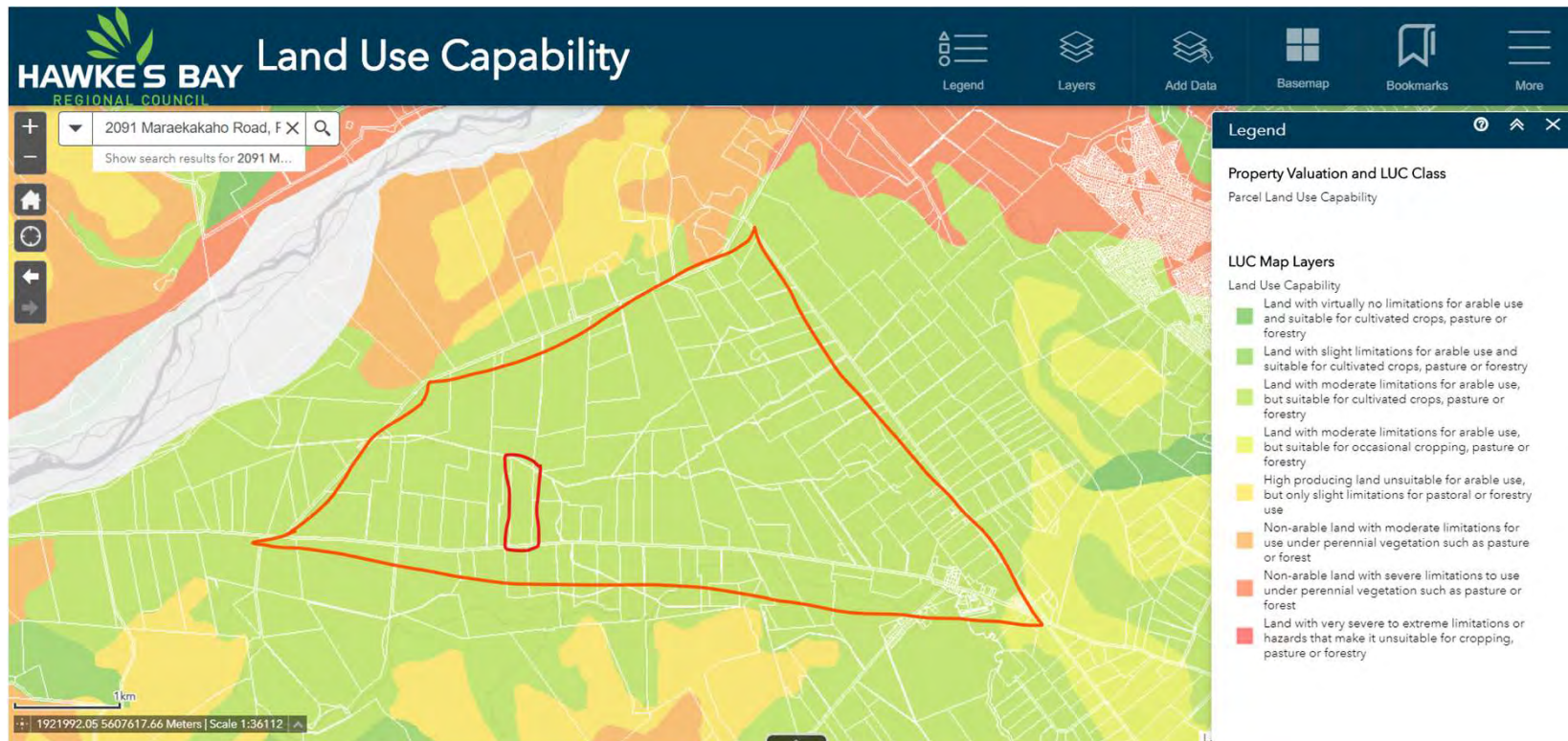
Signature: 

Date:10/8/20.....

Heretaunga Plains LUC & location of Bridge Pa Triangle



Location of my property within BPT & LUC



IRRICALC Allocation

2091 Maraekakaho Road - vineyard



2 Select Crop: HB-Grapes(2m1row) **3** Select Plant Available Water: (a) Most likely PAW in this area **4** Select Irrigation Method: Micro/Drip **5** Fetch Data

Farm Details		Plant Available Water Details		Irrigation Requirements		
Description		PAW(mm)	Indicative Likelihood	Area (hectares)	Per Hectare	Total Area
Latitude	-39.648	90	57.2	13.9	System Capacity 0.28 (l/s/ha)	3.89 (l/s)
Longitude	176.709			0	System Capacity 2.4 (mm/day)	
Council	HawkesBay			0	Daily Volume 24 (m ³ /ha)	334 (m ³)
Climate Site ID	P215160			0	7 Day Volume 168 (m ³ /ha)	2,335 (m ³)
Distance to Climate Site (km)	2.9			0	28 Day Volume 648 (m ³ /ha)	9,007 (m ³)
Rainfall (mm)	762				90% ile Annual Volume 1,862 (m ³ /ha)	25,882 (m ³)
			Total area =	13.9		

IRRICALC Allocation - Crop Comparison

2 Select Crop: HB-Peaches 3 Select Plant Available Water: (a) Most likely PAW in this area 4 Select Irrigation Method: Micro/Drip 5 Fetch Data

Farm Details		Plant Available Water Details		Irrigation Requirements	
Description	PAW(mm)	Indicative Likelihood	Area (hectares)	Per Hectare	Total Area
Latitude: -39.648	90	57.2	13.9	System Capacity: 0.56 (l/s/ha)	7.78 (l/s)
Longitude: 176.709			0	System Capacity: 4.8 (mm/day)	
Council: HawkesBay			0	Daily Volume: 48 (m ³ /ha)	667 (m ³)
Climate Site ID: P215160			0	7 Day Volume: 339 (m ³ /ha)	4,712 (m ³)
Distance to Climate Site (km): 2.9			0	28 Day Volume: 1,066 (m ³ /ha)	14,817 (m ³)
Rainfall (mm): 762			Total area = 13.9	90% ile Annual Volume: 3,372 (m ³ /ha)	46,871 (m ³)

2 Select Crop: HB-Crops 3 Select Plant Available Water: (a) Most likely PAW in this area 4 Select Irrigation Method: Travelling Irrigator 5 Fetch Data

Farm Details		Plant Available Water Details		Irrigation Requirements	
Description	PAW(mm)	Indicative Likelihood	Area (hectares)	Per Hectare	Total Area
Latitude: -39.648	90	57.2	13.9	System Capacity: 0.61 (l/s/ha)	8.48 (l/s)
Longitude: 176.709			0	System Capacity: 5.3 (mm/day)	
Council: HawkesBay			0	Daily Volume: 53 (m ³ /ha)	737 (m ³)
Climate Site ID: P215160			0	7 Day Volume: 368 (m ³ /ha)	5,115 (m ³)
Distance to Climate Site (km): 2.9			0	28 Day Volume: 1,470 (m ³ /ha)	20,433 (m ³)
Rainfall (mm): 762			Total area = 13.9	90% ile Annual Volume: 5,880 (m ³ /ha)	81,732 (m ³)

Crop	IRRICALC Seasonal Allocation (m3)	Allocation Ratio cf. Grapes (%)
Grapes	25,882	100%
Peaches	46,871	181%
Apples	57,379	222%
Cropping	81,732	316%
Pasture	97,113	375%

2 Select Crop: HB-Apples 3 Select Plant Available Water: (a) Most likely PAW in this area 4 Select Irrigation Method: Micro/Drip 5 Fetch Data

Farm Details		Plant Available Water Details		Irrigation Requirements	
Description	PAW(mm)	Indicative Likelihood	Area (hectares)	Per Hectare	Total Area
Latitude: -39.648	90	57.2	13.9	System Capacity: 0.56 (l/s/ha)	7.78 (l/s)
Longitude: 176.709			0	System Capacity: 4.8 (mm/day)	
Council: HawkesBay			0	Daily Volume: 48 (m ³ /ha)	667 (m ³)
Climate Site ID: P215160			0	7 Day Volume: 339 (m ³ /ha)	4,712 (m ³)
Distance to Climate Site (km): 2.9			0	28 Day Volume: 1,163 (m ³ /ha)	16,166 (m ³)
Rainfall (mm): 762			Total area = 13.9	90% ile Annual Volume: 4,128 (m ³ /ha)	57,379 (m ³)

2 Select Crop: Pasture 3 Select Plant Available Water: (a) Most likely PAW in this area 4 Select Irrigation Method: 80% Efficient Irrigator 5 Fetch Data

Farm Details		Plant Available Water Details		Irrigation Requirements	
Description	PAW(mm)	Indicative Likelihood	Area (hectares)	Per Hectare	Total Area
Latitude: -39.648	90	57.2	13.9	System Capacity: 0.61 (l/s/ha)	8.48 (l/s)
Longitude: 176.709			0	System Capacity: 5.3 (mm/day)	
Council: HawkesBay			0	Daily Volume: 53 (m ³ /ha)	737 (m ³)
Climate Site ID: P215160			0	7 Day Volume: 368 (m ³ /ha)	5,115 (m ³)
Distance to Climate Site (km): 2.9			0	28 Day Volume: 1,733 (m ³ /ha)	24,089 (m ³)
Rainfall (mm): 762			Total area = 13.9	90% ile Annual Volume: 6,988 (m ³ /ha)	97,133 (m ³)

(Submit by email at eTANK@hbrc.govt.nz or post to HBRC, by 5pm Friday August 14th)

Submission on Proposed Plan Change 9 (PC9): Hawke’s Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: *(required)* Robin Back.....

Organisation: ..Dunvegan Estate.....

Postal address: *(required)* 20 Dunvegan Rd.....
..... RD5 Hastings.....

Email address: ..randmback@gmail.com

Phone number: 021523810.....

Contact person and address if different to above:
.....
.....
.....

Submission Summary:

1. I SUPPORT the overall framework of PC9, to the degree that it reflects agreements reached by the TANK Group community representatives, developed over more than 6 years of intensive dialogue and providing an integrated catchment solution that best balances the values and interests of the Hawke’s Bay community.
2. I OPPOSE elements of PC9 that do not reflect those agreements reached by the TANK Group community representatives.
3. I SUPPORT THE AMENDMENTS proposed by Hawke’s Bay Winegrowers’ Association Inc. in their submission dated 14 August 2020.
4. I SEEK AMENDMENTS as set out in Section A of this submission below.
5. I am concerned that PC9’s approach to allocation of water and control of farming emissions unfairly penalises viticultural land owners as very low water users and very low emitters compared to other major primary production systems.
6. I am concerned that PC9 will have significant negative effects on me and/or my business and I have detailed my concerns in Section B below.
(delete this point if you do not wish to complete the personal impact section)

DRAFT

Submission Details:

A. General impact on the wine sector (note you can add or delete any items as you wish)

Plan Provision	Concerns and Reasons	Decision Sought
OBJ TANK 7 Requirement to reduce contaminant losses	This Objective, as currently drafted, could be interpreted to require a reduction in contaminant loss including soil loss from all land use types. Some land use types including viticulture on low-slope land already have negligible contaminant losses (& especially soil losses) and would be unable to achieve any reductions.	Amend OBJ TANK 7 to read "...reduces reduceable contaminant loss..."; or similar wording to achieve the outcome sought in this submission.
OBJ TANK 16 Priority order for water allocation	<p>This Objective establishes a priority order for water allocation which ranks primary production on versatile soils ahead of other primary production. Some viticultural production is on soils that are not considered to be versatile (eg. LUC 7 stoney soils) but is the highest and best primary production use of such soils, is highly efficient low water-use & low- contaminant activities that contribute strongly to community socio-economic development and should rank equally with primary production on versatile soils.</p> <p>The Objective also does not make it clear what the ranking of water bottling activities would be. The Hawke's Bay community has clearly indicated that water bottling should not be a priority use of water, so should be amended to explicitly record a lower priority, ranking below all other activities involving the economic use of water.</p>	<p>Amend OBJ TANK 16.c to read "Primary production on versatile and viticultural soils", or similar wording to achieve the outcome sought in this submission.</p> <p>Amend OBJ TANK 16.e to read "Water bottling and other non-commercial end uses", or similar wording to achieve the outcome sought in this submission.</p>
Policy 5.10.2.6/7/8 Protection of source water	<p>These three policies adopt a strengthened approach to protection of the quality and quantity of drinkingwater supplies.</p> <p>I support a precautionary approach to such protection but considers that the policies and rules are unnecessarily onerous and reflect an over-response to the 2016 Havelock North water crisis.</p> <p>The Plan Change draws source protection zones expansively and the control exerted by Council through matters of discretion under TANK rules 2/4/5/6/9/10</p>	Remove the references to assessment of actual or potential effects of activities in the SPZs on Registered Drinking Water Supplies from Rules TANK 4/5/6/9/10. Address risks via Farm Environment Plans, Catchment Collectives and Industry Programmes.

	<p>is uncertain and potentially onerous, particularly on winery point source discharges but also on vineyard farming practices.</p> <p>In addition to the uncertain scope of control, there is a duplication in control because risks to drinkingwater will also need to be addressed in Farm Environment Plans, Catchment Collectives and Industry Programmes.</p> <p>Retaining the reference in TANK 2 will ensure that a risk assessment will still be made in the event that a property does not have a Farm Environment Plan or is not part of an Industry Programme or Catchment Collective.</p>	
<p>Policy 5.10.3.21 Assessing resource consents in subcatchments exceeding nitrogen objectives or targets</p>	<p>This policy requires Council to have regard to any relevant Industry or Catchment Collective plans in place when assessing resource consents for effect on diffuse discharge of nitrogen. However, as currently drafted, clause 21.d appears to prevent the issuance of any resource consent for any land or water use change that may result in any increased nitrogen loss, where a subcatchment exceeds dissolved nitrogen objectives or targets in Schedule 26.</p> <p>This is unnecessarily constraining of landuse change, undermines the role of community collectives, discriminates heavily against viticulture as a particularly low nitrogen source and fails to recognise the 2040 timeline for meeting water quality objectives.</p>	<p>Amend so that Catchment Collectives and Industry Programmes may manage land use change in accordance with the 2040 timeline for meeting water quality objectives.</p> <p>Amend 21.d to read “<i>subject to Policy 21 a)-c)</i>, avoid land use change....” or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.6.36 Heretaunga Plains Aquifer Management</p>	<p>This policy requires Council to “adopt a staged approach to groundwater management that includes: f) avoiding further adverse effects by not allowing new water use and g) reducing existing levels of water use ”.</p> <p>The requirement to “not allow new water use” is needlessly restrictive and ostensibly prohibits ANY new [take and] use, including use of new water stored under the high flow allocation provisions of the Plan, as well as potentially the replacement of expiring consents.</p> <p>Similar, the requirement to “reduced existing levels of water use” precludes use of new stored water and fails to recognise that the interim allocation limit of 90 million cubic meters is intended to align with previous actual water usage and that the Heretaunga Plains Aquifer is considered to be overallocated based on</p>	<p>Amend Policy 36.f to read “avoiding further adverse effects by <i>controlling net groundwater use within the interim allocation limit set out in Policy 37’</i> or similar wording to achieve the outcome sought in this submission.</p> <p>Amend Policy 36.g to read “<i>reducing existing levels of encouraging</i> water use <i>efficiency.</i>” or similar wording to achieve the outcome sought in this submission.</p>

	cumulative consented volume (sometimes referred to as “paper volume”) but not on cumulative consented actual use .	
<p>Policy 5.10.6.37.d(ii) “Actual & Reasonable” water allocation approach</p>	<p>This policy requires Council to “when considering applications in respect of existing consents due for expiry, or when reviewing consents, to; ... (ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to August 2017 ...”.</p> <p>The intent of this policy is understood to be to provide for replacement consent volumes not exceeding the highest use in the driest year in recent history (generally considered to be the 2012/13 water year), for landuse as at August 2017 (the point at which HBRC publicised the decision to cap groundwater usage at current peak dry-year levels). However, since TANK completed and the Plan was drafted, Hawke’s Bay has experienced a severe drought in 2019/20 water year. Given this recent experience and vastly improved water meter data collection in the most recent years, I consider that the 2019/20 water year data should be available as a benchmark dry year.</p> <p>More fundamentally, I disagree with the definition of “Actual and Reasonable” and its inequitable and unworkable approach to allocation of water for replacement of consents that existed as at August 2017.</p> <p>Due to the lack of reliable and comprehensive water metering data from 2012/13 and the impact of vine age and redevelopment timing on actual annual vineyard irrigation requirements, practical difficulties in evidencing historical landuse activities and the risk of penalising efficient users at the expense of inefficient ones, I consider that there should be a presumption that the Hawke’s Bay-specific IRRICALC model is the appropriate measure of “Actual and Reasonable” for the purpose of calculating allocations for those replacement consents.</p>	<p>Amend Policy 37.d(ii) to read “(ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to <u>August 2017 30 June 2020 (the end of the 2020 water year)</u>...”. or similar wording to achieve the outcome sought in this submission.</p> <p>Amend the Glossar definition of “Actual and Reasonable to provide that the volume allocated at consent renewals is the lesser of:</p> <ul style="list-style-type: none"> - the amount calculated by a Hawke’s Bay-specific IRRICALC model at 95% security of supply; - the volume of the expiring consent being replaced.”, <p>or similar wording to achieve the outcome sought in this submission.</p>

<p>Policy 5.10.6.39 Requirement for flow maintenance (augmentation)</p>	<p>This policy subjects consented water users in the Heretaunga Plains Water Management Unit to a regime which requires them to either participate in stream flow maintenance and habitat enhancement schemes, or cease abstraction once a stream flow maintenance trigger is reached.</p> <p>When this policy was conceived in TANK, it was intended to apply initially to 3 named lowland streams which HBRC science indicated were suitable for a stream flow maintenance scheme. Post-TANK, the Plan has incorporated all streams as well as the mainstem of the Ngaruroro River and I OPPOSE this policy on five main grounds:</p> <ol style="list-style-type: none"> 1. The flow maintenance requirement now proposed, extends far beyond that supported in TANK and the need for such extension has not been justified. 2. In TANK, it was envisaged that HBRC would play a central role in establishing the 3 then-proposed lowland stream augmentation schemes. As HBRC hold all the relevant scientific and technical information required to operationalise such schemes, it is critical that HBRC takes on a central role in their development. 3. Large temporal and spatial spread of consent expiries and large consent numbers make it impractical and inequitable to require consent holders to take full responsibility for the development. 4. No allowance for an orderly transition to any new stream augmentation has been made. The currently proposed provisions could apply immediately from notification of the Plan Change, including to a very large number of currently expired consents (particularly groundwater takes in the unconfined aquifer), whereas stream augmentation schemes may be reasonably expected to take years to commission, particularly the kind of large-scale schemes that would be required to maintain flows in the Ngaruroro River. 5. Consent reallocations under the “Actual and Reasonable” provision of the Plan based on 95% certainty of supply do not provide sufficient water 	<p>I understand that HBRC will be submitting a proposed alternative approach to the requirements in Policy 39. I support, in principle, jointly-funded collective stream flow maintenance schemes on suitable lowland streams, facilitated by HBRC.</p>
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	volume to support stream augmentation in dry years and so would decrease the effective certainty of supply of consents.	
Policy 5.10.7.51 Water Use and Allocation - Priority	This clause provides for an emergency water management group when making water shortage directions under Section 329 of the RMA, with the group including representatives from various sectors of the community but not including the primary sector. As decisions made in consultation with this group relate inter alia to the provision of water essential for the maintenance of animal welfare and survival of horticultural tree crops and to seasonal demand for primary production, the primary sector should also be represented in the group.	Amend 5.10.7.51 to read “...emergency water management group that shall have representatives from Napier City and Hastings District Councils, NZ Fire Service, DHB, iwi, affected primary sector groups and MPI, to make decisions ...” or similar wording to achieve the outcome sought in this submission.
Policy 5.10.8.59 High Flow Reservation	<p>This policy requires Council to allocate “20% of the total water available at times of high flow in the Ngaruroro or T ūtaekurī River catchments for abstraction, storage and use for” contributions to environmental enhancement and M āori development.</p> <p>This policy originated in an agreement in TANK to reserve 20% of any NEW high flow allocation for Māori development, then underwent significant development and change as Council explored ways to operationalise it and through iwi and RPC consultations.</p> <p>The resulting policy has some fundamental differences to that originally agreed in TANK:</p> <ol style="list-style-type: none"> 1. The Policy refers to the Ngaruroro OR Tūtaekurī River catchments” (emphasis added), whereas the intention in TANK was for it to apply to BOTH rivers. This may just be a drafting error. 2. The Policy now covers water for both M āori development and environmental enhancement but Schedule 32 only refers to M āori development. 3. The allocation rate of 1600L/s for the Ngaruroro River in Schedule 32 represents 20% of the total high flow allocation limit for that river, whereas the TANK agreement was for 20% of the new allocation (6000L/s), ie 1200L/s. 	Policy 59 needs significant re-write to address the above inconsistencies between the policy as it now stands and the framework agreed in TANK. It should distinguish clearly between water for environmental enhancement and water for M āori development, reduce the proposed M āori development reservation for the Ngaruroro River from 1600L/s to 1200L/s in line with the 20% new-water allocation agreed at TANK and remove the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the high flow allocation.

	<p>4. Policy 60 now embodies the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the allocation.</p> <p>5. The Policy now requires “allocation” rather than “reservation”, with uncertain implications for private sector interests</p>	
<p>Rule TANK 5 Land use change</p>	<p>This rule controls land use change to production land use activity over more than 10% of a property or farming enterprise.</p> <p>The rule gives no guidance on what constitutes “change to the production land use activity”, with the result that it is highly uncertain what types of activity are controlled and the rule cannot be practically enforced. For example, is a change from conventional farming to organic farming captured? A change in planting density?</p> <p>Also the rule fails to account for the possibility that a farming enterprise may span multiple water quality management units within a Surface Water Allocation Zone, which may then unintentionally permit land use change beyond 10% of the farming enterprises’ properties within a water quality management unit</p>	<p>The rule needs further development to give more guidance on what changes are intended to be controlled and to control change by farming enterprises within a water quality management unit more appropriately.</p>
<p>Rule TANK 6</p>	<p>This rule restricts change to production land use activity over more than 10% of a property or farming enterprise where there is no Catchment Collective or Industry Programme operative, where modelled land use change effect on total property nitrogen loss exceeds the figures in Table 2 of Schedule 29. Table 2 is populated from per-hectare figures for common primary production systems. The per-hectare figure of 1kg/ha/yr provided for Grapes for Esk/Omahu/Pakipaki Soils is unrealistically low & clearly fails to account for the autumn/winter sheep grazing rotation that commonly occurs on vineyards.</p> <p>Also the Plan Change does not record the version of the models employed to derive the crop loss figures, so is not future-proofed against the effect of future model changes.</p>	<p>Adjust the Grape kg/ha/yr for all soils to recognise winter sheep grazing rotation.</p> <p>Include details of crop model versions used to derive the crop loss figures in Schedule 29 and include a mechanism to address the effects of model and/or version changes to modelled outputs..</p>

<p>Rule TANK 13 Taking water – high flows</p>	<p>This rule provides for capture, storage and use of surface water at times of high flow. I consider this to be a critical element of the overall Plan Change, providing the opportunity to re-engineer the Heretaunga Plains water use profile in a way that multiple & often conflicting interests and values can be addressed.</p>	<p>Supported, subject to amendments to POL 59 & 60 to address concerns about drafting details relating to the 20% Maori/environment reservation.</p>
<p>RRMP Chapter 6.9 - 6.3.1 Bore Drilling & Bore Sealing, Rule 1</p>	<p>This rule change has the effect of making bore drilling within a Source Protection Zone (SPZ) a Restricted Discretionary activity, as opposed to a Controlled activity. The proposed SPZs cover extensive areas of the Heretaunga Plains, particularly in the unconfined aquifer zone where many vineyards are located. The proposed Plan brings in intensive controls over activities in the SPZs and are specifically drawn to capture areas of unconfined aquifer upstream of protected water takes. Given the already-permeable nature of the unconfined aquifer area that comprises the bulk of the SPZs and other substantial controls over landuse activities, there is negligible additional benefit in controlling bore drilling in this area where the bore is a replacement for existing infrastructure. Also the additional expense and uncertainty of Restricted Discretionary status is likely to act as a deterrent to bore replacement as part of a normal maintenance cycle. Accordingly, bore drilling for the purpose of replacement of existing infrastructure in the SPZs should remain a Controlled activity.</p>	<p>Add a Condition to 6.3.1 Rule 1 reading: “<i>c. The bore is located within a Source Protection Zone but is a replacement for an existing bore that will be decommissioned.</i>” or similar wording to achieve the outcome sought in this submission.</p>
<p>Schedule 30 Landowner Collective, Industry Programme and Farm Environment Plan</p>	<p>Schedule 30 sets out the requirements for Farm Environment Plans, Landowner Collectives and Industry Programmes, as a method primarily to address the cumulative effects of landuse. I support this general approach over more prescriptive approaches, as it provides flexibility for landowners to achieve environmental objectives in the most efficient ways. The NZ wine industry has a longstanding and highly respected industry sustainability programme (Sustainable Winegrowing New Zealand - SWNZ), which the industry intends to further develop to achieve equivalency with a Farm Environment Plan. However, as the environmental profile of vineyards is dramatically different from (and in most respects lower than) that of other major primary industries, SWNZ does not comfortably fit within the PC9 framework and it is inefficient and counterproductive to apply an essentially pastoral-</p>	<p>Schedule 30 should be less prescriptive, more facilitative and more industry risk profile-based in respect of Industry Programmes. The Programme Requirements in Section B of Schedule 30 as they relate to Industry Programmes should be re-cast as more of a guideline, with an acknowledgement that detailed requirements can vary depending on the Industry’s risk and emissions profile as it relates to catchment objectives. Amend all references to Farm Environment Plan in this Plan Change to “freshwater farm plan” and otherwise align the Plan Change requirements to</p>

	<p>farming approach to viticulture.</p> <p>Schedule 30 also does not recognise the recent policy advances made nationally via the government's Essential Freshwater package and in particular the Resource Management Amendment Act 2020, which provides for a national framework of "freshwater farm plans", to be operationalised via S.360 regulations.</p> <p>I consider that the references to and requirements for a Farm Environment Plan in this Plan Change ought to be aligned with the Resource Management Amendment Act 2020 and related S.360 regulations and that these national requirements should be adopted by the Plan Change, in the interests of national standardisation and longer-term efficiency.</p>	<p>those of the Resource Management Amendment Act 2020 and related S.360 regulations.</p>
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B. Specific impact on me and/or my business

I am concerned that PC9 will impact on me and/or my business in the following ways and seek the following relief:

Plan Provision	Impact, Concerns and Reasons	Decision Sought
1.	Am concerned that one cannot apply for more water if needed for new plantings, change of land use ie different crop etc	
2.	Being a Gimblett Gravels grower I am concerned that there may be insufficient water allocated to us. During summer that could result in stress on vines to the point of them becoming unproductive.	
etc	If the 80% water allocated for general use is not sufficient then what are the options open to growers.	

Do you wish to be heard in support of your submission? / No **(delete one)**

If others make a similar submission, would you consider

presenting a joint case with them at a hearing? Yes / **(delete one – we recommend agreeing to a joint case)**

Robin Back

10/8/20

Signature: Date:.....

Proposed TANK Plan Change 9

Submitter Details

Submission Date: 08/08/2020

First name: Richmond **Last name:** Beetham

Phone number: 0276649559

I could not

Gain an advantage in trade competition through this submission

I am not

directly affected by an effect of the subject matter of the submission that :

- a. adversely affects the environment, and
- b. does not relate to the trade competition or the effects of trade competitions.

Note to person making submission:

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

Would you like to present your submission in person at a hearing?

- Yes
- I do NOT wish to speak in support of my submission and ask that the following submission be fully considered.

Consultation Document Submissions

SCHEDULES

- Support
- Oppose
- Amend

I seek the following decision from the Regional Council:

That the permitted activity rule around grazing cattle on land above 15 Degrees is removed specifically the 18SU/Ha on a paddock basis Threshold which captures any sort of rotational grazing of cattle on hill country with permanent and intermittent streams.

Reason for decision requested:

Effectively this rule will stop any rotational grazing of cattle through hill country as say 30 R2 Steers in a 7 ha paddock on rotation will trigger the rule. This is not effects based, The key contaminants and CSAs on the farm need to be identified and a tailored Farm plan put in place to help mitigate these (Best bang for environmental spend). A rule like this diverts resources away from the key issues.

Attached Documents

File

Proposed TANK Plan Change 9

Submission on Proposed Plan Change 9 (PC9): Hawke's Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: *(required)* Hamish Clark

Organisation: Saint Clair Family Estate Ltd

Postal address: *(required)* 30 Liverpool Street, Riverlands Estate
PO Box 970 Blenheim

Email address: ..hamish@saintclair.co.nz

Phone number: 03 5788695

Contact person and address if different to above:

Submission Summary:

1. I SUPPORT the overall framework of PC9, to the degree that it reflects agreements reached by the TANK Group community representatives, developed over more than 6 years of intensive dialogue and providing an integrated catchment solution that best balances the values and interests of the Hawke's Bay community.
2. I OPPOSE elements of PC9 that do not reflect those agreements reached by the TANK Group community representatives.
3. I SUPPORT THE AMENDMENTS proposed by Hawke's Bay Winegrowers' Association Inc. in their submission dated 14 August 2020.
4. I SEEK AMENDMENTS as set out in Section A of this submission below.
5. I am concerned that PC9's approach to allocation of water and control of farming emissions unfairly penalises viticultural land owners as very low water users and very low emitters compared to other major primary production systems.

Submission Details:

A. General impact on the wine sector

Plan Provision	Concerns and Reasons	Decision Sought
<p>OBJ TANK 7 Requirement to reduce contaminant losses</p>	<p>This Objective, as currently drafted, could be interpreted to require a reduction in contaminant loss including soil loss from all land use types. Some land use types including viticulture on low-slope land already have negligible contaminant losses (& especially soil losses) and would be unable to achieve any reductions.</p>	<p>Amend OBJ TANK 7 to read “...reduces <u>reduceable</u> contaminant loss...”; or similar wording to achieve the outcome sought in this submission.</p>
<p>OBJ TANK 16 Priority order for water allocation</p>	<p>This Objective establishes a priority order for water allocation which ranks primary production on versatile soils ahead of other primary production.</p> <p>Some viticultural production is on soils that are not considered to be versatile (eg. LUC 7 stony soils) but is the highest and best primary production use of such soils, is highly efficient low water-use & low- contaminant activities that contribute strongly to community socio-economic development and should rank equally with primary production on versatile soils.</p> <p>The Objective also does not make it clear what the ranking of water bottling activities would be. The Hawke’s Bay community has clearly indicated that water bottling should not be a priority use of water, so should be amended to explicitly record a lower priority, ranking below all other activities involving the economic use of water.</p>	<p>Amend OBJ TANK 16.c to read “Primary production on versatile and <u>viticultural</u> soils”, or similar wording to achieve the outcome sought in this submission.</p> <p>Amend OBJ TANK 16.e to read “<u>Water bottling and</u> other non-commercial end uses”, or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.2.6/7/8 Protection of source water</p>	<p>These three policies adopt a strengthened approach to protection of the quality and quantity of drinking-water supplies.</p> <p>I support a precautionary approach to such protection but considers that the policies and rules are unnecessarily onerous and reflect an over-response to the 2016 Havelock North water crisis.</p> <p>The Plan Change draws source protection zones expansively and the control exerted by Council through matters of discretion under TANK rules 2/4/5/6/9/10</p>	<p>Remove the references to assessment of actual or potential effects of activities in the SPZs on Registered Drinking-water Supplies from Rules TANK 4/5/6/9/10. Address risks via Farm Environment Plans, Catchment Collectives and Industry Programmes.</p>

	<p>is uncertain and potentially onerous, particularly on winery point source discharges but also on vineyard farming practices.</p> <p>In addition to the uncertain scope of control, there is a duplication in control because risks to drinking water will also need to be addressed in Farm Environment Plans, Catchment Collectives and Industry Programmes.</p> <p>Retaining the reference in TANK 2 will ensure that a risk assessment will still be made in the event that a property does not have a Farm Environment Plan or is not part of an Industry Programme or Catchment Collective.</p>	
<p>Policy 5.10.3.21 Assessing resource consents in sub catchments exceeding nitrogen objectives or targets</p>	<p>This policy requires Council to have regard to any relevant Industry or Catchment Collective plans in place when assessing resource consents for effect on diffuse discharge of nitrogen. However, as currently drafted, clause 21.d appears to prevent the issuance of any resource consent for any land or water use change that may result in any increased nitrogen loss, where a sub catchment exceeds dissolved nitrogen objectives or targets in Schedule 26.</p> <p>This is unnecessarily constraining of land use change, undermines the role of community collectives, discriminates heavily against viticulture as a particularly low nitrogen source and fails to recognise the 2040 timeline for meeting water quality objectives.</p>	<p>Amend so that Catchment Collectives and Industry Programmes may manage land use change in accordance with the 2040 timeline for meeting water quality objectives.</p> <p>Amend 21.d to read “<u>subject to Policy 21 a)-c)</u>, avoid land use change....” or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.6.36 Heretaunga Plains Aquifer Management</p>	<p>This policy requires Council to “adopt a staged approach to groundwater management that includes: f) avoiding further adverse effects by not allowing new water use and g) reducing existing levels of water use”.</p> <p>The requirement to “not allow new water use” is needlessly restrictive and ostensibly prohibits ANY new [take and] use, including use of new water stored under the high flow allocation provisions of the Plan, as well as potentially the replacement of expiring consents.</p> <p>Similarly, the requirement to “reduced existing levels of water use” precludes use of new stored water and fails to recognise that the interim allocation limit of 90 million cubic meters is intended to align with previous actual water usage and that the Heretaunga Plains Aquifer is considered to be overallocated based on</p>	<p>Amend Policy 36.f to read “avoiding further adverse effects by <u>controlling net groundwater use within the interim allocation limit set out in Policy 37</u>” or similar wording to achieve the outcome sought in this submission.</p> <p>Amend Policy 36.g to read “<u>reducing existing levels of encouraging</u> water use <u>efficiency.</u>” or similar wording to achieve the outcome sought in this submission.</p>

	cumulative consented volume (sometimes referred to as “paper volume”) but not on cumulative consented actual use.	
<p>Policy 5.10.6.37.d(ii) “Actual & Reasonable” water allocation approach</p>	<p>This policy requires Council to “when considering applications in respect of existing consents due for expiry, or when reviewing consents, to; ... (ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to August 2017...”.</p> <p>The intent of this policy is understood to be to provide for replacement consent volumes not exceeding the highest use in the driest year in recent history (generally considered to be the 2012/13 water year), for land use as at August 2017 (the point at which HBRC publicised the decision to cap groundwater usage at current peak dry-year levels). However, since TANK completed and the Plan was drafted, Hawke’s Bay has experienced a severe drought in 2019/20 water year. Given this recent experience and vastly improved water meter data collection in the most recent years, I consider that the 2019/20 water year data should be available as a benchmark dry year.</p> <p>More fundamentally, I disagree with the definition of “Actual and Reasonable” and its inequitable and unworkable approach to allocation of water for replacement of consents that existed as at August 2017.</p> <p>Due to the lack of reliable and comprehensive water metering data from 2012/13 and the impact of vine age and redevelopment timing on actual annual vineyard irrigation requirements, practical difficulties in evidencing historical land use activities and the risk of penalising efficient users at the expense of inefficient ones, I consider that there should be a presumption that the Hawke’s Bay-specific IRRICALC model is the appropriate measure of “Actual and Reasonable” for the purpose of calculating allocations for those replacement consents.</p> <p>Notable yield differences may exist on vineyards between 2012/13 and 2019/20 as Wine companies have made their adaptations to stay viable in an increasingly competitive price point driven environment. The increases in yield are reliant on</p>	<p>Amend Policy 37.d(ii) to read “(ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to <u>August 2017 30 June 2020 (the end of the 2020 water year)</u>...”. or similar wording to achieve the outcome sought in this submission.</p> <p>Amend the Glossary definition of “Actual and Reasonable to provide that the volume allocated at consent renewals is the lesser of:</p> <ul style="list-style-type: none"> - the amount calculated by a Hawke’s Bay-specific IRRICALC model at 95% security of supply; - the volume of the expiring consent being replaced.”, <p>or similar wording to achieve the outcome sought in this submission.</p>

	<p>sufficient water being available which also underpins the use of the 2019/2020 water year data as more relevant. This is a part of Saint Clair's strategy.</p>	
<p>Policy 5.10.6.39 Requirement for flow maintenance (augmentation)</p>	<p>This policy subjects consented water users in the Heretaunga Plains Water Management Unit to a regime which requires them to either participate in stream flow maintenance and habitat enhancement schemes, or cease abstraction once a stream flow maintenance trigger is reached.</p> <p>When this policy was conceived in TANK, it was intended to apply initially to 3 named lowland streams which HBRC science indicated were suitable for a stream flow maintenance scheme. Post-TANK, the Plan has incorporated all streams as well as the mainstem of the Ngaruroro River and I OPPOSE this policy on five main grounds:</p> <ol style="list-style-type: none"> 1. The flow maintenance requirement now proposed, extends far beyond that supported in TANK and the need for such extension has not been justified. 2. In TANK, it was envisaged that HBRC would play a central role in establishing the 3 then-proposed lowland stream augmentation schemes. As HBRC hold all the relevant scientific and technical information required to operationalise such schemes, it is critical that HBRC takes on a central role in their development. 3. Large temporal and spatial spread of consent expiries and large consent numbers make it impractical and inequitable to require consent holders to take full responsibility for the development. 4. No allowance for an orderly transition to any new stream augmentation has been made. The currently proposed provisions could apply immediately from notification of the Plan Change, including to a very large number of currently expired consents (particularly groundwater takes in the unconfined aquifer), whereas stream augmentation schemes may be reasonably expected to take years to commission, particularly the kind of large-scale schemes that would be required to maintain flows in the Ngaruroro River. 	<p>I understand that HBRC will be submitting a proposed alternative approach to the requirements in Policy 39. I support, in principle, jointly-funded collective stream flow maintenance schemes on suitable lowland streams, facilitated by HBRC.</p>

	<p>5. Consent reallocations under the “Actual and Reasonable” provision of the Plan based on 95% certainty of supply do not provide sufficient water volume to support stream augmentation in dry years and so would decrease the effective certainty of supply of consents.</p>	
<p>Policy 5.10.7.51 Water Use and Allocation - Priority</p>	<p>This clause provides for an emergency water management group when making water shortage directions under Section 329 of the RMA, with the group including representatives from various sectors of the community but not including the primary sector. As decisions made in consultation with this group relate inter alia to the provision of water essential for the maintenance of animal welfare and survival of horticultural tree crops and to seasonal demand for primary production, the primary sector should also be represented in the group.</p>	<p>Amend 5.10.7.51 to read “...emergency water management group that shall have representatives from Napier City and Hastings District Councils, NZ Fire Service, DHB, iwi, <u>affected primary sector groups</u> and MPI, to make decisions ...” or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.8.59 High Flow Reservation</p>	<p>This policy requires Council to allocate “20% of the total water available at times of high flow in the Ngaruroro or Tūtaekurī River catchments for abstraction, storage and use for” contributions to environmental enhancement and Māori development.</p> <p>This policy originated in an agreement in TANK to reserve 20% of any NEW high flow allocation for Māori development, then underwent significant development and change as Council explored ways to operationalise it and through iwi and RPC consultations.</p> <p>The resulting policy has some fundamental differences to that originally agreed in TANK:</p> <ol style="list-style-type: none"> 1. The Policy refers to the Ngaruroro OR Tūtaekurī River catchments” (emphasis added), whereas the intention in TANK was for it to apply to BOTH rivers. This may just be a drafting error. 2. The Policy now covers water for both Māori development and environmental enhancement but Schedule 32 only refers to Māori development. 3. The allocation rate of 1600L/s for the Ngaruroro River in Schedule 32 represents 20% of the total high flow allocation limit for that river, 	<p>Policy 59 needs significant re-write to address the above inconsistencies between the policy as it now stands and the framework agreed in TANK. It should distinguish clearly between water for environmental enhancement and water for Māori development, reduce the proposed Māori development reservation for the Ngaruroro River from 1600L/s to 1200L/s in line with the 20% new-water allocation agreed at TANK and remove the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the high flow allocation.</p>


	<p>whereas the TANK agreement was for 20% of the new allocation (6000L/s), ie 1200L/s.</p> <p>4. Policy 60 now embodies the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the allocation.</p> <p>5. The Policy now requires “allocation” rather than “reservation”, with uncertain implications for private sector interests</p>	
<p>Rule TANK 5 Land use change</p>	<p>This rule controls land use change to production land use activity over more than 10% of a property or farming enterprise.</p> <p>The rule gives no guidance on what constitutes “change to the production land use activity”, with the result that it is highly uncertain what types of activity are controlled and the rule cannot be practically enforced. For example, is a change from conventional farming to organic farming captured? A change in planting density?</p> <p>Also the rule fails to account for the possibility that a farming enterprise may span multiple water quality management units within a Surface Water Allocation Zone, which may then unintentionally permit land use change beyond 10% of the farming enterprises’ properties within a water quality management unit</p>	<p>The rule needs further development to give more guidance on what changes are intended to be controlled and to control change by farming enterprises within a water quality management unit more appropriately.</p>
<p>Rule TANK 6</p>	<p>This rule restricts change to production land use activity over more than 10% of a property or farming enterprise where there is no Catchment Collective or Industry Programme operative, where modelled land use change effect on total property nitrogen loss exceeds the figures in Table 2 of Schedule 29. Table 2 is populated from per-hectare figures for common primary production systems. The per-hectare figure of 1kg/ha/yr provided for Grapes for Esk/Omahu/Pakipaki Soils is unrealistically low & clearly fails to account for the autumn/winter sheep grazing rotation that commonly occurs on vineyards.</p> <p>Also the Plan Change does not record the version of the models employed to derive the crop loss figures, so is not future-proofed against the effect of future model changes.</p>	<p>Adjust the Grape kg/ha/yr for all soils to recognise winter sheep grazing rotation.</p> <p>Include details of crop model versions used to derive the crop loss figures in Schedule 29 and include a mechanism to address the effects of model and/or version changes to modelled outputs..</p>

<p>Rule TANK 13 Taking water – high flows</p>	<p>This rule provides for capture, storage and use of surface water at times of high flow. I consider this to be a critical element of the overall Plan Change, providing the opportunity to re-engineer the Heretaunga Plains water use profile in a way that multiple & often conflicting interests and values can be addressed.</p>	<p>Supported, subject to amendments to POL 59 & 60 to address concerns about drafting details relating to the 20% Maori/environment reservation.</p>
<p>RRMP Chapter 6.9 - 6.3.1 Bore Drilling & Bore Sealing, Rule 1</p>	<p>This rule change has the effect of making bore drilling within a Source Protection Zone (SPZ) a Restricted Discretionary activity, as opposed to a Controlled activity. The proposed SPZs cover extensive areas of the Heretaunga Plains, particularly in the unconfined aquifer zone where many vineyards are located. The proposed Plan brings in intensive controls over activities in the SPZs and are specifically drawn to capture areas of unconfined aquifer upstream of protected water takes. Given the already-permeable nature of the unconfined aquifer area that comprises the bulk of the SPZs and other substantial controls over land use activities, there is negligible additional benefit in controlling bore drilling in this area where the bore is a replacement for existing infrastructure. Also the additional expense and uncertainty of Restricted Discretionary status is likely to act as a deterrent to bore replacement as part of a normal maintenance cycle. Accordingly, bore drilling for the purpose of replacement of existing infrastructure in the SPZs should remain a Controlled activity.</p>	<p>Add a Condition to 6.3.1 Rule 1 reading: “<u>c. The bore is located within a Source Protection Zone but is a replacement for an existing bore that will be decommissioned.</u>” or similar wording to achieve the outcome sought in this submission.</p>
<p>Schedule 30 Landowner Collective, Industry Programme and Farm Environment Plan</p>	<p>Schedule 30 sets out the requirements for Farm Environment Plans, Landowner Collectives and Industry Programmes, as a method primarily to address the cumulative effects of land use. I support this general approach over more prescriptive approaches, as it provides flexibility for landowners to achieve environmental objectives in the most efficient ways.</p> <p>The NZ wine industry has a longstanding and highly respected industry sustainability programme (Sustainable Winegrowing New Zealand - SWNZ), which the industry intends to further develop to achieve equivalency with a Farm Environment Plan. However, as the environmental profile of vineyards is dramatically different from (and in most respects lower than) that of other major primary industries, SWNZ does not comfortably fit within the PC9 framework and</p>	<p>Schedule 30 should be less prescriptive, more facilitative and more industry risk profile-based in respect of Industry Programmes. The Programme Requirements in Section B of Schedule 30 as they relate to Industry Programmes should be re-cast as a more of a guideline, with an acknowledgement that detailed requirements can vary depending on the Industry’s risk and emissions profile as it relates to catchment objectives.</p> <p>Amend all references to Farm Environment Plan in this Plan Change to “freshwater farm plan” and otherwise align the Plan Change requirements to</p>

	<p>it is inefficient and counterproductive to apply an essentially pastoral-farming approach to viticulture.</p> <p>Schedule 30 also does not recognise the recent policy advances made nationally via the government’s Essential Freshwater package and in particular the Resource Management Amendment Act 2020, which provides for a national framework of “freshwater farm plans”, to be operationalised via S.360 regulations.</p> <p>I consider that the references to and requirements for a Farm Environment Plan in this Plan Change ought to be aligned with the Resource Management Amendment Act 2020 and related S.360 regulations and that these national requirements should be adopted by the Plan Change, in the interests of national standardisation and longer-term efficiency.</p>	<p>those of the Resource Management Amendment Act 2020 and related S.360 regulations.</p>
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Do you wish to be heard in support of your submission? No

If others make a similar submission, would you consider presenting a joint case with them at a hearing? Yes

Signature:  Date: 10 August 2020

SUBMISSION

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This is a submission on Hawke's Bay Regional Council TANK Plan Change (PC9).

1. Who we are:

Hawke's Bay Winegrowers' Association Inc. (HBWG)

HBWG is the industry representative body for grapegrowers and winemakers in Hawke's Bay. All growers and wineries receive automatic membership through payment of industry levies. HBWG is affiliated to and receives most of its funding from New Zealand Winegrowers and has a local membership of 183 growers and wineries.

The wine sector is one of the largest intensive land-users in Hawke's Bay, comprising approximately 5000ha in production, predominantly on the Heretaunga Plains. Annual grape production in Hawke's Bay is around 40,000T, and it is the second-largest New Zealand winegrowing region after Marlborough.

HBWG carries out a range of services for its members including education, research, wine promotion, media hosting and advocacy and was formed in 2006 from the merger of the members of 2 longstanding local associations - Hawke's Bay Grapegrowers' Association Inc. and Hawke's Bay Winemakers Inc.

HBWG has been an active participant in regional planning processes over a number of years, including the Ngaruroro Water Conservation Order, Tuki Tuki Plan Change 6 working group, TANK, HBRC Hort Sector Group, HDC Producers' Round Table and including submissions on the Ngaruroro WCO, Tuki Tuki Plan Change 6, Plan Change 7, HDC & NCC District Plans and the Heretaunga Plains Urban Development Strategy.

2. About the Hawke's Bay Wine Industry:

Attached as Appendix 1 is information is extracted from HBWG's application for a Geographical Indication under the Geographic Indications (Wines & Spirits) Act 2006, filed in July 2017.

It demonstrates the unique place that Hawke's Bay holds in the NZ wine industry, the strength of its international reputation and the critical role that access to reliable supplies of high-quality irrigation water plays in its success.

The wine industry makes an important contribution to the Hawke's Bay economy, both directly through its contribution to employment & wealth generation, and also to tourism, visual aesthetics and quality of life in Hawke's Bay.

3. The parts of the Plan Change the submission relates to:

The submission relates to Plan Change 9 in its entirety. In particular:

- a. HBWG **supports** the overall intent of PC9, as a collaborative community approach to implementing the National Policy Statement - Freshwater Management 2014, (Amended 2017) (NPS-FM).
- b. HBWG **opposes** a number of matters of detail in the notified version of PC9, which are set out below.

4. HBWG's positions – overarching principles:

- a. Overall intent of PC9 to reflect community consensus
 - i. HBWG supports PC9 in broad principle, as the product of a 7-year community collaborative process (TANK) which HBWG committed to and participated fully in, against HBRC's best-efforts undertaking to implement any agreed outcome.
 - ii. The now-notified version of PC9 only partially reflects the community consensus reached in TANK. Largely this is due to changes that have been introduced as a result of post-TANK statutory consultations with iwi and changes sought primarily by tangata whenua members of HBRC Regional Planning Committee.
 - iii. HBWG acknowledges the rights of tangata whenua and the obligations of HBRC in regard to the post-TANK consultations but cautions that some of the resulting post-TANK changes introduced undermine the community collaborative approach needed for successful implementation of the Plan.
- b. Resource Allocation Principles
 - i. HBWG has consistently opposed the proposed approach to allocation of water and diffuse discharges and continues to do so. In the new paradigm of 'living within limits', PC9's approach to allocations penalises viticulture as the lowest water user and lowest emitter.
 - ii. The PC9 approach to resource allocation not only penalises viticulture but also effectively prevents land use change on more than 3000ha of versatile land in the Heretaunga Plains currently farmed as viticulture, which is bad public policy and bad for the community.
- c. Offsetting Effects
 - i. PC9 requires groundwater irrigators to offset the full stream-depletion effects of their irrigation takes on lowland streams and rivers, without any socio-economic justification. It is a matter of fact that humans alter their environment but it is a matter of policy and judgement as to what extent humans try to remedy or mitigate such effects. Offsetting the full stream-depletion effect of all groundwater irrigation takes is unnecessary and an

inefficient use of a scarce resource. The proposal to do so is an egregious example of a model driving policy instead of informing it, especially considering that there is no equivalent requirement in the Plan Change for surfacewater users to offset their direct and immediate effect on the waterbody they draw from.

5. Key Areas of Concern:

The following are our broad areas of concern, summarised for ease of understanding. More specific concerns and decisions sought are detailed below in section 6.

- a. The need for an integrated plan
 - i. As the Plan Change introduces significant constraints over groundwater availability and farming activities on the land, it is crucial that the Plan Change be considered in a holistic way and not be subject to cherry-picking. The proposed new allowance for capture, storage and use of surface water at times of high flow are a critical element of the overall Plan Change, providing the opportunity to re-engineer the Heretaunga Plains water use profile in a way that multiple & often conflicting interests and values can be addressed.
- b. Unreasonable constraint on vineyard water allocations
 - i. As currently proposed, the “Actual and Reasonable” allocation approach unfairly penalises viticulture by allocating it approximately 1/3rd of the water allocated to other irrigated crops¹. Beyond that, the assessment is unnecessarily complex and places too much reliance on trying to reconstruct peak historical irrigation records and land use in assessing allocations.
- c. Unreasonable constraint on vineyard landuse change
 - i. In a similar way to water allocation, the controls on landuse change focussed on N leaching unfairly penalise viticulture as by far the lowest emitter.
- d. Unclear/uncertain/unworkable/unjustified/inequitable requirements for stream flow maintenance
 - i. TANK science reports identified 3 lowland streams that are considered amenable to stream flow augmentation based on O² concentration. Post-TANK, the stream flow maintenance has grown to all streams & rivers, with HBRC abrogating any meaningful role in establishing the schemes. The need for augmentation the Ngaruroro and Tutaekuri river flows has not been justified and is a case of the model driving the policy rather than informing it. The current provisions are inequitable as between consent holders, due to obligations & costs being linked to widely differing timing of consent replacement. The fundamental assumption that large numbers of consent holders spread widely over space and time can effectively self-organise to create stream flow augmentation schemes without significant

¹ As calculated by the HBRC Irricalc model accessed via <https://www.hbrc.govt.nz/hawkes-bay/projects/the-tank-plan/tank-reports-and-resources/>

HBRC support and facilitation is fatally flawed, being based on the erroneous assumption that the Twford Irrigators Group is a practically replicatable universal model.

- e. Unworkable provisions for industry collectives/fit with Essential Freshwater framework
 - i. Whilst we wholeheartedly support the general approach in the Plan Change of employing Farm Environment Plans and Collectives to manage the cumulative effects of land usage, substantial work is still required to ensure that the policies align with national policy directive on Farm Environment Plans.
 - ii. Industry Groups and Catchment Collectives are two distinct groups. Industry Groups, such as Sustainable Winegrowing NZ should not be subject to the same requirements as Catchment Collectives, as they operate and organise in quite different ways.
- f. Uncertain constraints over Source Protection Zones
 - i. A number of the proposed Rules relating to land use and water takes include the requirement for an assessment of the actual or potential effects of the activity within a SPZ on drinking water quality. The Plan Change draws these zones expansively and the control exerted by Council is uncertain and potentially onerous, particularly on winery point source discharges but also on vineyard farming practices. In respect of the latter, Farm Environment Plans are a more appropriate management tool than a consent discretion.
 - ii. The Plan Change provisions on Source Protection Zones were developed in parallel and subsequent to the TANK Group process by DHB and municipal representatives but were not a part of the TANK consensus.
- g. Lack of community catchment governance framework
 - i. Whilst the Plan Change does contain provisions requiring a level of review with stakeholder groups, those provisions are modest and do not align with best practice in community catchment management or the complex pattern of catchment and industry groups expected to evolve under PC9, both of which require a more participatory form of governance.

6. Detailed Response:

Plan Provision	OBJ TANK 2.a
Concerns & Reasons	<p>This objective requires that “When setting objectives, limits and targets; a) Te Mana o te Wai 1 and integrated mountains to the sea, ki uta ki tai principles are upheld”.</p> <p>It is unclear and uncertain whether the Plan actually upholds (or is capable of upholding) the principles of Te Mana o te Wai and ki uta ki tai. This represents a higher standard than the NPSFM (2017), which requires Council to “consider and recognise” Te Mana o te Wai.</p> <p>Ultimately tangata whenua define the two principles in the context of the Treaty Partnership, so this Objective should be expressed in terms</p>

	of Treaty Partnership rather than being exclusively for tangata whenua to determine, as would be the case with the current wording.
Decision Sought	Amend OBJ TANK 2.a to recognise the overriding requirement for partnership in setting objectives, limits and targets. Alternatively, replace “upheld” in OBJ TANK 2.a with “consider and recognise”.

Plan Provision	OBJ TANK 7
Concerns & Reasons	This Objective, as currently drafted, could be interpreted to require a reduction in contaminant loss including soil loss from all land use types. Some land use types including viticulture on low-slope land already have negligible contaminant losses (& especially soil losses) and would be unable to achieve any reductions.
Decision Sought	Amend OBJ TANK 7 to read “...reduces <i>reduceable</i> contaminant loss...”; or similar wording to achieve the outcome sought in this submission.

Plan Provision	OBJ TANK 16
Concerns & Reasons	This Objective establishes a priority order for water allocation which ranks primary production on versatile soils ahead of other primary production. Some viticultural production is on soils that are not considered to be versatile (eg. LUC 7 stoney soils) but is the highest and best primary production use of such soils, is highly efficient low water-use & low-contaminant activities that contribute strongly to community socio-economic development and should rank equally with primary production on versatile soils. The Objective also does not make it clear what the ranking of water bottling activities would be. The Hawke’s Bay community has clearly indicated that water bottling should not be a priority use of water, so should be amended to explicitly record a lower priority, ranking below all other activities involving the economic use of water.
Decision Sought	Amend OBJ TANK 16.c to read “Primary production on versatile and <i>viticultural</i> soils”, or similar wording to achieve the outcome sought in this submission. Amend OBJ TANK 16.e to read “ <i>Water bottling and</i> other non-commercial end uses”, or similar wording to achieve the outcome sought in this submission.

Plan Provision	OBJ TANK 18.e
Concerns & Reasons	For the sake of completeness, this Objective in its reference to water storage, should also refer to release of water, as it is the release or discharge of the water into waterbodies from storage in a controlled manner that is the activity which achieves the value sought in storing water.
Decision	Amend OBJ TANK 18.e to read “water harvesting, storage and

Sought	<u><i>controlled release.</i></u> ” or similar wording to achieve the outcome sought in this submission.
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Plan Provision	5.10.2.1 Priority Management Approach
Concerns & Reasons	<p>This policy requires that “Council with landowners, local authorities, industry and community groups, mana whenua and other stakeholders, will regulate or manage.....”</p> <p>The Plan does not contain any mechanism to operationalise this requirement for joint regulation and management of the catchment. Best-practice catchment management includes participatory governance, which is not provided for in the Plan.</p>
Decision Sought	Amend Policy 34 to require Council to establish and maintain a community catchment governance body to oversee subcatchment activities within the TANK catchments. We suggest that this should comprise representatives from the Regional Planning Committee, together with representatives from each of the subcatchments and should meet at least bi-annually.

Plan Provision	5.10.2.6/7/8 Protection of Source Water
Concerns & Reasons	<p>These three policies adopt a strengthened approach to protection of the quality and quantity of drinkingwater supplies.</p> <p>HBWG supports a precautionary approach to such protection but considers that the policies and rules are unnecessarily onerous and reflect an over-response to the 2016 Havelock North water crisis.</p> <p>The Plan Change draws source protection zones expansively and the control exerted by Council through matters of discretion under TANK rules 2/4/5/6/9/10 is uncertain and potentially onerous, particularly on winery point source discharges but also on vineyard farming practices.</p> <p>In addition to the uncertain scope of control, there is a duplication in control because risks to drinkingwater will also need to be addressed in Farm Environment Plans, Catchment Collectives and Industry Programmes.</p> <p>Retaining the reference in TANK 2 will ensure that a risk assessment will still be made in the event that a property does not have a Farm Environment Plan or is not part of an Industry Programme or Catchment Collective.</p>
Decision Sought	Remove the references to assessment of actual or potential effects of activities in the SPZs on Registered Drinking Water Supplies from Rules TANK 4/5/6/9/10. Address risks via Farm Environment Plans, Catchment Collectives and Industry Programmes.

Plan Provision	5.10.3.17 Adaptive Approach to Nutrient and Contaminant Management
Concerns & Reasons	This policy requires Council to work with the community to implement Farm Environment Plans, Catchment Collectives and Industry Programmes to achieve freshwater objectives. There is a risk to community support for catchment groups if they are perceived to be

	primarily a regulatory compliance tool. HBRC should be prepared to work with catchment groups whether or not they choose to seek approval of their programmes to qualify for the “Catchment Collective” compliance provisions of this Plan, where the catchment group activities contribute to achievement of freshwater objectives.
Decision Sought	Amend 17.a to read “establish programmes and processes through Farm Environment Plans, Catchment Collectives and , Industry Programmes <i>and other catchment-based groups</i> ...”, or similar wording to achieve the outcome sought in this submission.

Plan Provision	5.10.3.21 Land Use Change and Nutrient Losses
Concerns & Reasons	<p>This policy requires Council to have regard to any relevant Industry or Catchment Collective plans in place when assessing resource consents for effect on diffuse discharge of nitrogen. However, as currently drafted, clause 21.d appears to prevent the issuance of any resource consent for any land or water use change that may result in any increased nitrogen loss, where a subcatchment exceeds dissolved nitrogen objectives or targets in Schedule 26.</p> <p>This is unnecessarily constraining of landuse change, undermines the role of community collectives, discriminates heavily against viticulture as a particularly low nitrogen source and fails to recognise the 2040 timeline for meeting water quality objectives.</p>
Decision Sought	<p>Amend so that Catchment Collectives and Industry Programmes may manage land use change in accordance with the 2040 timeline for meeting water quality objectives.</p> <p>Amend 21.d to read “<i>subject to Policy 21 a)-c)</i>, avoid land use change...” or similar wording to achieve the outcome sought in this submission.</p>

Plan Provision	5.10.3.23 Industry Programmes and Catchment Management
Concerns & Reasons	The title of this section of policy refers to “Catchment Management”, which is a holistic endeavour that is much broader than the subject of Policies 23-25. Instead it should just refer to “Catchment Collectives”.
Decision Sought	Change heading to read “Industry Programmes and Catchment Collectives” or similar wording to achieve the outcome sought in this submission.

Plan Provision	5.10.3.24.c Industry Programmes and Catchment Management
Concerns & Reasons	Policy 24 and Schedule 30 variously refer to catchment-based groups as either “Landowner Collective” or “Catchment Collective”. For consistency, only one term should be used and “Catchment Collective” should be the preferred term as this reflects the expectation that such collectives will be inclusive and membership not restricted to landowners.
Decision	Change all “Landowner Collective” references in the Plan to

Sought	“Catchment Collective”.
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Plan Provision	5.10.3.24.d Industry Programmes and Catchment Management
Concerns & Reasons	<p>This policy requires Council to audit Landowner Collective or Industry Programmes... including auditing of member properties.</p> <p>This policy fails to account for any auditing processes that may occur within a Collective or Programme, potentially introducing unnecessary duplication of auditing.</p> <p>Where a Collective or Programme includes universal auditing, it should be sufficient for Council to conduct audits of the Collective or Programme, including where appropriate sample audits of individual members, rather than universal member auditing by Council.</p>
Decision Sought	Amend 24.d to read “including, <i>where appropriate, sample</i> auditing of member properties.” or similar wording to achieve the outcome sought in this submission.

Plan Provision	5.10.3.25. Industry Programmes and Catchment Management
Concerns & Reasons	<p>This policy requires landowners to have a Farm Environment Plan if the landowner is not part of an Industry Programme or Catchment Collective.</p> <p>The policy fails to account for situations where the landowner’s land is managed by other party such that the landowner’s land is part of an Industry Programme or Catchment Collective, as is often likely to be the case with leased land.</p>
Decision Sought	Amend 25 to read “Where a landowner’s <i>land</i> is not part of an Industry Programme or Catchment Collective, the Council will require development and implementation of a Farm Environment Plan. ” or similar wording to achieve the outcome sought in this submission.

Plan Provision	5.10.3.26 Land Use Change and Nutrient Losses
Concerns & Reasons	<p>This policy requires Council to take various actions in respect of non-compliant members of a Landowner Collective or Industry Programmes.</p> <p>This policy fails to recognise compliance mechanisms within a Landowner Collective or Industry Programme (which are a requirement in Schedule 30 and require approval by Council under Policy 24.c) and is unclear about when enforcement action under Policy 26.c should be undertaken.</p>
Decision Sought	<p>Add a new clause 26.a to read “work initially with the Catchment Collective or Industry Programme to achieve compliance through the Catchment Collective or Industry Programme rules;” or similar wording to achieve the outcome sought in this submission.</p> <p>Amend 26.c (now 26.d) to read “<i>where the processes in Policy 26.a-c have been exhausted,</i> take appropriate enforcement action.” or similar wording to achieve the outcome sought in this submission.</p>

Plan Provision	5.10.3.27. Timeframes; Water and Ecosystem Quality
Concerns & Reasons	This policy applies inconsistent terms for milestone times. Stock exclusion is by “2023”, some milestones do not have a timetable referenced at all and some have a timetable by reference to years from the operative date of the Plan (either directly, or indirectly via priority in Schedule 28). Also some Plan timeframes related to water and ecosystem quality (eg. farm environment plans) are omitted.
Decision Sought	Amend the table to adopt a consistent, explicit and comprehensive approach to inclusion of milestone timeframes, preferably by reference to the operative date of the Plan.

Plan Provision	5.10.3.34. Monitoring and Review
Concerns & Reasons	This policy provides for “regular” meetings “with representatives from TANK stakeholder groups” but is light on detail of the structure and function of such meetings. Overall the provision appears to be consultative rather than collaborative, so does not reflect best participatory practice in catchment management and governance.
Decision Sought	Amend Policy 34 to require Council to establish and maintain a community catchment governance body to oversee subcatchment activities within the TANK catchments. We suggest that this should comprise representatives from the Regional Planning Committee, together with representatives from each of the subcatchments and should meet at least bi-annually.

Plan Provision	5.10.6.36. Heretaunga Plains Aquifer Management
Concerns & Reasons	<p>This policy requires Council to “adopt a staged approach to groundwater management that includes: f) avoiding further adverse effects by not allowing new water use and g) reducing existing levels of water use”.</p> <p>The requirement to “not allow new water use” is needlessly restrictive and ostensibly prohibits ANY new [take and] use, including use of new water stored under the high flow allocation provisions of the Plan, as well as potentially the replacement of expiring consents.</p> <p>Similarly, the requirement to “reduced existing levels of water use” precludes use of new stored water and fails to recognise that the interim allocation limit of 90 million cubic meters is intended to align with previous actual water usage and that the Heretaunga Plains Aquifer is considered to be overallocated based on cumulative consented volume (sometimes referred to as “paper volume”) but not on cumulative consented actual use.</p>
Decision Sought	<p>Amend Policy 36.f to read “avoiding further adverse effects by <u>controlling net groundwater use within the interim allocation limit set out in Policy 37</u>” or similar wording to achieve the outcome sought in this submission.</p> <p>Amend Policy 36.g to read “<u>reducing existing levels of encouraging water use efficiency.</u>” or similar wording to achieve the outcome sought in this submission.</p>

Plan Provision	5.10.6.37.a Heretaunga Plains Aquifer Management
Concerns & Reasons	This policy refers to adoption of an interim allocation limit of 90 million cubic meters per year “based on the actual and reasonable water use prior to 2017”. It is incorrect to express the allocation limit in this way, as setting of the limit has nothing to do with either “actual and reasonable water use prior to 2017” (it is a modelled estimate of peak “actual” use) or “Actual and Reasonable” as defined in Chapter 9.
Decision Sought	Amend Policy 37.a to read “adopt an interim allocation limit of 90 million cubic meters per year based on the <u>actual and reasonable modelled peak</u> water use prior to 2017;” or similar wording to achieve the outcome sought in this submission.

Plan Provision	5.10.6.37.b Heretaunga Plains Aquifer Management
Concerns & Reasons	This policy requires Council to “avoid re-allocation of any water that might become available within the interim groundwater allocation limit or within the limit of any connected water body until there has been a review of the relevant allocation limits within this plan”. The Policy is needlessly restrictive and ostensibly prohibits ANY new allocation (notwithstanding Policy 45.a), including allocation of groundwater made available through offset, augmentation or recharge from new water stored under the high flow allocation provisions of the Plan. It is also unclear what constitutes “a review of the relevant allocation limits within this plan” and when this is intended to occur. The net result of both issues is to nullify the provisions in the Plan facilitating offset, augmentation and recharge, which are intended to promote the objectives of the Plan.
Decision Sought	Amend Policy 37.b to read “avoid re-allocation of any water that might become available within the interim groundwater allocation limit (<u>not including water made available by high flow take and release and by offset or managed aquifer recharge</u>) or within the limit of any connected water body until there has been a review of the relevant allocation limits within this plan;” or similar wording to achieve the outcome sought in this submission.

Plan Provision	5.10.6.37.c Heretaunga Plains Aquifer Management
Concerns & Reasons	This policy requires Council to “manage the Heretaunga Plains Water Management Unit as an over-allocated management unit and prevent any new allocations of groundwater”. The Policy is needlessly restrictive and ostensibly prohibits ANY new allocation (notwithstanding Policy 45.a), including allocation of groundwater made available through offset, augmentation or recharge from new water stored under the high flow allocation provisions of the Plan, or from new managed aquifer recharge that does not rely on new stored water.
Decision Sought	Amend Policy 37.c to read “manage the Heretaunga Plains Water Management Unit as an over-allocated management unit and prevent any new allocations of groundwater (<u>not including water made</u> ”

	<u><i>available by high flow take and release and by offset or managed aquifer recharge</i></u> ” or similar wording to achieve the outcome sought in this submission.
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Plan Provision	5.10.6.37.d(ii) Heretaunga Plains Aquifer Management
Concerns & Reasons	<p>This policy requires Council to “when considering applications in respect of existing consents due for expiry, or when reviewing consents, to; ... (ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to August 2017...”.</p> <p>The intent of this policy is understood to be to provide for replacement consent volumes not exceeding the highest use in the driest year in recent history (generally considered to be the 2012/13 water year), for landuse as at August 2017 (the point at which HBRC publicised the decision to cap groundwater usage at current peak dry-year levels). However, since TANK completed and the Plan was drafted, Hawke’s Bay has experienced a severe drought in 2019/20 water year. Given this recent experience and vastly improved water meter data collection in the most recent years, we consider that the 2019/20 water year data should be available as a benchmark dry year.</p> <p>More fundamentally, we disagree with the definition of “Actual and Reasonable” and its inequitable and unworkable approach to allocation of water for replacement of consents that existed as at August 2017. Due to the lack of reliable and comprehensive water metering data from 2012/13 and the impact of vine age and redevelopment timing on actual annual vineyard irrigation requirements, practical difficulties in evidencing historical landuse activities and the risk of penalising efficient users at the expense of inefficient ones, we consider that there should be a presumption that the Hawke’s Bay-specific IRRICALC model is the appropriate measure of “Actual and Reasonable” for the purpose of calculating allocations for those replacement consents.</p>
Decision Sought	<p>Amend Policy 37.d(ii) to read “(ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to <u><i>August 2017 30 June 2020 (the end of the 2020 water year)</i></u>...” or similar wording to achieve the outcome sought in this submission.</p> <p>Amend the Glossary definition of “Actual and Reasonable to provide that the volume allocated at consent renewals is the lesser of:</p> <ul style="list-style-type: none"> - the amount calculated by a Hawke’s Bay-specific IRRICALC model at 95% security of supply; - the volume of the expiring consent being replaced.”, <p>or similar wording to achieve the outcome sought in this submission.</p>

Plan Provision	5.10.6.38. Heretaunga Plains Aquifer Management
Concerns & Reasons	<p>This policy requires Council to “restrict the re-allocation of water to holders of permits to take and use water in the Heretaunga Water Management Unit issued before 2 May 2020”.</p> <p>The Policy is needlessly restrictive and ostensibly restricts ANY new allocation, including allocation of groundwater made available through</p>

	offset, augmentation or recharge from new water stored under the high flow allocation provisions of the Plan.
Decision Sought	Amend Policy 38 to read “restrict the re-allocation of water <i><u>(not including water made available by high flow take and release and by offset or managed aquifer recharge)</u></i> to holders of permits to take and use water in the Heretaunga Water Management Unit issued before 2 May 2020” or similar wording to achieve the outcome sought in this submission.

Plan Provision	5.10.6.39. Flow Maintenance
Concerns & Reasons	<p>This policy subjects consented water users in the Heretaunga Plains Water Management Unit to a regime which requires them to either participate in stream flow maintenance and habitat enhancement schemes, or cease abstraction once a stream flow maintenance trigger is reached.</p> <p>When this policy was conceived in TANK, it was intended to apply initially to 3 named lowland streams which HBRC science indicated were suitable for a stream flow maintenance scheme. Post-TANK, the Plan has incorporated all streams as well as the mainstem of the Ngaruroro River and this policy is OPPOSED by HBWG on five main grounds:</p> <ol style="list-style-type: none"> 1. The flow maintenance requirement now proposed, extends far beyond that supported in TANK and the need for such extension has not been justified. 2. In TANK, it was envisaged that HBRC would play a central role in establishing the 3 then-proposed lowland stream augmentation schemes. As HBRC hold all the relevant scientific and technical information required to operationalise such schemes, it is critical that HBRC takes on a central role in their development. 3. Large temporal and spatial spread of consent expiries and large consent numbers make it impractical and inequitable to require consent holders to take full responsibility for the development. 4. No allowance for an orderly transition to any new stream augmentation has been made. The currently proposed provisions could apply immediately from notification of the Plan Change, including to a very large number of currently expired consents (particularly groundwater takes in the unconfined aquifer), whereas stream augmentation schemes may be reasonably expected to take years to commission, particularly the kind of large-scale schemes that would be required to maintain flows in the Ngaruroro River. 5. Consent reallocations under the “Actual and Reasonable” provision of the Plan based on 95% certainty of supply do not provide sufficient water volume to support stream augmentation in dry years and so would decrease the effective certainty of supply of consents.
Decision Sought	HBWG understands that HBRC will be submitting a proposed alternative approach to the requirements in Policy 39. HBWG supports, in principle, jointly-funded collective stream flow

	<p>maintenance schemes on suitable lowland streams, facilitated by HBRC.</p> <p>Note that consequential changes in the TANK rules 9 & 10 will be required, to remove the Stream Flow Maintenance Scheme membership condition.</p>
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Plan Provision	5.10.6.41. Flow Maintenance
Concerns & Reasons	<p>This policy requires Council, if feasible, to develop a scheme to off-set the cumulative stream depletion effects of all groundwater takes in the Heretaunga Plains Water Management Unit on the mainstem of the Ngaruroro River. HBWG OPPOSES this policy on the basis that it predetermines that fully offsetting the cumulative effects of the groundwater takes is rational, as opposed to feasible. Human activity on the Heretaunga Plains has altered the landscape and hydrology in a myriad of ways which are unrealistic and unnecessary to offset and no rationale has been given for choosing to offset the particular effect of groundwater extraction (in part or in whole), as opposed to say offsetting the effects of building stopbanks and developing land drainage. The cumulative effects of the groundwater takes are understood to have been modelled by HBRC at approximated 1000L/s, which would constitute a massive undertaking to store and release sufficient water (with unknown effects on the river at times when this may constitute a very large proportion of naturalised flow may). This also goes beyond the aims and requirements of the lowland stream augmentation schemes envisaged by Policy 39, which are intended to augment to achieve certain levels of instream values (eg oxygen saturation) rather than fully offset the cumulative stream depletion effect of groundwater takes. A more clearly justifiable target may be to augment the Ngaruroro River mainstem to a minimum flow level.</p>
Decision Sought	<p>Amend Policy 41 to read: “The Council will remedy the stream depletion effects of groundwater takes in the Heretaunga Plains Water Management Unit on the Ngaruroro River, in consultation with mana whenua, land and water users and the wider community through:</p> <p>a) further investigating the environmental, technical, cultural and economic feasibility of a water storage and release scheme to off-set the cumulative stream depletion effect of groundwater takes <i>to the extent required to maintain the Ngaruroro River at or above the Minimum Flow specified in Schedule 31;</i>”</p> <p>Note that consequential changes in the TANK rules 9 & 10 will be required, to remove the Stream Flow Maintenance Scheme membership condition.</p>

Plan Provision	5.10.6.42. Groundwater management review
Concerns & Reasons	<p>This policy requires Council to review groundwater management policies 36-38 after water reallocation and consent reviews are completed, within 10 years of the Plan becoming operative.</p> <p>Current drafting includes recognition of any stream flow maintenance and habitat enhancement schemes but does not include recognition of any groundwater augmentation schemes, which may arise and may relevant to water management decisions and should be allowed for.</p>

Decision Sought	<p>Amend Policy 42.d to read “the extent of any stream flow maintenance, <u>groundwater augmentation</u> and habitat enhancement schemes...” or similar wording to achieve the outcome sought in this submission.</p> <p>Amend Policy 42.e(ii) to read “effectiveness of <u>any</u> stream flow maintenance schemes and <u>groundwater augmentation schemes</u> in maintaining water flows <u>and levels</u> ...” or similar wording to achieve the outcome sought in this submission.</p>
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Plan Provision	5.10.7.45.d General Water Allocation Policies
Concerns & Reasons	<p>This policy provides a stream augmentation option for water permits newly recategorised as stream-depleting in Zone 1, to avoid having to cease water takes based on a minimum flow trigger.</p> <p>The policy will need to be amended to align with any changes to the flow maintenance provisions in Policy 39.</p>
Decision Sought	Modify 5.10.7.45.d as required to align with any changes to Policy 39.

Plan Provision	5.10.7.47.b Water Use and Allocation - Efficiency
Concerns & Reasons	This clause refers to an “IRRICALC water demand model” but the model is not defined in the Plan.
Decision Sought	Include a definition of “IRRICALC water demand model” in the Glossary that reflects the agreement to develop a Hawke’s Bay-specific model.

Plan Provision	5.10.7.47.f Water Use and Allocation - Efficiency
Concerns & Reasons	<p>This clause requires irrigation and other water use systems to be maintained and operated in accordance with any applicable industry codes of practice. It does not provide any guidance on which code of practice applies in the event that there are multiple codes of practice. For example, SWNZ is an industry code of practice for overall sustainability, that includes operation and management practices for irrigation systems. There are also generic irrigation industry codes of practice. Where an industry has developed an industry-specific code of practice, this should be the preferred standard in the Plan.</p>
Decision Sought	Amend 5.10.7.47.f to read “...maintained and operated to ensure ongoing efficient water use in accordance with <u>any the most relevant applicable</u> industry codes of practice.” or similar wording to achieve the outcome sought in this submission.

Plan Provision	5.10.7.49. Water Allocation – Permit Duration
Concerns & Reasons	<p>This clause requires Council to set common expiry dates for water permits to take water in each water management zone.</p> <p>Whilst this is sensible, it has the unintended consequence of potentially requiring all grouped consent renewals to be publicly notified, as the</p>

	<p>cumulative effects of all the consents are likely to be “more than minor”.</p> <p>Public notification requirement caused in this way duplicates the TANK process and other processes within the Plan Change. To avoid unnecessary processing time and cost, the policy should provide that the combining of consents should not of itself trigger the requirement for public notification.</p>
Decision Sought	Amend 5.10.7.49 to ensure that public notification of consents is not required, if the requirement is triggered only by the cumulative effect of consents that individually have no more than minor effect.

Plan Provision	5.10.7.49.f Water Allocation – Permit Duration
Concerns & Reasons	This clause requires Council to take into account changes in the efficacy of flow enhancement schemes and any riparian margin upgrades when making decisions about water permits. It fails to recognise the effect of introduction of new flow enhancement and aquifer recharge schemes, which are relevant considerations as they too may have relevant effects.
Decision Sought	Amend 5.10.7.49.f to read “ <u>efficacy operation</u> of flow enhancement <u>and aquifer recharge</u> schemes and any riparian margin upgrades;” or similar wording to achieve the outcome sought in this submission.

Plan Provision	5.10.7.51. Water Allocation – Priority
Concerns & Reasons	This clause provides for an emergency water management group when making water shortage directions under Section 329 of the RMA, with the group including representatives from various sectors of the community but not including the primary sector. As decisions made in consultation with this group relate inter alia to the provision of water essential for the maintenance of animal welfare and survival of horticultural tree crops and to seasonal demand for primary production, the primary sector should also be represented in the group.
Decision Sought	Amend 5.10.7.51 to read “...emergency water management group that shall have representatives from Napier City and Hastings District Councils, NZ Fire Service, DHB, iwi, <u>affected primary sector groups</u> and MPI, to make decisions ...” or similar wording to achieve the outcome sought in this submission.

Plan Provision	5.10.7.52.a. Over-Allocation
Concerns & Reasons	<p>This policy requires Council to prevent “any new allocation of water (not including any reallocation in respect of permits issued before 2 May 2020)”.</p> <p>The Policy is needlessly restrictive and ostensibly restricts ANY new allocation, including allocation of groundwater made available through offset, augmentation or recharge from new water stored under the high flow allocation provisions of the Plan.</p>
Decision Sought	Amend 5.10.7.52 to read “...any new allocation of water (not including any reallocation in respect of permits issued before 2 May 2020 <u>and new water made available by high flow take and release and by offset</u> ”

	<i>or managed aquifer recharge</i>)” or similar wording to achieve the outcome sought in this submission.
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Plan Provision	5.10.8.59. High Flow Reservation
Concerns & Reasons	<p>This policy requires Council to allocate “20% of the total water available at times of high flow in the Ngaruroro or Tūtaekurī River catchments for abstraction, storage and use for” contributions to environmental enhancement and Māori development.</p> <p>This policy originated in an agreement in TANK to reserve 20% of any NEW high flow allocation for Māori development, then underwent significant development and change as Council explored ways to operationalise it and through iwi and RPC consultations.</p> <p>The resulting policy has some fundamental differences to that originally agreed in TANK:</p> <ol style="list-style-type: none"> 1. The Policy refers to the Ngaruroro OR Tūtaekurī River catchments” (emphasis added), whereas the intention in TANK was for it to apply to BOTH rivers. This may just be a drafting error. 2. The Policy now covers water for both Māori development and environmental enhancement but Schedule 32 only refers to Māori development. 3. The allocation rate of 1600L/s for the Ngaruroro River in Schedule 32 represents 20% of the total high flow allocation limit for that river, whereas the TANK agreement was for 20% of the new allocation (6000L/s), ie 1200L/s. 4. Policy 60 now embodies the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the allocation. 5. The Policy now requires “allocation” rather than “reservation”, with uncertain implications for private sector interests.
Decision Sought	<p>Policy 59 needs significant re-write to address the above inconsistencies between the policy as it now stands and the framework agreed in TANK. It should distinguish clearly between water for environmental enhancement and water for Māori development, reduce the proposed Māori development reservation for the Ngaruroro River from 1600L/s to 1200L/s in line with the 20% new-water allocation agreed at TANK and remove the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the high flow allocation.</p>

Plan Provision	5.10.8.60. High Flow Reservation
Concerns & Reasons	<p>This policy requires Council to take into account various matters relating to a 20% reservation of high flow water allocation for Māori development when making decisions about resource consent applications to take and store ALL high flow water, based around tests of whether “cost effective or practicable options” exist for incorporating water for Māori development.</p>

	<p>This sets up the presumption that the private sector will fund the development of water storage for Māori development, in whole or in part. Whilst it is not unreasonable to consider the existence of such arrangements, such a presumption unreasonable and amounts to the privatisation of what should be Central Government costs in terms of the national Treaty partnership.</p> <p>The broad concept of a 20% high flow reservation for Māori development arose from TANK but there was no discussion or agreement on private sector funding of supporting infrastructure.</p>
Decision Sought	<p>Amend Policy 60 to read “When making decisions about resource consent applications to take and store high flow water, the Council <i>will may</i> take into account <i>the following matters: a) whether water allocated any benefits</i> for development of Māori well-being.” [deleting the wording in clauses b-f], or similar wording to achieve the outcome sought in this submission.</p>

Plan Provision	Rule TANK 1 Use of Production Land
Concerns & Reasons	<p>This rule provides that use of production land exceeding 10 hectares is a permitted activity where a Farm Environment Plan, Industry Programme or Catchment Collective covers the property.</p> <p>This approach does not recognise the recent policy advances made nationally via the government’s Essential Freshwater package and in particular the Resource Management Amendment Act 2020, which provides for a national framework of “freshwater farm plans”, to be operationalised via S.360 regulations.</p> <p>HBWG considers that the references to and requirements for a Farm Environment Plan in this Plan Change ought to be aligned with the Resource Management Amendment Act 2020 and related S.360 regulations and that these national requirements should be adopted by the Plan Change, in the interests of national standardisation and longer-term efficiency.</p>
Decision Sought	<p>Amend all references to Farm Environment Plan in this Plan Change to “freshwater farm plan” and otherwise align the Plan Change requirements to those of the Resource Management Amendment Act 2020 and related S.360 regulations.</p>

Plan Provision	Rule TANK 2 Use of Production Land
Concerns & Reasons	<p>This rule provides that use of production land exceeding 10 hectares is a controlled activity where a Farm Environment Plan, Industry Programme or Catchment Collective does not cover the property.</p> <p>As with Rule TANK 1, this approach does not recognise the recent policy advances made nationally via the government’s Essential Freshwater package and in particular the Resource Management Amendment Act 2020, which provides for a national framework of “freshwater farm plans”, to be operationalised via S.360 regulations.</p> <p>HBWG considers that the references to and requirements for a Farm Environment Plan in this Plan Change ought to be aligned with the Resource Management Amendment Act 2020 and related S.360 regulations and that these national requirements should be adopted by</p>

	the Plan Change, in the interests of national standardisation and longer-term efficiency.
Decision Sought	Amend all references to Farm Environment Plan in this Plan Change to “freshwater farm plan” and otherwise align the Plan Change requirements to those of the Resource Management Amendment Act 2020 and related S.360 regulations.

Plan Provision	Rule TANK 2/4/5/6/9/10 – References to SPZs
Concerns & Reasons	<p>These rules governing land use and water takes all contain provisions including actual or potential effect of the activity in the SPZs on Registered Drinking Water Supplies. This introduces potentially significant cost and uncertainty for winegrowing, which is one of the major landuse activities in the SPZs. Such risks can and will already be assessed via Farm Environment Plans or Collectives in terms of Schedule 30, so separate inclusion in the consenting process is an unnecessary duplication.</p> <p>Retaining the reference in TANK 2 will ensure that a risk assessment will still be made in the event that a property does not have a Farm Environment Plan or is not part of an Industry Programme or Catchment Collective.</p>
Decision Sought	Remove the references to assessment of actual or potential effects of activities in the SPZs on Registered Drinking Water Supplies from Rules TANK 4/5/6/9/10.

Plan Provision	Rule TANK 5
Concerns & Reasons	<p>This rule controls land use change to production land use activity over more than 10% of a property or farming enterprise.</p> <p>The rule gives no guidance on what constitutes “change to the production land use activity”, with the result that it is highly uncertain what types of activity are controlled and the rule cannot be practically enforced. For example, is a change from conventional farming to organic farming captured? A change in planting density?</p> <p>Also the rule fails to account for the possibility that a farming enterprise may span multiple water quality management units within a Surface Water Allocation Zone, which may then unintentionally permit land use change beyond 10% of the farming enterprises’ properties within a water quality management unit.</p>
Decision Sought	The rule needs further development to give more guidance on what changes are intended to be controlled and to control change by farming enterprises within a water quality management unit more appropriately.

Plan Provision	Rule TANK 6
Concerns & Reasons	This rule restricts change to production land use activity over more than 10% of a property or farming enterprise where there is no Catchment Collective or Industry Programme operative, where modelled land use change effect on total property nitrogen loss exceeds

	<p>the figures in Table 2 of Schedule 29. Table 2 is populated from per-hectare figures for common primary production systems. The per-hectare figure of 1kg/ha/yr provided for Grapes for Esk/Omahu/Pakipaki Soils is unrealistically low & clearly fails to account for the autumn/winter sheep grazing rotation that commonly occurs on vineyards.</p> <p>Also the Plan Change does not record the version of the models employed to derive the crop loss figures, so is not future-proofed against the effect of future model changes.</p>
Decision Sought	<p>Adjust the Grape kg/ha/yr for all soils to recognise winter sheep grazing rotation.</p> <p>Include details of crop model versions used to derive the crop loss figures in Schedule 29 and include a mechanism to address the effects of model and/or version changes to modelled outputs.</p>

Plan Provision	Rule TANK 11a) (ii) ii
Concerns & Reasons	<p>This rule is intended inter alia to permit allocation of water that becomes available as a result of new high flow water storage activities. However, it fails to account for the possibility of managed aquifer recharge systems which may have an equivalent effect on the overall water balance in a catchment and therefore should also be provided for.</p>
Decision Sought	<p>Amend to Rule TANK 11a) (ii) ii read: “takes of water associated with and dependant on release of water from a water storage impoundment <i>or from a managed aquifer recharge scheme.</i>” or similar wording to achieve the outcome sought in this submission.</p>

Plan Provision	Rule TANK 13
Concerns & Reasons	<p>This rule provides for capture, storage and use of surface water at times of high flow. We consider this to be a critical element of the overall Plan Change, providing the opportunity to re-engineer the Heretaunga Plains water use profile in a way that multiple & often conflicting interests and values can be addressed.</p>
Decision Sought	<p>Supported, subject to amendments to POL 59 & 60 to address concerns about drafting details relating to the 20% Māori/environment reservation.</p>

Plan Provision	Rule TANK 22
Concerns & Reasons	<p>This rule appears to be intended to regulate large-scale stormwater discharge from industrial and trade premises. It is somewhat difficult to understand the differences between TANK Rules 19, 20 and 22 which all relate at least in part to this activity. However, as Rule 22 refers to “ANY industrial or trade premises” (emphasis added), it appears that there is a duplication and that Rule 22 should only apply to premises not covered by Rules 19 and 20.</p> <p>Also Condition a) in Rule 22, in requiring an “Urban Site Specific Stormwater Management Plan (Schedule 34)” appears to fail to allow for the possibility that the site may be a rural one. Schedule 34: Urban</p>

	Site Specific Stormwater Management Plan appears though to be generic and potentially suited to both urban and rural application. A further nomenclature complication is that the body of Schedule 34 refers to a Site Management Plan, introducing another terminology.
Decision Sought	Amend Rule TANK 22 to include the following new Condition: “ <u><i>The activity does not comply with the conditions of Rule TANK 20</i></u> ” or similar wording to achieve the outcome sought in this submission. Amend Schedule 34 title and site plan terminology (and provisions, if appropriate) to remove inconsistencies and allow for rural locations.

Plan Provision	Chapter 6.9 - 6.3.1 Bore Drilling & Bore Sealing, Rule 1
Concerns & Reasons	This rule change has the effect of making bore drilling within a Source Protection Zone (SPZ) a Restricted Discretionary activity, as opposed to a Controlled activity. The proposed SPZs cover extensive areas of the Heretaunga Plains, particularly in the unconfined aquifer zone where many vineyards are located. The proposed Plan brings in intensive controls over activities in the SPZs and are specifically drawn to capture areas of unconfined aquifer upstream of protected water takes. Given the already-permeable nature of the unconfined aquifer area that comprises the bulk of the SPZs and other substantial controls over landuse activities, there is negligible additional benefit in controlling bore drilling in this area where the bore is a replacement for existing infrastructure. Also the additional expense and uncertainty of Restricted Discretionary status is likely to act as a deterrent to bore replacement as part of a normal maintenance cycle. Accordingly, bore drilling for the purpose of replacement of existing infrastructure in the SPZs should remain a Controlled activity.
Decision Sought	Add a Condition to 6.3.1 Rule 1 reading: “ <u><i>c. The bore is located within a Source Protection Zone but is a replacement for an existing bore that will be decommissioned.</i></u> ” or similar wording to achieve the outcome sought in this submission.

Plan Provision	Chapter 6.9 - 6.3.3 Vegetation clearance and soil disturbance Rule 7
Concerns & Reasons	This rule change is intended inter alia to restrict cultivation of land that results in exposure of bare soil within 5m-15m buffer zones (depending on slope) around waterbodies. In order to do such cultivation, a resource consent would have to be obtained under RRMP Rule 8. Such a restriction unduly compromises the development or redevelopment of permanent crops such as grapevines, where headlands may be adjacent to waterbodies and may require cultivation on an infrequent basis to facilitate machinery movements. It risks the perverse outcome of headland areas being converted into hardstand areas by landowners to avoid the need for a resource consent to maintain these areas, with irreversible effects on the underlying and adjacent soils. We also note that there appears to be a contradiction in the existing definition of “Soil disturbance” in the RRMP, which on the one hand “means the disturbance of soil by any means including blading,

	contouring, ripping, discing, root raking, moving, ploughing, removing, cutting and blasting” but on the other hand excludes “Cultivation and grazing”.
Decision Sought	<p>Add a further exclusion to the definition of “Soil disturbance” in 6.3.3 Rule 7 “<u>“Cultivation required to facilitate machinery movements for permanent crops.”</u>” or similar wording to achieve the outcome sought in this submission.</p> <p>Further amend the definition of “Soil disturbance” in 6.3.3 Rule 7 to remove the existing contradiction and to clarify what forms of cultivation are included.</p>

Plan Provision	Chapter 6.9 - 6.7.3 Transfer of Water Permits Rule 62a
Concerns & Reasons	<p>This rule change is intended introduce new controls on water permit transfers in the TANK catchments.</p> <p>We consider that two of the proposed Conditions require amendment:</p> <p>“d. i. for groundwater takes in the Heretaunga Plains Water Management Unit (Quantity). the transfer is to any point downstream of any affected stream;”</p> <p>Assuming a normal geographic distribution of transfer applications, approximately half of all applications in the HPWMU are likely not to meet the above Condition and therefore become a Discretionary activity. This is inefficient and unwarranted by the risk of material impact on the HPWMU from transfers, due to the generally high transmissivity of the aquifer in this area.</p> <p>“e. the transfer of a groundwater take is to an existing bore for which pump tests are available and there is no change to the nature and scale of drawdown effects on neighbouring bores or connected waterbodies as a result of the transfer”</p> <p>This condition does not contain any materiality test and due to the high density of bores throughout the TANK catchments and the generally high transmissivity of the aquifers, few transfer applications are likely to meet this test. Again, this is inefficient and would largely nullify Controlled activity status for water transfers in the TANK catchments, defaulting them to Discretionary, which will be counterproductive to the efficient redistribution of water usage over time.</p>
Decision Sought	Delete Condition d.i for the Heretaunga Plains Water Management Unit (Quantity) and introduce a materiality test for nature and scale of drawdown effects on neighbouring bores or connected waterbodies as a result of transfers.

Plan Provision	Schedule 29: Land Use Change
Concerns & Reasons	This Schedule sets out modelled crop nitrogen loss factors that are required to be applied in Rule 6 to restrict change to production land use activity over more than 10% of a property or farming enterprise where there is no Catchment Collective or Industry Programme

	<p>operative. Table 2 is populated from per-hectare figures for common primary production systems. The per-hectare figure of 1kg/ha/yr provided for Grapes for Esk/Omahu/Pakipaki Soils is unrealistically low & clearly fails to account for the autumn/winter sheep grazing rotation that commonly occurs on vineyards.</p> <p>Also the Plan Change does not record the version of the models employed to derive the crop loss figures, so is not future-proofed against the effect of future model changes.</p>
Decision Sought	<p>Adjust the Grape kg/ha/yr for all soils to recognise winter sheep grazing rotation.</p> <p>Include details of crop model versions used to derive the crop loss figures in Schedule 29 and include a mechanism to address the effects of model and/or version changes to modelled outputs.</p>

Plan Provision	Schedule 30: Landowner Collective, Industry Programme and Farm Environment Plan
Concerns & Reasons	<p>Schedule 30 sets out the requirements for Farm Environment Plans, Landowner Collectives and Industry Programmes, as a method primarily to address the cumulative effects of landuse. We support this general approach over more prescriptive approaches, as it provides flexibility for landowners to achieve environmental objectives in the most efficient ways.</p> <p>The NZ wine industry has a longstanding and highly respected industry sustainability programme (Sustainable Winegrowing New Zealand - SWNZ), which the industry intends to further develop to achieve equivalency with a Farm Environment Plan. However, as the environmental profile of vineyards is dramatically different from (and in most respects lower than) that of other major primary industries, SWNZ does not comfortably fit within the PC9 framework and it is inefficient and counterproductive to apply an essentially pastoral-farming approach to viticulture.</p> <p>Schedule 30 also does not recognise the recent policy advances made nationally via the government's Essential Freshwater package and in particular the Resource Management Amendment Act 2020, which provides for a national framework of "freshwater farm plans", to be operationalised via S.360 regulations.</p> <p>HBWG considers that the references to and requirements for a Farm Environment Plan in this Plan Change ought to be aligned with the Resource Management Amendment Act 2020 and related S.360 regulations and that these national requirements should be adopted by the Plan Change, in the interests of national standardisation and longer-term efficiency.</p>
Decision Sought	<p>Schedule 30 should be less prescriptive, more facilitative and more industry risk profile-based in respect of Industry Programmes. The Programme Requirements in Section B of Schedule 30 as they relate to Industry Programmes should be re-cast as a more of a guideline, with an acknowledgement that detailed requirements can vary depending on the Industry's risk and emissions profile as it relates to catchment objectives.</p> <p>Amend all references to Farm Environment Plan in this Plan Change to "freshwater farm plan" and otherwise align the Plan Change</p>

	requirements to those of the Resource Management Amendment Act 2020 and related S.360 regulations.
Plan Provision	Chapter 9 Glossary of Terms Used “Actual and Reasonable”
Concerns & Reasons	Refer to our comments above on 5.10.6.37d.ii Heretaunga Plains Aquifer Management
Decision Sought	Amend the Glossary definition of “Actual and Reasonable to provide that the volume allocated at consent renewals is the lesser of: <ul style="list-style-type: none"> - the amount calculated by a Hawke’s Bay-specific IRRICALC model at 95% security of supply; - the volume of the expiring consent being replaced.” or similar wording to achieve the outcome sought in this submission.

Minor drafting points

Plan Provision	OBJ TANK 11
Decision Sought	Amend to read "...and the taking, using <u>g</u> damming...".
Plan Provision	OBJ TANK 12.b
Decision Sought	Amend to read "...especially whitebait...". (deleting unnecessary comma)
Plan Provision	OBJ TANK 15.g
Decision Sought	Consider relocating detailed wetland targets into a policy for drafting consistency.
Plan Provision	5.10.2.5.a
Decision Sought	Amend to read "...by reduc <u>ing</u> the amount of sediment..."
Plan Provision	5.10.2.9.g
Decision Sought	Delete clause as is a duplication with a)
Plan Provision	5.10.2.11.h
Decision Sought	Amend to read "...assists <u>y</u> in weed control."
Plan Provision	5.10.2.16.e
Decision Sought	Amend to read "...maintain <u>ing</u> flushing flow;"
Plan Provision	5.10.3.26.b(i)
Decision Sought	Amend to read "...development of a <u>F</u> arm <u>E</u> nvironment <u>P</u> lan....;"
Plan Provision	5.10.3.26.b (and others)
Decision Sought	Amend to read "...development of a <u>F</u> arm <u>E</u> nvironment <u>P</u> lan....;"
Plan Provision	5.10.3.27.
Decision Sought	The reference to Schedule 29 as the milestone for stock exclusion and sediment mitigation should refer to Schedule <u>28</u> .
Plan Provision	5.10.7.46.b
Decision	The reference to "actual and reasonable" should be capitalised as this is a defined term in the Glossary.

Sought	
Plan Provision	Rule TANK 5 – Conditions/Standards/Terms
Decision Sought	Amend to read “...subject to a Catchment Collective Programme meeting the requirements of Schedule 30B or by a TANK Catchment Collective...
Plan Provision	Chapter 6.9 - 6.7.3 Transfer of Water Permits Rule 62a
Decision Sought	Amend to read “...“f. The transfer does not result in an increase in nitrogen loss exceeding the amounts as specified in Table 2 in Schedule 29”
Plan Provision	Schedule 32: High Flow Allocation
Decision Sought	Delete unnecessary asterisk: “8,000 litres per second * ”

HBWG wishes to present our views at a public meeting.

HBWG would consider presenting a joint case with others making a similar submission to HBWG.

HBWG wishes to attend any pre-hearing meeting that may be convened.

DATED at Hastings this 14th day of August 2020

Xan Harding

Director, Hawke's Bay Winegrowers' Association Inc.

Appendix 1 – Extracts from HBWG’s GI Application demonstrating the reputation of Hawke’s Bay wine and the industry’s reliance on reliable supply of high-quality irrigation water

a. Overall Standing of the Hawke’s Bay Wine Industry

“Hawke’s Bay is particularly well known for wines produced from the Cabernet/Merlot, Syrah and Chardonnay. Together these three styles made up 54 % of Hawke’s Bay’s production. The Bordeaux varieties: Merlot, Cabernet Sauvignon, Cabernet Franc and Malbec - either individually or as blends will be referred to as Cabernet/ Merlot in this application. Hawkes Bay produces 80 % of New Zealand Cabernet/ Merlot and Syrah and about 30% of New Zealand Chardonnay. Hawke’s Bay wines dominate the New Zealand fuller bodied red wine category and are a major part of New Zealand’s Chardonnay scene.”

“The bright, red and dark cherry/berry flavours and smooth tannins are proving to be a winner with wine critics and the public now home to the majority of the country’s Syrah plantings, attracting increasing critical attention and acclaim for its high-quality, expressive wines”

“Hawke’s Bay wine production is championed by Bordeaux (Cabernet/Merlot) blends, Syrah and Chardonnay. This mix is unique in New Zealand and is distinct from the production of Sauvignon Blanc and Pinot Noir as seen in the rest of New Zealand. Hawke’s Bay wines are becoming increasingly sought after (proven by consumer demand data). Hawke’s Bay wines are in demand from key export markets (proven by international consumer and trade/merchant demand data)”

“Hawke’s Bay produces some of the best wines and most recognisable New Zealand brands in the world. This reputation is attributable to the geographical origin of wines bearing the Hawke’s Bay GI.

As noted above, Hawke’s Bay’s ‘hero’ varieties are Merlot/ Cabernet, Syrah and Chardonnay, however it also boasts an array of other varieties and styles.

The oldest wineries still survive. Mission Estate, mentioned above, with its 165-year wine-making history, welcomes in excess of 130,000 visitors to the winery a year, with the majestic building being one of the most visited wineries in New Zealand. The winery hosts concerts for some of the biggest names in popular music in the world. Vidal Estate, now owned by Villa Maria, still operates largely independently.

Vidal Wines was first established in 1905 and in 1979 opened New Zealand’s first winery restaurant. The Vidal Legacy Syrah has won several trophies at international competitions. Te Mata Estate, home of world-renowned, iconic wines such as the ‘Coleraine’ Cabernet Merlot and ‘Bullnose’ Syrah, still upholds its tradition of bottling and labelling all its wines on site, before despatch to all four corners of the globe.

Hawke’s Bay’s premium wines regularly win trophies and awards at the full suite of domestic and international wine competitions. For instance, amongst the 7 trophies and 18 gold medals bestowed on Hawke’s Bay wines at the Royal Easter Show Wine Awards 2016, one of New Zealand’s premier wine competitions – a Hawke’s Bay Chardonnay won overall Champion Wine of the Show and another won Champion Chardonnay, plus Hawke’s Bay Chardonnays received 3 gold medals. Hawke’s Bay reds took out the Champion Cabernet Sauvignon & Cabernet Predominant Trophy, Champion Merlot & Merlot Predominant Trophy and Champion Syrah Trophy, and Hawke’s Bay won 12 gold medals for its reds across all categories. This is just one competition by way of example.

In addition, Hawke's Bay's boutique cellar doors and world-class winery-restaurants drive tourism to Hawke's Bay from other parts of New Zealand and from all over the world.

Hawke's Bay Wine Marketing Limited (Hawke's Bay Wine), the regional association's wine marketing subsidiary company, has as its express strategic purpose achieving recognition for the Hawke's Bay as one of the greatest wine regions in the world. Hawke's Bay Wine runs events to promote Hawke's Bay and other domestic and international marketing initiatives to grow the brand 'Hawke's Bay wine' (rather than to promote the interests of a particular winery)."

"The reputation of Hawke's Bay wines domestically and internationally is worthy of, and requires, protection."

b. Climate Influence on Hawke's Bay Wine Industry

"The climate allows for consistent production of later-ripening red varieties and earlier ripening white varieties. The long warm (1470 degree days) growing season and 800 mm of annual rainfall allows later ripening red grapes such as Cabernet Sauvignon and Syrah to fully ripen in the mild autumn weather. "Hawkes Bay's distinctive climate for the vine does distinguish it from other regions of New Zealand. Other parts of the North Island are as hot in summer, some even persistently hotter, but none combine the long, hot growing season with relatively low humidity and low rainfall." Warren Moran."

"However, the climate is not so hot that delicacy is lost in white wines or that the red wines are dull "Plentiful subterranean water allied with modern drip irrigation allows for precise management of water stress in the vineyards. The availability of water even in the driest of seasons ensures full ripeness and finesse and is a luxury that plays a major role in the style of Hawkes bay wines."

c. Water Influence on Hawke's Bay Wine Industry

"Precious Water

Moderate rainfall and warm, dry summers cause most Hawke's Bay vineyard soils to experience excessive water deficit by mid-season unless they are irrigated.

The Heretaunga Plains are blessed to have vast quantities of groundwater in the underlying gravel beds. 85% of the water used on the plains is pumped from these aquifers, which recharge annually thanks to rainfall outside the growing season when water use is at a minimum. Away from the Heretaunga plains, vineyards take water directly from rivers or bores and others collect water in dams. Supply of water for irrigation is rarely a problem for Hawke's Bay vineyards."

"A good water supply is a precious and rare commodity in the world and growers and regional bodies work together to ensure that it is preserved for future generations."

"Drip irrigation is a very efficient use of water. It delivers a precise amount of water to each plant and avoids the evaporative losses associated with sprinkler irrigation. Unlike many of the warmer grape growing regions of the world, Hawke's Bay's very pure river and aquifer water causes no build-up of salt in the soil."

"Drip irrigation is universal. It is necessary for establishing young vines and in most vineyards essential from early summer when the rainfall is insufficient to replace water used by the vines."

d. Geology & Soils Influence on Hawke's Bay Wine Industry

“The reputation of Hawke's Bay as a quality wine region relies to a large extent on the high-quality soils formed by a unique set of geological circumstances. A benign climate and plentiful fresh water for irrigation complete the picture of a blessed grape growing region.”

“Hawke's Bay is well provided with soils of low moisture retention. The beauty of free draining soils is that they enable the vine to be water stressed consistently, even in quite wet seasons. Once, most of the Bay's vineyards could be found on deep, fertile soils east of Hastings, on the Heretaunga Plains. These soils rarely ran low on water. Today, grape growing is mainly west of Hastings, on gravel based soils. Other pockets of grape growing add to the Bay's mix of vineyards. The best of these have moderate to low fertility and water holding capacity and feature gravels, hillside sites or thin soils restricting root growth.

Largest and best known of the vineyard areas on the Heretaunga Plains in Hawke's Bay are the Bridge Pa Triangle and the Gimblett Gravel areas. These areas evolved in a similar way. “

“Over 250,000 years, the three rivers formed alluvial fans across an old subsiding sea basin, extending the coast eastwards. This action, along with marine sedimentation during post glacial periods, formed layers which extend down more than 250 metres to a limestone base. During floods and subsequent changes in course of the rivers, coarse gravel beds and fine impermeable beds were interlaced in layers. The gravel layers contain some of New Zealand's finest aquifers.

The Bridge Pa Triangle Wine District extends over 2000 hectares and the adjacent Gimblett Gravels about half of that. These areas are comprised of old terraces of the Ngaruroro River. The Ngaruroro River initially flowed out on to the developing plain between Maraekakaho and Roys Hill, depositing vast amounts of greywacke gravel known locally as 'red metal'. The stony layers were covered at different times by finer alluvium derived from loess, volcanic ash and greywacke.

About 10,000 years ago, the Ngaruroro filled the southerly channel and changed course to the north of Roys Hill, leaving behind the terraces of the Bridge Pa Triangle. The thin soils that have formed over the gravels here are some of the oldest on the plains.

As it emerged from the eastern end of Roys Hill on its new course, the river turned south and flowed towards what is now Hastings. The Gimblett Gravels was formed as alluvium was deposited in times of flood. Also of note in this area are the soils containing alluvial pumice formed after the Taupo Eruption 1800 years ago.

The influence of the Ngaruroro on the soils west of Hastings ended when the river changed course east towards Fernhill in the 1867 flood. To the east are the deeper, fertile soils, influenced by relatively recent flooding.

The Gimblett Gravels and the Bridge Pa Triangle regions have become the engine room of quality Hawke's Bay grape growing in recent decades. Side by side and with identical climate they have a lot in common. Both free-draining soil types are ideal for promoting critical vine water stress by mid-season due to their deep gravel base Whereas the Bridge Pa Triangle area has about half a metre of sandy loam covering the gravel the Gimblett Gravels feature gravel and sand to the top of the profile.

Soil types similar to those of the Bridge Pa Triangle exist on large terraces either side of the lower reaches of the Ngaruroro River. These regions, Crownthorpe on the northern bank and Mangatahi on the southern, are extensive and vineyard plantings have become quite large. This excellent grape growing country can be a little cooler and damper than the Heretaunga Plains.

High quality free draining vineyards feature in several places on the perimeter of the Plains. The lower reaches of the Havelock North Hills, with their thin silica pan and gravel based soils have supported vineyards for over 120 years and similar soils near Te Awanga on the coast have a long wine history.

The coastal areas of Te Awanga and Esk Valley, where it meets the sea, are characterised by milder daytime temperatures and warmer nights than further inland on the Heretaunga Plains. Chardonnay does well in these areas, as do the Cabernet/Merlot varieties in well-chosen vineyard sites.

Traditional vineyard areas with deeper soils north and east of Hastings still thrive. These are the areas of Meanee, Taradale, Korokipo and Esk Valley.”

“The climate of Hawkes Bay is warm and dependable and water for irrigation is plentiful, enabling good sized crops to be reliably harvested.”



Submission on Proposed Plan Change 9: Hawke's Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: (required) ANTHER YULE

Organisation/Iwi/Hapu: PARANUI FARMING TRUST

Postal address: (required) PARANUI FARMS, 759
OTAMAURI ROAD, RD 9, HASTINGS. 4179

Email address: farming@paranui.co.nz

Phone number: 06 8742 852

Contact person and address if different to above:

Send written submissions to:

Hawke's Bay Regional Council
Private Bag 6006
NAPIER

or fax to:
(06) 835-3601

or email to:
eTANK@hbrc.govt.nz

Deadline for Submissions:

5pm Fri 14 August 2020

No submissions will be accepted after this deadline. The deadline will not be further extended.

OFFICE USE ONLY

SUBMISSION ID#

Date Received:

Database Entry Date:

Database Entry Operator:

Trade Competition

Pursuant to Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

- adversely affects the environment; and
- does not relate to trade competition or the effects of trade competition.

Please tick the sentence that applies to you:

- I could not gain an advantage in trade competition through this submission; or
- I could gain an advantage in trade competition through this submission.

If you have ticked this box please select one of the following:

- I am directly affected by an effect of the subject matter of the submission
- I am not directly affected by an effect of the subject matter of the submission.

Do you wish to be heard in support of your submission?

Yes / No

If others make a similar submission, would you consider presenting a joint case with them at a hearing?

Yes / No

Signature: Anthea Yule Date: 11/8/2020

NB: Space for writing submissions is overleaf.


HAWKES BAY
REGIONAL COUNCIL

TE KAUNIHERA A-ROHE O TE MATAU-A-MĀUI

Plan Provision: Objective TANK 16

My submission is: Support / Amend

I seek the following decision from the Council:

Retain the objective but add comma following primary production in clause d) d) Other primary production, food processing, industrial and commercial end uses.

Reason for the decision requested:

Establishing a hierarchy of priority of different uses provided certainty when making allocation decisions and applying for resource consents. The minor amendment provides clarity that there are other primary production activities that are not food processing activities.

Plan Provision: Objective TANK 17

My submission is: Support

I seek the following decision from the Council:

Retain the objective

Reason for the decision requested:

Water being available for abstraction at agreed reliability of supply standards provided certainty to users and efficient water use with flexible and responsive allocation regimes allows users to make the best use of the resource.

Plan Provision: Objective TANK 18

My submission is: Support

I seek the following decision from the Council:

Retain the objective, specifically water harvesting and storage.

Reason for the decision requested:

Along with the other listed initiatives, water harvesting and storage will be important to maintain water security for current and foreseeable water needs of future generations.

Plan Provision: Policy 43

My submission is: Support in part

I seek the following decision from the Council:

Retain clause a) for Ngaruroro River provided that it does not apply to any higher minimum flows than those specified in Schedule 31.

Reason for the decision requested:

Policy 43 begins as follows:

The Council will manage river flows and lake or wetland water levels affected by surface water abstraction activities, including groundwater abstraction in Zone 1, during low flow periods so that they meet objectives for aquatic ecosystem health, mauri, tikanga Māori values, and other instream values by;

For the Ngaruroro River;

a) maintaining the existing minimum flows for the Ngaruroro River and its tributaries;

This policy appears to relate to low flow situations only as it refers to 'during low flow periods' in the leading clause.

A minimum flow limit of 2400 litres per second for the Ngaruroro River at Fernhill is supported, as in combination with the reduced allocation limit, it provides an appropriate level of protection for fish habitat while minimising economic impacts on water users.

However, there are a number of higher minimum flows that have been imposed as a condition on a number of resource consents for various reasons including controlling takes for filling storage reservoirs, frost protection and where there was uncertainty about the state of allocation. We seek clarity that this policy does not apply to those higher flows.

Condition c) of Rule Tank 10 reimposes these same higher flow restrictions. There does not appear to be any other policy that specifically supports it with condition. We do not support condition c) of Rule Tank 10, please refer to the submission on that rule for further explanation.

Plan Provision: Policy 56,57,58

My submission is: Support

I seek the following decision from the Council:

Retain Policies 56, 57, 58 relating to the benefits of water storage and augmentation.

Reason for the decision requested:

Water storage and augmentation is going to be important for the region's resilience in relation to climate change.

Plan Provision: Rule Tank 10, condition c).

My submission is: Amend condition c) and add a new condition.

I seek the following decision from the Council:

Amend condition c) to ~~Where The take is was previously~~ subject to a condition restricting the take at flows that are higher than the applicable flow specified in Schedule 31., ~~the higher flow will continue to apply~~

Add new condition as follows: Where the take is for any other purpose other than for irrigation and it was previously subject to a condition restricting the take at flows that are higher than specified in Schedule 31, the higher flow will continue to apply.

Reason for the decision requested:

Firstly, the condition as it is currently written only addresses applications for existing takes where the minimum flow imposed was higher than the minimum flow at the time, and imposes that same minimum flow. Any applications for existing takes that had a minimum flow of 2400 l/sec are not covered by this condition or any other condition, nor is it addressed in the Matters of Discretion. The proposed new wording addresses that gap.

The new condition seeks to provide for irrigation consents that were previously subject to higher minimum flows to now be treated the same as all other irrigation consents.

This plan change has set a new reduced allocation limit for the Ngaruroro River based on actual and reasonable need and has also reviewed the minimum flows of the Ngaruroro River and its tributaries and determined to keep them at the same level (refer Policy 43). The higher minimum flows set for some irrigation water permits in the Ngaruroro River were not part of the RRMP and proposed Plan Change 9 should not simply 'grandfather' these adhoc higher minimum flows. Specific consideration should be given to the actual benefit the continued imposition would make.

The Section 32 report (section 8.7) did not address any evaluation or justification for continuing to impose the higher minimum flow.

There are new provisions such as Objective 16 which sets out water use priorities and Policy 46 and 47 ensures efficiency of the water use. Further Policy 52 g) and h) seek to enable flexible approaches to management and rostering as follows:

g) enabling and supporting permit holders to develop flexible approaches to management and use of allocatable water within a management zone including through catchment collectives, water user groups, consent or well sharing or global water permits;

h) enabling and supporting the rostering of water use or reducing the rate of takes in order to avoid water use restrictions at minimum or trigger flows.

With these plan provisions in place, there is no need to arbitrarily grandfather previous decisions made at a time of uncertainty. All applicants should now be treated equally on the merits of the application.

To give context, the Paranui Farming Trust holds a current resource consent to take 25 litres per second from the Otamauri Stream, a tributary of the Ngaruroro River. It is subject to a 5000l/sec minimum flow in the Ngaruroro at Fernhill. It is a relatively small take and from our review of the consents on the Consents Map in the HBRC website, it is the only one whose total irrigation is restricted at the 5000 l/sec minimum flow, that is, when the flow in the Ngaruroro River is less than 5000l/sec, taking must stop. Other significantly larger takes have a stepdown approach from 22,000 l/sec when taking water to fill reservoirs to 5000 l/sec to 2400 l/sec.

The Paranui Farming Trust acknowledges that storage of higher flows for use during ban days is an option hence its support of the relevant provisions.

Plan Provision: Policy 52(b)(i), Rule Tank 10, condition e), Definition of Actual and Reasonable and Matters for discretion Point 1.

My submission is: Oppose Policy 52(b)(i) and Rule Tank 10 condition e) with respect to the definition of Actual and Reasonable and Amend point 1 of Matters for Discretion.

I seek the following decision from the Council:

Amend point 1 of Matters for Discretion by adding the following points to be taken into account when considering what is actual and reasonable:

Separate d into d. and e.

d. crop rotation

e. development phase of the business operation

Add f. level of existing investment made

g. actual and farming system is reasonable use post 2 May 2020 where the business operation is still in a development phase

h. impact of any reduction of water allocation on the overall business operation.

Reason for the decision requested:

The Paranui Farming Trust has made significant changes to its farming operation as a result of the investment that it has made in irrigation. As a small family run business, the development of an irrigated sheep and beef farming system can take many years, involving an understanding of irrigation rates and timing, the choice of grass and crop varieties to produce the highest yield, and the management of stock on that platform to achieve the optimal productivity. There has been considerable investment in the farming system as a result, not just in the irrigation infrastructure but also in cropping infrastructure and stock management. These are matters that should be taken into account when assessing reasonable water need.

In addition, for business operations that are still in the development phase, records of water use post 2 May 2020 should also be considered. While there may be a belief that irrigators might take water when they don't need it to ensure higher water use records based on the use it or lose it philosophy, irrigators should be able to demonstrate the actual need given crops irrigated and climatic conditions.

The Paranui Farming Trust consent expires in 2025 and it will continue to develop its farming system to make optimal and efficient use of the water for the current 78 hectares authorised for irrigation pursuant to its consent.



Paranui Farming Trust,
759 Otamauri Road,
R.D 9,
Hastings.

11th August 2020

Hawke's Bay Regional Council,
159 Dalton Street,
Napier.

To Whom It May Concern,

My name is Anthea Yule and I farm 500ha in the Otamauri District under the name of the Paranui Farming Trust.

We have a consent to irrigate 78 ha. The take is from the Otamauri Stream. The water has changed our farming system significantly, and it has cost a lot to change. Our investment has been in time, money and energy.

As yet we have not fully maximised the advantage as we are still fine tuning the crops, systems and management required for use of irrigation.

We wish to be able to continue our development in this direction.

Thank you for your consideration.

Kind regards,

A handwritten signature in blue ink that reads "Anthea Yule".

Anthea Yule.

Nichola Nicholson

From: Bernie Kelly <berniekelly47@gmail.com>
Sent: Sunday, 9 August 2020 9:25 PM
To: Mary-Anne Baker
Subject: Submission Hawkes Bay Canoe Club

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Ellen

Hello Mary-Anne,

I was having difficulty working through the web page interface for submitting on the TANK plan change and have been advised that I could send it directly to you.

Submission to HBRC Tank Plan Change 9

In my submission to to the proposed HBRC TCP 9,

I would like to address issues of concern on behalf of the Hawke's Bay Canoe Club.

The club has been part of the kayaking scene in Hawke's Bay for over 40 years, and its history documents use of many rivers throughout the province and beyond.

In that time we have been supported whole heartedly by Whitewater NZ, who have represented our interests in upholding whitewater kayaking values in the many rivers that are paddled in this country.

The club was instrumental in obtaining the Water Conservation Order placed on the Mohaka River back in the eighties.

It, along with Whitewater NZ are currently working on getting amendments in place on the successful application to award WCO status for the Upper Ngaruroro River Whitewater Kayaking values that were proven to be nationally outstanding.

Within the document PLC 9, there is very little account of any regulation that would protect any of the proven attributes for recreational users of the Upper Ngaruroro River. The plan doesn't even delineate that particular part of the river, rather treating the entire length from source to sea as one river.

In our view, when talking about **Adverse Effects**, the term **other users** is too broad.

To uphold the outstanding values for the purpose of Whitewater Kayaking, we need to have absolute surety that these values are protected for the benefit of kayaking.

Any of the proposed rules around abstraction and damming are also very weak and ambiguous.

Proposed rule Tank 17 prohibits any damming in the mainstem of

Ngaruroro

Taruarau

Omahaki

Tutaekuri

Mangone

Mangatutu

We propose this include all tributaries to these rivers as any halt to flow would have undesirable effects downstream to these important rivers.

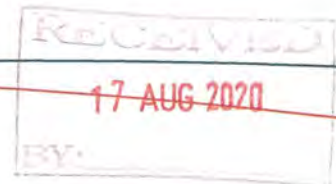
It is our view that upholding the validity of a Water Conservation Order over the Ngaruroro River would ultimately give the river higher protection status which has been proven to be of National significance of which Whitewater NZ as one of 5 applicants we the Hawke's Bay Canoe Club support.

I would like the opportunity to speak to my submission please.

Kind regards

Bernie Kelly

47 Ferry Rd, Clive
Hawke's Bay 4102
0274461538-06 8700837
berniekelly47@gmail.com



Submission on Proposed Plan Change 9: Hawke's Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: (required) Bernie Kelly
 Organisation/Iwi/Hapu: Hawkes Bay Canoe Club
 Postal address: (required) 47 Ferry Rd
Clive
Hawkes Bay
 Email address: berniekelly47@gmail.com
 Phone number: 0274461538 -
 Contact person and address if different to above: _____

Trade Competition

Pursuant to Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

- adversely affects the environment; and
- does not relate to trade competition or the effects of trade competition.

Please tick the sentence that applies to you:

- I could not gain an advantage in trade competition through this submission; or
- I could gain an advantage in trade competition through this submission.

If you have ticked this box please select one of the following:

- I am directly affected by an effect of the subject matter of the submission.
- I am not directly affected by an effect of the subject matter of the submission.

Do you wish to be heard in support of your submission?

Yes / No

If others make a similar submission, would you consider presenting a joint case with them at a hearing?

Yes / No

Signature: Bernie Kelly Date: 10-8-2020

NB: Space for writing submissions is overleaf.

Send written submissions to:

Hawke's Bay Regional Council
 Private Bag 6006
 NAPIER

or fax to:
 (06) 835-3601

or email to:
 eTANK@hbrc.govt.nz

Deadline for Submissions:

5pm Fri 14 August 2020

No submissions will be accepted after this deadline. The deadline will not be further extended.

OFFICE USE ONLY

SUBMISSION ID#

Date Received:

Database Entry Date:

Database Entry Operator:


HAWKES BAY
 REGIONAL COUNCIL

TE KAUNIHERA Ā-ROHE O TE MATAU-Ā-MĀUI

Submission Details

Please attach more pages if necessary. If you do not wish to use this form, please ensure that the same information required by this form is covered in your submission. Further information on how to make a submission and the submission process is available on the Regional Council website.

Plan provision (eg. objective, policy or rule number) Tank Plan Change a

I Support Oppose Amend

I seek the following decision from the Regional Council: *[Please give precise details to ensure your views are accurately represented in submission summary documents to be prepared by the council as part of the submission and hearing process]*

Lined area for providing details of the decision sought.

Reason for decision requested:

Lined area for providing the reason for the decision requested.

REMINDER: SUBMISSIONS MUST REACH COUNCIL BY 5PM ON 3 JULY 2020



Bernie Kelly

From: Bernie Kelly <berniekelly47@gmail.com>
Sent: Monday, 10 August 2020 3:03 p.m.
To: Bernie Kelly
Subject: Submission to HBRC Tank Plan Change 9

Submission to HBRC Tank Plan Change 9

In my submission to to the proposed HBRC TCP 9,

I would like to address issues of concern on behalf of the Hawke's Bay Canoe Club.

The club has been part of the kayaking scene in Hawke's Bay for over 40 years, and its history documents use of many rivers throughout the province and beyond.

In that time we have been supported whole heartedly by Whitewater NZ, who have represented our interests in upholding whitewater kayaking values in the many rivers that are paddled in this country.

The club was instrumental in obtaining the Water Conservation Order placed on the Mohaka River back in the eighties.

It, along with Whitewater NZ are currently working on getting amendments in place on the successful application to award WCO status for the Upper Ngaruroro River Whitewater Kayaking values that were proven to be nationally outstanding.

Within the document PLC 9, there is very little account of any regulation that would protect any of the proven attributes for recreational users of the Upper Ngaruroro River. The plan doesn't even delineate that particular part of the river, rather treating the entire length from source to sea as one river.

In our view, when talking about **Adverse Effects**, the term **other users** is too broad.

To uphold the outstanding values for the purpose of Whitewater Kayaking, we need to have absolute surety that these values are protected for the benefit of kayaking.

Any of the proposed rules around abstraction and damming are also very weak and ambiguous.

Proposed rule Tank 17 prohibits any damming in the mainstem of
 Ngaruroro

Taruarau

Omahaki

Tutaekuri

Mangone

Mangatutu

We propose this include all tributaries to these rivers as any halt to flow would have undesirable effects downstream to these important rivers.

It is our view that upholding the validity of a Water Conservation Order over the Ngaruroro River would ultimately give the river higher protection status which has been proven to be of National significance of which Whitewater NZ as one of 5 applicants we the Hawke's Bay Canoe Club support.

Bernie Kelly
 47 Ferry Rd, Clive
 Hawke's Bay 4102
 0274461538-06 8700837
 berniekelly47@gmail.com

To: Hawke's Bay Regional Council
C/o etank@hbrc.govt.nz

Name of Submitter: Kent Griffiths

This is a submission on the following Proposed Plan Change to the Hawke's Bay Regional Resource Management: Plan Change 9 – Tutaekuri, Ahuriri, Ngaruroro and Karamu Catchments.

I could not gain an advantage in trade competition in making this submission.

My submission is:

- I generally support the overall framework of Plan Change 9, to the degree that it reflects a staged approach to improving the management of the TANK Catchments freshwater resources.
- Horticulture is critically important to the future sustainability of the TANK Catchments, and there are some changes required to the proposed plan to ensure that sufficient water is available to provide for that. The value of horticulture and its role in providing for domestic food supply and security, and the ability to feed people in the future is not currently reflected in the proposed Plan Change 9.
- The real freshwater improvements come from the practices I adopt to manage discharges from land I manage (in some cases only temporarily), and my water use. I support requiring all growers to operate at good management practice .
- I also support the ability for a group of landowners to be able to manage environmental issues collectively to improve the effectiveness of the response to water issues. I consider Plan Change 9 should better enable collective approaches to water and nutrient management by reducing the level of detail and specificity in the plan, as every collective grouping will be slightly different and work in a slightly different way, and it is important that this is enabled.
- Where this submission aligns with that of Horticulture New Zealand's submission, I support that submission.
- I oppose the provisions set out in the table below as currently drafted, and seek the amendments set out in the table. I also note that there are likely to be consequential amendments arising from these that may affect the whole plan.

The specific provisions of the proposal that my submission relates to are:

Provisions & general description of issue	Amendments sought
<p><i>Policy 36, 37, 46, 52, TANK 9, TANK 10, TANK 11, Schedule 31 and the Glossary</i></p> <p>Replacement of water permits based on actual and reasonable use</p>	<p>Definition of 'actual and reasonable' is amended to just refer to 'reasonable' and in relation to applications to take and use water is the lesser of:</p> <ol style="list-style-type: none"> the quantity specified on the permit due for renewal or any lesser amount applied for; or for irrigation takes, the quantity required to meet the modelled crop water demand for the irrigated area with an efficiency of application of no less than 80% as specified by the IRRICALC water demand model (if it is available for the crop and otherwise an equivalent method) and to a 95% reliability of supply. <p>Everywhere that the term 'actual and reasonable' is currently used, it is amended to refer to 'reasonable'.</p>

<p><i>Policy 54, 55, 56, 57, TANK 13, TANK 14, TANK 15 and Schedule 32</i> High flow takes and storage</p>	<p>The allocation limit for high flow takes should be revisited. I understand that the TANK collaborative group did not reach a consensus position on the allocation limit and I believe that more water should be made available, as the high flow water currently provides the only means of obtaining new water which will be critical to provide for the future of horticulture – whether that be irrigation of new land, or more water to irrigate existing or new types of crops, and also for use in stream flow maintenance and augmentation schemes. High flow allocations should also be specified for the Karamu, and Ahuriri Catchments (if storage is physically feasible within the Ahuriri Catchment).</p>
<p><i>Policy 51, 52, TANK 7 and TANK 8</i> Availability of water for survival of permanent horticultural crops</p>	<p>A specific exemption should be provided in TANK 7 and 8 to allow up to 20m³ to continue to be taken per day to assist the survival of permanent horticultural crops.</p>
<p><i>Policy 48, 52, RRMP 61, RRMP 62, RRMP62a, RRMP62b</i> Transfers of water permits</p>	<p>Transfers of all water permits that have been exercised should be enabled.</p>
<p><i>Policy 37 and 38</i> Restriction on re-allocation of water</p>	<p>The re-allocation of any water that might become available within the interim groundwater allocation limit or within the limit of any connected water body should be enabled (i.e.. can be re-allocated before a review of the relevant allocation limits in the plan is undertaken) where it is to be used for primary production purposes (and would be allocated in accordance with proposed definition of 'reasonable' outlined above), or used for a stream flow maintenance and augmentation scheme. Water should also be able to be re-allocated to any applicant – not restricted to existing water permit holders (as at 2020).</p>
<p><i>Policy 37, 39, 40, 41, TANK 18 and Schedule 36</i> Stream flow maintenance and augmentation schemes</p>	<p>Schemes should be developed by the regional council in a progressive manner based on when water permits expire, in an equitable manner over a reasonable timeframe that apportions the cost equally and concomitantly across all takes affecting groundwater levels rather than relying on consent applicants to develop schemes, as they don't have the resources or arguably much of the information to do so. Amendments are also required to ensure that flow maintenance requirements only apply to lowland streams where it is feasible, and the presumption should be removed that the mainstem of the Ngaruroro River will be augmented in whole or in part. The requirement to augment the Ngaruroro was not a consensus position of the TANK collaborative group. The position that the group reached was that augmentation should be investigated and I believe amendments should be made to reflect that.</p>
<p><i>Policy 17, 18, 19, 23, 24, TANK 1, TANK 2, Schedule 28, Schedule 30 and the Glossary</i> Industry programs and landowner collectives</p>	<p>Amend all provisions that relate to industry schemes to better align requirements with existing and established industry programmes such as GAP schemes.</p>

<p><i>Policy 21, TANK 5, TANK 6, Schedule 26, Schedule 28 and Schedule 29</i></p> <p>Land use change and nutrient loss</p>	<p>A definition of what a change to production land use is needs to be provided to clarify what the provisions actually relate to. I also believe that management of nutrients needs to be done at the collective level, because that will enable some land use change to occur, because it could be offset within the collective. Some changes in land must be enabled to allow the horticultural sector in the TANK Catchments to remain sustainable.</p>
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My horticultural operation is located 382 Twyford Road, Hastings and comprises of the following crops and acreage; 36ha of Apple Orchard

Plan Change 9/TANK is likely to affect my business in the following ways:

If I am unable to get enough water to irrigate my crop, it will mean the loss of my crop or smaller reduced quality fruit and in some cases the loss of trees, which will have a flow on effect of employing less staff, less spent on up keep of land improvement, Soil health and disease management. It is essential that as an apple grower over the few months of high heat to irrigate my crop a little often.

I seek the following decision from the local authority:

That the plan is amended as set out in the table above

I 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.

Signature of submitter:

Date: 10/08/2020

Electronic address for service: kentokid@xtra.co.nz

Contact phone number: 0274416359

Postal address: 361 Twyford Road, RD5, Hastings

Contact person: Kent Griffiths (A.R. Griffiths & Sons Ltd)

Proposed TANK Plan Change 9

Submitter Details

Submission Date: 11/08/2020

First name: Bruce **Last name:** McGregor

Phone number: 0276551695

I could not

Gain an advantage in trade competition through this submission

I am not

directly affected by an effect of the subject matter of the submission that :

- adversely affects the environment, and
- does not relate to the trade competition or the effects of trade competitions.

Note to person making submission:

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

Would you like to present your submission in person at a hearing?

- Yes
- I do NOT wish to speak in support of my submission and ask that the following submission be fully considered.

Additional requirements for hearing:

Attached Documents

File

TANK Submission

Proposed TANK Plan Change 9

We farm at 1707 Pakaututu Road, Puketitiri. Of our 580 total ha, 340 ha is an intensive all grass beef production platform bisected by 25 ha of riparian strips, while the balance of steeper country is retired in manuka and native bush. We actively farm 59% of our land and have retired 41%.

We conduct our farming operation as prescribed by our Farm Environment Plan, despite our catchment (Mohaka) not yet being required to have one. We are continually taking and acting on expert advice (including from HBRC) to protect and improve our natural resources, with particular emphasis on water quality and biodiversity.

We see ourselves as profitable, environmentally aware, and responsible pastoral farmers.

We commend HBRCR on their collaborative approach regarding Proposed Plan Change 9

Provision	Support/Oppose	Reason	Relief Sought
Policies 5.10.3	Support	We support HBRC's recognition that farmers and their collectives can develop practical approaches for their own catchments.	Retain as proposed.
Obj TANK 16, 17, and 18, associated policies 5.10.7, and rules)	Oppose – if my interpretation of the Plan is correct.	Stock drinking water should not be restricted.	Stock drinking water should be top priority.
Schedule 29	Oppose	Does not promote a holistic approach to farm development and management. The prescriptive, 'Overseer numbers only' approach will impede reasonable land development.	Schedule 29 is deleted. LUC classification basis adopted. Mitigating actions are considered. De-intensification is recognised.

If N discharge measures are to be adopted, then those measures should be applied on a LUC (land use capability) classification basis rather than a use basis.

We think the N discharge measures in Schedule 29, if considered on their own, will impede reasonable land development.

We do not think the use of Overseer measures on their own should dictate pastoral land use policy. While we accept that the Overseer model currently offers the best generalised indication of N discharges, we would like to see a more holistic approach considered, with consideration given to actual mitigating actions, both physical 'hardware' such as buffer zones and retired areas, and 'software' such as pasture and stock management practises.

We suggest that HBRC needs to recognise and offset the benefits of de-intensification against the costs of intensification, within a farm boundary, otherwise the proposed Plan Change will de-incentivise correct farm development.

While we appreciate Discretionary means discretionary, it seems to us that the bar is being set too low, and HBRC will inhibit wise and careful development of healthy, resilient, and prosperous land use.

We farm at 1707 Pakaututu Road, Puketitiri. Of our 580 total ha, 340 ha is an intensive all grass beef production platform bisected by 25 ha of riparian strips, while the balance of steeper country is retired in manuka and native bush. We actively farm 59% of our land and have retired 41%.

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We suggest that HBRC needs to recognise and offset the benefits of de-intensification against the costs of intensification, within a farm boundary, otherwise the proposed Plan Change will de-incentivise correct farm development.

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Submission on Proposed Plan Change 9 (PC9): Hawke's Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: Jonathan Hamlet

Organisation: Craggy Range Vineyards Limited

Postal address: PO Box 8749, Havelock North, New Zealand

Email address: jonathan.hamlet@craggyrange.com

Phone number: 0274521835

Who we are:

Craggy Range is a family business started in 1998 and has fast become one of the most respected wineries in the world. In 2020 Craggy Range placed 17th in the World's Best Vineyards¹, one of only two New Zealand wineries to make the list. In 2020 it was also ranked 28th in the World's Most Admired Brands².

While these awards are important to the success of Craggy Range, they are also important to the success of Hawke's Bay & New Zealand Wine & Tourism industries. This kind of endorsement helps create a market and a Premium for Hawke's Bay wine in New Zealand and Global markets. Additionally, Craggy Range exports to more than 40 countries and is represented at some of the world's best restaurants. According to *Wine Services* data, Craggy Range is the second most distributed New Zealand brand in fine dining restaurants across the world. Like the global awards, distribution in the right accounts across the world helps introduce consumers to New Zealand wine.

Craggy Range provides a significant and sustained financial contribution to the Hawke's Bay economy due to its permanent labour force of 71 staff, contributing approximately \$2.5 M annually to the local economy. Additionally, the vineyards in Hawkes Bay require 50-70 staff throughout the season, providing a direct contribution of \$1.1 M in wages annually. In terms of the cellar door and restaurant contributing to the Hawkes Bay economy, annual visitor spend is in the order of \$4.5 M per annum and growing.

Due to the success of the brand we have been able to increase our focus on true sustainability, not just economic sustainability. This has led Craggy Range to focus on social responsibility and environmental sustainability; we are working hard to be better farmers and support our community.

In 2018, we created A Children's Christmas Foundation, a programme to get Christmas presents to children who would not ordinarily receive them. The programme has delivered more than 7,000 Santa sacks to children in Hawke's Bay filled with sporting equipment and school necessities like backpacks and stationery.

¹. <https://www.worldsbestvineyards.com/top-50/>

²

[https://drinksint.com/news/fullstory.php/aid/8776/Catena Zapata tops The World s Most Admired Wine Brands 2020.html](https://drinksint.com/news/fullstory.php/aid/8776/Catena_Zapata_tops_The_World_s_Most_Admired_Wine_Brands_2020.html)

Submission Summary:

1. I SUPPORT the overall framework of PC9, to the degree that it reflects agreements reached by the TANK Group community representatives, developed over more than 6 years of intensive dialogue and providing an integrated catchment solution that best balances the values and interests of the Hawke's Bay community.
2. I OPPOSE elements of PC9 that do not reflect those agreements reached by the TANK Group community representatives.
3. I SUPPORT THE AMENDMENTS proposed by Hawke's Bay Winegrowers' Association Inc. in their submission dated 14 August 2020.
4. I SEEK AMENDMENTS as set out in Section A of this submission below.
5. I am concerned that PC9's approach to allocation of water and control of farming emissions unfairly penalises viticultural land owners as very low water users and very low emitters compared to other major primary production systems.
6. I am concerned that PC9 will have significant negative effects on me and/or my business and I have detailed my concerns in Section B below.

Submission Details:

A. General impact on the wine sector

Plan Provision	Concerns and Reasons	Decision Sought
<p>OBJ TANK 7 Requirement to reduce contaminant losses</p>	<p>This Objective, as currently drafted, could be interpreted to require a reduction in contaminant loss including soil loss from all land use types. Some land use types including viticulture on low-slope land already have negligible contaminant losses (& especially soil losses) and would be unable to achieve any reductions.</p>	<p>Amend OBJ TANK 7 to read “...reduces reducible contaminant loss...”; or similar wording to achieve the outcome sought in this submission.</p>
<p>OBJ TANK 16 Priority order for water allocation</p>	<p>This Objective establishes a priority order for water allocation which ranks primary production on versatile soils ahead of other primary production. Some viticultural production is on soils that are not considered to be versatile (eg. LUC 7 stoney soils) but is the highest and best primary production use of such soils, is highly efficient low water-use & low- contaminant activities that contribute strongly to community socio-economic development and should rank equally with primary production on versatile soils.</p> <p>The Objective also does not make it clear what the ranking of water bottling activities would be. The Hawke’s Bay community has clearly indicated that water bottling should not be a priority use of water, so should be amended to explicitly record a lower priority, ranking below all other activities involving the economic use of water.</p>	<p>Amend OBJ TANK 16.c to read “Primary production on versatile and viticultural soils”, or similar wording to achieve the outcome sought in this submission.</p> <p>Amend OBJ TANK 16.e to read “Water bottling and other non-commercial end uses”, or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.2.6/7/8 Protection of source water</p>	<p>These three policies adopt a strengthened approach to protection of the quality and quantity of drinking water supplies.</p> <p>I support a precautionary approach to such protection but considers that the policies and rules are unnecessarily onerous and reflect an over-response to the 2016 Havelock North water crisis.</p> <p>The Plan Change draws source protection zones expansively and the control exerted by Council through matters of discretion under TANK rules 2/4/5/6/9/10</p>	<p>Remove the references to assessment of actual or potential effects of activities in the SPZs on Registered Drinking Water Supplies from Rules TANK 4/5/6/9/10. Address risks via Farm Environment Plans, Catchment Collectives and Industry Programmes.</p>

	<p>is uncertain and potentially onerous, particularly on winery point source discharges but also on vineyard farming practices.</p> <p>In addition to the uncertain scope of control, there is a duplication in control because risks to drinking water will also need to be addressed in Farm Environment Plans, Catchment Collectives and Industry Programmes.</p> <p>Retaining the reference in TANK 2 will ensure that a risk assessment will still be made in the event that a property does not have a Farm Environment Plan or is not part of an Industry Programme or Catchment Collective.</p>	
<p>Policy 5.10.3.21 Assessing resource consents in sub-catchments exceeding nitrogen objectives or targets</p>	<p>This policy requires Council to have regard to any relevant Industry or Catchment Collective plans in place when assessing resource consents for effect on diffuse discharge of nitrogen. However, as currently drafted, clause 21.d appears to prevent the issuance of any resource consent for any land or water use change that may result in any increased nitrogen loss, where a sub-catchment exceeds dissolved nitrogen objectives or targets in Schedule 26.</p> <p>This is unnecessarily constraining of land use change, undermines the role of community collectives, discriminates heavily against viticulture as a particularly low nitrogen source and fails to recognise the 2040 timeline for meeting water quality objectives.</p>	<p>Amend so that Catchment Collectives and Industry Programmes may manage land use change in accordance with the 2040 timeline for meeting water quality objectives.</p> <p>Amend 21.d to read “<u>subject to Policy 21 a)-c)</u> avoid land use change....” or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.6.36 Heretaunga Plains Aquifer Management</p>	<p>This policy requires Council to “adopt a staged approach to groundwater management that includes: f) avoiding further adverse effects by not allowing new water use and g) reducing existing levels of water use”.</p> <p>The requirement to “not allow new water use” is needlessly restrictive and ostensibly prohibits ANY new [take and] use, including use of new water stored under the high flow allocation provisions of the Plan, as well as potentially the replacement of expiring consents.</p> <p>Similarly, the requirement to “reduced existing levels of water use” precludes use of new stored water and fails to recognise that the interim allocation limit of 90 million cubic meters is intended to align with previous actual water usage and that the Heretaunga Plains Aquifer is considered to be overallocated based on</p>	<p>Amend Policy 36.f to read “avoiding further adverse effects by <u>controlling net groundwater use within the interim allocation limit set out in Policy 37</u>” or similar wording to achieve the outcome sought in this submission.</p> <p>Amend Policy 36.g to read “<u>reducing-existing-levels of encouraging</u> water use <u>efficiency</u>.” or similar wording to achieve the outcome sought in this submission.</p>

<p>Policy 5.10.6.37.d(ii) “Actual & Reasonable” water allocation approach</p>	<p>cumulative consented volume (sometimes referred to as “paper volume”) but not on cumulative consented actual use.</p> <p>This policy requires Council to “when considering applications in respect of existing consents due for expiry, or when reviewing consents, to; ... (ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to August 2017...”.</p> <p>The intent of this policy is understood to be to provide for replacement consent volumes not exceeding the highest use in the driest year in recent history (generally considered to be the 2012/13 water year), for land use as at August 2017 (the point at which HBRC publicised the decision to cap groundwater usage at current peak dry-year levels). However, since TANK completed and the Plan was drafted, Hawke’s Bay has experienced a severe drought in 2019/20 water year. Given this recent experience and vastly improved water meter data collection in the most recent years, I consider that the 2019/20 water year data should be available as a benchmark dry year.</p> <p>More fundamentally, I disagree with the definition of “Actual and Reasonable” and its inequitable and unworkable approach to allocation of water for replacement of consents that existed as at August 2017.</p> <p>Due to the lack of reliable and comprehensive water metering data from 2012/13 and the impact of vine age and redevelopment timing on actual annual vineyard irrigation requirements, practical difficulties in evidencing historical land use activities and the risk of penalising efficient users at the expense of inefficient ones, I consider that there should be a presumption that the Hawke’s Bay-specific IRRICALC model is the appropriate measure of “Actual and Reasonable” for the purpose of calculating allocations for those replacement consents.</p>	<p>Amend Policy 37.d(ii) to read “(ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to <u>August-2017 30 June 2020 (the end of the 2020 water year)</u>...” or similar wording to achieve the outcome sought in this submission.</p> <p>Amend the Glossary definition of “Actual and Reasonable to provide that the volume allocated at consent renewals is the lesser of:</p> <ul style="list-style-type: none"> - the amount calculated by a Hawke’s Bay-specific IRRICALC model at 95% security of supply; - the volume of the expiring consent being replaced.”, <p>or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.6.39</p>	<p>This policy subjects consented water users in the Heretaunga Plains Water Management Unit to a regime which requires them to either participate in</p>	<p>I understand that HBRC will be submitting a proposed alternative approach to the requirements in Policy 39. I support, in principle, jointly-funded</p>

Requirement for flow maintenance (augmentation)

stream flow maintenance and habitat enhancement schemes, or cease abstraction once a stream flow maintenance trigger is reached. When this policy was conceived in TANK, it was intended to apply initially to 3 named lowland streams which HBRC science indicated were suitable for a stream flow maintenance scheme. Post-TANK, the Plan has incorporated all streams as well as the mainstem of the Ngaruroro River and I OPPOSE this policy on five main grounds:

1. The flow maintenance requirement now proposed, extends far beyond that supported in TANK and the need for such extension has not been justified.
2. In TANK, it was envisaged that HBRC would play a central role in establishing the 3 then-proposed lowland stream augmentation schemes. As HBRC hold all the relevant scientific and technical information required to operationalise such schemes, it is critical that HBRC takes on a central role in their development.
3. Large temporal and spatial spread of consent expiries and large consent numbers make it impractical and inequitable to require consent holders to take full responsibility for the development.
4. No allowance for an orderly transition to any new stream augmentation has been made. The currently proposed provisions could apply immediately from notification of the Plan Change, including to a very large number of currently expired consents (particularly groundwater takes in the unconfined aquifer), whereas stream augmentation schemes may be reasonably expected to take years to commission, particularly the kind of large-scale schemes that would be required to maintain flows in the Ngaruroro River.
5. Consent reallocations under the "Actual and Reasonable" provision of the Plan based on 95% certainty of supply do not provide sufficient water volume to support stream augmentation in dry years and so would decrease the effective certainty of supply of consents.

collective stream flow maintenance schemes on suitable lowland streams, facilitated by HBRC.

<p>Policy 5.10.7.51 Water Use and Allocation - Priority</p>	<p>This clause provides for an emergency water management group when making water shortage directions under Section 329 of the RMA, with the group including representatives from various sectors of the community but not including the primary sector. As decisions made in consultation with this group relate inter alia to the provision of water essential for the maintenance of animal welfare and survival of horticultural tree crops and to seasonal demand for primary production, the primary sector should also be represented in the group.</p> <p>This policy requires Council to allocate “20% of the total water available at times of high flow in the Ngaruroro or Tūtaekurī River catchments for abstraction, storage and use for” contributions to environmental enhancement and Māori development.</p> <p>This policy originated in an agreement in TANK to reserve 20% of any NEW high flow allocation for Māori development, then underwent significant development and change as Council explored ways to operationalise it and through iwi and RPC consultations.</p> <p>The resulting policy has some fundamental differences to that originally agreed in TANK:</p> <ol style="list-style-type: none"> 1. The Policy refers to the Ngaruroro OR Tūtaekurī River catchments” (emphasis added), whereas the intention in TANK was for it to apply to BOTH rivers. This may just be a drafting error. 2. The Policy now covers water for both Māori development and environmental enhancement but Schedule 32 only refers to Māori development. 3. The allocation rate of 1600L/s for the Ngaruroro River in Schedule 32 represents 20% of the total high flow allocation limit for that river, whereas the TANK agreement was for 20% of the new allocation (6000L/s), ie 1200L/s. 	<p>Amend 5.10.7.51 to read “...emergency water management group that shall have representatives from Napier City and Hastings District Councils, NZ Fire Service, DHB, iwi, affected primary sector groups and MPI, to make decisions ...” or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.8.59 High Flow Reservation</p>	<p>Policy 59 needs significant re-write to address the above inconsistencies between the policy as it now stands and the framework agreed in TANK. It should distinguish clearly between water for environmental enhancement and water for Māori development, reduce the proposed Māori development reservation for the Ngaruroro River from 1600L/s to 1200L/s in line with the 20% new-water allocation agreed at TANK and remove the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the high flow allocation.</p>	<p>Policy 59 needs significant re-write to address the above inconsistencies between the policy as it now stands and the framework agreed in TANK. It should distinguish clearly between water for environmental enhancement and water for Māori development, reduce the proposed Māori development reservation for the Ngaruroro River from 1600L/s to 1200L/s in line with the 20% new-water allocation agreed at TANK and remove the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the high flow allocation.</p>

	<p>4. Policy 60 now embodies the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the allocation.</p> <p>5. The Policy now requires “allocation” rather than “reservation”, with uncertain implications for private sector interests</p>	
<p>Rule TANK 5 Land use change</p>	<p>This rule controls land use change to production land use activity over more than 10% of a property or farming enterprise.</p> <p>The rule gives no guidance on what constitutes “change to the production land use activity”, with the result that it is highly uncertain what types of activity are controlled and the rule cannot be practically enforced. For example, is a change from conventional farming to organic farming captured? A change in planting density?</p> <p>Also the rule fails to account for the possibility that a farming enterprise may span multiple water quality management units within a Surface Water Allocation Zone, which may then unintentionally permit land use change beyond 10% of the farming enterprises’ properties within a water quality management unit</p>	<p>The rule needs further development to give more guidance on what changes are intended to be controlled and to control change by farming enterprises within a water quality management unit more appropriately.</p>
<p>Rule TANK 6</p>	<p>This rule restricts change to production land use activity over more than 10% of a property or farming enterprise where there is no Catchment Collective or Industry Programme operative, where modelled land use change effect on total property nitrogen loss exceeds the figures in Table 2 of Schedule 29. Table 2 is populated from per-hectare figures for common primary production systems. The per-hectare figure of 1kg/ha/yr provided for Grapes for Esk/Omahu/Pakipaki Soils is unrealistically low & clearly fails to account for the autumn/winter sheep grazing rotation that commonly occurs on vineyards.</p> <p>Also the Plan Change does not record the version of the models employed to derive the crop loss figures, so is not future-proofed against the effect of future model changes.</p>	<p>Adjust the Grape kg/ha/yr for all soils to recognise winter sheep grazing rotation.</p> <p>Include details of crop model versions used to derive the crop loss figures in Schedule 29 and include a mechanism to address the effects of model and/or version changes to modelled outputs..</p>

<p>Rule TANK 13 Taking water – high flows</p>	<p>This rule provides for capture, storage and use of surface water at times of high flow. I consider this to be a critical element of the overall Plan Change, providing the opportunity to re-engineer the Heretaunga Plains water use profile in a way that multiple & often conflicting interests and values can be addressed.</p>	<p>Supported, subject to amendments to POL 59 & 60 to address concerns about drafting details relating to the 20% Maori/environment reservation.</p>
<p>RRMP Chapter 6.9 - 6.3.1 Bore Drilling & Bore Sealing, Rule 1</p>	<p>This rule change has the effect of making bore drilling within a Source Protection Zone (SPZ) a Restricted Discretionary activity, as opposed to a Controlled activity. The proposed SPZs cover extensive areas of the Heretaunga Plains, particularly in the unconfined aquifer zone where many vineyards are located. The proposed Plan brings in intensive controls over activities in the SPZs and are specifically drawn to capture areas of unconfined aquifer upstream of protected water takes. Given the already-permeable nature of the unconfined aquifer area that comprises the bulk of the SPZs and other substantial controls over land use activities, there is negligible additional benefit in controlling bore drilling in this area where the bore is a replacement for existing infrastructure. Also the additional expense and uncertainty of Restricted Discretionary status is likely to act as a deterrent to bore replacement as part of a normal maintenance cycle. Accordingly, bore drilling for the purpose of replacement of existing infrastructure in the SPZs should remain a Controlled activity.</p>	<p>Add a Condition to 6.3.1 Rule 1 reading: “<u>c. The bore is located within a Source Protection Zone but is a replacement for an existing bore that will be decommissioned.</u>” or similar wording to achieve the outcome sought in this submission.</p>
<p>Schedule 30 Landowner Collective, Industry Programme and Farm Environment Plan</p>	<p>Schedule 30 sets out the requirements for Farm Environment Plans, Landowner Collectives and Industry Programmes, as a method primarily to address the cumulative effects of land use. I support this general approach over more prescriptive approaches, as it provides flexibility for landowners to achieve environmental objectives in the most efficient ways. The NZ wine industry has a longstanding and highly respected industry sustainability programme (Sustainable Winegrowing New Zealand - SWNZ), which the industry intends to further develop to achieve equivalency with a Farm Environment Plan. However, as the environmental profile of vineyards is dramatically different from (and in most respects lower than) that of other major primary industries, SWNZ does not comfortably fit within the PC9 framework and</p>	<p>Schedule 30 should be less prescriptive, more facilitative and more industry risk profile-based in respect of Industry Programmes. The Programme Requirements in Section B of Schedule 30 as they relate to Industry Programmes should be re-cast as a more of a guideline, with an acknowledgement that detailed requirements can vary depending on the Industry’s risk and emissions profile as it relates to catchment objectives. Amend all references to Farm Environment Plan in this Plan Change to “freshwater farm plan” and otherwise align the Plan Change requirements to</p>

	<p>it is inefficient and counterproductive to apply an essentially pastoral-farming approach to viticulture.</p> <p>Schedule 30 also does not recognise the recent policy advances made nationally via the government's Essential Freshwater package and in particular the Resource Management Amendment Act 2020, which provides for a national framework of "freshwater farm plans", to be operationalised via S.360 regulations.</p> <p>I consider that the references to and requirements for a Farm Environment Plan in this Plan Change ought to be aligned with the Resource Management Amendment Act 2020 and related S.360 regulations and that these national requirements should be adopted by the Plan Change, in the interests of national standardisation and longer-term efficiency.</p>	<p>those of the Resource Management Amendment Act 2020 and related S.360 regulations.</p>
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B. Specific impact on me and/or my business

I am concerned that PC9 will impact on me and/or my business in the following ways and seek the following relief:

Plan Provision	Impact, Concerns and Reasons	Decision Sought
5.10.6.37.d(ii)	<p>Water requirements for young vines (0 – 5 years old) are much higher than that of mature vines, while they establish their root zone and permanent woody structures. There are many factors that require existing vineyards to remove mature vines and re-plant with young vines. The prevailing forces driving re-plant decisions include incurable vine pathogens such as trunk diseases and viruses impacting yield and quality, as well as changing market preferences for certain grape varieties (a decrease in demand for Merlot being a prime example). PC9 does not include consideration of water requirements for vineyards undergoing re-plants.</p> <p>The IRRICALC model does not factor in the water requirements of young vines on the Ashb_41 soil type, which 85% of Craggy Range's Hawke's Bay production is located on. Two shortcomings of the model with respect to re-planted vineyards are that it considers water use in 2012/13 as actual and reasonable use, and that the Plant Available Water (PAW) factor is a sum of the water in the top 100 cm of soil.</p> <p>In 2012/13, Craggy Range had no re-planted vineyard blocks on the Gimblett Gravels, hence water usage in that year (181,390 m³ total, 2,134 m³/ha) only reflected the water requirements of a mature vineyard. In the record drought of 2019/20, Craggy Range's annual usage was 10% higher than the IRRICALC proposed allocation, at 199,792 m³ total, or 2,391 m³/ha: this is inclusive of 12.4 hectares (approximately 15% of the vineyard area) of re-planted vines established in 2018.</p>	<p>Amend Policy 37.d(ii) to read "(ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to August 2017 30 June 2020 (the end of the 2020 water year) ... " or similar wording to achieve the outcome sought in this submission.</p> <p>Amend the Glossary definition of "Actual and Reasonable to provide that the volume allocated at consent renewals is the lesser of:</p> <ul style="list-style-type: none"> - the amount calculated by a Hawke's Bay-specific IRRICALC model at 95% security of supply; - the volume of the expiring consent being replaced.", <p>or similar wording to achieve the outcome sought in this submission.</p>

	<p>Furthermore, the PAW factor in IRRICALC is not accurate for young vines, as their roots do not have access to the entire first 100 cm of soil as assumed by a PAW of 60 mm. Landcare Research's S-Map online provides a more detailed breakdown of PAW variability in the top 100 cm of soil, indicating a PAW of only 21 mm in the first 30 cm, or 38 mm in the first 60 mm of Ashb_41 soil. The root zone of re-planted vineyard blocks will take multiple seasons to access the PAW of 60 mm assumed in the IRRICALC model.</p>
	<p>Re-planting is a routine requirement of vineyards in response to progressive plant diseases and changing market demands. This highlights a key difference in the land use and life cycles of woody perennial horticultural crop systems versus annual agronomic and vegetable crops, a difference not acknowledged by the Plan in its assumptions about actual and reasonable water use and land use.</p>

Do you wish to be heard in support of your submission? Yes
 If others make a similar submission, would you consider
 presenting a joint case with them at a hearing? Yes

Signature:  Date: 12 Aug 2020

To: Hawke's Bay Regional Council
C/o etank@hbrc.govt.nz

Colin Campbell

This is a submission on the following Proposed Plan Change to the Hawke's Bay Regional Resource Management: Plan Change 9 - Tutaekuri, Ahuriri, Ngaruroro and Karamu Catchments.

I could not gain an advantage in trade competition in making this submission.

We have farmed in Hawkes Bay for 26 years and also own Orchards and Vineyards

Water is critical to our operation because without it our livestock would simply not survive

Any farmer who lives off rainwater for domestic use clearly understand the value of water, every time it rains, every time you go for months in a draught and need to buy in water as a last resort

Water simply does not come from a tap when you turn it on., it is one of the 5 basic needs in life

As Farmers and Horticulturalist we value and understand the need to conserve and use water in a wise way but feel that any management should be collaborative and not aversive

Whilst the submission I have made has leveraged off the expertise of others this in no way should be seen as a cut and paste but rather a recognition of the expertise of those who seek to ensure that the changes made are in the best interests of all those who live and work in Hawkes Bay

The term "work with" appears 8 times in the 135 page, the words employ and employment do not appear at all and this worries me whilst the term social could encompass this I think clearly we all need to acknowledge that individuals derive a living from working the land of Hawkes Bay and recognise that any changes will potentially have a large impact

The key is a balance between ensuring good practice at a pace that allows all those involved to work for a united cause

We have reticulated water in our farming operation and keep livestock out of waterways and dams

We measure all our crops and only apply water when required

All our rivers are fenced off and dams also

My submission is:

- I generally support the overall framework of Plan Change 9, to the degree that it reflects a staged approach to improving the management of the TANK Catchments freshwater resources.
- Agriculture and Horticulture are critically important to the future sustainability of the TANK Catchments, and there are some changes required to the proposed plan to ensure that sufficient water is available to provide for that. The value of agriculture and horticulture in their roles providing for domestic food supply and security, and the ability to feed people in the future is not currently reflected in the proposed Plan Change 9

- The real freshwater improvements come from the practices I adopt to manage discharges from land I manage (in some cases only temporarily), and my water use. I support requiring all farmers and growers to operate at good management practice .
- I am deeply concerned that stock water is not appropriately provided for (Obj TANK 16, 17, and 18, associated policies 5.10.7, and rules). The continuous provision of water is critical to animal welfare and should be a priority take above other non-essential takes. I oppose provisions which relate to water takes and management and which fail to provide for stock drinking water as a priority take.
- I am deeply concerned about the nitrogen leaching limits set in Schedule 29 which place an upper limit to how much nitrogen can be leached specific to a productive land use. I oppose provisions which restrict innovation and remove the opportunity for landowners to achieve environmental outcomes while remaining adaptable to change in circumstances. I consider sector averaging to be effectively the ‘grandparenting ‘ of land which locks farmers in at their existing farm systems and land uses, preventing the ability to adjust stocking rates, inputs or change land use. Flexibility and the ability to adapt and innovate is an integral part of the resilience of the sector .
- I support with amendments objectives to increase riparian planting and wetlands (policies 5.10.2). I seek that these provisions are implemented through non regulatory methods and not regulation. I seek more information is provided as to how Council intends to facilitate meeting the targets specified i.e. funding assistance and support.
- I oppose provisions which are ambiguous and where the implications for my farm or community are not clear (Rule TANK 3, TANK 7). I seek that these are deleted, or alternatively amended to provide clarity and ensure that they can be implemented on farm in a practicable way. In particular, I seek clarity about what waterways will need to be excluded from stock access.
- I also support the ability for a group of landowners to be able to manage environmental issues collectively to improve the effectiveness of the response to water issues. I consider Plan Change 9 should better enable collective approaches to water and nutrient management by reducing the level of detail and specificity in the plan, as every collective grouping will be slightly different and work in a slightly different way, and it is important that this is enabled.
- Where this submission aligns with that of Horticulture New Zealand’s submission or Beef and Lamb New Zealand and Federated Farmers New Zealand , I support that submission.
- I oppose the provisions set out in the table below as currently drafted , and seek the amendments set out in the table. I also note that there are likely to be consequential amendments arising from these that may affect the whole plan.

The specific provisions of the proposal that my submission relates to are:

Provisions & general description of issue	Amendments sought
<i>Policy 36, 37, 46, 52, TANK 9, TANK 10, TANK 11, Schedule 31 and the Glossary</i>	Definition of ‘actual and reasonable’ is amended to just refer to ‘reasonable’ and in relation to applications to take and use water is the lesser of: a) the quantity specified on the permit due for renewal or any

Replacement of water permits based on actual and reasonable use	<p>lesser amount applied for; or</p> <p>b) for irrigation takes, the quantity required to meet the modelled crop water demand for the irrigated area with an efficiency of application of no less than 80% as specified by the IRRICALC water demand model (if it is available for the crop and otherwise an equivalent method) and to a 95% reliability of supply.</p> <p>Everywhere that the term 'actual and reasonable' is currently used, it is amended to refer to 'reasonable'.</p>
<p><i>Policy 54, 55, 56, 57, TANK 13, TANK 14, TANK 15 and Schedule 32</i></p> <p>High flow takes and storage</p>	<p>The allocation limit for high flow takes should be revisited. I understand that the TANK collaborative group did not reach a consensus position on the allocation limit and I believe that more water should be made available, as the high flow water currently provides the only means of obtaining new water which will be critical to provide for the future of horticulture – whether that be irrigation of new land, or more water to irrigate existing or new types of crops, and also for use in stream flow maintenance and augmentation schemes. High flow allocations should also be specified for the Karamu, and Ahuriri Catchments (if storage is physically feasible within the Ahuriri Catchment).</p>
<p><i>Policy 51, 52, TANK 7 and TANK 8</i></p> <p>Availability of water for survival of permanent horticultural crops</p>	<p>A specific exemption should be provided in TANK 7 and 8 to allow up to 20m³ to continue to be taken per day to assist the survival of permanent horticultural crops.</p>
<p><i>Policy 48, 52, RRMP 61, RRMP 62, RRMP62a, RRMP62b</i></p> <p>Transfers of water permits</p>	<p>Transfers of all water permits that have been exercised should be enabled.</p>
<p><i>Policy 37 and 38</i></p> <p>Restriction on re-allocation of water</p>	<p>The re-allocation of any water that might become available within the interim groundwater allocation limit or within the limit of any connected water body should be enabled (ie. can be re-allocated before a review of the relevant allocation limits in the plan is undertaken) where it is to be used for primary production purposes (and would be allocated in accordance with proposed definition of 'reasonable' outlined above), or used for a stream flow maintenance and augmentation scheme. Water should also be able to be re-allocated to any applicant – not restricted to existing water permit holders (as at 2020).</p>
<p><i>Policy 37, 39, 40, 41, TANK 18 and Schedule 36</i></p> <p>Stream flow maintenance and augmentation schemes</p>	<p>Schemes should be developed by the regional council in a progressive manner based on when water permits expire, in an equitable manner over a reasonable timeframe that apportions the cost equally and concomitantly across all takes affecting groundwater levels rather than relying on consent applicants to develop schemes, as they don't have the resources or arguably much of the information to do so. Amendments are also required to ensure that flow maintenance requirements only apply to lowland streams where it is feasible, and the presumption should be removed that the mainstem of the Ngaruroro River will be augmented in whole or in part. The requirement to augment the Ngaruroro was not a consensus position</p>

	of the TANK collaborative group. The position that the group reached was that augmentation should be investigated and I believe amendments should be made to reflect that.
<i>Policy 17, 18, 19, 23, 24, TANK 1, TANK 2, Schedule 28, Schedule 30 and the Glossary</i> Industry programmes and landowner collectives	Amend all provisions that relate to industry schemes to better align requirements with existing and established industry programmes such as GAP schemes.
<i>Policy 21, TANK 5, TANK 6, Schedule 26, Schedule 28 and Schedule 29</i> Land use change and nutrient loss	A definition of what a change to production land use is needs to be provided to clarify what the provisions actually relate to. I also believe that management of nutrients needs to be done at the collective level, because that will enable some land use change to occur, because it could be offset within the collective. Some changes in land must be enabled to allow the horticultural sector in the TANK Catchments to remain sustainable.

Specific Provision in the Proposed Plan	Submission	Decision sought
<i>The specific provisions my submission relates to are:</i>	<i>My submission is that:</i>	<i>The decision I would like Hawkes Bay Regional Council to make is:</i>
<p>TANK 1 (The use of productive land greater than 10ha.)</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> I support with amendments. I support that farmers are provided a Permitted Activity pathway and are able to continue to farm without requiring a Resource Consent in recognition that location solutions and innovative and flexible responses are effective in managing water quality outcomes. I support provisions which recognise and empower ground up, landowner and community led conservation actions, and which prioritise non-regulatory over regulation management frameworks. I support provisions which incentivise farmers (by means of a permitted activity pathway) to develop a Farm Plan or be part of a Catchment Collective. 	<ul style="list-style-type: none"> I seek that the requirement for the Farm Environment Plan be prepared by a person with the professional qualifications necessary to prepare such a plan (Schedule 30, Section C, 1.1(a)) be removed and propose that farmers are able to prepare their own Farm Environment Plan. Farmers should be involved in the preparation of their own Farm Plan and 'own' the document. By being involved in the preparation, the implementation of them is more likely to be successful. Farms Plans prepared by professionals with little appreciation of the day to day operation of the Farm are less likely to be affective.

	<ul style="list-style-type: none"> • I support the recognition that people and communities are critical to achieving good environmental outcomes. 	
<p>Schedule 29: Land Use Change</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> • I oppose this provision. • Management frameworks should be equitable across land uses and focussed on environmental outcomes/ effects. • I oppose land use specific Nitrogen Loss restrictions. Farmers should be able to remain flexible and adaptive to change in circumstances. • Allocating nutrients in such a way that unnecessarily limits land use change contrains the ability of land users to respond to those changes and optimially utilise the land resource. • Including land use specific Nitrogen restrictions places unfair advantage on some land uses over others, and limits farmers ability to adapt to change in circumstances. 	<ul style="list-style-type: none"> • I seek that Table 1 in Schedule 29 is deleted and propose that a 'flat rate per hectare ' permitted threshold is applied (e.g. 20kgN/ha/yr) irrespective of land use and land use change. • Any Nitrogen risk threshold should be tailored to the catchment and specific to working towards achieving freshwater values. • This approach will ensure that those land uses which contribute unsustainable amounts bear the cost of reducing the overallocation while those discharging at or below the sustainable level (<20kgN/ha) are enabled to continue and are flexible to adapt to change in circumstances.
<p>TANK 2</p> <p>The use of productive land greater than 10ha.</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> • I support this Rule. • I support the controlled activity status given to use of productive land that does not meet TANK 1 (is operated without a farm environment plan or part of a catchment collective). This gives landowners options where they do not favour a FEP or working collectively. This provides Council the ability to 	<ul style="list-style-type: none"> • I seek that TANK 2 is retained as proposed.


	<p>impose conditions bespoke to the farm in its catchment context but also gives certainty to farmers that their consent will be granted.</p>	
<p>TANK 3 Stock Access to rivers, lakes and wetlands.</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> • Support with amendments. • I support requirements to avoid adverse effects on waterways caused by stock but need the rule to be amended to provide clarity and be practicable when implemented. 	<ul style="list-style-type: none"> • I seek that the word 'bed' in TANK 3 & 4 is defined and that the definition used by Horizons Council is adopted being '<i>Active bed means the bed of a river that is intermittently flowing and where the bed is predominantly unvegetated and comprises sand, gravel, boulders or similar material</i>'. • I seek that the provision is changed to align with the National Policy Statement for Essential Freshwater Management, specifically that exclusion only apply to waterways greater than 1m wide, the stocking rate of 18su/ha is deleted and that hill country farms are excluded. • This provides clarity to landowners when implementing the rule and is a practical and reasonable definition. • This definition ensures stock are not unnecessarily excluded from certain areas of the farm which would lead to unnecessary cost and loss of productive land.
<p>TANK 5 Use of Production Land (change in use of more than 10% of land on a property greater than 10ha)</p>	<ul style="list-style-type: none"> • I support with amendments. • I support the Controlled Activity Status given to Change in Land Use but oppose the requirement for landowners to be part of a Catchment Collective to be a Controlled Activity when 	<ul style="list-style-type: none"> • I seek that Condition b) be amended to include Farm Environment Plans meeting the requirements of Schedule 30C. • I seek that this rule is amended so that the threshold for change is 20ha or 20% of the property

<p>Associated Objectives and Policies.</p>	<p>changing the use of their land.</p>	<p>whichever is greater.</p> <ul style="list-style-type: none"> This is consistent with TANK 1 & 2 which encourage the development of Farm Environment Plans or landowners to be part of Catchment Collectives.
<p>Stock Drinking Water Section 6.10.2 Water Take and Use.</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> I oppose that the TANK Plan does not appropriately provide for stock drinking water as a permitted activity and priority take. 	<ul style="list-style-type: none"> I propose that the taking of water for reasonable domestics needs and the needs of animals for drinking water is appropriately provided for and that taking of water for these purposes is prioritised above other non-essential takes. This ensures the welfare of animals is protected.

My horticultural / Agricultural / Viticultural operations are located 168 Moteo Pa Road (20ha) 320, 355 Dartmoor Road (22ha), 1716 & 1894 Dartmoor Road, (117ha) and 118 Waihau Road, (297 ha) and comprises of the following crops Apples, Grapes, Lucerne, and sheep and Beef .

I 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.

Signature of submitter: 

Date:11/8/2020

Electronic address for service: colin.campbell117@gmail.com

Contact phone number: 0274 478 011

Postal address: 118 Waihau Road RD6 Napier 4186

Contact person: Colin Campbell

Submission on Proposed Plan Change 9: Hawke's Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Name: (required) Mr Apple New Zealand Ltd.

Organisation/Iwi/Hapu:

Postal address: (required) 2 Station Rd

Whakatu

Hawkes Bay 4172

Email address: Karen.Morrish@mrapple.com

Phone number: 06 2611 919

Contact person and address if different to above:

Trade Competition

Pursuant to Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

- a) adversely affects the environment; and
- b) does not relate to trade competition or the effects of trade competition.

Please tick the sentence that applies to you:

- I could not gain an advantage in trade competition through this submission; or
- I could gain an advantage in trade competition through this submission.

If you have ticked this box please select one of the following:

- I am directly affected by an effect of the subject matter of the submission
- I am not directly affected by an effect of the subject matter of the submission.

Do you wish to be heard in support of your submission?

Yes / No

If others make a similar submission, would you consider presenting a joint case with them at a hearing?

Yes / No

Signature: K.Morrish Date: 11/08/2020

NB: Space for writing submissions is overleaf.

Send written submissions to:

Hawke's Bay Regional Council
Private Bag 6006
NAPIER

or fax to:
(06) 835-3601

or email to:
eTANK@hbrc.govt.nz

Deadline for Submissions:

5pm Fri 14 August 2020

No submissions will be accepted after this deadline. The deadline will not be further extended.

OFFICE USE ONLY

SUBMISSION ID#

Date Received:

Database Entry Date:

Database Entry Operator:

Mr Apple New Zealand Limited

HBRC Plan Change 9

Mr Apple NZ is Hawkes Bay's largest vertically integrated pipfruit company that employs over 2,200 individuals during peak harvest and packing and grows apples across 1,184 ha on a combination of company owned and leased orchards.

Mr Apple understands the importance of water health sustainability, is committed to help ensure this is maintained and does support the need to address future water issues we may face. However, this should not affect the commercial viability of our business going forward and not at the expense of future expansion opportunities that will also be beneficial to the community as a whole.

Mr Apple is very mindful of sustainability and our orchards operate irrigation regimes which make the most efficient use of water under current technologies through both monitoring and application. We are committed to continue to contribute to water health and agree to changes that are fair and reasonable. Mr Apple uses third party independent monitoring and analysis to ensure upkeep of our commitment to water health and usage.

General submission

We are firm believers in the principles of sustainability and the mitigation of adverse effects and largely support the recommendations that have evolved through the TANK process into Plan Change 9. Accordingly, we generally support Plan Change 9 and its provisions. However, there may be a range of general refinements to its provisions that are required to:

- (a) better achieve the sustainable management purpose of the Resource Management Act and the other provisions of Part 2 of the Act, including those relating to social and economic well-being and the efficient use of resources;
- (b) give effect to or be more consistent with the relevant objectives, policies and other provisions of the latest applicable versions of the NPS for Freshwater Management, the Regional Policy statement as well as the balance of the Regional Resource Management Plan; and
- (c) better reflect the cost-benefit requirements and considerations under section 32 of the Act.

Particular submissions

Without prejudice to changes that may be necessary to address the above general matters, we would like to raise a few concerns with some of the specific provisions, as detailed below. Some of our comments are in the nature of questions, but should also be taken to include the solutions to address the matters that are raised by the questions.

We reiterate that Mr Apple is committed to using water as efficiently as we can. We know that we can become more efficient over time, and we are committed to doing so. We also wish to see others doing the same and ensure that there is a "level playing field".

In respect of both the general, and particular submissions, all associated, consequential or other relief relevant to the matters raised is sought.

Mr Apple NZ Ltd has concerns with the following provisions, which it wishes to see addressed:

- **Policy 37. a) “adopt an interim limit of 90 million cubic meters per year based on actual and reasonable water use”**

We consider that reducing annual allocation down to 90M m3 should be a target or goal, rather than a “limit”. Enforcing 90M m3 as a limit does not leave room for augmentation against stream depletion over and above adequate irrigation needs (as per Irricalc modelling). Any new limit will also only be achieved over time, as consents are replaced. It may also be that over time, more information or science becomes available that is relevant to any hard “limit”. It is also unclear what is meant by an “interim” limit. Does that suggest flexibility in the future for both a higher and a lower limit?

- **Policy 37. c) “manage the Heretaunga Plains Water Management Unit as an over-allocated management unit and prevent any new allocations of groundwater”**

If there are to be no new allocations, this would have a significant effect on future land use/industry expansion. Mr Apple would like to see some flexibility around this rule, for example if the recent 3D helicopter survey or other new science returns results suggesting more water is available? Certainly, a scientific, evidence-based, approach should be adopted wherever possible – subject to ensuring that impacts on community and economic well-being are also sufficiently taken into account.

- **Policy 37. d) ii) “apply an assessment of actual and reasonable use that reflects land use and water use authorized in the ten years up to 2017**

When renewing consents, it is proposed that new water allocations will be the lower of either the Irricalc volume or the highest-use year out of the 10 from 2007-2017. We have a number of concerns with this. Firstly, we do not believe that HBRC records over the 10-year period are reliable enough to make decisions on, so that weighs against their use. Using Irricalc would also put everyone on the same footing. In fact, the proposal to use the lower of the two options could actually penalize water users who have been more efficient than Irricalc might anticipate – and potentially unfairly. For these reasons, we favor sole use of the Irricalc volumes.

- **Policy 37. e) “mitigate stream depletion effects on lowland streams by providing for stream flow maintenance”**

We are supportive of providing for stream flow maintenance, ie flow augmentation. It is unclear if this will only be available through “schemes”, and how these will be structured run, and costs recovered equitably. If water storage is a component of such schemes, which can be taken at high flows for augmentation at low flows, then takes for such purposes may not need to come out of the already reduced consents? It would be appropriate to have an opportunity to mitigate against our stream depletion effect before any bans are introduced?

- **Rule 9. c) “The quantity taken and used for irrigation is the actual and reasonable amount”**

“Actual vs Reasonable” – as indicated above, this would see previously inefficient irrigators benefit from this. The 10-year period prior to 2017 is also unlikely to have enough data for an accurate analysis, in which case it is unclear where this data will come from exactly? To put this in context, the last compulsory installation of water meters was required in 2016, so the data may simply be unavailable in many instances.

- **Rule 9. e) “other than as provided in (c) or (d) the quantity taken and used is the least of: (i), (ii), (iii).**

Looking at the annual water use over those years, are there any trends, e.g have water takes been increasing yearly?; and, if so, is there potential that this will continue to happen? For example, is a one in 10-year drought potentially becoming more frequent under recent climate change observations? (Point ‘iii’)

Mr Apple NZ Ltd would further like to have the following provisions clarified/amend:

- **Policy 39. b) “assess the relative contribution to stream depletion from groundwater takes and require stream depletion to be off-set equitably by consent holders while providing for exceptions for the use of water for essential human health”**

It is understood that domestic takes are to be reduced from 20m³ to 5m³/day. Does this include Recognised Seasonal Employer (RSE) accommodations? If not, then are these accommodation sites taken into consideration when calculating reasonable water allocations? What is an individual’s water use considered to be daily? We can have 90 or more seasonal employees staying on-site. They generally use water from our “general” commercial water-takes, which can add up. We would want to make sure that water remains available for them, and that our commercial use is not unduly penalised, because in response to worker accommodation issues, we are providing that on-site.

- **Policy 43. e) For the Tutaekuri; “increasing the minimum flow”**

No other catchments are increasing. This is an increase from 2000L/s to 2500L/s. What is the science behind this change as 2700L/s has been the lowest flow rate seen in the past? We are concerned at the need for the increase. We are also aware that a number of orchards have been planted recently, and may not have been factored into the analysis.

- **Policy 48. e) “declining applications to transfer water away from irrigation end uses in order to protect water availability for the irrigation of the versatile land of the Heretaunga Plains for primary production especially the production of food.”**

If the water allocation target of 90 million cubic meters is achieved, why would consent holders be disallowed to transfer water volumes between consent within the same zone? Even if the target is not achieved, or while it is in progress, it is not unreasonable to allow transfer of water from one site to another within the same catchment. It is often the case

that different users have different water demands at different times, and so can “share” their allocations so as to enable efficient use. Surely this would be better than having some producers with insufficient water so as to reduce their production?

To: Hawke's Bay Regional Council
C/o etank@hbrc.govt.nz

Name of Submitter: Greg Evans - Dartmoor Estate Ltd

This is a submission on the following Proposed Plan Change to the Hawke's Bay Regional Resource Management: Plan Change 9 – Tutaekuri, Ahuriri, Ngaruroro and Karamu Catchments.

I could not gain an advantage in trade competition in making this submission.

My submission is:

- I generally support the overall framework of Plan Change 9, to the degree that it reflects a staged approach to improving the management of the TANK Catchments freshwater resources.
- Horticulture is critically important to the future sustainability of the TANK Catchments, and there are some changes required to the proposed plan to ensure that sufficient water is available to provide for that. The value of horticulture and its role in providing for domestic food supply and security, and the ability to feed people in the future is not currently reflected in the proposed Plan Change 9.
- The real freshwater improvements come from the practices I adopt to manage discharges from land I manage (in some cases only temporarily), and my water use. I support requiring all growers to operate at good management practice .
- I also support the ability for a group of landowners to be able to manage environmental issues collectively to improve the effectiveness of the response to water issues. I consider Plan Change 9 should better enable collective approaches to water and nutrient management by reducing the level of detail and specificity in the plan, as every collective grouping will be slightly different and work in a slightly different way, and it is important that this is enabled.
- Where this submission aligns with that of Horticulture New Zealand's submission, I support that submission.
- I oppose the provisions set out in the table below as currently drafted, and seek the amendments set out in the table. I also note that there are likely to be consequential amendments arising from these that may affect the whole plan.

The specific provisions of the proposal that my submission relates to are:

Provisions & general description of issue	Amendments sought
<p><i>Policy 36, 37, 46, 52, TANK 9, TANK 10, TANK 11, Schedule 31 and the Glossary</i></p> <p>Replacement of water permits based on actual and reasonable use</p>	<p>Definition of 'actual and reasonable' is amended to just refer to 'reasonable' and in relation to applications to take and use water is the lesser of:</p> <ul style="list-style-type: none"> a) the quantity specified on the permit due for renewal or any lesser amount applied for; or b) for irrigation takes, the quantity required to meet the modelled crop water demand for the irrigated area with an efficiency of application of no less than 80% as specified by the IRRICALC water demand model (if it is available for the crop and otherwise an equivalent method) and to a 95% reliability of supply. <p>Everywhere that the term 'actual and reasonable' is currently used, it is amended to refer to 'reasonable'.</p>

<p><i>Policy 54, 55, 56, 57, TANK 13, TANK 14, TANK 15 and Schedule 32</i></p> <p>High flow takes and storage</p>	<p>The allocation limit for high flow takes should be revisited. I understand that the TANK collaborative group did not reach a consensus position on the allocation limit and I believe that more water should be made available, as the high flow water currently provides the only means of obtaining new water which will be critical to provide for the future of horticulture – whether that be irrigation of new land, or more water to irrigate existing or new types of crops, and also for use in stream flow maintenance and augmentation schemes. High flow allocations should also be specified for the Karamu, and Ahuriri Catchments (if storage is physically feasible within the Ahuriri Catchment).</p>
<p><i>Policy 51, 52, TANK 7 and TANK 8</i></p> <p>Availability of water for survival of permanent horticultural crops</p>	<p>A specific exemption should be provided in TANK 7 and 8 to allow up to 20m³ to continue to be taken per day to assist the survival of permanent horticultural crops.</p>
<p><i>Policy 48, 52, RRMP 61, RRMP 62, RRMP62a, RRMP62b</i></p> <p>Transfers of water permits</p>	<p>Transfers of all water permits that have been exercised should be enabled.</p>
<p><i>Policy 37 and 38</i></p> <p>Restriction on re-allocation of water</p>	<p>The re-allocation of any water that might become available within the interim groundwater allocation limit or within the limit of any connected water body should be enabled (ie. can be re-allocated before a review of the relevant allocation limits in the plan is undertaken) where it is to be used for primary production purposes (and would be allocated in accordance with proposed definition of 'reasonable' outlined above), or used for a stream flow maintenance and augmentation scheme. Water should also be able to be re-allocated to any applicant – not restricted to existing water permit holders (as at 2020).</p>
<p><i>Policy 37, 39, 40, 41, TANK 18 and Schedule 36</i></p> <p>Stream flow maintenance and augmentation schemes</p>	<p>Schemes should be developed by the regional council in a progressive manner based on when water permits expire, in an equitable manner over a reasonable timeframe that apportions the cost equally and concomitantly across all takes affecting groundwater levels rather than relying on consent applicants to develop schemes, as they don't have the resources or arguably much of the information to do so. Amendments are also required to ensure that flow maintenance requirements only apply to lowland streams where it is feasible, and the presumption should be removed that the mainstem of the Ngaruroro River will be augmented in whole or in part. The requirement to augment the Ngaruroro was not a consensus position of the TANK collaborative group. The position that the group reached was that augmentation should be investigated and I believe amendments should be made to reflect that.</p>
<p><i>Policy 17, 18, 19, 23, 24, TANK 1, TANK 2, Schedule 28, Schedule 30 and the Glossary</i></p>	<p>Amend all provisions that relate to industry schemes to better align requirements with existing and established industry programmes such as GAP schemes.</p>

Industry programmes and landowner collectives	
<i>Policy 21, TANK 5, TANK 6, Schedule 26, Schedule 28 and Schedule 29</i> Land use change and nutrient loss	A definition of what a change to production land use is needs to be provided to clarify what the provisions actually relate to. I also believe that management of nutrients needs to be done at the collective level, because that will enable some land use change to occur, because it could be offset within the collective. Some changes in land must be enabled to allow the horticultural sector in the TANK Catchments to remain sustainable.

My horticultural operation is located at 634 Dartmoor Road, Puketapu and comprises of the following crops and acreage

- Apples – 6 hectares
- Pears – 1.2 hectares
- Stonefruit – 0.7 hectares

Plan Change 9/TANK is likely to affect my business in the following ways:

We may not have enough water for irrigation, which means our crops will suffer resulting in lower yields and/or fruit quality. The inability to irrigate will also impacted on overall tree health leading to increased pest and disease issues along with biannual bearing. Over time yields will drop to a point where economic viability becomes questionable.

Over the past ten years we have invested hundreds of thousands of dollars re-developing the entire orchard into modern apple varieties and growing systems, including new efficient irrigation systems. The uncertainty around water for irrigation puts at risk this investment along with any future development plans.

Orcharding is a high-risk business model at the best of times with so many factors such as weather, markets, and exchange rates outside our control.

Having certainty around water supply is essential for the ongoing growth of our industry.

I seek the following decision from the local authority:

That the plan change is amended as set out in the table above.

I 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.

Signature of submitter:

Date:11/08/2020

Electronic address for service: greg@grochem.com

Contact phone number: 0274 544460

Postal address: 634 Dartmoor Road, RD6, Napier, 4183

Contact person (if submission on behalf of a business or organisation): Greg Evans

To: Hawke's Bay Regional Council
C/o etank@hbrc.govt.nz

Name of Submitter: Roger Brownlie

This is a submission on the following Proposed Plan Change to the Hawke's Bay Regional Resource Management: Plan Change 9 – Tutaekuri, Ahuriri, Ngaruroro and Karamu Catchments.

I could not gain an advantage in trade competition in making this submission.

My submission is:

- I generally support the overall framework of Plan Change 9, to the degree that it reflects a staged approach to improving the management of the TANK Catchments freshwater resources.
- Horticulture is critically important to the future sustainability of the TANK Catchments, and there are some changes required to the proposed plan to ensure that sufficient water is available to provide for that. The value of horticulture and its role in providing for domestic food supply and security, and the ability to feed people in the future is not currently reflected in the proposed Plan Change 9.
- The real freshwater improvements come from the practices I adopt to manage discharges from land I manage (in some cases only temporarily), and my water use. I support requiring all growers to operate at good management practice .
- I also support the ability for a group of landowners to be able to manage environmental issues collectively to improve the effectiveness of the response to water issues. I consider Plan Change 9 should better enable collective approaches to water and nutrient management by reducing the level of detail and specificity in the plan, as every collective grouping will be slightly different and work in a slightly different way, and it is important that this is enabled.
- Where this submission aligns with that of Horticulture New Zealand's submission, I support that submission.
- I oppose the provisions set out in the table below as currently drafted, and seek the amendments set out in the table. I also note that there are likely to be consequential amendments arising from these that may affect the whole plan.

The specific provisions of the proposal that my submission relates to are:

Provisions & general description of issue	Amendments sought
<p><i>Policy 36, 37, 46, 52, TANK 9, TANK 10, TANK 11, Schedule 31 and the Glossary</i></p> <p>Replacement of water permits based on actual and reasonable use</p>	<p>Definition of 'actual and reasonable' is amended to just refer to 'reasonable' and in relation to applications to take and use water is the lesser of:</p> <ul style="list-style-type: none"> a) the quantity specified on the permit due for renewal or any lesser amount applied for; or b) for irrigation takes, the quantity required to meet the modelled crop water demand for the irrigated area with an efficiency of application of no less than 80% as specified by the IRRICALC water demand model (if it is available for the crop and otherwise an equivalent method) and to a 95% reliability of supply. <p>Everywhere that the term 'actual and reasonable' is currently used, it is amended to refer to 'reasonable'.</p>

<p><i>Policy 54, 55, 56, 57, TANK 13, TANK 14, TANK 15 and Schedule 32</i> High flow takes and storage</p>	<p>The allocation limit for high flow takes should be revisited. I understand that the TANK collaborative group did not reach a consensus position on the allocation limit and I believe that more water should be made available, as the high flow water currently provides the only means of obtaining new water which will be critical to provide for the future of horticulture – whether that be irrigation of new land, or more water to irrigate existing or new types of crops, and also for use in stream flow maintenance and augmentation schemes. High flow allocations should also be specified for the Karamu, and Ahuriri Catchments (if storage is physically feasible within the Ahuriri Catchment).</p>
<p><i>Policy 51, 52, TANK 7 and TANK 8</i> Availability of water for survival of permanent horticultural crops</p>	<p>A specific exemption should be provided in TANK 7 and 8 to allow up to 20m³ to continue to be taken per day to assist the survival of permanent horticultural crops.</p>
<p><i>Policy 48, 52, RRMP 61, RRMP 62, RRMP62a, RRMP62b</i> Transfers of water permits</p>	<p>Transfers of all water permits that have been exercised should be enabled.</p>
<p><i>Policy 37 and 38</i> Restriction on re-allocation of water</p>	<p>The re-allocation of any water that might become available within the interim groundwater allocation limit or within the limit of any connected water body should be enabled (ie. can be re-allocated before a review of the relevant allocation limits in the plan is undertaken) where it is to be used for primary production purposes (and would be allocated in accordance with proposed definition of 'reasonable' outlined above), or used for a stream flow maintenance and augmentation scheme. Water should also be able to be re-allocated to any applicant – not restricted to existing water permit holders (as at 2020).</p>
<p><i>Policy 37, 39, 40, 41, TANK 18 and Schedule 36</i> Stream flow maintenance and augmentation schemes</p>	<p>Schemes should be developed by the regional council in a progressive manner based on when water permits expire, in an equitable manner over a reasonable timeframe that apportions the cost equally and concomitantly across all takes affecting groundwater levels rather than relying on consent applicants to develop schemes, as they don't have the resources or arguably much of the information to do so. Amendments are also required to ensure that flow maintenance requirements only apply to lowland streams where it is feasible, and the presumption should be removed that the mainstem of the Ngaruroro River will be augmented in whole or in part. The requirement to augment the Ngaruroro was not a consensus position of the TANK collaborative group. The position that the group reached was that augmentation should be investigated and I believe amendments should be made to reflect that.</p>
<p><i>Policy 17, 18, 19, 23, 24, TANK 1, TANK 2, Schedule 28, Schedule 30 and the Glossary</i></p>	<p>Amend all provisions that relate to industry schemes to better align requirements with existing and established industry programmes such as GAP schemes.</p>

Industry programmes and landowner collectives	
<i>Policy 21, TANK 5, TANK 6, Schedule 26, Schedule 28 and Schedule 29</i> Land use change and nutrient loss	A definition of what a change to production land use is needs to be provided to clarify what the provisions actually relate to. I also believe that management of nutrients needs to be done at the collective level, because that will enable some land use change to occur, because it could be offset within the collective. Some changes in land must be enabled to allow the horticultural sector in the TANK Catchments to remain sustainable.

My horticultural operations are located at 820 & 541 Main North Road, Bay View, Napier also a Lease Block at 47/59 Roger's Road Bay View, Napier and comprises of the following crops and acreage Stone fruit 16 Ha, Apples & Pears 2 Ha we also grow sweet corn and pumpkins on land that is not in orchard production.

Plan Change 9/TANK is likely to affect my business in the following ways. We have been in the business of growing on the land for 3 generations. Personally I have been growing Orchards and Crops for 42 years and want to continue growing for another 30 years and pass this business on so that is sustainable into the future. We supply the New Zealand market as well as export; we have 3 permanent staff and 25 seasonal staff. I may not be able to get enough water for irrigation to grow my crops We need the amount of water available to be from a model that is consistent with the needs of the crop that we are growing and not modeled on our past water use. This is because if we have been prudent in our water use we will be penalized ... therefore water allocation should be modeled for the crop grown. We are redeveloping our orchard to intensive planting systems that will require more water, this also needs to be factored into the model. As growers we are audited through the NZ Gap and Global Gap System, this satisfies our customers that our food is safe and all links in the chain are monitored and Audited. We also have add ons like GRASP which is a requirement for Supermarkets to check our Social practices. Farm Plans should be an add on to the NZ Gap or Global Gap System therefore being more efficient and being under a National Audited system. Horticulture is very important to New Zealand, it feeds our people and other nations people their nutrient requirements and also creates employment which contributes substantially to our economy. We encourage a practical approach to the Proposed Plan Change to the Hawke's Bay Regional Resource Management: Plan Change 9 – Tutaekuri, Ahuriri, Ngaruroro and Karamu Catchments that is sustainable for all stakeholder.

I seek the following decision from the local authority: That the plan change is amended as set out in the table above

I 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.

Signature of submitter:

Date: 11/08/2020

Electronic address for service: the.orchard@xtra.co.nz

Contact phone number: 027 4527999

Postal address : P O Box 41, Bay View, Napier 4149

Contact person (if submission on behalf of a business or organisation):

Submission on Proposed Plan Change 9 (PC9): Hawke's Bay Regional Resource Management Plan

PLEASE NOTE: your submission will become part of a public record of Council documents. This will mean your name, address and contact details will be searchable by other persons.

Bridget Wilton & Miles Leicester

MbandSons

387 Ngatarawa Rd Hastings

MBandSons76@gmail.com

Submission

1. We support the overall framework of PC9, to the degree that it reflects agreements reached by the TANK Group community representatives, developed over more than 6 years of intensive dialogue and providing an integrated catchment solution that best balances the values and interests of the Hawke's Bay community.
2. We oppose elements of PC9 that do not reflect those agreements reached by the TANK Group community representatives.
3. We support amendments proposed by Hawke's Bay Winegrowers' Association Inc. in their submission dated 14 August 2020, in their entirety for our industry as a whole.
4. We seek amendments as set out in Section A of this submission below.
5. We are concerned that PC9's approach to allocation of water and control of farming emissions unfairly penalises viticultural land owners as very low water users and very low emitters compared to other major primary production systems.
6. We are concerned that PC9 will have significant negative effects on our business and I have detailed our concerns on the areas that will directly impact our business in Section B below.

Submission Details:

A. General impact on the wine sector

Plan Provision	Concerns and Reasons	Decision Sought
<p>OBJ TANK 7 Requirement to reduce contaminant losses</p>	<p>This Objective, as currently drafted, could be interpreted to require a reduction in contaminant loss including soil loss from all land use types. Some land use types including viticulture on low-slope land already have negligible contaminant losses (& especially soil losses) and would be unable to achieve any reductions.</p>	<p>Amend OBJ TANK 7 to read “...reduces <u>reduceable</u> contaminant loss...”; or similar wording to achieve the outcome sought in this submission.</p>
<p>OBJ TANK 16 Priority order for water allocation</p>	<p>This Objective establishes a priority order for water allocation which ranks primary production on versatile soils ahead of other primary production.</p> <p>Some viticultural production is on soils that are not considered to be versatile (eg. LUC 7 stoney soils) but is the highest and best primary production use of such soils, is highly efficient low water-use & low- contaminant activities that contribute strongly to community socio-economic development and should rank equally with primary production on versatile soils.</p> <p>The Objective also does not make it clear what the ranking of water bottling activities would be. The Hawke’s Bay community has clearly indicated that water bottling should not be a priority use of water, so should be amended to explicitly record a lower priority, ranking below all other activities involving the economic use of water.</p>	<p>Amend OBJ TANK 16.c to read “Primary production on versatile and <u>viticultural</u> soils”, or similar wording to achieve the outcome sought in this submission.</p> <p>Amend OBJ TANK 16.e to read “<u>Water bottling and</u> other non-commercial end uses”, or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.2.6/7/8 Protection of source water</p>	<p>These three policies adopt a strengthened approach to protection of the quality and quantity of drinking water supplies.</p> <p>I support a precautionary approach to such protection but considers that the policies and rules are unnecessarily onerous and reflect an over-response to the 2016 Havelock North water crisis.</p> <p>The Plan Change draws source protection zones expansively and the control exerted by Council through matters of discretion under TANK rules 2/4/5/6/9/10</p>	<p>Remove the references to assessment of actual or potential effects of activities in the SPZs on Registered Drinking Water Supplies from Rules TANK 4/5/6/9/10. Address risks via Farm Environment Plans, Catchment Collectives and Industry Programmes.</p>

	<p>is uncertain and potentially onerous, particularly on winery point source discharges but also on vineyard farming practices.</p> <p>In addition to the uncertain scope of control, there is a duplication in control because risks to drinking water will also need to be addressed in Farm Environment Plans, Catchment Collectives and Industry Programmes.</p> <p>Retaining the reference in TANK 2 will ensure that a risk assessment will still be made in the event that a property does not have a Farm Environment Plan or is not part of an Industry Programme or Catchment Collective.</p>	
<p>Policy 5.10.3.21 Assessing resource consents in subcatchments exceeding nitrogen objectives or targets</p>	<p>This policy requires Council to have regard to any relevant Industry or Catchment Collective plans in place when assessing resource consents for effect on diffuse discharge of nitrogen. However, as currently drafted, clause 21.d appears to prevent the issuance of any resource consent for any land or water use change that may result in any increased nitrogen loss, where a sub catchment exceeds dissolved nitrogen objectives or targets in Schedule 26.</p> <p>This is unnecessarily constraining of land use change, undermines the role of community collectives, discriminates heavily against viticulture as a particularly low nitrogen source and fails to recognise the 2040 timeline for meeting water quality objectives.</p>	<p>Amend so that Catchment Collectives and Industry Programmes may manage land use change in accordance with the 2040 timeline for meeting water quality objectives.</p> <p>Amend 21.d to read “<u>subject to Policy 21 a)-c)</u>, avoid land use change....” or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.6.36 Heretaunga Plains Aquifer Management</p>	<p>This policy requires Council to “adopt a staged approach to groundwater management that includes: f) avoiding further adverse effects by not allowing new water use and g) reducing existing levels of water use”.</p> <p>The requirement to “not allow new water use” is needlessly restrictive and ostensibly prohibits ANY new [take and] use, including use of new water stored under the high flow allocation provisions of the Plan, as well as potentially the replacement of expiring consents.</p> <p>Similar, the requirement to “reduced existing levels of water use” precludes use of new stored water and fails to recognise that the interim allocation limit of 90 million cubic meters is intended to align with previous actual water usage and that the Heretaunga Plains Aquifer is considered to be overallocated based on</p>	<p>Amend Policy 36.f to read “avoiding further adverse effects by <u>controlling net groundwater use within the interim allocation limit set out in Policy 37</u>” or similar wording to achieve the outcome sought in this submission.</p> <p>Amend Policy 36.g to read “<u>reducing existing levels of encouraging</u> water use <u>efficiency.</u>” or similar wording to achieve the outcome sought in this submission.</p>

	cumulative consented volume (sometimes referred to as “paper volume”) but not on cumulative consented actual use.	
Policy 5.10.6.37.d(ii) “Actual & Reasonable” water allocation approach	<p>This policy requires Council to “when considering applications in respect of existing consents due for expiry, or when reviewing consents, to; ... (ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to August 2017...”.</p> <p>The intent of this policy is understood to be to provide for replacement consent volumes not exceeding the highest use in the driest year in recent history (generally considered to be the 2012/13 water year), for landuse as at August 2017 (the point at which HBRC publicised the decision to cap groundwater usage at current peak dry-year levels). However, since TANK completed and the Plan was drafted, Hawke’s Bay has experienced a severe drought in 2019/20 water year. Given this recent experience and vastly improved water meter data collection in the most recent years, I consider that the 2019/20 water year data should be available as a benchmark dry year.</p> <p>More fundamentally, I disagree with the definition of “Actual and Reasonable” and its inequitable and unworkable approach to allocation of water for replacement of consents that existed as at August 2017.</p> <p>Due to the lack of reliable and comprehensive water metering data from 2012/13 and the impact of vine age and redevelopment timing on actual annual vineyard irrigation requirements, practical difficulties in evidencing historical landuse activities and the risk of penalising efficient users at the expense of inefficient ones, I consider that there should be a presumption that the Hawke’s Bay-specific IRRICALC model is the appropriate measure of “Actual and Reasonable” for the purpose of calculating allocations for those replacement consents.</p>	<p>Amend Policy 37.d(ii) to read “(ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to <u>August 2017 30 June 2020 (the end of the 2020 water year)</u>...”. or similar wording to achieve the outcome sought in this submission.</p> <p>Amend the Glossary definition of “Actual and Reasonable to provide that the volume allocated at consent renewals is the lesser of:</p> <ul style="list-style-type: none"> - the amount calculated by a Hawke’s Bay-specific IRRICALC model at 95% security of supply; - the volume of the expiring consent being replaced.”, <p>or similar wording to achieve the outcome sought in this submission.</p>
Policy 5.10.6.39	This policy subjects consented water users in the Heretaunga Plains Water Management Unit to a regime which requires them to either participate in	I understand that HBRC will be submitting a proposed alternative approach to the requirements in Policy 39. I support, in principle, jointly-funded

<p>Requirement for flow maintenance (augmentation)</p>	<p>stream flow maintenance and habitat enhancement schemes, or cease abstraction once a stream flow maintenance trigger is reached.</p> <p>When this policy was conceived in TANK, it was intended to apply initially to 3 named lowland streams which HBRC science indicated were suitable for a stream flow maintenance scheme. Post-TANK, the Plan has incorporated all streams as well as the mainstem of the Ngaruroro River and I OPPOSE this policy on five main grounds:</p> <ol style="list-style-type: none"> 1. The flow maintenance requirement now proposed, extends far beyond that supported in TANK and the need for such extension has not been justified. 2. In TANK, it was envisaged that HBRC would play a central role in establishing the 3 then-proposed lowland stream augmentation schemes. As HBRC hold all the relevant scientific and technical information required to operationalise such schemes, it is critical that HBRC takes on a central role in their development. 3. Large temporal and spatial spread of consent expiries and large consent numbers make it impractical and inequitable to require consent holders to take full responsibility for the development. 4. No allowance for an orderly transition to any new stream augmentation has been made. The currently proposed provisions could apply immediately from notification of the Plan Change, including to a very large number of currently expired consents (particularly groundwater takes in the unconfined aquifer), whereas stream augmentation schemes may be reasonably expected to take years to commission, particularly the kind of large-scale schemes that would be required to maintain flows in the Ngaruroro River. 5. Consent reallocations under the “Actual and Reasonable” provision of the Plan based on 95% certainty of supply do not provide sufficient water volume to support stream augmentation in dry years and so would decrease the effective certainty of supply of consents. 	<p>collective stream flow maintenance schemes on suitable lowland streams, facilitated by HBRC.</p>
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<p>Policy 5.10.7.51 Water Use and Allocation - Priority</p>	<p>This clause provides for an emergency water management group when making water shortage directions under Section 329 of the RMA, with the group including representatives from various sectors of the community but not including the primary sector. As decisions made in consultation with this group relate inter alia to the provision of water essential for the maintenance of animal welfare and survival of horticultural tree crops and to seasonal demand for primary production, the primary sector should also be represented in the group.</p>	<p>Amend 5.10.7.51 to read “...emergency water management group that shall have representatives from Napier City and Hastings District Councils, NZ Fire Service, DHB, iwi, <u>affected primary sector groups</u> and MPI, to make decisions ...” or similar wording to achieve the outcome sought in this submission.</p>
<p>Policy 5.10.8.59 High Flow Reservation</p>	<p>This policy requires Council to allocate “20% of the total water available at times of high flow in the Ngaruroro or Tūtaekurī River catchments for abstraction, storage and use for” contributions to environmental enhancement and Māori development.</p> <p>This policy originated in an agreement in TANK to reserve 20% of any NEW high flow allocation for Māori development, then underwent significant development and change as Council explored ways to operationalise it and through iwi and RPC consultations.</p> <p>The resulting policy has some fundamental differences to that originally agreed in TANK:</p> <ol style="list-style-type: none"> 1. The Policy refers to the Ngaruroro OR Tūtaekurī River catchments” (emphasis added), whereas the intention in TANK was for it to apply to BOTH rivers. This may just be a drafting error. 2. The Policy now covers water for both Māori development and environmental enhancement but Schedule 32 only refers to Māori development. 3. The allocation rate of 1600L/s for the Ngaruroro River in Schedule 32 represents 20% of the total high flow allocation limit for that river, whereas the TANK agreement was for 20% of the new allocation (6000L/s), ie 1200L/s. 	<p>Policy 59 needs significant re-write to address the above inconsistencies between the policy as it now stands and the framework agreed in TANK. It should distinguish clearly between water for environmental enhancement and water for Māori development, reduce the proposed Māori development reservation for the Ngaruroro River from 1600L/s to 1200L/s in line with the 20% new-water allocation agreed at TANK and remove the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the high flow allocation.</p>

	<p>4. Policy 60 now embodies the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the allocation.</p> <p>5. The Policy now requires “allocation” rather than “reservation”, with uncertain implications for private sector interests</p>	
<p>Rule TANK 5 Land use change</p>	<p>This rule controls land use change to production land use activity over more than 10% of a property or farming enterprise.</p> <p>The rule gives no guidance on what constitutes “change to the production land use activity”, with the result that it is highly uncertain what types of activity are controlled and the rule cannot be practically enforced. For example, is a change from conventional farming to organic farming captured? A change in planting density?</p> <p>Also the rule fails to account for the possibility that a farming enterprise may span multiple water quality management units within a Surface Water Allocation Zone, which may then unintentionally permit land use change beyond 10% of the farming enterprises’ properties within a water quality management unit</p>	<p>The rule needs further development to give more guidance on what changes are intended to be controlled and to control change by farming enterprises within a water quality management unit more appropriately.</p>
<p>Rule TANK 6</p>	<p>This rule restricts change to production land use activity over more than 10% of a property or farming enterprise where there is no Catchment Collective or Industry Programme operative, where modelled land use change effect on total property nitrogen loss exceeds the figures in Table 2 of Schedule 29. Table 2 is populated from per-hectare figures for common primary production systems. The per-hectare figure of 1kg/ha/yr provided for Grapes for Esk/Omahu/Pakipaki Soils is unrealistically low & clearly fails to account for the autumn/winter sheep grazing rotation that commonly occurs on vineyards.</p> <p>Also the Plan Change does not record the version of the models employed to derive the crop loss figures, so is not future-proofed against the effect of future model changes.</p>	<p>Adjust the Grape kg/ha/yr for all soils to recognise winter sheep grazing rotation.</p> <p>Include details of crop model versions used to derive the crop loss figures in Schedule 29 and include a mechanism to address the effects of model and/or version changes to modelled outputs..</p>

<p>Rule TANK 13 Taking water – high flows</p>	<p>This rule provides for capture, storage and use of surface water at times of high flow. I consider this to be a critical element of the overall Plan Change, providing the opportunity to re-engineer the Heretaunga Plains water use profile in a way that multiple & often conflicting interests and values can be addressed.</p>	<p>Supported, subject to amendments to POL 59 & 60 to address concerns about drafting details relating to the 20% Maori/environment reservation.</p>
<p>RRMP Chapter 6.9 - 6.3.1 Bore Drilling & Bore Sealing, Rule 1</p>	<p>This rule change has the effect of making bore drilling within a Source Protection Zone (SPZ) a Restricted Discretionary activity, as opposed to a Controlled activity. The proposed SPZs cover extensive areas of the Heretaunga Plains, particularly in the unconfined aquifer zone where many vineyards are located. The proposed Plan brings in intensive controls over activities in the SPZs and are specifically drawn to capture areas of unconfined aquifer upstream of protected water takes. Given the already-permeable nature of the unconfined aquifer area that comprises the bulk of the SPZs and other substantial controls over landuse activities, there is negligible additional benefit in controlling bore drilling in this area where the bore is a replacement for existing infrastructure. Also the additional expense and uncertainty of Restricted Discretionary status is likely to act as a deterrent to bore replacement as part of a normal maintenance cycle. Accordingly, bore drilling for the purpose of replacement of existing infrastructure in the SPZs should remain a Controlled activity.</p>	<p>Add a Condition to 6.3.1 Rule 1 reading: “<u>c. The bore is located within a Source Protection Zone but is a replacement for an existing bore that will be decommissioned.</u>” or similar wording to achieve the outcome sought in this submission.</p>
<p>Schedule 30 Landowner Collective, Industry Programme and Farm Environment Plan</p>	<p>Schedule 30 sets out the requirements for Farm Environment Plans, Landowner Collectives and Industry Programmes, as a method primarily to address the cumulative effects of land use. I support this general approach over more prescriptive approaches, as it provides flexibility for landowners to achieve environmental objectives in the most efficient ways.</p> <p>The NZ wine industry has a long standing and highly respected industry sustainability programme (Sustainable Winegrowing New Zealand - SWNZ), which the industry intends to further develop to achieve equivalency with a Farm Environment Plan. However, as the environmental profile of vineyards is dramatically different from (and in most respects lower than) that of other major primary industries, SWNZ does not comfortably fit within the PC9 framework and</p>	<p>Schedule 30 should be less prescriptive, more facilitative and more industry risk profile-based in respect of Industry Programmes. The Programme Requirements in Section B of Schedule 30 as they relate to Industry Programmes should be re-cast as a more of a guideline, with an acknowledgement that detailed requirements can vary depending on the Industry’s risk and emissions profile as it relates to catchment objectives.</p> <p>Amend all references to Farm Environment Plan in this Plan Change to “freshwater farm plan” and otherwise align the Plan Change requirements to</p>

	<p>it is inefficient and counterproductive to apply an essentially pastoral-farming approach to viticulture.</p> <p>Schedule 30 also does not recognise the recent policy advances made nationally via the government's Essential Freshwater package and in particular the Resource Management Amendment Act 2020, which provides for a national framework of "freshwater farm plans", to be operationalised via S.360 regulations.</p> <p>I consider that the references to and requirements for a Farm Environment Plan in this Plan Change ought to be aligned with the Resource Management Amendment Act 2020 and related S.360 regulations and that these national requirements should be adopted by the Plan Change, in the interests of national standardisation and longer-term efficiency.</p>	<p>those of the Resource Management Amendment Act 2020 and related S.360 regulations.</p>
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B. Specific impact on us and our business

Our horticultural business leases, manages and reside across 5 separate sites in the Omahu, Gimblet and Bridge Pa Triangle areas. We are a family business currently employing 1 full time staff member and working in the business ourselves. We also employ numerous seasonal staff. Each property has very different water and nutrient requirements. We are concerned that PC9 will impact on our business in the following ways and seek the following relief:

Plan Provision	Impact, Concerns and Reasons	Decision Sought
Rule TANK 5 Land use change	Our current business plan is to convert 5ha of uneconomic grape land to berry production under tunnels. This is 50% of that property area. A very different water and nutrient use model. And will employ 2 more permanent staff. The concern is that we will not be able to do this and the land will be of little value as is.	The rule needs further development to give more guidance on what changes are intended to be controlled and to control change by farming enterprises within a water quality management unit more appropriately.
Rule TANK 6	This rule restricts change to production land use activity. Concerns the longer-term viability of the land	
Policy 5.10.6.37.d(ii) “Actual & Reasonable” water allocation approach	This policy requires Council to “when considering applications in respect of existing consents due for expiry, or when reviewing consents, to; ... (ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to August 2017...”. The intent of this policy is understood to be to provide for replacement consent volumes not exceeding the highest use in the driest year in recent history (generally considered to be the 2012/13 water year), for land use as at August 2017 (the point at which HBRC publicised the decision to cap groundwater usage at current peak dry-year levels). However, since TANK completed and the Plan was drafted, Hawke’s Bay has experienced a severe drought in 2019/20 water year. Given this recent experience and vastly improved water meter data	Amend Policy 37.d(ii) to read “(ii) apply an assessment of actual and reasonable use that reflects land use and water use authorised in the ten years up to August 2017 30 June 2020 (the end of the 2020 water year) ...”. or similar wording to achieve the outcome sought in this submission. Amend the Glossary definition of “Actual and Reasonable to provide that the volume allocated at consent renewals is the lesser of: - the amount calculated by a Hawke’s Bay-specific IRRICALC model at 95% security of supply;

	<p>collection in the most recent years, I consider that the 2019/20 water year data should be available as a benchmark dry year.</p> <p>More fundamentally, I disagree with the definition of “Actual and Reasonable” and its inequitable and unworkable approach to allocation of water for replacement of consents that existed as at August 2017.</p> <p>Due to the lack of reliable and comprehensive water metering data from 2012/13 and the impact of vine age and redevelopment timing on actual annual vineyard irrigation requirements, practical difficulties in evidencing historical landuse activities and the risk of penalising efficient users at the expense of inefficient ones, I consider that there should be a presumption that the Hawke’s Bay-specific IRRICALC model is the appropriate measure of “Actual and Reasonable” for the purpose of calculating allocations for those replacement consents.</p>	<p>- the volume of the expiring consent being replaced.”, or similar wording to achieve the outcome sought in this submission.</p>
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We do not wish to be heard in support of our submission.

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

MBandSons

Bridget Wilton 021 363 807

Miles Leicester 021 2979 106



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Farmer Submission Template: Hawkes Bay Regional Council Plan Change 9 – TANK Plan.

Beef + Lamb New Zealand will be making a submission on behalf of the sheep and beef sector on Hawkes Bay Regional Council's Proposed Plan Change 9 (TANK).

Many farmers want to also make their own submission to the Government. This template is designed to help those sheep and beef farmers wishing to make their own submission.

Steps for writing your own submission :

1. Review the Proposed Plan Change 9 (TANK) document here:
<https://www.hbrc.govt.nz/assets/Document-Library/TANK/TANK-Key-Reports/Proposed-TANK-Plan-Change-9.pdf>
2. Populate this submission template.
 - a. Review the suggested feedback. *Delete any comments that you disagree with.*
 - b. Remember to personalise your submission by using the prompts in the text box below to help you.
3. Head to <https://www.consultations.nz/hbrc/the-proposed-tank-plan/> to complete your submission.

Why personalise your submission?

Including your personal story and talking about how the proposal could impact you is really important. It leaves a lasting impression with policy makers, and helps the Council to understand how its proposal will affect people.

How did B+LNZ develop the suggested comments for farmers to use?

The comments for you to cut and paste were developed by B+LNZ using:

- Farmer feedback, collected from 12 nationwide workshops run by B+LNZ over the past month;
- Advice from consultation with policy and planning experts ;
- Engagement with approx. 100 local farmers specifically on TANK through workshops held in Patoka, Puketapu and Maraekakaho.



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HAWKES BAY REGIONAL COUNCIL PROPOSED PLAN CHANGE 9 (TANK)

Submission on Hawkes Bay Regional Councils publicly notified proposed Plan Change 9 (TANK).

On: Hawkes Bay Regional Council – proposed Plan Change 9 (TANK).

To: **Hawkes Bay Regional Council**

Personal Information

Company name: j and s white contracting ltd

Given names*jeremy:

Surname white

Contact person: jeremy

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Country: nz

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Submission

- Thank you for the opportunity to provide feedback on the proposed Plan Change 9 (TANK).

Background about my farm

Why am I making this submission?

Sharron and myself have been farming in the Waihou stream catchment for the last four years, farming sheep and beef. During this time we have had some trying times, [mycoplasma bovis] which has made farming challenging, but we have stayed focused on our belief in bettering the environment. We have fenced and planted significant areas, and water ways, including all of the Waihou stream running through our property, with help from the HB regional council, with challenging times in the world we need to have flexibility in our farming systems.

Why am I making this submission?

(Keep this section brief. It is not required for your submission, but does help set the scene)

We all have the environment at heart, and need rules in place to make sure this happens, but we also need a lot of different options in today's economy so don't need to be restricted on how we farm our properties, there needs to be a balance between rules and education.

Section A: General responses to the proposals:

- I support the purpose of Plan Change 9 to give effect to the Hawkes Bay Regional Council Policy Statement as well as the National Policy Statement for Freshwater Management. I recognise that this requires Council to identify values, and establish methods, including limits, to ensure those objectives are met.
- I support provisions (Obj TANK 1 & 2) which recognise that successful environment outcomes for freshwater ecological health require landowner and community support and leadership. I ask for these to be retained as proposed, and for policies to be amended or included to enable catchment collective approaches to management as a priority. Provisions need to recognise that people are critical to maintaining and enhancing freshwater ecological health and acknowledge the importance of respecting and fostering the contribution of landowners as custodians and Kaitiaki to these catchments.



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- I support provisions (policies 5.10.3 Industry Programmes & Catchment Management) which recognise farmers and communities contributions to achieving environmental outcomes and give landowners the opportunity to continue to grow and develop 'ground up' approaches both individually or collectively. I ask for these to be retained as proposed.
- I am deeply concerned that stock water is not appropriately provided for (Obj TANK 16, 17, and 18, associated policies 5.10.7, and rules). The continuous provision of water is critical to animal welfare and should be a priority take above other non-essential takes. I oppose provisions which relate to water takes and management and which fail to provide for stock drinking water as a priority take.
- I am deeply concerned about the nitrogen leaching limits set in Schedule 29 which place an upper limit to how much nitrogen can be leached specific to a productive land use. I oppose provisions which restrict innovation and remove the opportunity for landowners to achieve environmental outcomes while remaining adaptable to change in circumstances. I consider sector averaging to be effectively the 'grandparenting' of land which locks farmers in at their existing farm systems and land uses, preventing the ability to adjust stocking rates, inputs or change land use. Flexibility and the ability to adapt and innovate is an integral part of the resilience of the sector .
- I support with amendments objectives to increase riparian planting and wetlands (policies 5.10.2). I seek that these provisions are implemented through non regulatory methods and not regulation. I seek more information is provided as to how Council intends to facilitate meeting the targets specified i.e. funding assistance and support.
- I oppose provisions which are ambiguous and where the implications for my farm or community are not clear (Rule TANK 3, TANK 7). I seek that these are deleted, or alternatively amended to provide clarity and ensure that they can be implemented on farm in a practicable way. In particular, I seek clarity about what waterways will need to be excluded from stock access.
- The specific provisions of the proposal that this submission relates to and the decisions it seeks are as detailed in the table in Section B below.

- *Think about in a general way what are the overarching aspects of the Plan Change 9 that you either agree with or disagree with eg access of stock to drinking water, farm environment planning, catchment community initiatives, stock exclusion from waterbodies, water for abstraction.*



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Section B: Specific responses to the proposals:

Specific Provision in the Proposed Plan	Submission	Decision sought
<i>The specific provisions my submission relates to are:</i>	<i>My submission is that:</i>	<i>The decision I would like Hawkes Bay Regional Council to make is:</i>
<p><i>Review the following comments. Delete any comments that you disagree with. Remember to personalise your submission by using the prompts in the grey box below to help you.</i></p>		
<p>TANK 1 (The use of productive land greater than 10ha.)</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> I support with amendments. I support that farmers are provided a Permitted Activity pathway and are able to continue to farm without requiring a Resource Consent in recognition that location solutions and innovative and flexible responses are effective in managing water quality outcomes. I support provisions which recognise and empower ground up, landowner and community led conservation actions, and which prioritise non-regulatory over regulation management frameworks. I support provisions which incentivise farmers (by means of a permitted activity pathway) to develop a Farm Plan or be part of a Catchment Collective . I support the recognition that people and communities are critical to achieving good environmental outcomes. 	<ul style="list-style-type: none"> I seek that the requirement for the Farm Environment Plan be prepared by a person with the professional qualifications necessary to prepare such a plan (Schedule 30, Section C, 1.1(a)) be removed and propose that farmers are able to prepare their own Farm Environment Plan. Farmers should be involved in the preparation of their own Farm Plan and 'own' the document. By being involved in the preparation, the implementation of them is more likely to be successful. Farms Plans prepared by professionals with little appreciation of the day to day operation of the Farm are less likely to be affective.
<p><i>Use these prompts to help you personalise your s ubmission</i></p> <ul style="list-style-type: none"> <i>Write about your connection to your farm and what you're already doing to manage and protect against environment risk. Examples include protecting native bush, pest control, fencing and planting. Why do you do these things?</i> <i>Think about what things your community does already, and why the Council recognising a collaborative approach to environment management validates your efforts and empowers you r community to continue working together .</i> 		



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<ul style="list-style-type: none"> • Think about your farm as a whole, what do you do to deliver economic, environmental, cultural and social benefits? • These points will highlight what farmers and communities already do and why a permitted activity pathway for farming is a good idea. • What support from Council would encourage/enable you to undertake more of these types of 'custodianship' actions? • Consider how a permitted activity pathway empowers you to be in control of your farm and contribute positively to your community. • If you already have some form of Farm Plan, talk about it and why it works well. 		
<p>Schedule 29: Land Use Change</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> • I oppose this provision. • Management frameworks should be equitable across land uses and focussed on environmental outcomes/ effects. • I oppose land use specific Nitrogen Loss restrictions. Farmers should be able to remain flexible and adaptive to change in circumstances. • Allocating nutrients in such a way that unnecessarily limits land use change contrains the ability of land users to respond to those changes and optimially utilise the land resource. • Including land use specific Nitrogen restrictions places unfair advantage on some land uses over others, and limits farmers ability to adapt to change in circumstances. 	<ul style="list-style-type: none"> • I seek that Table 1 in Schedule 29 is deleted and propose that a 'flat rate per hectare' permitted threshold is applied (e.g. 20kgN/ha/yr) irrespective of land use and land use change. • Any Nitrogen risk threshold should be tailored to the catchment and specific to working towards achieving freshwater values. • This approach will ensure that those land uses which contribute unsustainable amounts bear the cost of reducing the overallocation while those discharging at or below the sustainable level (<20kgN/ha) are enabled to continue and are flexible to adapt to change in circumstances.
<p>Use these prompts to help you personalise your submission</p> <ul style="list-style-type: none"> • Think about what circumstances affect nitrogen loss on your farm. Talk about your experiences and why you need flexibility in to be able to respond to changing circumstances . 		
<p>TANK 2</p> <p>The use of productive land greater than 10ha.</p>	<ul style="list-style-type: none"> • I support this Rule. • I support the controlled activity status given to use of productive land that does not meet TANK 1 (is operated 	<ul style="list-style-type: none"> • I seek that TANK 2 is retained as proposed.



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<p>Associated Objectives and Policies.</p>	<p>without a farm environment plan or part of a catchment collective). This gives landowners options where they do not favour a FEP or working collectively. This provides Council the ability to impose conditions bespoke to the farm in its catchment context but also gives certainty to farmers that their consent will be granted.</p>	
<p><i>Use these prompts to help you personalise your submission</i></p> <ul style="list-style-type: none"> Consider your understanding of activity status 's; acknowledge your understanding that a Resource Consent for a controlled activity must be granted and is likely to be a shorter, less costly Resource Consent. Consider how this certainty contributes to your willingness to engage in the consenting process. 		
<p>TANK 3 Stock Access to rivers, lakes and wetlands.</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> Support with amendments. I support requirements to avoid adverse effects on waterways caused by stock but need the rule to be amended to provide clarity and be practicable when implemented. 	<ul style="list-style-type: none"> I seek that the word 'bed' in TANK 3 & 4 is defined and that the definition used by Horizon's Council is adopted being '<i>Active bed means the bed of a river that is intermittently flowing and where the bed is predominantly unvegetated and comprises sand, gravel, boulders or similar material</i>'. I seek that the provision is changed to align with the National Policy Statement for Essential Freshwater Management, specifically that exclusion only apply to waterways greater than 1m wide, the stocking rate of 18su/ha is deleted and that hill country farms are excluded. This provides clarity to landowners when implementing the rule and is a practical and reasonable definition. This definition ensures stock are not unnecessarily excluded from



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		certain areas of the farm which would lead to unnecessary cost and loss of productive land.
<p><i>Use these prompts to help you personalise your submission</i></p> <ul style="list-style-type: none"> • <i>Think about how this rule would be applied on your farm. Is there anything that you need clarified to know how it would work practical y on the ground? I.e. what would or wouldn 't be excluded?</i> 		
<p>TANK 5 Use of Production Land (change in use of more than 10% of land on a property greater than 10ha)</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> • I support with amendments. • I support the Controlled Activity Status given to Change in Land Use but oppose the requirement for landowners to be part of a Catchment Collective to be a Controlled Activity when changing the use of their land. 	<ul style="list-style-type: none"> • I seek that Condition b) be amended to include Farm Environment Plans meeting the requirements of Schedule 30C. • I seek that this rule is amended so that the threshold for change is 20ha or 20% of the property whichever is greater. • This is consistent with TANK 1 & 2 which encourage the development of Farm Environment Plans or landowners to be part of Catchment Collectives.
<p><i>Use these prompts to help you personalise your submission</i></p> <ul style="list-style-type: none"> • <i>Again, consider your understanding of the activity status 's. Acknowledge your understanding that a Resource Consent for a controlled activity must be granted and is likely to be a shorter, less costly Resource Consent. Consider how this certainty contributes to your willingness to engage in the consenting process if you are changing your land use significantly.</i> 		
<p>Stock Drinking Water Section 6.10.2 Water Take and Use.</p> <p>Associated Objectives and Policies.</p>	<ul style="list-style-type: none"> • I oppose that the TANK Plan does not appropriately provide for stock drinking water as a permitted activity and priority take. 	<ul style="list-style-type: none"> • Stock water and domestic needs to be our right as nz farmers ,so there for there should be no limit to the water take nor the need to monitor from any water source ,there should be no infulance on the way we farm regarding stocks need for water • This ensures the welfare of animals is protected. No mater what the climate conditons are.
<p><i>Use these prompts to help you personalise your submission.</i></p> <ul style="list-style-type: none"> • <i>Consider your stock water requirements;</i> • <i>Implications for stock drinking water in response to rules requiring stock to be excluded from waterbodies and</i> 		



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therefore the need for on farm water reticulation.

Conclusion

- *Add any final or summarising comments.*
- Thank you again for the opportunity to comment on the proposed changes. I/We welcome the opportunity to further discuss any of the points above with Hawkes Bay Regional Council, should you wish for more information.
- For any inquiries relating to this feedback please contact *[name of person or yourself who will deal with any enquiries]* on *[number, email address etc.]*.

Yours faithfully,

[Signature]

[jeremy whiteName]

[13.8.20]

Date]