

**IN THE ENVIRONMENT COURT
I MUA I TE KŌTI TAIAO O AOTEAROA
WELLINGTON REGISTRY
TE WHANGANUI-A-TARA ROHE**

ENV-2022-_____

UNDER the Resource Management Act 1991

IN THE MATTER OF an appeal under clause 14 of Schedule 1 of the Act in relation to the Proposed Plan Change 9 to Hawke's Bay Regional Council's Regional Resource Management Plan

BETWEEN **FEDERATED FARMERS OF NEW ZEALAND INCORPORATED**

Appellant

AND **HAWKE'S BAY REGIONAL COUNCIL**

Respondent

**NOTICE OF APPEAL BY FEDERATED FARMERS OF NEW ZEALAND
INCORPORATED AGAINST DECISIONS ON PROPOSED PLAN CHANGE 9 TO
THE HAWKE'S BAY REGIONAL RESOURCE MANAGEMENT PLAN**

25 October 2022



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To: **The Registrar of the Environment Court**

1. Federated Farmers of New Zealand Incorporated (**Federated Farmers**) appeals against the decision of Hawke's Bay Regional Council (**HBRC**) on Proposed Plan Change 9 to the Regional Resource Management Plan (**TANK**).
2. Federated Farmers made a submission on TANK.
3. Federated Farmers is not a trade competitor for the purposes of section 308D of the Act.
4. Federated Farmers received notice of HBRC's decision on TANK on 9 September 2022.
5. The decision was made by HBRC.
6. Federated Farmers is appealing against the HBRC's decision on the provisions in the first column of the **attached** appeal table (**Appendix A**). Provisions in the first column may be duplicated to distinguish between matters/issues. The matters/issues raised by this appeal relate to:¹
 - (a) Use of production land;
 - (b) Water takes and limits;
 - (c) Climate change;
 - (d) Source protection zones;
 - (e) Registered drinking water supplies;
 - (f) Wetlands;
 - (g) Riparian margins;
 - (h) Farm plans;
 - (i) Municipal and industrial water takes;

¹ These are included as headings within the Appendix A table.

- (j) Stormwater;
 - (k) Water Quality;
 - (l) Vegetation clearance.
7. Federated Farmers' reasons for the appeal are set out in the second column of Attachment A. In addition to the specific reasons given in the second column, Federated Farmers is appealing the decisions because the provisions:
- (a) unnecessarily duplicate regulatory controls already contained in national directions and regulations, including the Resource Management (National Environmental Standards for Freshwater) Regulations 2020; and
 - (b) fail to give proper effect to the National Policy Statement for Freshwater Management 2020 or its predecessor the National Policy Statement for Freshwater Management 2014 (as amended in 2017); and
 - (c) is not in accordance with the provisions of Part 2 of the Resource Management Act 1991, including failing to properly promote the sustainable management of natural and physical resources.
8. Federated Farmers is seeking the relief set out in the third column of Attachment A and any consequential relief required to resolve this appeal.
9. Federated Farmers **attaches** the following documents to this notice:
- (a) A copy of Federated Farmers' submission and further submission on TANK (**Appendix B**);
 - (b) A copy of the decision of the Independent Hearing Panel and Appendix 3 to that decision, being "a clean version of PPC9" (**Appendix C**);²

² All the decision documents can be found on [HBRC's website](#).

- (c) A list of names and address of persons to be served with a copy of this notice (**Appendix D**).



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Counsel for Federated Farmers of New Zealand Incorporated

DATE: 25 October 2022

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Advice to recipients of copy of notice of appeal

How to become party to proceedings

You may be a party to the appeal if you made a submission or a further submission on the matter of this appeal.

To become a party to the appeal, you must,—

- within 15 working days after the period for lodging a notice of appeal ends, lodge a notice of your wish to be a party to the proceedings (in form 33) with the Environment Court and serve copies of your notice on the relevant local authority and the appellant; and
- within 20 working days after the period for lodging a notice of appeal ends, serve copies of your notice on all other parties.

Your right to be a party to the proceedings in the court may be limited by the trade competition provisions in section 274(1) and Part 11A of the Act.

You may apply to the Environment Court under section 281 of the Act for a waiver of the above timing or service requirements (see form 38).

Advice

If you have any questions about this notice, contact the Environment Court in Auckland, Wellington, or Christchurch.

Appendix A – appeal table

Decision appealed	Reasons	Relief Sought
<i>Use of production land</i>		
Definition of “Land Use Change”	<p>1. These provisions will unnecessarily limit:</p> <p>(a) the interchange between arable and horticultural land use, and pastoral land use; and</p> <p>(b) farmers’ ability to reduce their carbon emissions or respond to climate change (see reasons under the heading “Climate Change”).</p>	<p>Amend the definition as follows:</p> <p>Land Use Change means a change from one leaching level to a higher leaching level as shown in Table 1 of Schedule 28 or where the area of intensive winter grazing is changed by more than the amounts specified. Land use change does not include where there is arable or vegetable horticultural cropping on a rotational basis <u>regardless of the timescale (including with animal grazing, and includes hay/silage cropping rotations)</u>, and including on lease land at variable locations, where the total area of arable or vegetable cropping on that farm does not change by more than the amounts specified.</p>
Rule TANK 3 Use of Production Land	2.	Delete the conditions/standards/terms to Rule TANK 3.
Rule TANK 4 Use of Production Land	(a)	Delete Rule TANK 4 in its entirety.
Rule TANK 5 Use of Production Land		Delete Rule TANK 5 in its entirety.
Schedule 28: Land Use Change	(b)	Amend Table 1 of Schedule 28 by deleting Row 5, re “Commercial Vegetable Growing”.

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Decision appealed	Reasons	Relief Sought
	<p>3. The decision in respect of these provisions duplicates, and is unnecessarily more restrictive than, the Resource Management (National Environmental Standards for Freshwater) Regulations 2020.</p> <p>4. The provisions are unclear, confusing and inconsistent, and require clarification.</p>	
<i>Water takes and limits</i>		
Policy POL TANK 46	<p>1. Consent durations should be extended to 20 years:</p> <p>(a) Because of the additional hurdles TANK imposes on farmers, including the increased level of assessment required for resource consent applications; and</p> <p>(b) To provide farmers certainty, which enables long term investment.</p>	<p>Amend Policy POL TANK 46(g) as follows:</p> <p>(g) will impose consent durations of 15 years <u>20 years</u> according to specified water quantity area expiry dates as specified in Schedule 32. Future dates for expiry or review of consents within that catchment are every 15 years <u>20 years</u> thereafter</p>

Decision appealed	Reasons	Relief Sought
Policy POL TANK 50	<ol style="list-style-type: none"> 1. The decision to regulate s 14(3)(b) takes is unlawful. 2. Policy POL TANK 50 fails to provide a basis to implement the rules. 3. The provision unnecessarily restricts water use in under-allocated catchments. 	<p>Amend Policy POL TANK 50 as follows:</p> <p>The Council will phase out over-allocation by:</p> <p>a) preventing <u>requiring discretionary consent</u> for any new allocation of water (not including any reallocation in respect of permits issued before 2 May 2020, or high flow allocations)</p> <p>...</p> <p>d) reducing the amount of water permitted to be taken without consent, including those provided for by Section 14 (3)(b) of the RMA, except for authorised uses existing before 2 May 2020</p> <p>...</p>
Objective OBJ TANK 14	<ol style="list-style-type: none"> 1. The RMA is an effects-based regime which is not suited to distinctions between groups of people. Water allocation should be based on effects only. 	<p>Amend Objective OBJ TANK 14 as follows:</p> <p>The allocation and use of water results in <u>the sustainable management of freshwater quantity within limits, while enabling:</u></p> <p>...</p>
Policy POL TANK 57	<ol style="list-style-type: none"> 2. Reserving a portion of high-flow allocation for Māori Economic 	<p>Amend Policy POL TANK 57 as follows:</p>

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Decision appealed	Reasons	Relief Sought
	<p>Development is likely to disincentivise investment in water storage infrastructure required for increased climate change resilience.</p> <p>3. Regulatory intervention in matters like this disempowers communities to resolve allocation themselves. Instead, allocation of water at times of high-flow should be through non-regulatory methods that take into account the needs of communities as a whole.</p>	<p>The Council will allocate 20% of the total water available at times of high flow in the Ngaruroro or Tūtaekurī River catchments as specified in Schedule 31 for abstraction, storage and use for the following activities:</p> <p>a) contribution to environmental enhancement that is in addition to any conditions imposed on the water storage proposal</p> <p>b) improvement of access to water for domestic use at marae and papakāinga</p> <p>c) the use <u>and storage</u> of water for any activity, provided that:</p> <ul style="list-style-type: none"> i. it includes contribution to a fund managed by the Council in consultation with tangata whenua ii. the fund will be used to provide for development of Māori wellbeing iii. the contribution to the fund is proportional to the amount of reserved water being taken and any commercial returns resulting from the application <p>d) the development of land returned to a Post-Settlement Governance Entity (PSGE) through a Treaty Settlement.</p> <p>And in making decisions on applications to take and store this water the Council will:</p> <p>e) require information to be provided that demonstrates how the activity will provide for Māori <u>community</u> economic, cultural or social well-being</p>

Decision appealed	Reasons	Relief Sought
		<p>f) have regard to the views of any affected PSGE or iwi authority arising from consultation about the application and any assessment of the potential to provide part, or all of the 20% high flow allocation</p> <p>g) have regard to any relevant provisions for the storage and use of high flow allocation water for Māori development in any joint iwi/hapū management plans relevant to the application (where more than one PSGE, iwi/hapū is affected, the iwi management plan must be jointly prepared by the affected iwi/hapū).</p>
Policy POL TANK 58		Delete Policy POL TANK 58.
<p>Rule TANK 6 Surface Water Take</p> <p>Rule TANK 7 Groundwater Take</p>	<p>1. The decision to regulate s 14(3)(b) takes is unlawful.</p>	Amend the activity described in Rules TANK 6 and 7 by removing the phase “including under Section 14(3)(b) of the RMA”.
Rule TANK 12 Groundwater and Surface water take	<p>1. Prohibited status does not allow for an unforeseen situation, such as water for livestock after an emergency such as an earthquake. Non-complying status requires rigorous scrutiny which will discourage frivolous consent applications.</p>	Amend the activity status of Rule TANK 12 to be non-complying.

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Decision appealed	Reasons	Relief Sought
New Rule TANK X	<ol style="list-style-type: none"> 1. Water take consents in under-allocated catchments should be easier to obtain. Discretionary status for all new consents in Rule TANK 10, regardless of what catchment it is located in, is too onerous. 2. Existing permit holders should have the ability to transfer unused allocated water among each other, especially where permit holders work together to pool their collective mitigation strategies and work collectively to manage the environmental impacts at a spatial scale. 	Create a new rule to take water in under-allocated catchments as a restricted discretionary activity.
RRMP Rules 61 and 62	<ol style="list-style-type: none"> 1. Transfers between irrigation users who are within the same Catchment should be allowed in recognition of individual and collective efforts to manage water use, and make savings at times of high-flow and require more water at other times. 2. Existing permit holders should have the ability to transfer unused allocated water among each other, especially 	<p>Amend the following conditions/standards/terms for RRMP Rules 61 and 62 as follows:</p> <p>[f./e.] The transfer is not in any Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchment, <u>except that transfers of unused water allocated in water permits shall be allowed between irrigation users within the same Catchment.</u></p>

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Decision appealed	Reasons	Relief Sought	
	<p>where permit holders work together to pool their collective mitigation strategies and work collectively to manage the environmental impacts at a spatial scale.</p>		
Objective OBJ TANK 2	1. TANK and the HB RRMP already contain extensive limits on water takes rendering the additional 90 million cubic meter limit superfluous.	Amend Objective OBJ TANK 2 by removing paragraph (c).	17
Policy POL TANK 34	<p>2. Contrary to the decision of the Hearing Panel, there is a risk of the 90 million cubic metre limit being read as a hard limit.</p> <p>3. The limit does not have a proper evidential basis. The Hearing Panel recommendation records the limit is a “best estimate” by HBRC and “not strictly based on any firm scientific assessment”.</p>	<p>Amend Policy POL TANK 34 as follows:</p> <p>In managing the allocation and use of groundwater in the Heretaunga Plains Groundwater Quantity Area, the Council will:</p> <p>a) adopt an interim allocation limit of 90 million cubic metres per year based on Actual and Reasonable water use</p> <p>...</p>	18
Rule TANK 13 Taking water – high flows	1. The provisions fail to encourage harvesting of water, particularly for storage, during times of high flow. This would enable users of water,	Amend Rule TANK 13 to have a controlled activity status.	19

Decision appealed	Reasons	Relief Sought
	<p>including farmers, to make the most of the resource while it is in abundance to reduce the impact of water shortages.</p>	
<p>Schedule 30: Flows, Levels and Allocation Limits</p>	<ol style="list-style-type: none"> <li>1. There is insufficient evidence to justify imposing a limitation on Zone 1 Ground water. Hydrological connection in Zone 1 is highly uncertain, therefore, there can be no guarantee in respect of the outcomes sought by this limitation (e.g. whose water supply bore takes are affected and by what). <li>2. This uncertainty also undermines the ability of individual users to comply. Compliance with provisions based on uncertain information will give rise to inequities in freshwater resource allocation . <li>3. The economic effect on water users has not been properly considered. <li>4. Given TANK sets limits on flows and levels in surface water and ground 	<p>Amend Schedule 30 by removing all references to “Zone 1 Groundwater”.</p>

Decision appealed	Reasons	Relief Sought
	water bodies, the requirement to limit 'Zone 1' groundwater is unnecessary.	
<i>Climate Change</i>		
Objective OBJ TANK 3	1. The Hawkes Bay region must be able to manage water in a way that ensures climate change resilience. TANK and the HB RRMP should enable water users, including farmers, to take and store water during periods of abundance for use when water is limited.	Amend Objective OBJ TANK 3 as follows: Climate change <u>resilience</u> is taken into account when making decisions about land and water management within the TANK catchments.
Rule TANK 8 Groundwater Take – Heretaunga Plains		Add the following Matter for Control/Discretion to Rules TANK 8, 9, 15, and 19: <u>(x) Whether the activity seeks to improve climate resilience by storing</u>
Rule TANK 9 Surface and groundwater water takes (abstraction at low flows)	2. The provisions limit farmers' ability to reduce their carbon emissions or respond to climate change. The social, economic, and cultural well-being of communities is critical for bolstering community resilience to the impacts of climate change.	<u>water.</u>
Rule TANK 15 Take and use from storage		
Rule TANK 19 Stream Flow Maintenance and Habitat Enhancement Scheme		

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Decision appealed	Reasons	Relief Sought		
<i>Source Protection Zones</i>				
Definition of “Source Protection Zone (SPZ)”	<p>1. The decisions version of TANK takes an inconsistent approach to identifying Source Protection Zones by:</p> <p>(a) identifying some on Maps 1 and 2 to Schedule 34; and</p> <p>(b) having a definition wider than the maps.</p> <p>This does not give plan users sufficient certainty as to whether they are undertaking activities within a Source Protection Zone or not.</p>	Amend the definition of “Source Protection Zone (SPZ)” to mean:	26	
RRMP Rule 1 – Bore drilling		Amend the conditions/standards/terms for RRMP Rule 5 by removing paragraph (b).	27	
RRMP Rule 4 – Decommissioning of bores		Amend the conditions/standards/terms for RRMP Rule 4 by adding the words “upon requested” to the end of paragraph (f).	28	
RRMP Rule 5 – Feedlots and feedpads		Amend the conditions/standards/terms for RRMP Rule 5 by removing paragraph (e).	29	
RRMP Rule 13 – Use of compost, biosolids and other soil conditioners		<p>2. The provisions unnecessarily:</p> <p>(a) limit activities that can be carried out within Source Protection Zones; and</p> <p>(b) duplicate regulatory controls.</p>	Amend the conditions/standards/terms for RRMP Rule 13 by removing paragraph (j).	30
RRMP Rule 14 – Animal effluent			Amend the conditions/standards/terms for RRMP Rule 14 by removing paragraph (h).	31
RRMP Rule 15 – Discharge of animal effluent in sensitive catchments			Amend the activity for RRMP Rule 15 by removing the words “or in any Source Protection Zone”.	32
RRMP Rule 37 – New Sewage Systems	Amend the matters for conditions/standards/terms for RRMP Rule 37 by removing paragraph (w).		33	

Decision appealed	Reasons	Relief Sought	
<i>Registered Drinking Water Supplies</i>			
Objective OBJ TANK 6	<p>1. The risk of contamination of drinking water supplies is not uniform across the entire area of each Water Source Protection Zone. Various factors can reduce the level of risk of contamination of source water, such as:</p> <p>(a) the distance/proximity of other land use activities to each drinking water supply abstraction point; and</p> <p>(b) specific characteristics of various potential contaminant pathways entering the source water (e.g subsoil nitrification and denitrification processes, and intensity of land use and the manner and type of discharges).</p>	Delete Objective OBJ TANK 6.	34
Policy POL TANK 2		Amend Policy POL TANK 2 by removing paragraphs POL TANK 2(b), (c), and (f).	35
Policy POL TANK 7		Delete Policy POL TANK 7.	36
Policy POL TANK 8		Delete Policy POL TANK 8.	37
Policy POL TANK 9		Amend Policy POL TANK 9 by removing paragraphs POL TANK 9(a), (b)(vii) and (b)(viii).	38
Policy POL TANK 10		Amend Policy POL TANK 10 by removing paragraphs POL TANK 10(a) and (d).	39
Rule TANK 2 Use of Farm Land		Amend the matters for control/discretion for Rule TANK 2 by removing paragraph (1)(g).	40
Rule TANK 8 Groundwater take – Heretaunga Plains		Amend the matters for control/discretion for Rule TANK 8 by removing paragraph (4).	41
Rule TANK 9 Surface and groundwater water takes (abstraction at low flows)		Amend the matters for control/discretion for Rule TANK 9 by removing paragraph (4).	42
Rule TANK 22		Amend the matters for control/discretion for Rule TANK 22 by removing paragraph (7).	43
	<p>2. The TANK/HBRC RRMP framework should allow for flexibility to consider where discharges within Water Source Protection Zones may be appropriate, as well in inappropriate. Many</p>		

Decision appealed	Reasons	Relief Sought	
Small scale stormwater diversion and discharge	<p>activities (and associated discharges) within source water protection areas have co-existed with water supply sources without undermining source water quality, despite occasional incidents of failure to protect the quality of drinking water sources in the past. More nuance is needed when deciding whether to allow activities near water sources to avoid inappropriate over-regulation.</p> <p>3. Policy POL TANK 2 should reflect HBRC’s State and Trend information and not rely on extensive assessment from individual water users to benchmark the prioritisation of environmental improvement at the start.</p> <p>4. In respect of Schedule 29, Land Use Capability is not an appropriate proxy for assessing the suitability of productive land for nutrient management.</p>		
Rule TANK 23 Stormwater Diversion and discharge from local authority networks		Amend the matters for control/discretion for Rule TANK 23 by removing paragraph (4).	44
Rule TANK 24 Stormwater discharge from industrial or trade premises		Amend the matters for control/discretion for Rule TANK 24 by removing paragraph (3).	45
RRMP Rule 2 - Bore drilling that does not comply with Rule 1		Amend the matters for control/discretion for RRMP Rule 2 by removing paragraphs (f) and (g).	46
RRMP Rule 6 - Feedlots & feedpads that do not comply with Rule 5.		Amend the matters for control/discretion for RRMP Rule 6 by removing paragraph (f).	47
RRMP Rule 62A - Transfer of permits to take and use water (fix up DM)		Amend the matters for control/discretion for RRMP Rule 62 by removing the words “including in relation to any Source Protection Zone for a registered drinking water supply” in paragraph (b).	48
Definition of “Registered Drinking Water Supply (or Supplies)”		Delete the definition of “Registered Drinking Water Supply (or Supplies)”.	49

Decision appealed	Reasons	Relief Sought	
Schedule 29: Catchment Collective, Industry Programme and Freshwater Farm Plan	5. The reasons given under the heading “Source Protection Zones” apply to the appeals on: <ul style="list-style-type: none"> (a) Rule TANK 8 (b) Rule TANK 9 (c) RRMP Rule 62A 	Amend Schedule 29 by removing: <ul style="list-style-type: none"> 1. paragraphs 1.3(c)(i) and 2.2(g) from Section A; and 2. paragraph 1.1(c)(ii)(iii) from Section B; and 3. the phrase “LUC (Land Use Capability) and” from paragraph 2.2(b)(ii) in Section A. 	50
Schedule 33: Stormwater Management		Amend Schedule 33 by removing paragraph 11 from Section B.	53
Schedule 34: Source Protection for Drinking Water Supplies		Amend Schedule 33 by replacing all references to “Registered Drinking Water Supply” with “the Hastings District Council Municipal Supply and Napier City Council Municipal Supply”.	54
<i>Wetlands</i>			
Objective OBJ TANK 12 Policy POL TANK 4 Policy POL TANK 15 Policy POL TANK 25	1. The decision fails to give proper effect to the National Policy Statement for Freshwater Management 2020, namely Policy 6. 2. The provisions unnecessarily restrict the use of wet, damp, or boggy farmland, and drains, swales, and stock drinking water dams used in primary production. 3. In respect of Policy POL TANK 15, naming a single organisation is	Amend Objective OBJ TANK 12, and Policies POL TANK 4, POL TANK 15 and POL TANK 25, by replacing the term “wetland” with the term “natural inland wetland” as defined in the National Policy Statement for Freshwater Management 2020. Additionally, Policy POL TANK 15 is amended by removing reference to “the Hawke’s Bay Fish and Game Council”.	55 56 57 58

Decision appealed	Reasons	Relief Sought	
	unnecessary and unfair, and does not need to specifically name the local Fish and Game Council.		
<i>Riparian Margins</i>			
Objective OBJ TANK 5	1. The decision fails to give proper effect to the National Policy Statement for Freshwater Management 2020, namely Policies 5 and 12.	Amend Objective OBJ TANK 5 as follows: Riparian margins are protected or improved where necessary, <u>and otherwise maintained</u> , to provide for aquatic ecosystem health and mauri of water bodies in the TANK catchment and to: ...	59
Policy POL TANK 12	2. The provisions unnecessarily require protection and improvement of riparian margins in situations where the health and the mauri of water bodies is already at an acceptable level.	Amend Policy POL TANK 12 as follows: <u>Where necessary, t</u> The Council will promote and support the establishment of riparian vegetation, including in conjunction with stock exclusion and setback regulations, that: ...	60
Policy POL TANK 13		Amend Policy POL TANK 13 as follows:	61

Decision appealed	Reasons	Relief Sought
		<p>When making decisions about riparian land management in accordance with POL TANK 12, <u>where necessary</u> the Council will account for management objectives related to land drainage and flood control, and regional biosecurity and where appropriate, support establishment of native plant species in riparian margins to contribute to improving the region’s indigenous biodiversity, the collection of kai, taonga raranga and taonga rongoa and the mauri of the river.</p>
Policy POL TANK 14		<p>Amend Policy POL TANK 14 as follows:</p> <p><u>Where necessary, t</u>The Council will support improvement of riparian management to meet the specified timeframes (in POL TANK 25) consistent with POLs TANK 12 and TANK 13 by:</p> <p>...</p>
<i>Farm Plans</i>		
Definition of “Freshwater Farm Plan”	<p>1. The RMA provides a requirement for a freshwater farm plan. In order to reduce duplication, farmers should be able to either prepare a freshwater farm plan in accordance with Schedule 29 or, once available, in accordance with the RMA Part 9A.</p>	<p>Amend the definition of “Freshwater Farm Plan” as follows:</p> <p>Freshwater Farm Plan means <u>either: (a) a plan that has been prepared in accordance with the requirements of Schedule 29 and which is implemented by a landowner or on behalf of a landowner; or (b) a freshwater farm plan prepared in accordance with Part 9A of the Resource Management Act 1991, provided an Order in Council is in force pursuant to s 217C of that Act that applies to the relevant region, district, or part of the Hawkes Bay.</u></p>

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Decision appealed	Reasons	Relief Sought	
Policy POL TANK 22	2.	Amend POL TANK 22 by removing the words “established under Schedule 29” from POL TANK 22(a)(iv).	64
Rule TANK 1 Use of farm land	<p>where either:</p> <p>(a) there is a significant risk of degradation of water quality attributes or where water quality attributes are within the NOF D-Band, or</p> <p>(b) there is overallocation of water.</p> <p>3. There is no need for freshwater farm plans where farming activities are already regulated, such as under the Resource Management (National Environmental Standards for Freshwater) Regulations 2020.</p> <p>4. The activity described in Rules TANK 1 and TANK 2 should be aligned with the definitions in s 217B of the RMA.</p>	<p>Amend the activity described in Rule TANK 1 as follows:</p> <p>The use of <u>a farm land</u> where:</p> <p>...</p> <p>AND</p> <p>Amend Rule TANK 1 conditions/standards/terms as follows:</p> <p>...</p> <p>b) <u>Where there is either: (i) a significant risk of degradation of water quality attributes or where water quality attributes are within the NOF D-Band; or (ii) overallocation of water, eEither:</u></p> <p>1. The farm operator is either a member of a TANK Industry Programme or a member of a TANK Catchment Collective within the timeframes specified in Schedule 27 and accordance with the requirements of Schedule 29</p> <p>Or:</p> <p>2. The farm operator shall <u>has prepared</u> a Freshwater Farm Plan in accordance with the requirements of Schedule 29 and within the</p>	<p>65</p> <p>66</p>

Decision appealed	Reasons	Relief Sought
		<p>timeframes specified in Schedule 27; and the Freshwater Farm Plan is being implemented and:</p> <ol style="list-style-type: none"> 1. the Council shall be provided with the Freshwater Farm Plan upon request 2. information about the implementation of the mitigation measures identified for the farm shall be supplied to the Council on request. <p>Or:</p> <p><u>3. The use of a farm is undertaken in accordance with the farm’s certified freshwater farm plan prepared under Part 9A of the Resource Management Act 1991 if:</u></p> <ol style="list-style-type: none"> <u>1. the farm has a certified freshwater farm plan that applies to the use of a farm; and</u> <u>2. a certifier has certified that freshwater farm plan achieves the same environmental outcomes contained in Schedule 29, Section A, Clause 4.</u>
<p>Rule TANK 2 Use of farm land</p>		<p>Amend the activity described in Rule TANK 2 as follows:</p> <p>The use of a farm land where:</p> <p>...</p>

Decision appealed	Reasons	Relief Sought
Schedule 27: Priority Catchments	<p>1. The time periods are insufficient to allow farmers and catchment collectives to carry out the necessary preparation and organisation to enable Farm Environment and Catchment Collective Plans and Industry Programmes.</p> <p>2. Total Nitrogen (TN) Yield should not be a trigger for catchment management priority. TN Yield is an estimate of N-loss below the root zone, for the purpose of adjusting application of nitrogen to manage TN concentration within waterways and water bodies. TN Yield itself does not determine management priority as-such, but rather is a target for managing application of nitrogen to reduce TN concentration in waterways where it is at levels that would result in environmental degradation.</p>	<p>Amend Schedule 27 by removing the row in the table titled “TN Yield (modelled)” and as follows:</p> <p>...</p> <p><u>Once PPC9 becomes fully operative in accordance with cl 20 of Schedule 1 to the RMA, Farm Environment and Catchment Collective Plans and Industry Programmes are to be completed in the following priority order; High, Medium and Low Priority over the first 3, 6 and 9 years <u>6, 9 and 12</u> years respectively following <the operative date> of the plan (although work can commence at any time and farmers will be encouraged to start with their own programme as soon as possible).</u></p>
Schedule 29: Catchment Collective, Industry Programme and Freshwater Farm Plan	<p>1. Federated Farmers is concerned that private farm information will be available to the public.</p>	<p>Amend Schedule 29 to ensure any information collected by HBRC as part compliance with the Schedule is held confidentially and not released otherwise than required by law.</p>

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Decision appealed	Reasons	Relief Sought
<i>Municipal and Industrial Water Takes</i>		
Objective OBJ TANK 13	<p>1. Future municipal, papakāinga water supply and domestic demand for water should not be prioritised over other existing demand, including existing primary production demand. Population growth should not come at the expense of food production. Both need to develop and grow at the same pace.</p> <p>2. Primary production and food processing uses should not be given the same priority as industrial and commercial end uses. Water for food production should be prioritised over water allocated for purely economic gain.</p>	<p>Amend Objective OBJ TANK 13 as follows:</p> <p>Ground and surface water in the TANK Catchment is allocated, subject to limits, targets and flow regimes which provide for the values of each water body, in the following priority order:</p> <ul style="list-style-type: none"> a) The reasonable domestic needs of people, livestock drinking and fire-fighting supply b) Existing and future demand for domestic supply including marae and papakāinga, and municipal uses as described in HPUDS (2017), <u>and other primary production and food processing activities</u> c) Primary production on versatile land d) Other primary production, food processing, industrial and commercial end uses e) Other non-commercial end uses.
Policy POL TANK 47	<p>3. The reasons given in the row below (Policy POL TANK 33 and 48) also apply to Policy POL TANK 47.</p>	<p>Delete Policy POL TANK 47. Alternatively, amend Policy POL TANK 47 as follows:</p> <p>In making decisions about resource consent applications for municipal and papakāinga water supply the Council will ensure <u>have regard to</u> the water needs of future community growth are met within water limits and:</p> <p>...</p>

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Decision appealed	Reasons	Relief Sought	
		<u>(x) limit the degree to which the proposed water take will be utilised by urban industrial and commercial uses</u>	
<p>Rule TANK 8 Groundwater Take – Heretaunga Plains</p> <p>Rule TANK 9 Surface and groundwater water takes (abstraction at low flows)</p>		Amend the matters for control/discretion for Rules TANK 8 and 9 to require consideration of how efficiently municipal, papakāinga and domestic supply water takes use the water, including use by end point water users.	72 73
Policy POL TANK 33	1. Municipal takes incorporate industrial/commercial uses, as well as for human health like drinking water and sanitation. It is unjustifiably inequitable if industrial/commercial uses are able to increase their water use in the Heretaunga Plains	Amend Policy POL TANK 33(f)(i) as follows: avoiding further adverse effects by not granting new consents to take and use groundwater except as provided for by POL TANK 49 <u>(excluding municipal takes that supply industrial and commercial uses)</u>	74
Policy POL TANK 48	groundwater quantity area as part of a municipal supplier application for essential human health needs under Policy POL 48 and are exempt from POL 33(f)(i). This would inappropriately enable urban industrial/commercial use having an	Amend Policy POL TANK 48 by adding the following paragraph: <u>(x) the degree to which any application to take water for municipal and papakāinga water supply will result in water being utilised by urban industrial and commercial uses, and take steps to limit water that is used in such a supply for those purposes.</u>	75

Decision appealed	Reasons	Relief Sought	
	<p>unfair advantage over others, such as farming, that do not receive their water from a municipal provider.</p>		
Policy POL TANK 44	<p>1. The provisions fail to require municipal and papakāinga supplies from the requirement to show water use efficiency.</p>	<p>Amend Policy POL TANK 44 by removing the parenthesis “except as provided by POL TANK 48 for municipal and papakāinga supplies” from Policy POL TANK 44(d).</p>	76
<i>Stormwater</i>			
Policy POL TANK 27	<p>1. This policy should only apply to reticulated stormwater as it is unnecessary to apply the policy to runoff from rain that falls onto farmland that is not artificially collected, or individual farm buildings which is immediately directed into a soak pit.</p>	<p>Amend Policy POL TANK 27 as follows:</p> <p>Sources of stormwater contamination and contaminated stormwater (<u>excluding unreticulated stormwater</u>) will be reduced by:</p> <p>...</p>	77
<i>Water Quality</i>			
<p>Schedule 26: Freshwater Quality Objectives</p> <p>Long term target attribute states for suspended fine sediment for mainstem Ngaruroro River at:</p>	<p>1. The NPSFM 2020 requires 80% of rivers and lakes suitable for Primary Contact by 2030 and 90% by no later than 2040. ANZECC (2000) defines minimum water clarity of 1.6m for contact recreation waters.</p>	<p>Amend Schedule 26 in respect of the long term target attribute states for suspended fine sediment for mainstem Ngaruroro River at Fernhill and Chesterhope to be “≥ 1.6m”.</p>	78 79

Decision appealed	Reasons	Relief Sought
<p>(a) Fernhill; and (b) Chesterhope.</p>	<p>2. HBRC State and Trend information (2020) shows that Ngaruroro River at Fernhill, Tutaekuri Waimate Stream at Chesterhope, Mangatutu Stream at Mangatutu Stream Bridge, Mangaone River at Rissington are currently well below 3.75m water clarity.</p> <p>3. The 3.75m target is targeted at Trout Fishery values. However, not enough is understood about the reasons for the current state of water clarity in the Lower Ngaruroro and Lower Tūtaekurī Rivers and their tributaries to be able to realistically target 3.75m. This target is highly aspirational and unlikely to be realistically achievable.</p>	
<p>Schedule 26: Freshwater Quality Objectives</p> <p>Long term target attribute states for Periphyton cover (median of annual max %PeriWCC) for the Maraekakaho Stream in the Ngaruroro Catchment.</p>	<p>1. The NPSFM 2020 requires 80% of rivers and lakes suitable for Primary Contact by 2030 and 90% by no later than 2040. Planktonic attribute states (including periphyton) apply to lakes and river-fed lakes. The NPS 2020 requires water quality attributes to be maintained or enhanced, and only</p>	<p>Amend Schedule 26 in respect of the long term target attribute states for Periphyton cover (median of annual max %PeriWCC) for the Maraekakaho Stream in the Ngaruroro Catchment to be “> 40% and ≤ 80 %”.</p>

Decision appealed	Reasons	Relief Sought
	<p>requires water quality to be lifted out of the NOF 'D' band.</p> <p>2. HBRC State and Trend information (2020) puts the Maraekakaho River in the NOF 'B' band. Requiring it to shift into the 'A' band by 2040 is unlikely to be achievable. But maintaining it in the 'B' band is realistic.</p>	
<i>Vegetation Clearance</i>		
RRMP Rule 7 – Vegetation clearance and soil disturbance	<p>1. Activities for farm maintenance should be enabled under the HBRC RRMP and TANK. If it is not, farmers could be subject to onerous delays and costs in obtaining a resource consent for little or no environmental benefit. Additionally, farm maintenance activities cause little to no environmental effect.</p> <p>2. Farmers must comply with the Resource Management (Stock Exclusion) Regulations 2020, which requires that stock is excluded from waters by 3m. Limiting vegetation</p>	<p>Amend the conditions/standards/terms for RRMP Rule 7 as follows:</p> <p>...</p> <p>f. In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, there is no clearance of indigenous vegetation within 10m of any rivers except:</p> <p>i. where the clearance is part of improvements to riparian management, <u>including stock exclusion</u>, for water quality/biodiversity purposes as specified in the relevant Freshwater Farm Plan or Catchment Collective Plan, <u>or other regulatory instrument (e.g. Resource Management (Stock Exclusion) Regulations 2020)</u>;</p> <p>ii. where the clearance is necessary for: <u>(a)</u> construction of crossings; or <u>(b)</u> installation of a reticulated or network service; <u>(c)</u></p>

Decision appealed	Reasons	Relief Sought
	<p>clearance out to 10m is unnecessarily inconsistent with these regulations.</p> <p>3. Land disturbance (including cultivation) should only be restricted where there is a known environmental effect. For example, where land disturbance can occur without sediment run off, that activity should be permitted as of right (e.g. direct drilling).</p>	<p><u>maintenance of farm tracks (including waterway crossings); (d) fence lines; (e) water supply pipelines and stock water dams; (f) rural fire breaks; (g) vegetation clearance separation around farm buildings; and (h) pasture maintenance and pest plant management.</u></p> <p>g. In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments there is no cultivation of land over 20 degrees of slope except where it is less than 10% of the paddock area.</p> <p>h) In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, there is no cultivation <u>(excluding direct drilling)</u> of land that results in exposure of bare soil within:</p> <ul style="list-style-type: none"> i. 5 m of any river, modified watercourse or drain or lake or wetland where the land is flat to gently rolling (0-7 degrees of slope) ii. 10 m of any river, modified watercourse or drain or lake or wetland where the land is moderately rolling (>7 – 20 degrees of slope) iii. 15 m of any river, modified watercourse or drain or lake or wetland where the land is over 20 degrees of slope. <p>...</p>

Appendix B – Federated Farmers’ submission and further submission on TANK

SUBMISSION

TELEPHONE 0800 327 646 | WEBSITE WWW.FEDFARM.ORG.NZ



To: Hawke's Bay Regional Council
159 Dalton Street
Napier 4110.

Submission on: **Proposed Plan Change 9 (Proposed TANK Plan Change) pursuant to Clause 6 of Schedule 1 of the Resource Management Act 1991**

Date: 14 August 2020

Submission by: Hawke's Bay Federated Farmers.

JIM GALLOWAY
HAWKE'S BAY PROVINCIAL PRESIDENT
Federated Farmers of New Zealand

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Hawke's Bay Federated Farmers welcomes this chance to submit on the Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments Plan Change 9.

We acknowledge any submissions that have been lodged by individual members.

Federated Farmers seek the relief on provisions specified in the table attached to this submission, for the reasons provided in relation to each submission point

Federated Farmers wish to be heard in support of this submission.

Federated Farmers are happy to be heard in conjunction with any other similar submissions.

Federated Farmers could not gain advantage in trade competition through this submission.

General Comments

1. Federated Farmers commend Hawkes Bay Regional Council for preparing the proposed TANK Plan Change. It has many practical aspects which can, in the long term, potentially provide a way forward for freshwater resource users who rely on ability to take water for their livelihoods to be involved in, and takes ownership of, management of the freshwater resource. It also provides a potential framework for integrated management.
2. The proposed plan change before the Council is a result of the collaborative approach used in developing the TANK Plan Change, where resource management issues were mutually explored with key stakeholders. Federated Farmers broadly supports this approach.
3. Nevertheless, many aspects of the proposed plan require further refinement to optimise it as a staged adaptive management framework for freshwater management.

Farm plans and Catchment Collectives

4. Farmer participation in Farm Environment Plans or Catchment Collective Plans is a key process in the TANK Plan.
5. Federated Farmers supports *Farm Environment Plans*, but not if they are part of a permitted activity requirement applicable to all farms over 10ha without good reason. This is not an efficient use of the farm planning process.
6. Under the Resource Management (National Environmental Standards for Freshwater) Regulations 2020, certified farm plans are now a requirement for permitted stockholding areas for larger and older cattle and intensive winter grazing. Unless farming involves these nationally-regulated activities, then there is no need for Farm Environment Plans unless there are other specific instances where aspects of farming present a significant risk of environmental pollution or degradation¹ to the freshwater resource.
7. Aspects of farming that present a low risk of environmental pollution should be able to be provided for as permitted activities with appropriate conditions specified in the regional plan, without needing any form of further approval under a Farm Environment Plan regime. Otherwise, Councils and farmers could be unnecessarily burdened scrutinising every minor detail of activity in minutiae in site-by-site plan assessments, resulting in a hugely inefficient waste of time and money. The mix between permitted activities and other activities that require resource consents, is a measure of the efficiency of any resource management plan framework.
8. The concept of *Catchment Collective Plans* has merit from the point of view of coordinating several individual farms within a sub-catchment (or catchment) scale of analysis for those aspects of farming that cumulatively present a significant risk of environmental harm. The catchment collective plan requirements set forth in the TANK plan change set out an ambitious and complex management system that will need time to evolve. Expectations of farmers to participate in Catchment Collective Plan process are highly challenging.
9. Catchment collectives may not work for everyone for a range of reasons. Catchment collectives could be subject to operational dysfunction, especially if governance systems are inadequate.

¹ Criteria for assessing water quality degradation are set out in the National Objective Framework under the National Policy Statement for Freshwater Management (2020)

Not all farms may lend themselves to geographical grouping in broader catchment management schemes. Not all farm businesses have the same capability to engage in broader collectives. The provisions for Catchment Collectives in the TANK Plan change need to align with best practice in community catchment management. It requires a complex pattern of catchment and industry groups and a more participatory form of governance that is yet to evolve. It also requires active resourcing of catchment collective administration and coordination, and access to technical skills.

10. 90 percent of the 900 pastoral farms in the TANK catchment are mixed sheep and beef farms. Most of these are owned and managed by individual families who do not have corporate backing (such as that which dairy farmers enjoy with the support of Fonterra) and are not part of any Industry Programme. Many of these farmers do not even have Farm Environment Plans. So, unless these farmers go it alone (with FEPs or resource consents), they will be funnelled into catchment collectives.
11. Many of the rules in the TANK Plan encourage farmers to participate in Catchment Collectives to avoid other regulatory hurdles. Control/discretion that is exercised in Rules TANK 2, TANK 4, TANK 5, TANK 6, TANK 9 and TANK 10 is bypassed if you are part of a catchment collective, but for everyone else it's a broad more uncertain hurdle. The thresholds that trigger processes where specific aspects of land use or water use get considered in the TANK Plan tend to rely on modelled phenomena, such as nutrient contamination, or water consumption.
12. The farm plan and catchment collective process appears to be set up to enable the Council to gather information to check hunches about such modelled processes. However, some of these hunches may not bear out. And if they don't, it could amount to farm environment plan/catchment collective plans becoming costly field trials for testing incorrect hunches about cause and effect relationships between nutrients and pollution or between water use and the state of the water resource.
13. A case in point is the focus in the TANK Plan Change on managing nitrogen. The Council's own State and Trend information published in 2020 indicates that Nitrogen pollution in the TANK catchment is not a serious problem. There are only 3 streams which exceed the >1.2mg/L threshold in Schedule 28, which is signalled for 'medium priority' action. There are no streams or rivers that exceed the >2mg/L 'high priority' threshold. This suggests that action on Nitrogen could be delayed while other higher-priority nutrients problems are tackled. This would allow more time (and spare more cost) to be better able to work on reducing other nutrients that are more of a problem in specific areas, before embarking on ambitious water quality management targets across the board. This would also help ease the farming community in the TANK catchment into the farm planning and/or Catchment Collective process.
14. The RMA Section 32 assessment for the TANK Plan Change sensibly opts for *staged adaptive management* as the 'preferred option' in its analysis of options. However, for staged adaptive management to have the best chance of success, the focus needs to be on practical ways of ensuring farmers can meet their day-to-day needs, while learning to participate in wider forums where they can collectively engage in bigger problem solving challenges that require them to further adapt their farming practices.
15. All of this requires empowerment of resource users and communities to achieve sustainable management in ways in which they are practically capable of achieving. Emphasis needs to be on farmer capability to engage with the planning process, rather than on making too many process hurdles that divert time, attention, and costs away from day to day farming. For

farmers to have time to adapt and learn to participate in these collective planning processes, they need to be made as farmer-friendly as possible.

16. Federated Farmers are concerned that the cost of Farm Environment Plans and Catchment Collective Plans needs to be kept in check, especially where these plans are being relied on to help the Council discover planning issues around nutrient management or water allocation characteristics in the catchment. Farm Environment Plans can require a considerable investment in time and cost for individual farmers to prepare. This varies from farm to farm depending on individual farm practices and the site-specific issues needing to be managed. The presumption for these plans should be that unnecessary costs should be kept to a minimum, for everyone to have the resources they need to adapt.
17. FEPs and Catchment Collective Plans and Industry Programmes should not apply to pastoral farm properties under 50ha unless it is required by the Resource Management (National Environmental Standards for Freshwater) Regulations 2020. Pastoral farms under 50 ha are generally hobby farms with low nutrient and sediment outputs where the main activity is passive low-intensity grazing or growing grass for hay-making. Therefore, the risk of environmental degradation to the freshwater resource from not having to consider individual Farm Environment Plans for such properties is very low.
18. Farm properties under 50 ha make up less than 3% of all the farmland in the TANK catchment. Therefore, excluding unnecessary requirement for FEPs for pastoral farmed land up to 50 ha in area will at most have very minor cumulative effect on the freshwater resource and will save the Council from unnecessary expenditure of resources in processing planning approvals for these.
19. Horticultural and viticultural land is different and should be treated differently, as those activities involve more intensive application of nutrients.

Nutrient Management

20. The Council's approach to nutrient management has some potential as a practical way to develop a working understanding of the characteristics of nutrient contaminant pathways, to prevent any increase in total nitrogen concentration in the waterways within the catchment.
21. However, the N-load loss thresholds for triggering assessment of 'land use change' in Schedule 29 are an arbitrarily assumed starting point and have not been validated for use in the TANK catchment. Therefore, these thresholds are likely (as not) to bear very little relationship to actual Nitrogen loss to waterways in the TANK catchment. Further, the proposed TANK Plan Change does not record the version of the models employed to derive the crop loss figures, and so is not future-proofed against the effect of future model changes.
22. Moreover, strict nitrogen load limit thresholds for defining 'land use change' are unnecessary because nitrogen is not a significant problem in the TANK catchments' waterways to begin with. The Council's own (2020) State and Trend reporting shows that the TANK catchments' surface water bodies are almost all within the NOF 'A' Band for total nitrogen and nitrate toxicity under the National Policy Statement for Freshwater Management (2020).
23. Going by the TANK Plan Change's own priority criteria in Schedule 28, there are no streams in the TANK catchment (as at January 2020) that exceed the >2mg/L TN concentration in the 'High Priority' category. Only 3 streams in the TANK catchment exceed the >1.2mg/L TN concentration in the 'Medium Priority' category. And only 3 streams exceed the >1mg/L TN

concentration in the 'Low Priority' category (and those are the same three streams the exceed the Medium Priority TN Concentration limits). All the other streams in the TANK catchment would be in the 'Long Term' priority category in Schedule 28.

24. This (generally low) TN concentration throughout the catchment, is partly due to the type of farming that is predominant in the catchment. Approximately 90 percent of the pastoral farms in the TANK catchment are mixed sheep and beef farms and are not intensively farmed. These typically have a lower nitrogen footprint than other types of pastoral farming.
25. In these circumstances, it would be more practical to begin with easier-to-achieve Nitrogen loss limits, that can be adjusted in future plan changes (if Nitrogen pollution subsequently becomes a cause for concern). The risk of dissolved nitrogen polluting waterways in the TANK catchment is very low. The future risk from conversion of these farms to more intensive Nitrogen-generating farming (e.g. Dairying) is also very low without a large scale water storage scheme ever likely to be in place.
26. Therefore, Federated Farmers urges a more balanced approach to nutrient management to make the planning process workable for farmers, so that the staged adaptive management approach has a better chance of succeeding.

Use of Freshwater

27. Regarding water allocation in the proposed TANK Plan Change, Federated Farmers' main concerns relate to the following aspects:
 - The regime for permitted water takes in Rule TANK 7.
 - Water permit expiry timeframes
 - Water allocation/re-allocation policy

Permitted Water takes

28. The proposed TANK Plan Change takes the approach that water is overallocated or fully allocated throughout most of the TANK catchment. Federated Farmers are concerned about constraints on the modelling information that has been relied upon to inform the assumptions about full allocation or overallocation. Nevertheless, Federated Farmers are surprised at the focus on reducing permitted takes.
29. The operative Hawkes Bay Regional Resource Management Plan provides a maximum permitted water take of 20m³/day per farm. This provides some reliability of water supply while enabling farmers flexibility to manage seasonal or yearly changes in farming practice, to adapt to various disruptions (pandemics, droughts) and changes in market demands for farm produce. While existing permitted takes of up to 20m³/day can continue under the proposed TANK Plan Change, any new takes are limited to 5m³/day. This is woefully inadequate for many farms, for example, those that might have to establish new bores where old ones run dry.
30. The total number of pastoral farms in the TANK catchment number some 900 farms. A 20m³/day take per farm would equate to a total water take of 208 litres per second. This is only one-fifth of the maximum abstraction of 1000-litres per second that Hawkes Bay Regional Council modelled for the peak demand from the Heretaunga Aquifer that occurred in the 2013 drought year (a worst case scenario). This indicates that the amount of permitted water take in

the TANK catchment is not the main problem with water overallocation. Rather, the main problem with overallocation lies in the way resource consents for water takes are managed.

31. For a staged adaptive management approach to water resource management to work, it is essential for farmers that the amount of permitted take remains at 20m³/day per farm.

Water permit expiry timeframes

32. A corollary of supporting farmers to commit to method of freshwater resource management through Farm Environment Plans (FEPs) or Catchment Collective Plans, is that farmers require assurance that their investment in planning will enable them to rely on the water resource for a sufficiently long time to get a return on their investment in these processes.
33. In this regard, the plan's 15-year lapse timeframe for water permits is insufficient. Federated Farmers seek a 20-year lapse date for water permits in order to provide farmers with more certainty that their commitment to the staged adaptive management approach will enable them to have reliable access to water, in a way that they can recoup their investment in water management.

Water allocation policy

34. The policy framework for stream flow maintenance 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. Water users on smaller farming operations (who are not part of a Catchment Collective) may not have the capacity to participate in stream flow maintenance, so they carry a greater risk of being subject to water restrictions. Participation of Catchment Collectives in such schemes should be voluntary, and be structured so as to offer incentive to those Catchment Collectives who choose to participate in such schemes to be allowed more generous water transfer of water takes or discharge provisions.
35. The requirement to "not allow new water use" is needlessly restrictive and 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.
36. The requirement to "reduce 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 a modelled limit that 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.
37. Instead, the plan should adopt an interim allocation limit for the Heretaunga Aquifer that is based on whichever is the greater of 90 million cubic metres per year, or the actual amount in consent takes and permitted takes. Re-allocation of any water that might become available within the interim groundwater allocation limit (not including water made available by high flow take and release and by offset or managed aquifer recharge) should be avoided, or be within the limit of any connected water body, until there has been a review of the relevant allocation limits within the plan. Permitted water takes and RMA section 14(3)(b) takes should be excluded from these restrictions. Permitted Water Takes are a minor proportion of the overall water usage, and RMA section 14(3)(b) takes should not be restricted because of modelled effects.

38. HBRC should play a central role in establishing lowland stream augmentation schemes. 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 such development
39. The policy to reserve 20% of any NEW high flow allocation for Māori development presents a barrier to primary producers wanting to abstract high flow water for on-site storage and use. A blanket 20% requirement across the board takes no account of the scale and economic capability of individual businesses. Smaller farms will find it even harder to justify the expense of construction dams needed for water storage at times of high flow, if they cannot get enough water to fill the dams, because 20% is allocated elsewhere under this policy and rule framework. It also amounts to the privatisation of what should be a Central Government cost, in terms of the national Treaty partnership.
40. Federated Farmers think that the TANK Plan should instead distinguish clearly between water for environmental enhancement and water for Māori development, as well as 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.
41. If the ability to store such 20% of reserved water is not exercised, it could end up flowing down the river, acting as a de facto extra barrier to high-flow allocation, and would impact on a precious resource that is in much need, especially in times of drought. Federated Farmers supports an effects based approach to management of resources. Federated Farmers considers that an allocation for iwi on would be contrary to Council's functions under the RMA and would not be an effects based approach.

Water Source Protection

42. A further concern is around the new provisions for setting up Water Source Protection Zones. Federated Farmers were appalled that the poorly managed water supply in Havelock North led to deaths from inadequate water supply through contamination of drinking water. To prevent such catastrophes in the future, it is essential that drinking water supplies are appropriately protected and adequately treated.
43. However, the rules and policies for WSP areas use too-broad-a-brush. There is no fine-grained analysis of how diffuse discharge may relate to contamination of public drinking water. There is arguably a need for gradation of control over diffuse discharge activities that is related to risk of contamination arising from proximity (or transmissivity) of contaminants in relation to water supply abstraction points. Also, there needs to be recognition that the quality of public drinking water is required to be monitored and appropriately treated under other legislation.
44. Further, if the staged adaptive management approach to managing the water resource is to have the best chance of success, the application process for Water Source Protection Areas needs to involve existing water resource users who are within such areas. It also needs to enable water resource users the flexibility to innovate more efficient ways of using water without denying them access to water.
45. The *Water Source Protection* provisions result in an unnecessarily onerous duplication in control. References to assessment of 'actual or potential effects' of activities in the SPZs on Registered Drinking Water Supplies in Rules TANK 4/5/6/9/10 need to be removed. Such risks should instead be addressed via Farm Environment Plans, Catchment Collectives, and Industry Programmes. This would be a better fit with the staged adaptive management approach preferred in the Council's section 32 assessment report.

46. Specific amendments sought in Federated Farmers' submission are contained in the table appended to this submission document.

Recent amendment to National Policy Statement for Freshwater Management (2020) and recently introduced National Environmental Standards for Freshwater and Stock exclusion

47. At the time of preparing this submission, the Government introduced the abovementioned amendment to the National Policy Statement for Freshwater Management, and related National Environmental Standards. There has not been sufficient time between the introduction of these and the closing date for submissions on the TANK Plan Change, to be able to consider all the impacts of these recent national planning instruments on the proposed TANK Plan change, in order to adjust all the relief sought in our submission. Federated Farmers may have more to say on this in further submissions.

Federated Farmers is a not-for-profit primary sector policy and advocacy organisation and represents many farming businesses in New Zealand. Federated Farmers has a long and proud history of representing the interests of New Zealand's farmers.

The Federation aims to add value to its members' farming businesses. Our key strategic outcomes include the need for New Zealand to provide an economic and social environment within which:

- Our members may operate their business in a fair and flexible commercial environment;
- Our members' families and their staff have access to services essential to the needs of the rural community; and
- Our members adopt responsible management and environmental practices.

This submission is representative of member views and reflects the fact that resource management and local government decisions impact on our member's daily lives as farmers and members of local communities.

Federated Farmers thanks Hawkes Bay Regional Council for considering our submission to the Proposed Plan Change 9 (TANK).

We wish to be heard in support of our submission.



	Name	Provision as notified	Relief sought	Reasons for relief
1	Issue 1: Valuing water: He Wai he Taonga	<p>Water, whether in a river or groundwater, has its own mana and intrinsic value. Maintaining mauri encompasses spiritual health of the water, of ecosystems, and of communities connected to and dependent on these elements, now and in the future.</p> <p>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.</p> <p>The Plan also addresses the need to provide for the practical needs of the community for water of sufficient quality and quantity for the health and well-being of people as well as to meet their social and economic needs related to the abstraction of water. Instream and other values including flood and drainage values and those depending on abstraction are all recognised by this plan change.</p> <p>Some existing land and water use practices can affect the mauri or ecosystem health. Some of the effects also arise from activities and events that occurred decades in the past, including through vegetation clearance, floods and flood protection, river diversions, wetland drainage and earthquakes. Changes to landscape, its waterbodies and vegetation have had enduring adverse effects on tangata whenua cultural practices and their kaitiakitanga role.</p> <p>The Plan focuses on the values for which water is to be managed by the setting of objectives, limits, and other management measures and which are illustrated in Figure 1 below. It also acknowledges the wider Māori perspectives of kawa, kaupapa and tikanga that support Māori values for water and its management and ensures the outcomes that are being sought are consistent with those cultural principles and approaches. The relationship between values for which water is to be managed and the Māori culture and traditions in relation to freshwater management are expressed in the Figure 2 below.</p> <p>There are several at risk and threatened or endangered indigenous plant and animal species dependant on healthy aquatic ecosystems, including wetland and riparian margins. Freshwater ecosystem management for indigenous species includes protection of fish spawning habitat and provision for fish passage. These indigenous species contribute to the region's biodiversity and land use and freshwater provisions for their habitat, including water quality and quantity will complement the Hawkes Bay Biodiversity Strategy.</p>	That Issue 1 be retained as notified.	This issue is appropriate to freshwater resource management in this catchment
2	Issue 2: Mauri, Ecosystem Health and Contaminant Discharges	Water quality in some places does not uphold or protect mauri nor meet the needs of other cultural, tikanga Māori, recreational or ecosystem health values in freshwater bodies and estuaries at all times. Of particular concern is the protection of water	That Issue 2 be amended as follows: ... Adverse effects from point source discharges are being reduced <u>where they are reduceable</u> through resource	The issue is too wordy and needs to be restated more

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>quality for human health and drinking water, especially for community and municipal water supplies.</p> <p>Water quality is affected by direct discharges of contaminants, including in urban stormwater, and also as a result of non –point source discharges arising from land use activities and cumulatively affecting water quality.</p> <p>Adverse effects from point source discharges are being reduced through resource consenting processes.</p> <p>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 can contribute significant amounts of contaminants to waterbodies.</p> <p>Land use changes can also result in an increase in the amount of contaminants entering water. New management systems are required to ensure water quality can be maintained or improved over time when these sorts of land use change occur.</p> <p>In the lowland tributaries, water quality is also affected by excessive macrophyte growth and reduced flows which reduces oxygen levels, and high water temperatures during summer where waterbodies do not have adequate shading.</p> <p>The impact of contaminant inputs into estuary ecosystems is also a significant issue as the Waitangi and Ahuriri estuaries both show declining trends for ecosystem health with consequential adverse effects on the values held for those aquatic ecosystems.</p>	<p>consenting processes.</p> <p>...</p> <p><u>Land use changes Intensification of discharges from land use change can also result in an increase in the amount of contaminants entering water. New management systems are required to ensure water quality can be maintained or improved over time when these sorts of land use change occur in situations where there is a demonstrable risk of degradation of the freshwater resource from land use intensification. ...</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>concisely as it relates to rural land use.</p> <p>‘Intensification’ is the pertinent aspect of land use that affects water degradation which requires targeting in this catchment. General land use ‘change’ may or may not present a problem, depending on whether there is intensification of specific contaminant outputs.</p> <p>It is important for farmers to have flexibility to be able to make day-to-day adjustments in farming practices and stock management, depending on various challenges confronting farmers. Federated Farmers do not wish to see such changes caught up in unnecessary red-tape around ‘land use change’, which could otherwise result in onerous delays and costs for what amounts to little or no environmental benefit.</p>
3	Issue 3: Mauri, Ecosystem Health,	Mauri and ecosystem health, as well as the range of community held values including instream and ecosystem values, rely on adequate water levels and flows to be maintained within water bodies.	<p>That Issue 3 be amended as follows:</p> <p>...</p> <p>The community also values water for a range of other</p>	Livestock drinking water is an important value for farmers and

	Name	Provision as notified	Relief sought	Reasons for relief
	and Water Flows and Levels	<p>The community also values water for a range of other uses including domestic and municipal water supply, irrigation for a range of purposes including for food and fibre production and community gardens; mahi māra, food processing, stock watering and industrial and commercial purposes.</p> <p>There is a need to establish flow management regimes and allocation limits to guide the abstraction of water so that appropriate levels of protection for mauri and ecosystem health are provided while acknowledging and providing for the practical needs of the community for water at reasonable reliability of supply.</p> <p>For some water bodies, flooding and drainage management activities as well as abstractive uses of water have resulted in significant adverse effects on aquatic ecosystems and instream values in the Heretaunga Plains where surface water flows and water quality, especially in summer, are not sufficient to ensure ecosystem health.</p>	<p>uses including domestic and municipal water supply, irrigation for a range of purposes including for food and fibre production and community gardens; mahi māra, food processing, stock watering and industrial and commercial purposes.</p> <p>There is a need to establish <u>workable</u> flow management regimes and allocation limits to guide the abstraction of water so that appropriate levels of protection for mauri and ecosystem health are provided while acknowledging and providing for the practical needs of the community for water at reasonable reliability of supply.</p> <p>For some water bodies, flooding and drainage management activities as well as abstractive uses of water have resulted in <u>may contribute to</u> significant adverse effects on aquatic ecosystems and instream values in the Heretaunga Plains where surface water flows and water quality, especially in summer, are not sufficient to ensure ecosystem health.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>is recognised in the Resource Management Act. A significant portion of land in the TANK catchment is pastoral farmland which values water for this purpose.</p> <p>Abstractive uses are only one aspect of water resource management that contribute to adverse effects on surface water flows and levels. (Other factors include weather and climate conditions, and development and modification of water ways, and land use intensification and urban growth). Therefore, it is more accurate to say that extractive uses contribute to adverse effects.</p>
4	Issue 4: Water Demand and Allocation, Efficient Use of Water	<p>Once allocation limits are specified for abstraction of water from ground and surface water bodies, Council must also manage the allocation and re-allocation of the water available for abstraction in an equitable way between the wide range of water users.</p> <p>Water allocation regimes should result in appropriate provision for permitted activities and allocation of the allocatable water for the range of existing and potential end uses in an equitable manner that meets the current and future needs of the community. The allocation of water needs to recognise the significant investment that has been made in land and infrastructure that water takes support; and the way these takes provide for the wellbeing of communities.</p> <p>In some areas where over-allocation has occurred, the resulting management regime will have variable impacts on some landowners and water users, particularly where</p>	<p>That Issue 4 be amended as follows:</p> <p>...</p> <p>In some areas where over-allocation has occurred, the resulting management regime will have variable impacts on some landowners and water users, particularly where the introduction of limits mean that new water use is restricted and opportunities for land use change <u>intensification</u> are also reduced <u>need to be carefully managed</u>.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>All water users are potentially affected by allocation rules, and 'some landowners' need not be singled out.</p> <p>Land use <i>intensification</i> is the pertinent aspect needing to be reigned-in (rather than 'land</p>

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		the introduction of limits mean that new water use is restricted and opportunities for land use change are also reduced.		use change', which is more generic).
5	Issue 5: Water Demand	<p>In some parts of the TANK catchments there is insufficient fresh water 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.</p> <p>The effects of climate change may also impact on rainfall, water flows and water availability making these opportunities even more relevant.</p>	That Issue 5 be retained as notified.	This issue is appropriate to freshwater management in this catchment.
6	Issue 6: Balancing Costs and Timeframes	<p>The restoration and protection of water quality to meet the objectives for mauri, ecosystem health and water quality enables the people and communities to continue to provide for their social, economic and cultural and tikanga Māori wellbeing/hauora.</p> <p>In some places in the TANK catchments a significant investment into mitigation measures may be required to meet those objectives. A staged approach to change the [sic] provides sufficient time to make changes and enables people and communities to undertake adaptive management to continue to provide for their social, economic and cultural and tikanga Māori wellbeing/ hauora in the short term.</p>	<p>That Issue 6 be amended as follows:</p> <p>...</p> <p>In some places in the TANK catchments, a significant investment into mitigation measures may be required to meet those objectives. A staged approach to change <u>is practical, and will provide sufficient enable time to make changes and enables for</u> people and communities to undertake adaptive management to continue to provide for their social, economic and cultural and tikanga Māori wellbeing/ hauora <u>in the short term in ways that are within their range of capabilities.</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	This issue is about balancing costs and timeframes, and therefore needs further focus on the capability of individuals and communities to achieve change.
7	Issue 7: Understanding TANK Freshwater Resources	<p>There are information gaps throughout these TANK catchments, with some arising because of the values-based approach to water management and the wider, more holistic approach that has been taken in relation to environmental management. Some of this results from developing understanding about the complex inter-relationships within freshwater and land systems, both at a local sub-catchment scale and in relation to the wider freshwater - coastal water interface.</p> <p>In future, technology land and water practices and information availability are likely to change, both increasing understanding of 'state' and impacts and also improving management and mitigation responses. The scale of information collection is also likely to change as more focussed approaches to water management are used at a sub-catchment or marae scale.</p>	<p>That Issue 7 be amended as follows:</p> <p>There are information gaps <u>about water use</u> throughout these TANK catchments, <u>with some arising because of the values-based approach to water management and the wider, more holistic approach that has been taken in relation to environmental management. It is partly due to reliance on piecemeal analysis of individual impacts on the water resource that occurs in applying for resource consents at the level of individual properties on a case-by-case basis. This contributes to 'patchy' information of varying quality being generated at different times throughout the catchment. Some of this results from d-Developing understanding about the complex inter-relationships within freshwater and land systems, both at a local sub-catchment scale and in</u></p>	This issue needs further unpacking to bring the patchy nature of case-by-case assessment of water resource management into focus, to show why there is a real need to improvement catchment and sub-catchment scale analysis in problem-solving.

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			<p>relation to the wider freshwater - coastal water interface <u>is increasingly important in understanding how to manage freshwater resources at the catchment scale.</u></p> <p>In future, technology land and water practices and information availability are likely to change, both increasing understanding of 'state' and impacts, and also improving management and mitigation responses. The scale of information collection is also likely to change as more focussed approaches to water management are used at a sub-catchment or marae scale, <u>which is more useful for catchment-scale analysis.</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	
8	Issue 8: Accounting for Predicted Climate Change	<p>Climate is changing, which also has an impact on natural climate variability. The challenge which lies ahead is not knowing the timing and extent to which climate variability will change further and how this may impact on water flows, levels and quality, or the precise timeframes within which these anticipated changes will occur.</p> <p>HBRC is required to have particular regard to the effects of climate change when managing the use, development, and protection of natural and physical resources.</p>	<p>That Issue 8 be amended as follows:</p> <p>Climate is changing, which also has an impact on natural climate variability. The challenge which lies ahead is not knowing the timing and extent to which <u>adapting to climate change and becoming more resilient. This includes taking account of climate variability will change further and how this may impact on water flows, levels and quality, or the precise timeframes within which these anticipated changes will occur.</u></p> <p>HBRC is required to have particular regard to the effects of climate change when managing the use, development, and protection of natural and physical resources.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Climate change is occurring now and there are present, as well as future, challenges.</p> <p>Adaptation is the most significant challenge and is vital to resilience. The best sets of predictions available on climate change are currently those from the IPCC. However, these can only be generically related to regional changes and climate variability in the TANK catchment, with more frequent/longer and more intense droughts, interspersed with more intense rainstorms and flood events becoming the 'new normal'.</p>

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9	5.10 Introduction	<p>Freshwater is essential to the region's economic, environmental, cultural and social well-being. The way in which these well- beings are provided for is informed by how the values for freshwater are understood and identified. Figure 1 provides an illustration of the wider community values for the TANK freshwater bodies expressed across the four well-being domains.</p> <p>This Plan also recognises Te Mana o te Wai, which puts the mauri of the waterbody and its ability to provide for te hauora o te tangata (the health of the people), te hauora o te taiao (health of the environment) and te hauora o te wai (the health of the waterbody) to the forefront of freshwater management.</p> <p>Water is viewed as a taonga by Māori; a treasure where mauri and ecosystem health are protected and provided for. Mauri is a spiritual value that is manifested by abundant and healthy water and aquatic resources, including plants and animals that depend on water.</p> <p>Figure 2 below shows the interrelated nature and cultural connections of the values held by Māori for water. These core values are underpinned by a philosophy of etiquette, customs, harmony and timing.</p> <p>The two expressions of the values for freshwater complement and build on each other. They enable the directions of the National Policy Statement for Freshwater Management to be given effect to and ensure the Plan provides for all of the community's values.</p> <p>This articulation of community and Māori values has enabled decisions to be made about the use and management of waterbodies of the TANK catchments.</p> <p>The Plan focuses on all the values for which water is to be managed by the setting of objectives, limits and other management measures that enable the needs of those values to be met. It also acknowledges the wider Māori perspectives of kawa, kaupapa and tikanga that support Māori values for water and its management and ensures the outcomes that are being sought are consistent with those cultural principles and approaches.</p> <p>Key attributes that allow the state of the values to be assessed and monitored have been developed and objectives established for them. Attributes for both water quality and water quantity have been identified and the desired attribute state has been agreed. For some water bodies, the desired state meets the actual state, however, for others, the state is less than desired and the plan provides measures and introduces new rules that will enable the objectives to be met. This includes objectives for water quality attributes as well as limits and flows for managing quantity of water.</p>	<p>That 5.10 Introduction be retained as notified.</p>	<p>This introduction is appropriate to freshwater management issues in this catchment</p>

	Name	Provision as notified	Relief sought	Reasons for relief
10	OBJ TANK 1	<p>The Council, tangata whenua and the urban and rural community work together in a way that recognises the kaitiaki and guardianship roles they each play in freshwater management and;</p> <p>a) recognise the importance of monitoring, resource investigations and the use of mātauranga Māori to inform decision making and limit setting for sustainable management;</p> <p>b) ensure good land and water management practices are followed and where necessary, mitigation or restoration measures adopted;</p> <p>c) support good decision making by resource users including rural and urban communities through marae and hapū initiatives, community or other catchment management programmes and monitoring initiatives, urban stormwater programmes, landowner collectives, farm management plans and industry good practice programmes.</p>	<p>That OBJ TANK 1 be amended as follows:</p> <p>The Council, tangata whenua and the urban and rural community work together in a way that recognises the kaitiaki and guardianship roles they each play in freshwater management and;</p> <p>a) recognise the importance of monitoring, resource investigations and the use of mātauranga Māori to inform decision making and limit setting for sustainable management;</p> <p>b) ensure good land and water management practices are followed and where necessary, mitigation or restoration measures adopted;</p> <p>c) support good decision making by resource users including rural and urban communities through marae and hapū initiatives, community or other catchment management programmes and monitoring initiatives, urban stormwater programmes, landowner collectives, farm management plans and industry good practice programmes.</p> <p>Alternately, that clauses a), b) and c) be re-stated as policies.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Clauses a) b) c) are policies, and unnecessarily pad the objective, which should be kept simple to avoid unnecessarily complicated interpretation.</p> <p>If it is considered necessary to keep these clauses, then they should be re-stated as policies.</p>
11	OBJ TANK 2	<p>When setting objectives, limits and targets;</p> <p>a) Te Mana o te Wai¹ and integrated mountains to the sea, ki uta ki tai principles are upheld;</p> <p>b) A continuous improvement approach to the use and development of natural resources and the protection of indigenous biodiversity is adopted and the collective management of freshwater is enabled;</p> <p>c) The kaitiakitanga role of tangata whenua and their whakapapa and cultural connection with water are recognised and provided for;</p> <p>d) The responsibilities of people and communities for sustainable resource use and development is recognised and supported; and</p> <p>e) The significant values of the outstanding water bodies in Schedule 25 and the values in the plan objectives are appropriately protected and provided for.</p>	<p>That OBJ TANK 2 be amended as follows:</p> <p>When setting objectives, limits and targets;</p> <p>...</p> <p>c) The kaitiakitanga role of tangata whenua and their whakapapa and cultural connection with water are recognised and provided for shall be had particular regard to;</p> <p>f) <u>The effects of climate change shall be had particular regard to.</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>The emphasis in Clause c) should be consistent with Section 7(a) of the RMA</p> <p>Effects of climate change are pertinent to setting objectives, limits, and targets, and should be included in this objective.</p>

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12	OBJ TANK 3	<p>The effects of climate change in respect of each of the following are taken into account in making decisions about land and water management within the TANK catchments;</p> <p>a) The effects on aquatic ecosystems, including indigenous biodiversity, freshwater bodies, water supply and human health, primary production and infrastructure from the predicted:</p> <p>(i) increases in intensity and frequency of rainfall;</p> <p>(ii) effects of rainfall on erosion and sediment loss;</p> <p>(iii) increases in sea level, and the effects of salt water intrusion;</p> <p>(iv) increasing frequency of water shortages;</p> <p>(v) increasing variability in river flows;</p> <p>b) The amount of information available and the scale and probability of adverse effects, particularly irreversible effects, as a consequence of acting or not acting;</p> <p>c) The timeframes relevant to the activity;</p> <p>d) Opportunities to improve community resilience for changes occurring as a result of (a)(i) to (iv).</p>	<p>That OBJ TANK 3 be amended as follows:</p> <p>The effects of climate change in respect of each of the following are taken into account in making decisions about land and water management within the TANK catchments;</p> <p>...</p> <p><u>d) Reliance on the freshwater resource for the social, economic, and cultural wellbeing of communities</u></p> <p>e) Opportunities to improve community resilience for changes occurring as a result of (a)(i) to (iv).</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>In this environment, choices need to be made about which sorts of investment are going to be most efficient in the long-term at dealing with climate variability, to enhance resilience and achieve successful adaptation.</p>
13	OBJ TANK 4	<p>Land and water use, contaminant discharge and nutrient loss activities are carried out so that the quality of the TANK freshwater bodies is maintained where objectives are currently being met, or is improved in degraded waterbodies so that they meet water quality attribute states in Schedule 26 by 2040 provided that:</p> <p>a) For any specific water body where the attribute state is found to be higher than that given in Schedule 26, the higher state is to be maintained; and</p> <p>b) Maintenance of a state is at the measured state².</p>	<p>That OBJ TANK 4 be amended as follows:</p> <p>Land and water use, contaminant discharge and nutrient loss activities are carried out so that the quality of the TANK freshwater bodies is maintained where objectives are currently being met, or is improved in degraded waterbodies so that they meet water quality attribute states in Schedule 26 by 2040 provided that:</p> <p>...</p> <p>b) Maintenance of a state is at the measured state² <u>assessed as the median of the last 5 years measured data taking into account natural variability and sampling error.</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Clarification is needed about the appropriate period for assessment in this objective, along with natural variability and sampling methods and error.</p>
14	OBJ TANK 5	<p>Te Mana o te Wai, kaitiakitanga and the needs for the values set out in Schedule 26, particularly mauri and ecosystem health are achieved through collectively managing all of the specified attributes.</p>	<p>That OBJ TANK 5 be retained as notified</p>	<p>This objective is appropriate to freshwater management in this catchment</p>
15	OBJ TANK 6	<p>The quality of the TANK freshwater bodies set out in Schedule 27 will be achieved through future plan changes.</p>	<p>That OBJ TANK 6 and Schedule 27 be deleted</p>	<p>This objective and the accompanying schedule does not add anything practical to</p>

	Name	Provision as notified	Relief sought	Reasons for relief
				the goals of the plan change. Long term goals should be set as part of implementing the NPSFM 2020.
16	OBJ TANK 7	Land use is carried out in a manner that reduces contaminant loss including soil loss and consequential sedimentation in freshwater bodies, estuaries and coastal environment.	<p>That OBJ TANK 7 be amended as follows:</p> <p>Land use is carried out in a manner that reduces <u>reduceable</u> contaminant loss <u>where practicable</u> including soil loss and consequential sedimentation in freshwater bodies, estuaries and coastal environment.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	The focus of this objective should be on reducing reduceable contaminant losses (instead of only on reduction). Where contaminant loss is already at a minimum, any further 'reduction' may not be achievable and would become an increasingly worthless pursuit.
17	OBJ TANK 8	<p>Aquatic ecosystem health and mauri of water bodies in the TANK catchment is improved by appropriate management of riparian margins to:</p> <ul style="list-style-type: none"> a) reduce effects of contaminant loss from land use activities; b) improve aquatic habitat and protect indigenous species including fish spawning habitat; c) reduce stream bank erosion; d) enhance natural character and amenity; e) improve indigenous biodiversity; f) reduce water temperature in summer; g) reduced nuisance macrophyte growth . 	<p>That OBJ TANK 8 be amended as follows:</p> <p>Aquatic ecosystem health and mauri of water bodies in the TANK catchment is <u>maintained or</u> improved by appropriate management of riparian margins to:</p> <ul style="list-style-type: none"> a) reduce effects of contaminant loss from land use activities <u>where this results in degradation of water quality or where water quality attributes are within the NOF 'D' Band;</u> ... c) reduce stream bank erosion <u>where this results in degradation of water quality or where water quality attributes are within the NOF 'D' Band;</u> ... f) reduce water temperature in summer <u>where this results in degradation of water quality or where water quality attributes are within the NOF 'D' Band;</u> g) reduced nuisance macrophyte growth <u>where this results in degradation of water quality or where water quality attributes are within the NOF 'D' Band.</u> 	<p>Action to reduce water contaminants is only necessary where contaminants are degrading water quality, or where quality is within the NOF 'D' Band in the NPSFM.</p> <p>Otherwise the focus of the objective should be on maintaining present quality (unless quality is within the NOF 'D' Band)</p>

	Name	Provision as notified	Relief sought And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.	Reasons for relief
18	OBJ TANK 9	Activities in source protection areas for Registered Drinking Water Supplies are managed to ensure that they do not cause water in these zones to become unsuitable for human consumption, and that risks to the supply of safe drinking water are appropriately managed.	That OBJ TANK 9 be retained as notified	This objective is appropriate to freshwater management in this catchment
19	OBJ TANK 10	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: <ul style="list-style-type: none"> a) Ahuriri estuary sediments to be healthy and not accumulate excessively; b) healthy ecosystems that contribute to the health of the estuary; c) healthy and diverse indigenous aquatic plant, fish and bird populations; d) people and communities to safely meet their domestic water needs; e) primary production water for community social and economic well-being; and provide for; <ul style="list-style-type: none"> 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. 	That OBJ TANK 10 be retained as notified	This objective is appropriate to freshwater management in this catchment
20	OBJ TANK 11	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; <ul style="list-style-type: none"> a) healthy ecosystems; b) 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; c) 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; d) protection of the natural character, instream values and hydrological functioning of the Ngaruroro mainstem and Taruarau and Omahaki tributaries; e) collection of mahinga kai to provide for social and cultural well-being; f) people and communities to safely meet their domestic water needs; g) primary production water needs and water required for associated processing 	That OBJ TANK 11 be retained as notified	This objective is appropriate to freshwater management in this catchment

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>and other urban activities to provide for community social and economic well-being;</p> <p>and provide for;</p> <p>h) contribution to water flows and water quality in the connected Heretaunga Plains Aquifers;</p> <p>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.</p>		
21	OBJ TANK 12	<p>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 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:</p> <p>a) healthy ecosystems;</p> <p>b) healthy and diverse indigenous aquatic and bird populations especially , whitebait, torrent fish, macroinvertebrate communities and a healthy trout fishery;</p> <p>c) people to safely carry out a wide range of social, cultural and recreational activities, especially swimming and cultural practices of Uu and boating;</p> <p>d) protection of the natural character, instream values and hydrological functioning of the Tūtaekurī mainstem and Mangatutu tributary;</p> <p>e) collection of mahinga kai to provide for social and cultural well-being;</p> <p>f) people and communities to safely meet their domestic water needs;</p> <p>g) primary production water needs and water required for associated processing and other urban activities to provide for community social and economic well-being;</p> <p>and provide for;</p> <p>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</p>	That OBJ TANK 12 be retained as notified	This objective is appropriate to freshwater management in this catchment
22	OBJ TANK 13	<p>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;</p> <p>a) healthy ecosystems;</p> <p>b) healthy and diverse indigenous aquatic and bird populations, especially black patiki, tuna and whitebait, and healthy macroinvertebrate communities;</p> <p>c) people to safely carry out a wide range of social, recreational, and cultural activities,</p>	That OBJ TANK 13 be retained as notified	This objective is appropriate to freshwater management in this catchment

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>including swimming and cultural practices of Uu and rowing and waka ama in the Clive/Karamū;</p> <p>d) collection of mahinga kai to provide for social and cultural well-being;</p> <p>e) people and communities to safely meet their domestic water needs;</p> <p>f) primary production water needs and water required for associated processing and other urban activities to provide for community social and economic well-being;</p> <p>and provide for;</p> <p>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>		
23	OBJ TANK 14	<p>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;</p> <p>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;</p> <p>b) primary production water needs and water required for associated processing and other urban activities to provide for community social and economic well-being;</p> <p>and provide for;</p> <p>c) the maintenance of groundwater levels at an equilibrium that accounts for annual variation in climate and prevents long term decline or seawater intrusion;</p> <p>d) contribution to water flows and water quality in connected surface waterbodies.</p>	That OBJ TANK 14 be retained as notified	This objective is appropriate to freshwater management in this catchment
24	OBJ TANK 15	<p>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 connected to the Wetland and lake waahi taonga within the TANK catchments is managed so that mauri, water quality and flows, and levels are maintained and improved to enable;</p> <p>a) healthy and diverse indigenous fish, bird and plant populations in wetland and lake areas and connected waterways;</p> <p>b) improved hydrological functioning in wetland and lakes and in connected waterways;</p> <p>c) people to safely carry out a wide range of social and cultural activities;</p> <p>d) collection of mahinga kai to provide for social and cultural well-being;</p> <p>e) contribution to improved water quality in connected surface waters;</p> <p>f) the protection of the outstanding values of the Kaweka Lakes, Lake Poukawa and Pekapeka Swamp and the Ngamatea East Swamp;</p> <p>And to;</p>	<p>That OBJ TANK 15 be amended by adding the following Note:</p> <p><u>Wet, damp, or boggy ground, and drains swales and stock drinking water dams within pastoral farmland, are not intended to be captured within the meaning of 'Wetland and lake waahi taonga' in this objective.</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	This objective should only relate to specific and/or identified 'Wetland and lake waahi taonga' and not to wet, damp or boggy ground, and drains swales and stock drinking water dams within pastoral farmland. Otherwise, maintenance and operation of these sorts of farm features risks being unnecessarily captured

	Name	Provision as notified	Relief sought	Reasons for relief
		g) increase the total wetland area by protecting and restoring 200ha hectares of existing wetland and reinstating or creating 100ha of additional wetland by 2040.		by the plan's resource management framework, which could result in farmers being subject to onerous delays and costs for resource consent applications to undertake day-to-day farm activities and maintenance for little or no environmental benefit.
25	OBJ TANK 16	<p>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 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>That OBJ TANK 16 be amended as follows:</p> <p>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 <u>reasonable domestic</u> needs of people, <u>livestock drinking, and fire-fighting supply</u>;</p> <p>b) The allocation and reservation of water for domestic supply including for marae and papakāinga, and for municipal supply so that existing and future demand as described in HPUDS (2017) can be met within the specified limits;</p> <p><u>bA) takes for animal welfare and sanitation (including shed wash down and milk cooling), takes for perishable food processing</u>;</p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Livestock drinking water supply is important for the welfare of farm livestock, and should be afforded a priority in allocation considerations.</p> <p>Future demand should not be prioritised over reasonable existing demand.</p>
26	OBJ TANK 17	<p>The allocation and use of water results in;</p> <p>a) the development of Māori economic, cultural and social well-being supported through regulating the use and allocation of the water available at high flows for taking, storage and use;</p> <p>b) Water being available for abstraction at agreed reliability of supply standards;</p> <p>c) Efficient water use;</p> <p>d) Allocation regimes that are flexible and responsive, allowing water users to make</p>	<p>That OBJ TANK 17 be amended as follows:</p> <p>The allocation and use of water results in <u>the sustainable management of freshwater quantity within limits, while enabling</u>;</p> <p>a) the development of Māori economic, cultural and social well-being <u>that is</u> supported through</p>	<p>The focus of this objective should reflect Objective B5 of the NPSFM</p> <p>Water allocation should be effects</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		efficient use of this finite resource;	<p>regulating the use and allocation of the water available at high flows for taking, storage and use;</p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	based and not based upon ownership treat based of land
27	OBJ TANK 18	<p>The current and foreseeable water needs of future generations and for mauri and ecosystem health are secured through;</p> <p>a) water conservation, water use efficiency, and innovations in technology and management;</p> <p>b) flexible water allocation and management regimes;</p> <p>c) water reticulation;</p> <p>d) aquifer recharge and flow enhancement;</p> <p>e) Water harvesting and storage.</p>	<p>That OBJ TANK 18 be amended as follows:</p> <p>The current and foreseeable water needs of future generations and for mauri and ecosystem health are secured through;</p> <p>...</p> <p>e) <u>Water harvesting and storage and use.</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	Clause e) should include use, alongside 'harvesting and storage'
28	<p>5.10.2 Policies: Surface Water and Groundwater Quality Management.</p> <p>Priority Management Approach</p>	<p>Priority Management Approach</p> <p>1. The Council with landowners, local authorities, industry and community groups, mana whenua and other stakeholders will 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 water quality targets shown in Schedule 26 by focussing on:</p> <p>a) water quality improvement in sub-catchments (as described in Schedule 28) where water quality is not meeting specified freshwater quality targets;</p> <p>b) sediment management as a key contaminant pathway to also address phosphorus and bacteria losses;</p> <p>c) the significant environmental stressors of excessive sedimentation and macrophyte growth in lowland rivers and nutrient loads entering the Ahuriri and Waitangi estuaries;</p> <p>d) the management of riparian margins;</p> <p>e) the management of urban stormwater networks and the reduction of contaminants in urban stormwater;</p> <p>f) the protection of water quality for domestic and municipal water supply.</p> <p>2. In the Clive/Karamū Rivers and their tributaries, in addition to Policy 1 the Council will work with mana whenua, landowners and the Hastings District Council to:</p> <p>a) reduce water temperature and increase the level of dissolved oxygen by:</p> <p>(i) the establishment of riparian vegetation to shade the water and reduce macrophyte growth while accounting for flooding and drainage objectives;</p>	<p>That Policies 1, 2, 3, 4 and 5 in 'Priority Management Approach' be amended as follows:</p> <p>1. The Council with landowners, local authorities, industry and community groups, mana whenua and other stakeholders, will 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 water quality targets shown in Schedule 26, by-focussing on:</p> <p>...</p> <p>g) <u>effects of climate change and related weather events on water quality;</u></p> <p>h) <u>avoidance, remediation or mitigation of contaminant pathways;</u></p> <p>i) <u>Management of surface water bodies to maintain minimum flows and levels to help maintain or improve water quality (e.g. water supply augmentation, river and stream bed maintenance).</u></p> <p>2. In the Clive/Karamū Rivers and their tributaries, in addition to Policy 1 the Council will work with mana whenua, landowners and the Hastings District</p>	<p>The Policy needs to reflect HBRC's own State and Trend information and do not rely on extensive assessment from individual water users to benchmark the prioritisation of environmental improvement at the start. Otherwise, individual water users may end up paying for assessment of water quality in situations where improvement is not necessary.</p> <p>In Schedule 28, the suggested threshold of 10kgN/ha/yr for TN yield is set too low for a 'high-priority', given that:</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>(ii) reducing excessive macrophyte growth by physical removal of aquatic plants in the short term;</p> <p>b) adopt flow management regimes to remedy or mitigate the effects of surface and ground water abstraction;</p> <p>c) reduce the amount of sediment and nutrients entering the freshwater from adjacent land;</p> <p>d) improve stormwater and drainage water quality and the ecosystem health of urban waterways and reduce contamination of stormwater associated with poor site management practices, spills and accidents in urban areas (refer also to Policies 28 -31).</p> <p>3. In lakes and wetlands in the TANK Catchments, in addition to Policy 1 the Council will work at a catchment scale with land owners in the wetland or lake catchments (refer to Policies 23 to 25) to:</p> <p>a) reduce sediment and nutrient inputs into the waterbody;</p> <p>b) improve water quality by increasing macrophyte plant growth in shallow lakes;</p> <p>c) improve ecosystem health and water quality by excluding stock and improving riparian management;</p> <p>d) meet water quality objectives in Schedule 26 for water bodies downstream of the lake or wetland;</p> <p>e) support and assist landowners to protect, increase or restore existing wetlands or create new wetlands including for the management of urban stormwater.</p> <p>4. In the lower Ngaruroro and Tūtaekurī Rivers and their tributaries, in addition to Policy 1 the Council will work with landowners to:</p> <p>a) improve water clarity and reduce deposited sediment by reducing the amount of sediment being lost from land;</p> <p>b) reduce risk of proliferation of algae by reducing nutrient losses from land, including by reducing phosphorous loss associated with sediment;</p> <p>c) improve ecosystem health and water quality by excluding stock from surface water bodies and improving riparian management.</p> <p>5. In the tributaries of the Ahuriri Estuary, in addition to Policy 1 the Council will work with mana whenua, landowners and the Napier City Council to:</p> <p>a) improve water clarity and reduce deposited sediment by reduce the amount of sediment being lost from land and river banks;</p> <p>b) reduce risk of proliferation of algae by reducing nutrient losses from land, including through management of phosphorous loss associated with sediment;</p> <p>c) improve stormwater and drainage water quality and the ecosystem health of urban waterways and reduce contamination of stormwater associated with</p>	<p>Council to:</p> <p>a) reduce water temperature and increase the level of dissolved oxygen by;</p> <p>(i) the establishment of riparian vegetation, <u>where practicable</u>, to shade the water and reduce <u>reduceable</u> macrophyte growth while accounting for flooding and drainage objectives;</p> <p>...</p> <p>b) adopt flow management regimes to <u>manage</u> remedy or mitigate the effects of surface and ground water abstraction;</p> <p>c) reduce the <u>reduceable</u> amount of sediment and nutrients entering the freshwater from adjacent land;</p> <p>...</p> <p>3. In lakes and wetlands in the TANK Catchments, in addition to Policy 1 the Council will work at a catchment scale with land owners in the wetland or lake catchments (refer to Policies 23 to 25) to:</p> <p>a) reduce <u>reduceable</u> sediment and nutrient inputs into the waterbody;</p> <p>...</p> <p>c) improve ecosystem health and water quality by, <u>where practicable</u>: excluding stock, and improving riparian management;</p> <p>...</p> <p>4. In the lower Ngaruroro and Tūtaekurī Rivers and their tributaries, in addition to Policy 1 the Council will work with landowners to:</p> <p>a) improve water clarity and reduce deposited sediment by reducing the amount of <u>reduceable</u> sediment being lost from land;</p> <p>b) reduce risk of proliferation of algae by reducing <u>reduceable</u> nutrient losses from land, including by reducing phosphorous loss associated with sediment;</p> <p>c) improve ecosystem health and water quality by, <u>where practicable</u>: excluding stock from surface water bodies and improving riparian management.</p>	<p>1) 90 percent of pastoral farms in the TANK catchment are mixed sheep and beef farms with a nominal TN yield greater than 10kgN/ha/yr, and;</p> <p>2) there is no evident TN yield problem in most of the catchment in HBRC's State and Trend reports.</p> <p>HBRCs own State and Environment Trend reporting (2020) suggests that there are no areas in the TANK catchment that exceed the 'high priority' TN Concentration targets in Schedule 28. Only 3 streams that exceed the Medium priority targets (and the same three streams are the only waterways that exceed the low priority target). Yet the TN Concentration Priority Map for TANK shows vast areas in 'high' and 'medium' priority.</p> <p>Basing priorities on the proposed thresholds in Schedule 28 therefore appears somewhat arbitrary, and may</p>

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		<p>poor site management practices, spills and accident in urban areas;</p> <p>d) carry out further investigations to understand the estuary hydrology, functioning and environmental stressors.</p>	<p>5. In the tributaries of the Ahuriri Estuary, in addition to Policy 1 the Council will work with mana whenua, landowners and the Napier City Council to:</p> <p>a) improve water clarity and reduce deposited sediment by reduce <u>reducing</u> the amount of <u>reduceable</u> sediment being lost from land and river banks;</p> <p>b) reduce risk of proliferation of algae by reducing <u>reduceable</u> nutrient losses from land, including through management of phosphorous loss associated with sediment;</p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>unnecessarily result in everything being a 'high priority' for some types of attribute improvement. Where 'high priority' thresholds are set too low, it risks incurring onerous assessment costs and delays for little or no environmental benefit.</p> <p>The focus of policy 2(b) should be on <i>managing effects</i> through flow regimes. This allows flexibility to avoid/remedy/mitigate or offset as necessary, given that the hydraulic connectivity of TANK surface water bodies to the Heretaunga Aquifer is complex (such that singular management strategies may not always be appropriate).</p> <p>The focus of policies 2(a)(i), 3(c) and 4(c) should be on the improving riparian management <i>where practicable</i> (as it may not be practicable to improve riparian vegetation everywhere).</p>

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				<p>Similarly, the focus of Policies 3(c) and 4(c) should be on the excluding stock <i>where practicable</i> (as it may not be practicable to exclude stock everywhere, especially where hill country farms rely on stock access to waterways for drinking, as reticulation is not always possible and stock must have water to survive. Some farms will have terrain that is difficult to fence out stock due to cliffs, dense vegetation, or gravel making it hard to put in fence posts. Some farms will find excluding stock will marginalise productive land: where the waterway is near a boundary; or the waterway cuts across paddocks; meaning that land then becomes isolated and unusable)</p>
29	<p>5.10.2 Policies: Surface Water and Groundwater Quality Management.</p> <p>Protection of Source Water</p>	<p>6. The quality of groundwater of the Heretaunga Plains and surface waters used as source water for Registered Drinking Water Supplies will be protected, in addition to Policy 1, by the Council:</p> <p>a) identifying a source protection extent for small scale drinking water supplies or Source Protection Zones for large scale drinking water supplies by methods defined in Schedule 35; and</p> <p>b) regulating activities within Source Protection Zones that may actually or potentially affect the quality of the source water or present a risk to the supply of safe drinking water because of;</p>	<p>That Policies 6 and 7 in 'Protection of Source Water' be amended as follows:</p> <p>6. The quality of groundwater of the Heretaunga Plains and surface waters used as source water for Registered Drinking Water Supplies will be protected, in addition to Policy 1, by the Council:</p> <p>...</p> <p>b) regulating activities within Source Protection</p>	<p>Holders of existing water permits and discharge consents within areas that are subject to applications for protection of water sources, should be consulted when applications to protect</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>(i) direct or indirect discharge of a contaminant to the source water including by overland flow or percolation to groundwater;</p> <p>(ii) an increased risk to the safety of the water supply as a result of a non-routine event;</p> <p>(iii) potentially impacting on the level or type of treatment required to maintain the safety of the water supply;</p> <p>(iv) shortening or quickening the connection between contaminants and the source water, including damage to a confining layer;</p> <p>(v) in the case of groundwater abstraction, the rate or volume of abstractions causing a change in groundwater flow direction or speed and/ or a change in hydrostatic pressure that is more than minor.</p> <p>7. When considering applications to take water for a Registered Drinking Water Supply, the Council will:</p> <p>a) provide for the replacement or amendment of a source protection extent or Source Protection Zone which reflects the level of protection required for that supply, according to a method specified in Schedule 35;</p> <p>b) provide for the amendment of a Source Protection Zone where new information changes the outputs from the method specified in Schedule 35;</p> <p>c) require applications to include an assessment of the Source Protection Zone required, taking into account the factors set out in Schedule 35;</p> <p>d) have regard to:</p> <p>(i) the extent to which the application reflects the factors and methodology in Schedule 35 when establishing the Source Protection Zone; and</p> <p>(ii) the impacts, including any costs and benefits, of any additional restrictions in the Source Protection Zone;</p> <p>(iii) the level of consultation with land owners in the Source Protection Zone.</p> <p>8. The Council will, when considering applications to discharge contaminants or carry out land or water use activities within:</p> <p>a) the source protection extent for Registered Drinking Water Supplies, take into account possible contamination pathways and risks to the quality of the source water for the water supply,</p> <p>b) A Source Protection Zone, avoid or mitigate risk of contamination from the activity of the source water for the water supply by taking into account criteria including but not limited to;</p> <p>(i) the amount, concentration and type of contaminants likely to be present as a result of the activity or in any discharge;</p> <p>(ii) the potential pathways for those contaminants, including any likely or potential preferred pathways;</p> <p>(iii) the mobility and survival rates of any pathogens likely to be in the discharge or arising as a result of the activity;</p> <p>(iv) any risks the proposed land use or discharge activity has either on its own or</p>	<p>Zones that may actually or potentially affect the quality of the source water or present a risk to the supply of safe drinking water <u>taking account of the proximity and intensity of other water abstraction activities and discharges to the Drinking Water Supply abstraction point</u> because of;</p> <p>c) <u>recognising existing lawfully established water supply sources and lawfully established land uses located within areas that are subject to applications for source protection for small scale drinking water supplies or Source Protection Zones</u></p> <p>...</p> <p>7. When considering applications to take water for a Registered Drinking Water Supply, the Council will:</p> <p>...</p> <p>d) have regard to:</p> <p>...</p> <p>(iii) <u>the level of consultation with land owners and existing water permit holders and discharge consent holders in the Source Protection Zone (or proposed Source Protection Zone).</u></p> <p>(iv) <u>the proximity and intensity of other water abstraction activities and discharges when determining the level of risk to the Drinking Water Supply</u></p> <p>...</p> <p>8. The Council will, when considering <u>proposals to discharge contaminants or carry out land or water use activities in resource consent applications, or applicable Farm Environment Plans, Catchment Collective Plans or Industry Programmes to discharge contaminants or carry out land or water use activities</u> within: ...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>source water are made.</p> <p>The policy framework should clearly provide protection for existing lawfully established bores/water supplies, as such supplies should not be undermined by applications to protect source water.</p> <p>Consideration should be given to the proximity and intensity of other water abstraction activities and discharges to the Registered Drinking Water Supply abstraction point when assessing the risk to the Registered Drinking Water Supply</p> <p>There is no need to require duplication of assessment processes (for other water take and discharges activities within Water Source Protection areas) by way of separate resource consent applications, if assessments are addressed in Farm Environment Plans, catchment Collective Plans or Industry Programmes.</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>in combination with other existing activities, including as a result of non-routine events;</p> <p>(v) ensuring the water supplier is aware of any abstraction of groundwater where abstraction has the potential to have more than a minor impact on flow direction or speed and/ or hydrostatic pressure;</p> <p>(vi) the effectiveness of any mitigation measures to avoid or mitigate risk of contaminants entering the source water and the extent to which the effectiveness of the mitigation measure can be verified;</p> <p>(vii) notification, monitoring or reporting requirements to the Registered Drinking Water Supplier.</p> <p>9. The Council will work with the agencies which have roles and responsibilities for the provision of safe drinking water, including Napier City Council, Hastings District Council, Hawkes Bay District Health Board and Drinking Water Assessors and through multi-agency collaboration to:</p> <p>a) implement a multi-barrier approach to the delivery of safe drinking water for Registered Drinking Water Supplies, through the consideration of source protection measures, water treatment and supply distribution standards;</p> <p>b) understand the nature and extent of the water resources used to supply communities, their connectivity with other waterbodies and their recharge sources;</p> <p>c) understand the nature of the relationship between water age and water quality, the use of water age as an attribute and implications for its management;</p> <p>d) understand risks to the quality of water used for Registered Drinking Water Supplies, including through consultation on any applicable resource applications in Source Protection Zones;</p> <p>e) maintain shared databases of activities, including information in consents for land and water use, that have the potential to adversely affect quality of water used for community supply;</p> <p>f) develop solutions that address risks to water quality including wastewater reticulation solutions in Source Protection Zones;</p> <p>g) implement a multi-barrier approach to the delivery of safe drinking water for Registered Drinking Water Supplies, through the consideration of source protection measures, and water treatment and supply standards.</p>		
30	5.10.2 Policies: Surface Water and Groundwater Quality Management.	<p>10. The Council will manage point source discharges (that are not stormwater discharges) so that after reasonable mixing, contaminants discharged either by themselves or in combination with other discharges do not cause the objectives for water quality in Schedule 26 to be exceeded and when considering applications to discharge contaminants will take into account:</p> <p>a) measurement uncertainties associated with variables such as location, flows, seasonal variation and climatic events;</p>	That Policy 10 in 'Managing Point Source Discharges' be retained as notified	This policy is appropriate for freshwater management in this catchment

	Name	Provision as notified	Relief sought	Reasons for relief
	Managing Point Source Discharges	<ul style="list-style-type: none"> b) the degree to which a discharge is of a temporary nature, or is associated with necessary maintenance work. c) when it is an existing activity, identification of mitigation measures, where necessary, and timeframes for their adoption that contribute to the meeting of water quality objectives. 		
31	5.10.2 Policies: Surface Water and Groundwater Quality Management. Riparian Land Management	<ul style="list-style-type: none"> 11. The Council will promote and support the establishment of riparian vegetation, including in conjunction with stock exclusion and setback regulations, that: <ul style="list-style-type: none"> a) contributes to the health of aquatic ecosystems especially for indigenous species; b) provides shading to reduce macrophyte growth and water temperature especially in lowland tributaries of the Karamū River; c) reduces contamination of water from land use activities; d) reduces river bank erosion; e) improves local amenity; f) enhances recreational activities; g) improves fish spawning habitat; h) assist in weed control. 12. When making decisions about riparian land management in accordance with Policy 11, the Council will account for management objectives related to land drainage and flood control and where appropriate, support establishment of native plant species in riparian margins to contribute to improving the region's indigenous biodiversity, the collection of mahinga kai, taonga raranga and taonga rongoa and the mauri of the river. 13. The Council will support improvement of riparian management to meet the specified timeframes (Policy 27) to provide for the values in Policies 11 and 12 by; <ul style="list-style-type: none"> a) working with industry groups and land owner collectives to identify where riparian management is to be improved; b) providing information about appropriate riparian planting that assists in meeting the values; c) regulating cultivation, stock access and indigenous vegetation clearance activities that have a significant adverse effect on functioning of riparian margins in relation to water quality and aquatic ecosystem health in adjacent waterbodies; d) providing funding assistance for riparian vegetation improvements; and e) when making decisions on applications for resource consent to; <ul style="list-style-type: none"> (i) take into account benefits arising to the values in Policy 11 and 12 as a result of the activity; (ii) consider whether to waive the fees and charges required to process the application where; 	<p>That Policies 11 and 13 in 'Riparian Land Management' be amended as follows:</p> <ul style="list-style-type: none"> 11. Where practicable, the Council will promote and support the establishment of riparian vegetation, including in conjunction with stock exclusion, and setback regulations, that:... 13. The Council will support improvement of riparian management to meet the specified timeframes (Policy 27) to provide for the values in Policies 11 and 12 by; <ul style="list-style-type: none"> ... c) regulating cultivation, stock access and indigenous vegetation clearance activities that have a significant adverse effect on functioning of riparian margins in relation to water quality and aquatic ecosystem health in adjacent waterbodies <u>through rules for setbacks and stock exclusion</u>; ... <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>The focus of Policy 11 should be an enabling policy about promoting and supporting riparian vegetation <i>where practicable</i>, as this may not always be appropriate (for resource consents, FEPs and Catchment Collective Plans to determine). Regulations for stock exclusion and setbacks are part of the 360 regulations, and should be read as coming under another policy (e.g. Policy 13(c)) where the focus is on how the Council will regulate activities that have significant adverse effects)</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<ol style="list-style-type: none"> 1. there is significant public benefit from the activity or the nature and scale of the activity results in significant ecosystem benefits; and 2. the activity is not a requirement of any other resource consent. 		
32	<p>5.10.2 Policies: Surface Water and Groundwater Quality Management.</p> <p>Wetland and Lake Management</p>	<p>14. The Council will regulate activities in and adjacent to wetlands and lakes and will support and encourage the maintenance and improvement of wetland values, including their value for:</p> <ol style="list-style-type: none"> a) biodiversity and as a habitat for indigenous flora and fauna species; b) recreation (where appropriate); c) cultural uses including for tikanga Māori and mahinga kai; d) their role in the hydrological cycle, including their effects on both high and low flows; e) enhancement of water quality in connected waterbodies; f) fishery habitat. <p>15. The Council will support and encourage the restoration and extension of natural wetlands and lakes and the reinstatement or creation of additional wetlands to provide for or improve the values (a) – (f) in Policy 14 by working with mana whenua, industry and community groups, land owners and other stakeholders in alignment with the Regional Biodiversity Strategy to:</p> <ol style="list-style-type: none"> a) identify priority areas where wetland and lake management can be improved b) identify priority areas where wetland extent can increased c) provide information to landowners about wetland and lake values and their management; d) provide funding assistance for wetland and lake protection and for construction of new wetlands and lakes; e) target resources where multiple objectives can be met; and f) when making decisions on applications for resource consent to; <ol style="list-style-type: none"> (i) take into account benefits arising to the values in Policy 14 as a result of the activity; (ii) consider whether to waive the fees and charges required to process the application where; <ol style="list-style-type: none"> 1. there is significant public benefit from the activity or the nature and scale of the activity result in significant ecosystem benefits; and 2. the activity is not a requirement of any other resource consent. 	<p>That Policies 14 and 15 in 'Wetland and Lake Management' be retained as notified</p>	<p>This policy is appropriate for freshwater management in this catchment</p>
33	<p>5.10.2 Policies: Surface Water and Groundwater</p>	<p>16. The Council will address the risks to human health and dogs from toxic phormidium by;</p> <ol style="list-style-type: none"> a) regular monitoring and reporting on the incidence of algae, including toxic phormidium and nutrient concentrations and ratios of nutrients in 	<p>That Policy 16 'Wetland and Lake Management' be amended as follows:</p> <p>16. The Council will address the risks to human health</p>	<p>The focus on managing toxic phormidium should be on <i>reduction</i>. Where</p>

	Name	Provision as notified	Relief sought	Reasons for relief
	Quality Management. Phormidium Management	<p>freshwater related to phormidium establishment;</p> <p>b) adopting applicable national guidelines for the monitoring and management of toxic algae;</p> <p>c) supporting national investigations into the incidence of toxic phormidium, the reasons for its establishment and measures to reduce the incidence;</p> <p>d) reducing nutrient and sediment inputs in accordance with Policies 17 and 20;</p> <p>e) maintain flushing flow;</p> <p>f) ensuring the public has information about phormidium risk, including as a result the accumulation of toxic algal mats.</p>	<p>and dogs from toxic phormidium by;...</p> <p>d) reducing <u>reduceable</u> nutrient and sediment inputs in accordance with Policies 17 and 20;</p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>sedimentation and nutrient and sediment inputs are already at a minimum, any further 'reduction' may not be achievable and would become an increasingly worthless pursuit.</p>
34	5.10.3 Policies: Managing Adverse Effects From Land Use on Water Quality (Diffuse Discharges) Adaptive Approach to Nutrient and Contaminant Management	<p>17. The Council will achieve or maintain the freshwater targets or freshwater objectives in Schedule 26 with landowners, industry groups, and other stakeholders and will implement the following measures;</p> <p>a) establish programmes and processes through Farm Environment Plans, Catchment Collectives and Industry Programmes to ensure land managers;</p> <p>(i) adopt industry good practice;</p> <p>(ii) identify critical source areas of contaminants at both property and catchment scale;</p> <p>(iii) adopt effective measures to mitigate or reduce contaminant loss;</p> <p>(iv) prepare nutrient management plans in catchment not meeting targets for dissolved nitrogen.</p> <p>18. The Council will achieve or maintain the freshwater targets or freshwater objectives in Schedule 26 by;</p> <p>a) gathering information to determine sustainable nutrient loads;</p> <p>b) developing nutrient limits and a nutrient allocation regime if the management framework in Policy 17 is not leading to improved attribute states by the time this plan is reviewed;</p> <p>c) regulating land use change where there is a significant risk of increased nitrogen loss;</p> <p>d) gathering and assessing information about environmental state and trends and the impact of land use activities on these;</p> <p>e) working with industry groups, landowners and other stakeholders to undertake research and investigation into;</p> <p>(i) nutrient pathways, concentrations and loads in rivers and coastal receiving environments;</p> <p>(ii) nutrient uptake and loss pathways at a property scale;</p> <p>(iii) measures to reduce nutrient losses at a property as well as catchment scale including those delivered through industry programmes.</p> <p>19. In catchments that do not meet objectives for dissolved nutrients specified in Schedule 26, the Council will ensure landowners, landowner collectives and</p>	<p>That Policies 17, 18 and 19 in 'Adaptive Approach to Nutrient and Contaminant Management' be amended as follows:</p> <p>17. The Council will achieve or maintain the freshwater targets or freshwater objectives in Schedule 26 with landowners, industry groups, and other stakeholders and will implement the following measures;</p> <p>...</p> <p>b) <u>managing land use activities through a rule framework that:</u></p> <p>(i) <u>enables people and communities to provide for economic, social, and cultural well-being through a framework for Permitted Activities that provide flexibility to carry out activities that have only minor adverse effects; and</u></p> <p>(ii) <u>for all other activities, provides processes for considering effects of land use activities through Farm Environment Plans, Catchment Collectives, and Industry Programmes in a more case-specific way</u></p> <p>18. The Council will achieve or maintain the freshwater targets or freshwater objectives in Schedule 26 by;</p> <p>...</p> <p>c) regulating land use change where there is a significant risk of <u>adverse effects from increased nitrogen loss;</u></p>	<p>Policy 17 needs to include allowance for permitted activities that have only minor adverse effects in terms of nutrients and contaminants.</p> <p>The focus in Policy 18(c) should be on <i>risk of adverse effects</i> from increased nitrogen loss. N-loss relies on modelling and is notoriously difficult to predict. There are many processes that occur (e.g. below the root zone) that arguably reduce harmful N compounds before these can enter waterbodies. If the policy focus were solely on risk of N-loss, then farmers may be onerously burdened with delays and costs for every bit of N-loss that could be deemed 'significant', rather than whether such loss</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>industry groups have nutrient management plans according to the priority order in Schedule 28.</p>	<p>...</p> <p>e) working with industry groups, landowners and other stakeholders to undertake research and investigation into;</p> <p>...</p> <p>(iii) measures to reduce <u>reduceable</u> nutrient losses at a property as well as catchment scale including those delivered through industry programmes.</p> <p>19. In catchments that do not meet objectives for dissolved nutrients specified in Schedule 26, the Council will ensure landowners, landowner collectives and industry groups have nutrient management plans <u>where Council State and Trend data on water quality indicates declining trends and poor state according to the priority order in Schedule 28.</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>is having an adverse effect or not. Also, the general focus on managing nutrients and contaminants throughout these policies should be or <i>reducing reduceable potential contaminants</i> . Where nutrients and contaminants are already at a minimum, any further 'reduction' may not be achievable and would become an increasingly worthless pursuit.</p> <p>Nutrient management under Policy 19 needs to be in the context of HBRCs current State and Trend information</p> <p>In Schedule 28, the suggested threshold of 10kgN/ha/yr for TN yield is set too low for a 'high-priority', given that:</p> <ol style="list-style-type: none"> 1) 90 percent the pastoral farms in the TANK catchment are mixed sheep and beef farms with a nominal TN yield exceeding 10kgN/ha/yr, and; 2) there is no evident TN concentration problem in most of the catchment in

	Name	Provision as notified	Relief sought	Reasons for relief
				<p>HBRC's State and Trend reports.</p> <p>HBRCs own State and Environment Trend reporting (2020) suggests that there are no areas in the TANK catchment that exceed the 'high priority' TN Concentration targets in Schedule 28. Only 3 streams that exceed the Medium priority targets (and the same three streams are the only waterways that exceed the low priority target). Yet the TN Concentration Priority Map for TANK shows vast areas in 'high' and 'medium' priority.</p> <p>Basing priorities on the proposed thresholds in Schedule 28 appears somewhat arbitrary, and may unnecessarily result in everything being a 'high priority' for some types of attribute improvement. Where 'high priority' thresholds are set too low, it risks incurring onerous assessment costs and delays for little or no environmental benefit.</p>

	Name	Provision as notified	Relief sought	Reasons for relief
35	5.10.3 Policies: Managing Adverse Effects From Land Use on Water Quality (Diffuse Discharges) Sediment Management	20. The Council will reduce adverse effects on freshwater and coastal aquatic ecosystems from eroded sediment, and from the phosphorus associated with this, by prioritising the following mitigation measures; a) regulating cultivation, stock access and vegetation clearance activities; b) targeting priority areas and activities for sediment loss management where there is high sediment loss risk and working with land managers to identify and manage critical source areas of contaminants at both property and catchment scale; c) informing land managers where land is vulnerable to erosion, using tools such as SedNet and LUC; and providing information about measures that reduce soil loss; d) recognising the benefits provided by tree planting and retirement of land for erosion control as well as for mitigating climate change effects and improving indigenous biodiversity by; (i) targeting resources where multiple objectives can be met; (ii) and supporting landowners to retire land, establish forests where appropriate, and plant trees on land with high actual or potential erosion risk; e) Supporting and encouraging improved riparian management across all TANK catchments.	That Policy 20 'Sediment Management' be amended as follows: 20. The Council will <u>manage land and water use to</u> reduce adverse effects on freshwater and coastal aquatic ecosystems from eroded sediment, and from the phosphorus associated with this, by prioritising the following mitigation measures; ... b) targeting priority areas and activities for sediment loss management where there is high sediment loss risk and working with land managers to identify and manage critical <u>sources areas</u> of contaminants at both property and catchment scale; ... And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.	The focus of this policy should be on the Council managing land and water use to reduce effects of sedimentation (rather than the Council reducing effects itself). Also, the pertinent target for management is <i>critical sources</i> of contaminants (rather than 'source areas')
36	5.10.3 Policies: Managing Adverse Effects From Land Use on Water Quality (Diffuse Discharges) Land Use Change and Nutrient Losses	21. The Council will remedy or mitigate the potential impact of diffuse discharge of nitrogen on freshwater quality objectives by regulating land and water use changes that modelling indicates are likely to result in increased nitrogen loss (modelled on an annual, whole of property or whole of farm enterprise basis) and in making decisions on resource consent applications, the Council will take into account: a) whether freshwater quality objectives or targets are being met in the catchment where the activity is to be undertaken; b) where any relevant TANK Industry Programme or Catchment Collective is in place the extent to which the changed land use activity is consistent with the Industry Programme or Collective outcomes, mitigation measures and timeframes; c) any mitigation measures required, and timeframes by which they are to be implemented that are necessary to ensure the actual or potential contaminant loss occurring from the property, in combination with other contamination losses in the catchment will be consistent with meeting freshwater quality objectives, including performance in relation to industry good practice, efficient use of nutrients and minimisation of nutrient losses; and will; d) avoid land use change that will result in increased nitrogen loss that contributes to water quality objectives and targets in Schedule 26 for	That Policy 21 'Land Use Change and Nutrient Losses' be amended as follows: Land Use Change and Nutrient Losses <u>Nitrogen Management</u> 21. The Council will <u>manage harmful increases of nitrogen to</u> remedy or mitigate the potential impact of diffuse discharge of nitrogen on freshwater quality objectives by regulating land and water use changes that modelling indicates are likely to result in increased nitrogen <u>concentrations in water bodies. loss (modelled on an annual, whole of property or whole of farm enterprise basis);</u> and i <u>n</u> making decisions on resource consent applications, the Council will take into account: a) whether freshwater quality objectives or <u>attribute</u> targets are being met in the catchment where the activity is to be undertaken; b) where any relevant TANK Industry	The title and wording of the policy are clunky. The focus of this policy should be about managing nitrogen degradation of freshwater resources. 'Land use change' itself is not the problem, and 'nutrient losses' and 'actual or potential contaminant' are too non-specific. The pertinent concern is concentration of TN in water bodies. The way this needs to be practically managed, is by assessing modelled N-loss from land use and working out how

	Name	Provision as notified	Relief sought	Reasons for relief
		dissolved nitrogen not being met.	<p>Programme or Catchment Collective is in place, the extent to which the changed nitrogen loss from land use activity is consistent with the Industry Programme or Collective outcomes, mitigation measures and timeframes <u>aimed at preventing increased nitrogen concentration degrading water bodies;</u></p> <p>c) any mitigation measures required, and timeframes by which they are to be implemented that are necessary to ensure the actual or potential contaminant nitrogen loss occurring from the property, in combination with other contamination losses and catchment processes (e.g. attenuation) in the catchment will be consistent with <u>appropriate in</u> meeting freshwater quality objectives, including performance in relation to industry good practice, efficient use of nutrients and minimisation of <u>reduction of</u> <u>reduceable</u> nutrient losses; and will;</p> <p>d) avoid land use change that will result in increased nitrogen loss that contributes to water quality objectives and targets in Schedule 26 for dissolved nitrogen not being met.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>this relates to in-stream concentration of TN.</p> <p>This process itself is notoriously difficult to accurately assess and is fraught with technical difficulties relating N-loss from land use to in-stream TN concentrations. All sorts of caveats have been published about the efficacy of relying on modelled N loss to manage environmental degradation from N in a regulatory setting (including from the Parliamentary Commissioner for the Environment.)</p> <p>Therefore, any policy aimed at this should be as unambiguous as possible, lest the purpose of assessment gets further muddled.</p> <p>The NESFM controls freshwater quality, and the provisions in clause d) are already address in clauses a)-c).</p>
37	5.10.3 Policies: Managing Adverse Effects From Land Use on Water	22. The Council will regulate the exclusion of cattle, deer and pigs from rivers, lakes and wetlands, and when considering an application for resource consent or when making decisions about stock exclusion in Industry or Catchment Collective Plans or when making decisions about Farm Environment Plan requirements to take into account the following matters:	<p>That Policy 22 in 'Stock Exclusion' be amended as follows:</p> <p>22. The Council will regulate the exclusion of cattle, deer and pigs from rivers, lakes and wetlands, and when considering an application for resource</p>	Stock exclusion will not be achievable for all farms. Many large, hill country farms rely on stock access to

	Name	Provision as notified	Relief sought	Reasons for relief
	Quality (Diffuse Discharges) Stock Exclusion	<ul style="list-style-type: none"> a) assessment of sources, scale and significance of adverse effects of sediment, phosphorus, nitrogen and bacterial inputs to the water body that could effectively or efficiently be reduced by stock exclusion, bridging or culverting; b) identifying whether there are alternative measures to meet water quality outcomes and improve ecosystem health, including by managing bank erosion or reducing sediment losses to water in contributing areas, altering land uses, or providing reticulated water for stock; c) whether stock exclusion is practicable in the circumstances including in relation to; <ul style="list-style-type: none"> (i) total costs of stock exclusion measures compared to expected water quality benefit; assessed in (a) and other possible adverse effects including stock welfare; (ii) technical or practical challenges of any works required for stock exclusion to be effective; (iii) potential costs and benefits provided by alternative measures compared to stock exclusion. 	<p>consent or when making decisions about stock exclusion in Industry or Catchment Collective Plans or when making decisions about Farm Environment Plan requirements to take into account the following matters:</p> <ul style="list-style-type: none"> a) assessment of sources, scale and significance of adverse effects of sediment, phosphorus, nitrogen and bacterial inputs to the water body that could effectively or efficiently be reduced, <u>where these are reduceable</u>, by stock exclusion, bridging or culverting; ... c) whether stock exclusion is <u>impracticable</u> in the circumstances including in relation to; <ul style="list-style-type: none"> ... (iv) <u>reliance on stock access to waterways for livestock drinking, where water supply by reticulation or dams is not possible or is impracticable.</u> (v) <u>terrain is difficult to fence due to cliffs, dense vegetation, or hard gravel/rock ground</u> (vi) <u>where the waterway is near a boundary; or the waterway cuts across paddocks; meaning that land then becomes isolated and unusable</u> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>waterways for drinking, as reticulation is not always possible and stock must have water to survive. Some farms will have terrain that is difficult to fence out stock due to cliffs, dense vegetation, or gravel making it hard to put in fence posts. Some farms will find excluding stock will marginalise productive land: where the waterway is near a boundary; or the waterway cuts across paddocks; meaning that land then becomes isolated and unusable. This farm in the Ngaruroro catchment has a stream (blue line) running near the boundary. Excluding stock would mean the area between the stream and the boundary becomes isolated and unusable. For one farm this may not add up to a great amount of hectares, although some individually owned farms may lose considerable pasture. Collectively, over the TANK catchments, requirements to</p>

	Name	Provision as notified	Relief sought	Reasons for relief
				exclude stock from riparian areas could represent a significant loss of productive land.
38	<p>5.10.3 Policies: Managing Adverse Effects From Land Use on Water Quality (Diffuse Discharges)</p> <p>Industry Programmes and Catchment Management</p>	<p>23. The Council will support the establishment and operation of Industry Programmes and Catchment Collectives and:</p> <ul style="list-style-type: none"> a) ensure any relevant information or expertise for making sustainable land management decisions is available to land managers; b) support local investigation and water monitoring programmes where information gaps exist; c) support development and use of catchment scale models that assist in identification and management of critical source areas; d) support catchment and farm scale decision making to meet freshwater objectives and encourage local solutions and innovative and flexible responses to water quality issues; e) work with water permit holders to encourage and support establishment of catchment collectives that address both freshwater quality objectives and stream flow management through environmental management programmes as specified in Schedule 30 and Schedule 36 and within the timeframes specified in Schedule 28. <p>24. The Council will continue to work with landowners, industry groups and other stakeholders to manage land and water use activities so that they meet objectives for freshwater/aquatic ecosystems by:</p> <ul style="list-style-type: none"> a) further supporting the development of Industry Programmes that contribute to meeting applicable freshwater objectives and that: <ul style="list-style-type: none"> (i) identify practices that contribute to meeting applicable freshwater objectives; (ii) specify timeframes for completion or adoption of measures to mitigate contaminant losses; (iii) ensure individual performance under an Industry Programme is monitored; (iv) provide annual reports to the Council on progressive implementation of measures identified in Industry Programmes established under Schedule 30 and progress towards meeting applicable objectives for water quality; (v) promote adoption of good industry practice; (vi) ensure that Industry Programmes are consistent with the requirements of Schedule 30; b) supporting landowners to establish Catchment Collectives to develop and implement environmental management plans that contribute to meeting applicable freshwater objectives and that; 	<p>That Policies 23 and 24 in 5.10.3 'Industry Programmes and Catchment Management' be amended as follows:</p> <p>23. The Council will support the establishment and operation of Industry Programmes and Catchment Collectives and:</p> <ul style="list-style-type: none"> a) ensure any relevant information or expertise for making sustainable land management decisions is available to land managers, <u>resource consent holders, and water resource users who are part of Industry Programmes and Catchment Collectives;</u> b) support local investigation and water monitoring programmes where information gaps exist <u>necessary for Industry Programmes and Catchment Collectives;</u> ... e) work with water permit holders <u>and discharge consent holders</u> to encourage and support establishment of catchment collectives that address both freshwater quality objectives and stream flow management through environmental management programmes as specified in Schedule 30 and Schedule 36 and within the timeframes specified in Schedule 28. <p>24. The Council will continue to work with landowners, industry groups and other stakeholders to manage land and water use activities so that they meet objectives for freshwater/aquatic ecosystems by:</p> <ul style="list-style-type: none"> ... b) supporting landowners to establish Catchment Collectives to develop and implement environmental management plans that contribute to meeting applicable freshwater objectives and that; 	<p>The term 'Land manager(s)' is not defined. Therefore, the policy assistance should be directed to resource consent holders and water resource users who are part of Industry Programmes and Catchment Collectives.</p> <p>Industry Programmes and Catchment Collectives will be focussed at the scale of sub-catchments or catchments, therefore there will be information requirements needed to understand the combined impact of members of these programmes, and the Council needs to be involved in the assessment of this information in order to effectively engage with Industry Programmes and Catchment Collectives</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<ul style="list-style-type: none"> (i) identify and adopt measures at a property scale and collectively with other land managers that reduce contaminant losses or remedy or mitigate the effects of land use on freshwater objectives; (ii) specify timeframes for completion or adoption of measures to mitigate contaminant losses; (iii) ensure individual performance under a catchment collective is monitored; (iv) provide annual reports to the Council on progressive implementation of measures identified in landowner collectives established under Schedule 30 and progress towards meeting applicable objectives for water quality; (v) promote adoption of good agricultural practice; (vi) ensure programmes prepared by a collective are consistent with the requirements of Schedule 30; <ul style="list-style-type: none"> c) Approving any Landowner Collective or Industry Programme developed under Schedule 30; d) Auditing Landowner Collective or Industry Programmes prepared and approved under Schedule 30 including auditing of member properties. 	<ul style="list-style-type: none"> (i) identify and adopt measures at a property scale and collectively with other land managers, <u>consent holders and water resource users</u> that reduce contaminant losses or remedy or mitigate the effects of land use on freshwater objectives; ... e) <u>establishing a community catchment group representative governance body manage the functioning of catchment collectives and provide administrative support for these and provide recommendations for future plan reviews to facilitate these duties.</u> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	
39	<p>5.10.3 Policies: Managing Adverse Effects From Land Use on Water Quality (Diffuse Discharges)</p> <p>Management and compliance.</p>	<p>26. Where individuals are members of a Catchment Collective or Industry Programme but do not undertake their activity in accordance with the approved plan prepared in accordance with Schedule 30, or do not follow the agreed terms of membership the Council will;</p> <ul style="list-style-type: none"> a) provide a conflict resolution service; b) where an individual is no longer, or is deemed through conflict resolution processes not to be, a member the Council will; <ul style="list-style-type: none"> (i) require the development of a farm plan for that property within 6 months or; (ii) require an application for a land use consent to be made; c) take appropriate enforcement action. 	<p>That Policy 26 - Management and compliance, be amended as follows:</p> <p>26. Where individuals are members of a Catchment Collective or Industry Programme but do not undertake their activity in accordance with the approved plan prepared in accordance with Schedule 30, or do not follow the agreed terms of membership the Council will;</p> <ul style="list-style-type: none"> aa) <u>aim to achieve compliance through Catchment Collective or Industry Programme rules in the first instance</u> a) provide a conflict resolution service; b) where an individual is no longer, or is deemed through conflict resolution processes not to be, a member the Council will; <ul style="list-style-type: none"> (i) require the development of a farm plan for that property within 6 months or; (ii) require an application for a land use consent to be made; c) take appropriate enforcement action <u>where all the processes above have been exhausted.</u> <p>And any consequential amendments needed to give effect</p>	<p>Remedial action on Catchment Collectives and Industry Programmes should be undertaken with Catchment Collectives and/or Industry Groups in the 1st instance, before enforcement action is even contemplated, especially given the emphasis on use of Catchment Collectives and Industry Programmes to address resource management in a complex and devolved way.</p>

	Name	Provision as notified	Relief sought	Reasons for relief																																										
40	<p>5.10.3 Policies: Managing Adverse Effects From Land Use on Water Quality (Diffuse Discharges)</p> <p>Timeframes; Water and Ecosystem Quality.</p>	<p>27. The Council will develop an implementation plan for this Plan Change with industry groups, landowners, water permit holders, tangata whenua, and other stakeholders to ensure that the land owners and lease holders are engaged in industry or landowner collective programmes or have prepared farm environmental plans within the timeframes in Schedule 28 and to ensure reporting (as specified in Schedule 30) on the milestones in Table 1 below.</p> <p>Table 1: Milestones and Timeframes</p> <table border="1"> <thead> <tr> <th>Action</th> <th>Activity</th> <th>Milestone</th> <th>Output to be reported on</th> </tr> </thead> <tbody> <tr> <td colspan="4">Stock and Riparian Land Management</td> </tr> <tr> <td rowspan="2">1; Stock exclusion and riparian planting</td> <td>Stock excluded from rivers in flat and rolling hill country</td> <td rowspan="2">Stock excluded by 2023</td> <td>Km of stream with stock exclusion</td> </tr> <tr> <td>Riparian margins planted</td> <td>Km of riparian margins planted</td> </tr> <tr> <td>2; Stock exclusion and sediment mitigation</td> <td>Stock access and sediment mitigation in hill country managed through environmental programme or farm plan</td> <td>According to priority set out in Schedule 29</td> <td>Soil erosion and critical source area mitigation measures and timeframes for implementation</td> </tr> <tr> <td>3; Riparian management</td> <td>Shading and planting in Karamū catchment and Heretaunga plains</td> <td>200km of waterway subject to planting programmes</td> <td>River and streams in Karamū catchment with riparian planting for shade</td> </tr> <tr> <td colspan="4">Wetlands</td> </tr> <tr> <td>4; wetland management and improvement</td> <td>Protection and restoration of existing wetlands</td> <td>100ha in 5 years and 200ha in ten years from operative date</td> <td>Hectares of protected and restored wetland</td> </tr> <tr> <td></td> <td>Reinstatement or creation of additional wetland</td> <td>100 ha reinstated or additional wetland</td> <td>Hectares of new wetland</td> </tr> <tr> <td colspan="4">Nutrient Management</td> </tr> <tr> <td>5; Nutrient management</td> <td>Nutrient management plans</td> <td>According to priority set out in Schedule 28</td> <td>Number of properties subject to nutrient plan</td> </tr> </tbody> </table>	Action	Activity	Milestone	Output to be reported on	Stock and Riparian Land Management				1; Stock exclusion and riparian planting	Stock excluded from rivers in flat and rolling hill country	Stock excluded by 2023	Km of stream with stock exclusion	Riparian margins planted	Km of riparian margins planted	2; Stock exclusion and sediment mitigation	Stock access and sediment mitigation in hill country managed through environmental programme or farm plan	According to priority set out in Schedule 29	Soil erosion and critical source area mitigation measures and timeframes for implementation	3; Riparian management	Shading and planting in Karamū catchment and Heretaunga plains	200km of waterway subject to planting programmes	River and streams in Karamū catchment with riparian planting for shade	Wetlands				4; wetland management and improvement	Protection and restoration of existing wetlands	100ha in 5 years and 200ha in ten years from operative date	Hectares of protected and restored wetland		Reinstatement or creation of additional wetland	100 ha reinstated or additional wetland	Hectares of new wetland	Nutrient Management				5; Nutrient management	Nutrient management plans	According to priority set out in Schedule 28	Number of properties subject to nutrient plan	<p>to the above relief or to otherwise satisfy our concerns.</p> <p>That Policy 27 be amended as follows:</p> <p>The Milestone for <i>Stock exclusion from rivers in flat and rolling hill country, and for Stock access and sediment mitigation in hill country managed through environmental programme or farm plan, be amended to be consistent with the National Resource Management (Stock Exclusion) Regulations 2020.</i> ≥</p> <p>The Activity for <i>Protection and restoration of existing wetlands, be amended as follows:</i></p> <p>Protection and restoration of existing <u>natural wetlands (not including any type of wet, damp or boggy ground that might incidentally occur as a result of land compaction, nor any ditch, drain, silt-trap, pit, bund, stock-water dam, or treatment pond associated with agricultural, pastoral or horticultural activities)</u></p> <p>The Milestone for <i>Protection and restoration of such existing wetlands (above), be amended as follows:</i></p> <p>100ha in 5 years and 200ha in ten years from operative date</p> <p>The Activity for <i>Reinstatement or creation of additional wetland, be amended as follows:</i></p> <p>Reinstatement or creation of additional <u>natural</u> wetland</p> <p>The Milestone for <i>Reinstatement or creation of additional wetland (above), be amended as follows:</i></p> <p>100ha in 5 years and 200ha in ten years from operative date</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Stock exclusion and wetland protection and shading and planting programme dates should contain delayed commencement after the plan is operative to allow for changes that might occur in the policy as a result of the RMA Schedule 1 process, and to give landowners and farmers time to factor in allowance for the cost of protection/planting of whichever waterway margins and wetlands need protection as a result of that process. Otherwise farmers could be subject to undue cost to protect features needlessly. It may also take some time to get planting programmes set up.</p> <p>The requirement to protect and restore existing wetlands or to reinstate or create additional wetlands, should not include any type of wet, damp or boggy ground that might incidentally occur as a result of land compaction, nor</p>
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				<p>any ditch, drain, silt-trap, pit, bund, stock-water dam, or treatment pond associated with agricultural, pastoral or horticultural activities. To do otherwise could subject farmers to onerous delays and costs for what amounts to needless regulation of productive farmland</p> <p>Requiring interim milestones for achieving such wetland protection may amount to an impractical target. The protection of ½ the amount of wetlands in half the timeframe may not reflect actual opportunities to protect wetlands.</p>
41	<p>5.10.4 Policies: Stormwater Management</p> <p>Urban Infrastructure.</p>	<p>28. The adverse effects of stormwater quality and quantity on aquatic ecosystems and community well-being arising from existing and new urban development (including infill development) industrial and trade premises and associated infrastructure, will be reduced or mitigated no later than 1 January 2025, by:</p> <ul style="list-style-type: none"> a) Local Authorities adopting an integrated catchment management approach to the collection and discharge of stormwater; b) requiring stormwater to be discharged into a reticulated stormwater network where such a network is available or will be made available as part of the development; c) requiring increased retention or detention of stormwater, while not exacerbating flood hazards; d) taking into account site specific constraints including areas with high groundwater, source protection zones, and/or an outstanding water body ; 	<p>That Policy 28 be retained as notified</p>	

	Name	Provision as notified	Relief sought	Reasons for relief
		<ul style="list-style-type: none"> e) taking into account the collaborative approach of HBRC, Napier City and Hastings District councils in managing urban growth on the Heretaunga Plains as it relates to stormwater management; f) taking into account the effects of climate change when providing for new and upgrading existing infrastructure; g) adopting, where practicable, a good practice approach to stormwater management including adoption of Low Impact Design for stormwater systems; h) amending district plans, standards, codes of practice and bylaws to specify design standards for stormwater reticulation and discharge facilities through consent conditions, that will achieve the freshwater objectives set out in this plan; i) developing and making available to the public advice about good stormwater management options (including through HBRC's guidelines); j) encouraging, through education and public awareness programmes, greater uptake and installation of measures that reduce risk of stormwater contamination; k) requiring, no later than 1 January 2025, the preparation and implementation of a site management plan and good site management practices on industrial and trade premises with a high risk of stormwater contamination and those in the high priority areas: <ul style="list-style-type: none"> (i) of the Ahuriri catchment; (ii) of the Karamū River and its tributaries; (iii) of land over the unconfined aquifer; and (iv) within identified drinking water Source Protection Zones. 		
42	5.10.4 Policies: Stormwater Management Source Control.	<p>29. Sources of stormwater contamination and contaminated stormwater will be reduced by:</p> <ul style="list-style-type: none"> a) specifying requirements for the design and installation of stormwater control facilities on sites where there is a high risk of freshwater contamination arising from either the direct discharge of stormwater to freshwater, the discharge of stormwater to land where it might enter water or the discharge to a stormwater or drainage network; b) requiring the implementation of good site management practices on all sites where there is a risk of stormwater contamination arising from the use, or storage of contaminants; c) controlling, and if necessary avoiding, activities that will result in water quality standards not being able to be met. 	<p>That Policy 29 be amended as follows:</p> <p>29. Sources of stormwater contamination and contaminated stormwater <u>discharged into publicly managed stormwater networks in urban and rural residential areas</u> will be reduced, <u>where these are reduceable</u>, by: ...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>This policy should be targeted at stormwater source control for stormwater discharges into publicly managed stormwater networks in urban and rural residential areas. Otherwise farmers could be needlessly subject to onerous costs and delays from being caught by rules triggering consent requirements for</p>

	Name	Provision as notified	Relief sought	Reasons for relief
				stormwater runoff from farmland in rural areas.
43	5.10.4 Policies: Stormwater Management Dealing with the Legacy	30. Aquatic ecosystem health improvements and community wellbeing and reduced stormwater contamination will be achieved by HBRC working with the Napier City and Hastings District Councils requiring discharges from stormwater networks to meet: a) water quality objectives (where they are degraded by stormwater) and the identification of measures that ensure stormwater discharges will achieve at least: (i) the 80th percentile level of species protection in receiving waters by 1 January 2025; and (ii) the 95th percentile level ³ of species protection by 31 December 2040. and b) except as in (a) above, the management objectives in Schedule 26 for freshwater and estuary health through resource consent conditions, including requirements; (i) to apply the Stream Ecological Valuation methodology to inform further actions; (ii) to install treatment devices within the drainage network where appropriate; (iii) for stream planting/re-alignment for aquatic ecosystem enhancement; (iv) for wetland creation, water sensitive design and other opportunities for increasing stormwater infiltration where appropriate; (v) recognise existing and planned investments in stormwater infrastructure.	That Policy 30 be retained as notified	
44	5.10.4 Policies: Stormwater Management Consistency and Collaboration; Integration of city, district and regional council rules and processes.	31. To achieve the freshwater quality objectives in this Plan, HBRC, with the Napier City and Hastings District Councils will, no later than 1 January 2025, implement similar stormwater performance standards including through the adoption of: a) good practice engineering standards; b) consistent plan rules and bylaws; c) shared information and approaches to education and advocacy; d) shared information and processes for monitoring and auditing individual site management on sites at high risk of stormwater contamination; e) consistent levels of service for stormwater management and infrastructure design; f) an integrated stormwater catchment management approach; g) undertaking a programme of mapping the stormwater networks and recording their capacity; h) aligning resource consent processes and having joint hearings to achieve	That Policy 31 be retained as notified	

	Name	Provision as notified	Relief sought	Reasons for relief
		integrated management of proposals for urban activities particularly in respect of stormwater, water supply and wastewater provisions and implementation of the Heretaunga Plains Urban Development Strategy (2017).		
45	5.10.4 Policies: Stormwater Management Ahuriri Catchment.	32. The Council will support the development of an Ahuriri Estuary Integrated Catchment Management Plan by; a) improving the quality of freshwater entering the Ahuriri Estuary through the measures included in this plan; and b) carrying out investigations to help better understand processes and functions occurring within the estuary and its connected freshwater bodies.	That Policy 32 be retained as notified	
46	5.10.5 Policies: Monitoring and Review	33. The Council will recognise and support monitoring according to mātauranga Māori and will recognise and support local scale monitoring to assess ecosystem health and mauri including water quality in relation to identified values and its contribution to: a) understanding local ecosystem health and land and water use impacts on it; b) enabling kaitiaki and resource users' responsibilities for sustainable freshwater management to be met; c) assessing effectiveness of mitigation measures adopted to meet freshwater objectives; d) understanding state and trends of local water quality; e) adding to the regional knowledge about environmental state and trends; by; f) developing protocols and procedures for monitoring appropriate to the purpose of the monitoring; g) providing assistance and advice; h) supporting the provision of monitoring materials; i) collating and reporting on data as appropriate. 34. Council will meet regularly with representatives from TANK stakeholder groups to: a) review and report on the TANK implementation plan; b) identify issues arising and develop measures to enable their resolution. 35. The Council will monitor and report on the effectiveness of the TANK water quality management policies and rules and to assist in making decisions about reviewing or changing this management framework, the Council will: a) continue to monitor instream water quality and review and report on the progress towards and achievement of the water quality objectives in Schedule 26 and according to Objectives 2 and 3 of this Plan in its regular	That Policy 33 be retained as notified That Policy 34 be amended as follows: 34. Council will meet regularly with representatives from TANK stakeholder groups <u>establish a representative Community Catchment Governance body</u> to: a) review and report on the TANK implementation plan; b) identify issues arising and develop measures to enable their resolution. That Policy 35 be amended as follows: 35. The Council will monitor and report on the effectiveness of the TANK water quality management policies and rules and to assist in making decisions about reviewing or changing this management framework, the Council will: ... c) monitor the progress towards the milestones listed in Policy 27, according to timeframes <u>priorities</u> specified in Schedule 28 and collate and report annually on information about; ... And f) commence a review of these provisions within ten years of <operative date> in	The focus of Schedule 28 is identifying High, Medium, Low and Long-term <i>priorities</i> for water quality issues. The focus in Policy 34 should be specific functions carried out through an organised structure. The requirement in clause f) of Policy 35 is an unnecessary duplication of what is stated in section 79 of the Act.

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>State of the Environment monitoring;</p> <p>b) monitor and report on the state of riparian land and wetlands, and carry out regular ecosystem habitat assessments, including native fish monitoring and through the application of mātauranga Māori tools and approaches when they are developed;</p> <p>c) monitor the progress towards the milestones listed in Policy 27, according to timeframes specified in Schedule 28 and collate and report annually on information about;</p> <p>(i) the nature and extent of the mitigation measures being adopted to meet water quality and/or quantity outcomes through Catchment Collectives, Industry Programmes and Farm Plans;</p> <p>(ii) the establishment of Catchment Collectives and assess progress in implementing the measures specified in their environment plans;</p> <p>(iii) the preparation of Farm Environment Plans and assess progress in implementing the measures specified in that plan;</p> <p>d) work with Industry Groups to collate information annually on the functioning and success of any Industry Programme in implementing measures specified in the Industry Programme;</p> <p>e) along with the Napier City Council and Hastings District Council, report annually on progress towards the improvement of the stormwater network, including reporting on the preparation of Site Management Plans for activities at risk of contaminating stormwater in urban areas;</p> <p>And</p> <p>f) commence a review of these provisions within ten years of <operative date> in accordance with section 79 of the RMA.</p>	<p>accordance with section 79 of the RMA.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	
47	<p>5.10.6 Policies: Heretaunga Plains Groundwater Levels and Allocation Limits</p> <p>Heretaunga Plains Aquifer Management</p>	<p>36. The Council recognises the actual and potential adverse effects of groundwater abstraction in the Heretaunga Plains Water Management Unit on:</p> <p>a) groundwater levels and aquifer depletion;</p> <p>b) flows in connected surface waterbodies;</p> <p>c) flows of the Ngaruroro River;</p> <p>d) groundwater quality through risks of sea water intrusion and water abstraction;</p> <p>e) tikanga and mātauranga Māori;</p> <p>and will adopt a staged approach to groundwater management that includes;</p> <p>f) avoiding further adverse effects by not allowing new water use;</p> <p>g) reducing existing levels of water use;</p> <p>h) mitigating the adverse effects of groundwater abstraction on flows in connected water bodies;</p> <p>i) gathering information about actual water use and its effects on stream depletion;</p>	<p>That Policies 36, 37 and 38 in Heretaunga Plains Aquifer management be amended as follows:</p> <p>36. The Council recognises the actual and potential adverse effects of groundwater abstraction in the Heretaunga Plains Water Management Unit on:</p> <p>...</p> <p>and will adopt a staged approach to groundwater management that includes;</p> <p>f) avoiding further adverse effects <u>in overallocated catchments by not allowing new water use</u>;</p> <p>g) reducing existing levels of water use <u>overallocation</u>;</p> <p>...</p>	<p>The focus of these policies should be on avoiding increases/further overallocation and reducing existing overallocation (rather than being concerned about 'new water use' <i>per se</i>. 'New water use' is ambiguous)</p> <p>Federated Farmers understand that the suggested interim overallocation limit of</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>j) monitoring the effectiveness of stream flow maintenance and habitat enhancement schemes;</p> <p>k) including plan review directions to assess effectiveness of these measures.</p> <p>37. In managing the allocation and use of groundwater in the Heretaunga Plains Water Management Unit, the Council will;</p> <p>a) adopt an interim allocation limit of 90 million cubic meters per year based on the actual and reasonable water use prior to 2017;</p> <p>b) 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;</p> <p>c) manage the Heretaunga Plains Water Management Unit as an over-allocated management unit and prevent any new allocations of groundwater;</p> <p>d) when considering applications in respect of existing consents due for expiry, or when reviewing consents, to;</p> <p>(i) allocate groundwater the basis of the maximum quantity that is able to be abstracted during each year or irrigation season expressed in cubic meters per year;</p> <p>(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);</p> <p>e) mitigate stream depletion effects on lowland streams by providing for stream flow maintenance and habitat enhancement schemes.</p> <p>38. The Council will 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 and will review permits or allocate water according to the plan policies and rules either:</p> <p>a) upon expiry of the consent; or</p> <p>b) in accordance with a review of all applicable permits within ten years of <the operative date>; whichever is the sooner.</p>	<p>37. In managing the allocation and use of groundwater in the Heretaunga Plains Water Management Unit, the Council will;</p> <p>a) adopt an interim allocation limit of <u>whichever is the greater amount of</u> 90 million cubic meters per year <u>or the total amount allocated by resource consents and for permitted and allowed activities, provided that the interim allocation limit shall be reviewed by 2025 based on the actual and reasonable water use prior to 2017;</u></p> <p>...</p> <p>c) manage the Heretaunga Plains Water Management Unit as an over a <u>fully</u> allocated management unit and prevent any new allocations <u>that have the effect of causing it to become overallocated. of groundwater;</u></p> <p>...</p> <p>38. The Council will 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 and will review permits or allocate water according to the plan policies and rules either:</p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>90 million cubic metres/annum is based on modelled information from a 'dry' year (2013) – rather than being 'actual and reasonable water use prior to 2017'. Federated Farmers understand there is no record of actual use. Any interim allocation limit should instead allow for total amount allocated by water permits, and permitted and allowed water use activities.</p>
48	5.10.6 Policies: Heretaunga Plains Groundwater Levels and Allocation Limits Flow Maintenance	<p>39. When assessing applications to take groundwater in the Heretaunga Plains Water Management Unit the Council will:</p> <p>a) either;</p> <p>(i) require abstraction to cease when an applicable stream flow maintenance scheme trigger is reached; or</p> <p>(ii) enable consent applicants to develop or contribute to stream flow maintenance and habitat enhancement schemes that;</p> <p>1. contribute flow to lowland rivers where groundwater abstraction is depleting stream flows; and</p> <p>2. improve oxygen levels and reduce water temperatures;</p>	<p>That Policy 39 be deleted:</p> <p>39. When assessing applications to take groundwater in the Heretaunga Plains Water Management Unit the Council will:</p> <p>...</p> <p>b) assess the relative the contribution to stream depletion from groundwater takes and require stream depletion to be off-set equitably by consent holders while providing for exceptions for</p>	<p>The RMA only provides for offsetting to be volunteered by applicants, and not required by plans or regulations</p> <p>Any improvements to water quality when assessing applications</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>b) assess the relative the 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; and</p> <p>c) enable permit holders to progressively and collectively through Water User Collectives develop and implement flow maintenance and habitat enhancement schemes as water permits are replaced or reviewed, in the order consistent with water permit expiry dates.</p> <p>40. When assessing applications for a stream flow maintenance and habitat enhancement scheme the Council will have regard to:</p> <p>a) opportunities for maximising the length of waterbodies where habitat and stream flow is maintained or enhanced;</p> <p>b) any improvements to water quality, especially dissolved oxygen, and ecosystem health as a result of the stream flow maintenance and habitat enhancement schemes;</p> <p>c) the duration and magnitude of adverse effects as a consequence of flow maintenance scheme operation;</p> <p>d) the extent to which the applicant has engaged with mana whenua;</p> <p>e) and will;</p> <p>(i) allow site to site transfer of water to enable the operation of a flow enhancement scheme;</p> <p>(ii) enable water permit holders to work collectively to develop and operate stream flow maintenance and habitat enhancement schemes consistent with the requirements of Schedule 36</p> <p>(iii) impose consent durations of 15 years that are consistent with the term for groundwater takes affected by stream flow maintenance requirements, except where stream flow maintenance is being provided by significant water storage infrastructure in which case consent duration is consistent with the scale of the infrastructure.</p> <p>41. 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;</p> <p>b) if such a scheme is feasible, to develop options for funding, construction and operation of such a scheme including through a targeted rate;</p> <p>and</p> <p>c) if such a scheme is not feasible, to review alternative methods and examine</p>	<p>the use of water for essential human health; and</p> <p>...</p> <p>That Policy 40 be amended as follows:</p> <p>40. When assessing applications for a stream flow maintenance and habitat enhancement scheme the Council will have regard to:</p> <p>...</p> <p>b) any <u>anticipated</u> improvements to water quality, especially dissolved oxygen, and ecosystem health as a result of the stream flow maintenance and habitat enhancement schemes;</p> <p>...</p> <p>e) and will;</p> <p>(i) ...</p> <p>(iii) impose consent durations of 15-25 years that are consistent with the term for groundwater takes affected by stream flow maintenance requirements, except where stream flow maintenance is being provided by significant water storage infrastructure in which case consent duration is consistent with the scale of the infrastructure.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p> <p>That Policy 41 be retained as notified</p>	<p>for stream flow maintenance, will be <i>anticipated</i> improvements.</p> <p>15 years is too-short a duration for farmers who may participate in schemes for stream flow maintenance and enhancement to be able to recoup their investment. Instead, the consent duration should be extended to 25 years to incentivise participation in stream flow enhancement schemes.</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		the costs and benefits of those.		
49	5.10.6 Policies: Heretaunga Plains Groundwater Levels and Allocation Limits Groundwater management review	<p>42. After water has been re-allocated and consents reviewed in accordance with Policies 36 - 38, the Council will commence a review of these provisions within ten years of <operative date> in accordance with Section 79 of the RMA and will determine:</p> <ul style="list-style-type: none"> a) the amount of water allocated in relation to the interim allocation limit; b) the total annual metered groundwater use for the Heretaunga Plains Water Management Unit during the ten years prior to the time of review; c) if any changes in the relationship between groundwater abstraction and the flows of rivers and groundwater levels have occurred; d) the extent of any stream flow maintenance and habitat enhancement schemes including in relation to; <ul style="list-style-type: none"> (i) the length of stream subject to flow maintenance; (ii) the extent of habitat enhancement including length of riparian margin improvements, and new or improved wetlands; (iii) the magnitude and duration of stream flow maintenance scheme operation; (iv) trends oxygen and temperature levels in affected streams. <p>And will;</p> <ul style="list-style-type: none"> e) In relation to plan objectives and adverse effects listed in Policy 36, assess; <ul style="list-style-type: none"> (i) the effects of the groundwater takes on stream flows; (ii) effectiveness of stream flow maintenance schemes in maintaining water flows and improving water quality; (iii) effectiveness of habitat enhancement including through improved riparian management and wetland creation in meeting freshwater objectives; f) review the appropriateness of the allocation limit in relation to the freshwater objectives; g) develop a plan change to ensure any over-allocation is phased out. 	<p>That Policy 42 be amended as follows</p> <p>42. After water has been re-allocated and consents reviewed in accordance with Policies 36 - 38, the Council will commence a review of these provisions <u>by 2025</u> within ten years of <operative date> in accordance with Section 79 of the RMA and will determine:</p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	This is consequential to our relief sought on Policy 37
50	5.10.7 Policies: Surface Water Flow Management Flow Management Regimes; Tūtaekurī, Ahuriri, Ngaruroro and Karamū	<p>43. 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;</p> <p>For the Ngaruroro River;</p> <ul style="list-style-type: none"> a) maintaining the existing minimum flows for the Ngaruroro River and its tributaries; b) reducing the effects of abstraction from the mainstem and connected groundwater in Zone 1 by reducing the allocation limit for the Ngaruroro River; 	<p>That Policy 43 be amended as follows:</p> <p>43. 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 <u>and out-of-stream reliability of use</u> by;...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	Farmers need certainty and reliability of supply to help with day-to-day farm decision making and investment certainty

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>c) establishing allocation limits for the river, connected groundwater in Zone 1 and tributaries to account for the cumulative effects of all abstraction and provide water for abstraction at a reasonable security of supply;</p> <p>d) establishing a limit for groundwater abstraction in the upper Ngaruroro catchment based on existing actual and reasonable use until more information about the nature and extent of that resource is available.</p> <p>For the Tūtaekurī River;</p> <p>e) increasing the minimum flow for the Tūtaekurī River and the Mangaone tributary and maintaining the minimum flow for the Mangatutu tributary;</p> <p>f) reducing the effects of abstraction from the mainstem and connected groundwater in Zone 1 by reducing the allocation limit for the Tūtaekurī River;</p> <p>g) establishing allocation limits for the river, connected groundwater in Zone 1 and tributaries to account for the cumulative effects of all abstraction and provide water for abstraction at a reasonable security of supply;</p> <p>h) establishing a limit for groundwater abstraction in the upper Tūtaekurī catchment based on existing actual and reasonable use until more information about the nature and extent of that resource is available.</p> <p>For the Karamū River;</p> <p>i) maintaining existing flow management regimes for the Karamū River and its tributaries and contributing lakes and wetlands affected by groundwater abstraction and surface water abstractions;</p> <p>j) establishing allocation limits for the river and tributaries to account for the cumulative effects of all abstraction and provide water for abstraction at a reasonable security of supply.</p> <p>For the Ahuriri Catchment Freshwater Streams;</p> <p>k) establishing limits for ground and surface water abstraction based on existing actual and reasonable use until more information about the nature and extent of that resource is available.</p>		
51	<p>5.10.7 Policies: Surface Water Flow Management</p> <p>Paritua/Karewarewa Streams</p>	<p>44. The Council will recognise the connectivity between ground and surface water abstraction on the flows in the Paritua/Karewarewa Streams and their tributaries, acknowledge the contribution of flows from these streams to the flows in the Awanui Stream, Karamū River and the Heretaunga Plains Water Management Unit, and their importance to local marae and work with water permit holders, landowners and tangata whenua to;</p> <p>a) further refine the Heretaunga Plains Aquifer Model to improve model outputs for this catchment;</p> <p>b) investigate opportunities for wetland creation to improve hydrological functioning and water quality in the river, especially during low flows;</p>	<p>That Policy 44 be retained as notified</p>	

	Name	Provision as notified	Relief sought	Reasons for relief
		<ul style="list-style-type: none"> c) improve riparian management to provide shade, reduce macrophyte growth, increased dissolved oxygen levels and decrease water temperature; d) carry out resource investigations to understand natural stream flow regimes and feasible options for remediation including; <ul style="list-style-type: none"> (i) managed aquifer recharge; (ii) flow enhancement from groundwater; (iii) streambed modification to reduce losses to groundwater in highly conductive reaches; e) enable and support water permit holders and landowners to collectively manage the maintenance of specified flows in the Paritua/Karewarewa Streams; f) provide for water to be diverted from the Ngaruroro for the enhancement of flows in the Paritua Stream. 		
52	5.10.7 Policies: Surface Water Flow Management General Water Allocation Policies	45. When assessing applications to take water the Council will; <ul style="list-style-type: none"> a) provide 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; b) require water meters to be installed for all water takes authorised by a water permit and water use to be recorded and reported via telemetry provided that telemetry will not normally be required where the consented rate of take is less than 5l/sec or where there are technical limitations to its installation; c) ensure water allocation from tributaries is accounted for within the total allocation limit for the relevant zone and that the total abstraction from any tributary does not exceed 30% of the MALF for that tributary unless otherwise specified in Schedule 31; d) offset the stream depletion effects of any groundwater takes in Zone 1, that were not previously considered stream depleting, by managing them as if they were in the Heretaunga Plains Water Management Unit; and <ul style="list-style-type: none"> (i) require contributions to an applicable lowland stream enhancement programme at a rate equivalent to the stream depletion effect consistent with Policy 39; or <ul style="list-style-type: none"> (ii) require the water take to cease when the minimum flow for the affected river is reached if a permit holder does not contribute under clause (i) where there is an applicable lowland stream enhancement; and (iii) allow further technical assessments to determine the extent of stream depletion effect. 	That Policy 45 be amended as follows: 45. When assessing applications to take water the Council will; ... d) offset the stream depletion effects of any groundwater takes in Zone 1, that were not previously considered stream depleting, by managing them as if they were in the Heretaunga Plains Water Management Unit; and (i) require contributions to an applicable lowland stream enhancement programme at a rate equivalent to the stream depletion effect consistent with Policy 39; or (ii) require the water take to cease when the minimum flow for the affected river is reached if a permit holder does not contribute under clause (i) where there is an applicable lowland stream enhancement; and (iii) allow further technical assessments to determine the extent of stream depletion effect. And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.	The relief sought in Clause (d) is consequential to our relief sought on Policy 39. With regard to clause d) (ii), water permit holders should be afforded reasonable reliance on their permit without any heretofore unanticipated restriction on their consented take, which arises simply because stream depletion effects in Zone 1 were not previously considered stream depleting. This clause undermines reliance on existing water permits and with that, the aim of staged adaptive management.

	Name	Provision as notified	Relief sought	Reasons for relief
53	5.10.7 Policies: Surface Water Flow Management Water Use and Allocation – Efficiency	46. The Council will ensure efficient management of the allocation of water available for abstraction by: <ol style="list-style-type: none"> a) ensuring allocation limits and allocations of water for abstraction are calculated with known security of supply; b) ensuring water is allocated to meet actual and reasonable requirements; c) encouraging and supporting flexible management of water by permit holders so that the allocatable water can be used efficiently and within specified limits; d) on-going data collection and monitoring of water resources and water use to better understand patterns of water availability and water use and further develop efficient and effective water management provisions. 47. When considering applications for resource consent, the Council will ensure water is allocated and used efficiently by: <ol style="list-style-type: none"> a) ensuring that the technical means of using water are physically efficient through; <ol style="list-style-type: none"> (i) allocation of water for irrigation end-uses based on soil, climate and crop needs; (ii) requiring the adoption of good practice water use technology and processes that minimise the amount of water wasted; and (iii) the use of water meters; b) using the IRRICALC water demand model if available for the land use being applied for (or otherwise by a suitable equivalent approved by Council) to determine efficient water allocations for irrigation uses; c) allocating water for irrigation on the basis of a minimum water application efficiency standard of 80% and on a reliability standard that meets demand 95% of the time; d) requiring all non-irrigation water takes (except as provided by Policy 50 for municipal and papakāinga supplies) to show how water use efficiency of at least 80% is being met and is consistent with any applicable industry good practice; e) requiring new water takes and irrigation systems to be designed and installed in accordance with industry codes of practice and standards; f) requiring irrigation and other water use systems to be maintained and operated to ensure on-going efficient water use in accordance with any applicable industry codes of practice. 	That Policy 46 and 47 be retained as notified:	
54	5.10.7 Policies: Surface Water Flow Management Water Use Change/Transfer	48. When considering any application to change the water use specified by a water permit, or to transfer a point of take to another point of take, to consider: <ol style="list-style-type: none"> a) declining applications where the transfer is to another water management zone unless; <ol style="list-style-type: none"> (i) new information provides more accurate specification of applicable zone boundaries; 	That Policy 48 be amended as follows: Water Use Change /Transfer 48. When considering any application to change <u>increase</u> the water use <u>take</u> specified by a water	The focus of this policy should be on limiting increases in water use when considering transfers, not on 'changes' per se, and

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>(ii) where the lowland tributaries of the Karamū River are over-allocated, whether the transfer of water take from surface to groundwater provides a net beneficial effect on surface water flows;</p> <p>b) effects on specified minimum flows and levels or other water users' access to water resulting from any changes to the rates or volume of take;</p> <p>c) any alteration to the nature, scale and location of adverse effects on the water body values listed in Schedule 25 and in the objectives of this Plan;</p> <p>d) effects of the alteration to the patterns of water use over time, including changes from seasonal use to water use occurring throughout the year or changes from season to season;</p> <p>e) except where a change of use and/or transfer is for the purpose of a flow enhancement or ecosystem improvement scheme, 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;</p> <p>f) in Water Quality Management Units that are over-allocated, ensuring that transfers do not result in increased water use and to prevent the transfer of allocated but unused water;</p> <p>g) declining applications for a change of use from frost protection to any other end use;</p> <p>h) enabling the transfer of a point of take and change of water use to municipal water supplies, including for marae and papakāinga , (not including transfer to industrial uses above 15m³/day) from any other use for the efficient delivery of water supplies and to meet the communities' human health needs for water supply, subject to clause (b).</p>	<p>permit, or to transfer a point of take to another point of take, to consider:</p> <p>a) declining applications <u>the adverse effect on the freshwater resource where the transfer is to another water management zone unless including;</u></p> <p>...</p> <p>g) declining applications for a change of use from frost protection to any other end use;</p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>on the adverse effects on the freshwater resource from these.</p>
55	<p>5.10.7 Policies: Surface Water Flow Management</p> <p>Water Allocation - Permit Duration</p>	<p>49. When making decisions about applications for resource consent to take and use water, the Council will set common expiry dates for water permits to take water in each water management zone, that enables consistent and efficient management of the resource and will set durations that provide a periodic opportunity to review effects of the cumulative water use and to take into account potential effects of changes in:</p> <p>a) knowledge about the water bodies;</p> <p>b) over-allocation of water;</p> <p>c) patterns of water use;</p> <p>d) development of new technology;</p> <p>e) climate change effects;</p> <p>f) efficacy of flow enhancement schemes and any riparian margin upgrades; and the Council;</p> <p>g) will impose consent durations of 15 years according to specified water management unit expiry dates. Future dates for expiry or review of consents within that catchment are every 15 years thereafter.</p> <p>h) will impose a consent duration for municipal supply consistent with the</p>	<p>That Policy 49 be amended as follows:</p> <p>49. When making decisions about applications for resource consent to take and use water, the Council will set common expiry dates for water permits to take water in each water management zone, that enables consistent and efficient management of the resource and will set durations that provide a periodic opportunity to review effects of the cumulative water use and to take into account potential effects of changes in:</p> <p>...</p> <p>g) will impose consent durations of 15 <u>20</u> years according to specified water management unit expiry dates. Future dates for expiry or review of consents within that catchment are every 15 <u>20</u> years thereafter.</p>	<p>A consent duration of 20 years allows more investment certainty for farmers facing an uncertain future in the face of likelihood of increasing disruption from droughts because of anthropogenic climate change. If also allows farmers more time to recoup investment in farm management plans and better facilitates a staged adaptive management approach</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>most recent HPUDS and will impose consent review requirements that align with the expiry of all other consents in the applicable management unit;</p> <p>i) may grant consents granted within three years prior to the relevant common catchment expiry date with a duration to align with the second common expiry date, except where the application is subject to section 8.2.4 of the RRMP).</p>	<p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	
56	<p>5.10.7 Policies: Surface Water Flow Management</p> <p>Water Allocation - Priority</p>	<p>50. In making decisions about resource consent applications for municipal and papakāinga water supply the Council will ensure the water needs of future community growth are met within water limits and;</p> <p>a) allocate water for population and urban development projections for the area according to estimates provided by the HPUDS (2017) to 2045;</p> <p>b) calculate water demand according to existing and likely residential, non-residential (schools, hospitals, commercial and industrial) demand within the expected reticulation areas; and</p> <p>(i) require that water demand and supply management plans are developed and adopted and industry good practice targets for water infrastructure management and water use efficiency including whether an Infrastructure Leakage Index of 4 or better can be achieved;</p> <p>(ii) seek that the potential effects of annual water volumes are reflected in level of water supply service and reliability of supply objectives in asset management plans and bylaws for water supply;</p> <p>c) work collaboratively with Napier City and Hastings District Councils to;</p> <p>(i) develop an integrated planning approach thorough HPUDS that gives effect to the National Policy Statements within the limits of finite resources;</p> <p>(ii) develop a good understanding of the present and future regional water demand and opportunities for meeting this;</p> <p>(iii) identify communities at risk from low water reliability or quality and investigate reticulation options.</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, DHB, iwi and MPI, to make decisions about providing for water uses in the following priority order;</p> <p>a) water for the maintenance of public health;</p> <p>b) water necessary for the maintenance of animal welfare;</p> <p>c) water essential for community well-being and health;</p> <p>d) water essential for survival of horticultural tree crops;</p> <p>e) uses where water is subject to seasonal demand for primary production;</p> <p>f) uses for which water is essential for the continued operation of a business,</p>	<p>That Policies 50 and 51 be amended as follows:</p> <p>50. In making decisions about resource consent applications for municipal and papakāinga water supply the Council will ensure the water needs of future community growth are met within water limits and;</p> <p>a) allocate water for population and urban development projections for the area according to estimates provided by the HPUDS (2017) to 2045;</p> <p>b) calculate water demand according to existing and likely <u>planned</u> residential, non-residential (schools, hospitals, commercial and industrial) demand within the expected reticulation areas; and</p> <p>(i) require that water demand and supply management plans are developed and adopted and industry good practice targets for water infrastructure management and water use efficiency including whether an Infrastructure Leakage Index of <u>4.1</u> or better can be achieved;</p> <p>...</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, DHB, iwi and MPI, to make decisions about providing for water uses in the following priority order;</p>	<p>The focus of this policy should be on water for existing and <i>planned</i> growth (as opposed to 'likely' growth). There is no excuse for Local Government wasting water on assumptions about 'likely' growth.</p> <p>Similarly, there is no excuse for local Government to aim for leniency in efficient use of water when farmers and everyone else are being asked to tighten their belts around water use. An Infrastructure leakage index of 1 should be achievable. (Waitakere City has achieved this in the past).</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>except where water is subject to seasonal demand for primary production or processing.</p> <p>The following uses will not be authorised under a water shortage direction:</p> <p>g) use of water not associated with the continued operation of a business or community well-being;</p> <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>	<p>...</p> <p>e) uses where water is subject to seasonal demand for primary production, <u>excluding water for individual reasonable domestic needs and the reasonable needs of a persons' animals for drinking water;</u></p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	
57	5.10.7 Policies: Surface Water Flow Management Over-Allocation	<p>52. The Council will phase out over-allocation by;</p> <p>a) preventing any new allocation of water (not including any reallocation in respect of permits issued before 2 May 2020);</p> <p>b) for applications in respect of existing consents due for expiry or when reviewing consents, to;</p> <p>(i) allocate water according to demonstrated actual and reasonable need (except as provided for by Policy 50)</p> <p>(ii) impose conditions that require efficiency gains to be made, including through altering the volume, rate or timing of the take and requesting information to verify efficiency of water use relative to industry good practice standards;</p> <p>c) provide for, within the duration of the consent, meeting water efficiency standards where hardship can be demonstrated;</p> <p>d) reducing the amount of water permitted to be taken without consent, including those provided for by Section 14 (3)(b) of the RMA, except for authorised uses existing before 2 May 2020;</p> <p>e) encouraging voluntary reductions, site to site transfers (subject to clause (f)) or promoting water augmentation/harvesting;</p> <p>f) prevent site to site transfers of allocated but unused water that does not meet the definition of actual and reasonable use;</p> <p>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;</p> <p>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.</p>	<p>That Policy 52 be amended as follows:</p> <p>52. The Council will phase out over-allocation by;</p> <p>...</p> <p>b) for applications in respect of existing consents due for expiry or when reviewing consents, to;</p> <p>(i) allocate water according to demonstrated actual and reasonable need (except as provided for by Policy 50)</p> <p>...</p> <p>d) reducing the amount of water permitted to be taken without consent, including those provided for by Section 14 (3)(b) of the RMA, except for authorised uses existing before 2 May 2020;</p> <p>....</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>This is consequential to our relief sought on Policy 50 to achieve a consistent policy across all sectors</p> <p>RMA Section 14(3)(b) takes should be excluded from restrictions. The Act already sets out relevant considerations for such takes.</p>
58	5.10.7 Policies: Surface Water Flow Management	<p>53. When considering applications to take water for frost protection, the Council will avoid, remedy or mitigate actual and potential effects of the take on its own or in combination with other water takes;</p> <p>a) from groundwater in the Heretaunga Plains Water Management Unit on;</p>	<p>That Policy 53 be retained as notified</p>	

	Name	Provision as notified	Relief sought	Reasons for relief
	Frost Protection	<ul style="list-style-type: none"> (i) neighbouring bores and existing water users; (ii) connected surface water bodies; (iii) water quality as a result of any associated application of the water onto the ground where it might enter water; <p>b) from surface water on;</p> <ul style="list-style-type: none"> (i) instantaneous flow in the surface water body; (ii) fish spawning and existing water users; (iii) applicable minimum flows during November to April; (iv) water quality as a result of any associated application of the water onto the ground where it might enter water; <p>By;</p> <ul style="list-style-type: none"> c) taking into account any stream depletion effects of groundwater takes; d) imposing limits in relation to minimum flows or groundwater levels; e) requiring water metering, monitoring and reporting use of water for frost protection. 		
59	5.10.8 Policies: High Flow Allocation Adverse Effects - Water Damming	<p>54. When assessing applications to dam water and to take water from the dam impoundment, the Council will avoid, remedy or mitigate adverse effects of;</p> <ul style="list-style-type: none"> a) potential changes to water quality arising from subsequent changes to land use activities that may occur as a result of water being allocated for take and use from the dam and whether relevant freshwater quality objectives can be met; b) the dam and any associated lake or reservoir, and any effects of the volume, velocity, frequency, and duration of flow releases from the dam, either by itself or cumulatively with other storage structures or dams, on; <ul style="list-style-type: none"> (i) the uses and values for any water body identified in the objectives or Schedule 25; (ii) water levels and flows in connected water bodies, including lakes and wetlands; (iii) water quality, including effects on temperature and management of periphyton in connected water bodies; (iv) river ecology and aquatic ecosystems, including passage of fish and eels, indigenous species habitat and riparian habitat, including in relation to the storage impoundment; (v) groundwater recharge; (vi) downstream land, property and infrastructure at risk from failure of the proposed dam; (vii) other water users; (viii) downstream river bed stability, including through sediment transfer and management of vegetation in river beds; c) whether there are practicable alternatives; 	That Policy 54 be retained as notified	

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>and, except as prohibited by Policy 58, will limit the amount of flow alteration so that the damming of surface water either on its own or in combination with other dams or water storage in a catchment does not cumulatively adversely affect the frequency of flows above three times the median flow by more than a minor amount and provided that any dam in combination with other dams or high flow takes shall not cause changes to the river flow regime that are inconsistent with specified flow triggers.</p>		
60	<p>5.10.8 Policies: High Flow Allocation</p> <p>Adverse Effects - Water Take and Storage</p>	<p>55. When assessing applications to take water for off-stream storage or to take water from the impoundment the Council will avoid remedy or mitigate adverse effects of;</p> <ul style="list-style-type: none"> a) potential changes to water quality arising from subsequent changes to land use activities as a result of water being allocated for take and use from the impoundment and whether relevant freshwater quality objectives can be met; b) the magnitude, frequency, duration and timing of water takes either by itself or cumulatively with other storage structures or dams, on; <ul style="list-style-type: none"> (i) the uses and values for any water body identified in the objectives; (ii) water levels and flows in connected water bodies, including lakes and wetlands; (iii) water quality, including effects on temperature and management of periphyton in connected water bodies; (iv) river ecology and aquatic ecosystems, including passage of fish and eels, indigenous species habitat and riparian habitat, including in relation to the storage impoundment; (v) groundwater recharge; (vi) downstream land, property and infrastructure at risk from failure of the proposed storage structure; (vii) other water users; <p>and will limit the amount of flow alteration so that the taking of surface water does not cumulatively adversely affect the frequency of flows above three times the median flow by more than a minor amount and provided that;</p> <ul style="list-style-type: none"> (viii) the high flow take ceases when the river is at or below the median flow; (ix) such high flow takes do not cumulatively exceed the specified allocation limits; (x) any takes to storage existing as at 2 May 2020 will continue to be provided for within new allocation limits and subject to existing flow triggers. 	<p>That Policy 55 be retained as notified:</p>	

	Name	Provision as notified	Relief sought	Reasons for relief
61	<p>5.10.8 Policies: High Flow Allocation</p> <p>Benefits of Water Storage and Augmentation</p>	<p>56. The Council will recognise beneficial effects of water storage and augmentation schemes, including water reticulation in the TANK catchments and out-of-stream-storage, and when considering applications for resource consent will take into account the nature and scale of the following criteria;</p> <ul style="list-style-type: none"> a) benefits for aquatic organisms and other values in Schedule 25 or in relation to the objectives of this plan in affected water bodies; b) whether water availability is improved or the level to which the security of supply for water users is enhanced; c) whether the proposal provides for the productive potential of un-irrigated land or addresses the adverse effects of water allocation limits on land and water users, especially in relation to primary production on versatile land; d) whether the proposal provides benefits to downstream water bodies at times of low flows provided through releases from storage or the dam; e) the nature and scale of potential ecosystem benefits provided by the design and management of the water storage structure, its margins and any associated wetlands; f) benefits for other water users including recreational and cultural uses and any public health benefits; g) other community benefits including improving community resilience to climate change; h) whether the proposal provides for renewable electricity generation. <p>57. The Council will carry out further investigation to understand the present and potential future regional water demand and supply including for abstractive water uses and environmental enhancement and in relation to climate change. It will consider water storage options according to the criteria in Policy 56 in consultation with local authorities, tangata whenua, industry groups, resource users and the wider community when making decisions about water augmentation proposals in its Annual and Long Term Plans.</p> <p>58. The Council will protect the instream water values and uses identified in Objectives 11 and 12 for the Ngaruroro and Tūtaekurī Rivers and their tributaries, the Taruarau, Omahaki, Mangatutu and Mangaone Rivers by prohibiting the construction of dams on the mainstem of those rivers.</p>	<p>That Policies 56, 57 and 58 be retained as notified</p>	
62	<p>5.10.8 Policies: High Flow Allocation</p> <p>High Flow Reservation</p>	<p>59. The Council will 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 the following activities;</p> <ul style="list-style-type: none"> a) contribution to environmental enhancement that is in addition to any conditions imposed on the water storage proposal; b) improvement of access to water for domestic use by marae and papakāinga; c) the use of water for any activity, provided that; <ul style="list-style-type: none"> (i) it includes contribution to a fund managed by the Council in 	<p>That Policies 59 and 60 be deleted,</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>These policies threaten sensible water harvesting from high flows that are for primary production activities. It should be clear that:</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>consultation with mana whenua; and</p> <p>(ii) the fund will be used to provide for development of Māori wellbeing;</p> <p>(iii) the contribution to the fund is proportional to the amount of reserved water being taken and any commercial returns resulting from the application</p> <p>d) the development of land returned to a Post-Settlement Governance Entity (PSGE) through a Treaty Settlement.</p> <p>And in making decisions on applications to take and store this water the Council will;</p> <p>e) require information to be provided that demonstrates how the activity will provide for Māori economic, cultural or social well-being;</p> <p>f) have regard to the views of any affected PSGE or iwi authority arising from consultation about the application and any assessment of the potential to provide part, or all of the 20% high flow allocation:</p> <p>g) have regard to any relevant provisions for the storage and use of high flow allocation water for Māori development in any joint iwi/hapū management plans relevant to the application (where more than one PSGE, iwi/hapū is affected, the iwi management plan must be jointly prepared by the affected iwi/hapū).</p> <p>60. When making decisions about resource consent applications to take and store high flow water, the Council will take into account the following matters:</p> <p>a) whether water allocated for development of Māori well-being is still available for allocation;</p> <p>b) whether there is any other application to take and use the high flow allocation for development of Māori well-being relevant to the application;</p> <p>c) the scale of the application and whether cost effective or practicable options for taking and using the high flow allocation for Māori development can be incorporated into the application;</p> <p>d) the location of the application and whether cost effective or practicable options for including taking and using water for Māori development can be developed as part of the application;</p> <p>e) whether there has been consultation on the potential to include taking and using all or part of the water allocated for Māori development into the application;</p> <p>f) whether it is the view of the applicant that a joint or integrated approach for the provision of the high flow water allocated to Māori development is not appropriate or feasible, and the reasons why this is the case.</p>		<p>1) these policies are not retrospective and</p> <p>2) permits for high flow allocation for irrigation dams on individual farms should not be subject to this type of re-allocation.</p> <p>Otherwise, this is likely to have the perverse outcome of deterring individual farmer investment in off-stream storage during high flows, which could have widespread social and economic consequences.</p> <p>If this policy is intended to be tied to bigger water storage/augmentation schemes, then there needs to be clear parameters/rules around how it will be applied and the threshold(s) applicable to the policy, so that it doesn't capture private dams on individual farms.</p>
63	6.10.1 Use of Production Land	<p>Status - Permitted Activity</p> <p>The use of production land on farm properties or farming enterprises in the TANK catchments that are greater than 10 hectares pursuant to Section 9(2) RMA and</p>	<p>That Rule TANK 1 be amended as follows:</p> <p>Status - Permitted Activity</p>	<p>10 hectares is too-low a threshold for</p>

	Name	Provision as notified	Relief sought	Reasons for relief
	TANK 1 Use of Production Land	<p>associated non- point source discharges pursuant to Section 15 of the RMA.</p> <p>Conditions/Standards/Terms</p> <p>a) The property or farming enterprise land area has less than 75% plantation forest cover.</p> <p>b) Either;</p> <p>1. The owner or manager of the property or enterprise is either a member of a TANK Industry Programme or a member of a TANK Catchment Collective within the timeframes specified in Schedule 28 and accordance with the requirements of Schedule 30;</p> <p>Or;</p> <p>2. The property or enterprise owner or manager of the property shall prepare a Farm Environment Plan in accordance with the requirements of Schedule 30 and within the timeframes specified in Schedule 28; and the Farm Environment Plan is being implemented and;</p> <p>1. the Council shall be provided with the Farm Environment Plan upon request;</p> <p>2. information about the implementation of the mitigation measures identified for the property shall be supplied to the Council on request.</p>	<p>The use of production land on farm properties or farming enterprises in the TANK catchments that are greater than 10 50 hectares pursuant to Section 9(2) RMA and associated non- point source discharges pursuant to Section 15 of the RMA.</p> <p>...</p> <p>Alternatively, that different farm area thresholds be applied for agriculture, horticulture, viticulture, and silviculture systems, and that the threshold for requiring Farm Environment Plans and Catchment Collectives for pastoral agriculture be 50ha, with appropriate Permitted Activity Conditions specified in the Plan.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>requiring FEPs for pastoral farming.</p> <p>Properties under 50ha have very limited viability for pastoral farming as such properties are mostly used for hobby farmlets. These properties are typically used for passive grazing of low numbers of stock/stock unit rates, or to grow and sell a small amount of hay in good years (not requiring irrigation).</p> <p>20 ha is the minimum Rural Zone subdivision lot size in the Hastings District Plan (Rule 30.1.6) and people with pastoral farms in the 40-50ha range will be finding them increasingly difficult to farm and will be looking to subdivide them in half for rural living subdivision opportunities, or looking to convert them to more intensive land uses. Requiring pastoral farms smaller than 50ha participate in expensive and onerous FEP or Catchment Collective Plans will</p>

	Name	Provision as notified	Relief sought	Reasons for relief
				<p>have little or no overall environmental benefit. The total land area in properties under 50ha is only 2.9% of the total area of the farmed land within the TANK catchment.</p> <p>Yet there are 450 of these properties (out of a total of 898 'pastoral' properties) in the TANK catchment (compared to 222 properties under 10 ha in size). Therefore, excluding pastoral farms up to 50ha in size from requirement for FEPs (or related consents) will save Council and community effort in unnecessary assessment. The risk and quanta of adverse effects on the environment from not requiring assessments for pastoral farms under 50 ha will almost certainly be minor.</p>
64	<p>6.10.1 Use of Production Land</p> <p>TANK 2 Use of Production Land</p>	<p>Status – Controlled Activity The use of production land on farm properties or farming enterprises that are greater than 10 hectares in the TANK catchments pursuant to Section 9(2) RMA and associated non- point source discharges pursuant to Section 15 of the RMA</p> <p>Conditions/Standards/Terms: The activity does not meet condition (b) of Rule TANK 1.</p>	<p>That Rule TANK 2 be amended as follows:</p> <p>Status – Controlled Activity The use of production land on farm properties or farming enterprises that are greater than 10 <u>50</u> hectares in the TANK catchments pursuant to Section 9(2) RMA and associated non- point source discharges pursuant to Section 15 of the RMA</p>	<p>The threshold for resource consent should be 50ha for the reasons outlined in relation to our submission point on Rule TANK 1</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>Matters for Control/Discretion</p> <ol style="list-style-type: none"> 1. The freshwater water quality objectives and targets in Schedule 26 for the catchment where the activity is being undertaken and any measures required to reduce the actual or potential contaminant loss occurring from the property, taking into account their costs and likely effectiveness and including performance in relation to industry good practice and requirements for; <ol style="list-style-type: none"> a) Efficient use of nutrients and minimisation of nutrient losses, b) Wetland management c) Riparian management d) Management of farm wastes e) Management of stock including in relation to water ways and contaminant losses to ground and surface water f) Measures required to maintain or improve the physical and biological condition of soils so as to reduce risks of erosion, movement of soil into waterways, and damage to soil structure g) Measures to prevent or minimise any adverse effects on the quality of the source water used for a Registered Drinking Water Supply 2. Nature and scale of actual and potential contamination loss from the property in relation to the objectives specified in Schedule 26 3. Timeframes for any alternative mitigation measures 4. Duration of consent 5. Lapsing of consent 6. Review of consent conditions; 7. The collection, recording, monitoring and provision of information concerning the exercising of the consent <p>Consent applications will generally be considered without notification and without the need to obtain written approval of affected persons</p>	<p>...</p> <p>Alternatively, that different farm area thresholds be applied for agriculture, horticulture, viticulture, and silviculture systems, and that the threshold for requiring resource consent for pastoral agriculture farming properties be 50ha minimum.</p> <p>And that the following amendment be made:</p> <p>...</p> <p>Matters for Control/Discretion</p> <ol style="list-style-type: none"> 1. The freshwater water quality objectives and targets in Schedule 26 for the catchment where the activity is being undertaken and any measures required to reduce the actual or potential contaminant loss occurring from the property, taking into account their costs and likely effectiveness and including performance in relation to industry good practice and requirements for; <ol style="list-style-type: none"> a) Efficient use of nutrients and minimisation of <u>reduction of reduceable</u> nutrient losses, <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	
65	<p>6.10.1 Use of Production Land</p> <p>TANK 3 Stock Access</p>	<p>Status – Permitted Activity Stock Access to rivers lakes and wetlands</p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> (a) The entry into or over the bed of any river lake or wetland by cattle, deer and pigs is a permitted activity provided that; <ol style="list-style-type: none"> (i) stock are at a stocking rate less than 18su/ha in the paddock adjacent to the river the stock have access to; and (ii) The slope over 60% or more of the paddock is greater than 15 degrees of slope. (b) Rivers that are crossed by formed stock races are bridged or culverted by 31 May 2023. (c) The entry into or over the bed of any river, lake or wetland by cattle, deer and pigs not permitted by condition (a) is a permitted activity until 31 May 2023. 	<p>That Rule TANK 3 be deleted or alternatively amended as follows:</p> <p>...</p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> (a) The entry into or over the bed of any river lake or wetland by cattle, deer and pigs is a permitted activity provided that; <ol style="list-style-type: none"> (i) stock are at a stocking rate less than 18su/ha in the paddock adjacent to the river the stock have access to; and-or: (ii) <u>Alternative measures are taken to prevent stock from causing bank erosion or sediment losses to water, such as</u> 	<p>The Resource management Stock Exclusion Regulations 2020 already regulates stock access to waterways and wetlands. Exclusion will not be possible for many farms: those that rely on streams for stock drinking, rough or steep terrain like cliffs, dense vegetation, or gravel</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>(d) For rivers, conditions (a) to (c) apply only to rivers with an active formed channel.</p>	<p><u>permanent or temporary stock-proof fencing, and providing reticulated water for stock.</u></p> <p>(ii) The slope over 60% or more of the paddock is greater than 15 degrees of slope.</p> <p><u>(ii) stock shall not be excluded from any type of wet, damp or boggy ground that is not a wetland, or that might incidentally occur on farm land as a result of land compaction for normal farming operations, nor any ditch, drain, silt-trap, pit, bund, stockwater dam, or treatment pond associated with farming operations.</u></p> <p>(b) Rivers that are crossed by formed stock races are bridged or culverted by 31 May 2023 <u><3 years after the operative date of this plan></u>.</p> <p>(c) The entry into or over the bed of any river, lake or wetland by cattle, deer and pigs not permitted by condition (a) is a permitted activity until 31 May 2023 <u><3 years after the operative date of this plan></u>.</p> <p>(d) For rivers, conditions (a) to (c) apply only to rivers with an active formed channel, <u>except that for rivers and streams with an intermittently flowing waterway, stock shall be permitted to cross the dried up bed at times when the waterway is not flowing.</u></p> <p><u>Stock in hill country where average gradient is steeper than 7 degrees over 60% or more of the paddock, are exempt from requirement for stock exclusion under this rule.</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>soil that makes putting in standards or posts impossible.</p> <p>Exclusion will isolate productive land between the waterway and the boundary or other features, where stock will be cut off from getting to. This will waste many hectares collectively.</p> <p>Unlike the Tukituki rules, there is no allowance to graze the riparian area for weed control. This needs to be rectified otherwise weeds will proliferate. Fennel is a problem.</p> <p>Better definition of "river." Marginal environmental gain yet enormous costs to fence off or bridge/culvert a dry creek. Financial assistance for fencing needed. Especially when farmers will be in recovery from this drought. Timeframe is only 2.5 years, much too short for such a big investment and potential reconfiguration of paddocks. Cattle and deer may not even walk over a bridge while being herded when there is little or no water in the creek.</p>

	Name	Provision as notified	Relief sought	Reasons for relief
				<p>Condition (a)(ii) in the notified version of the TANK plan does not make sense, and in any event, would not be necessary if condition (a)(i) and substitute condition (a)(ii) is met.</p> <p>The option of alternative methods to achieve water quality outcomes should be a permitted condition. If a farmer is unable to meet stock exclusion because of a factor like terrain, this person should be able to carry out any alternatives as a permitted activity</p> <p>The commencement date for compliance should be three years after the plan becomes operative. This will allow time for farmers to fence land that is difficult to fence for a range of reasons (including restricted physical accessibility and amount of fencing required). Farmers will have been waiting for the plan change to be notified to work out their budgets for stock exclusion, and the plan requirements for exclusion may change because of submissions and</p>

	Name	Provision as notified	Relief sought	Reasons for relief
				<p>further submissions etc.</p> <p>The wording of Rule TANK 3 a) ii) as notified is clumsy and difficult to understand and in any event 15 degrees to too-high-a-threshold for defining 'hill country'. A 7 degree slope is a more realistic proxy for determining hill country in the absence of identifying and mapping Hill Country. It is what MfE used to inform Winter Grazing regs in the 2019 Report by Landcare.</p>
66	<p>6.10.1 Use of Production Land</p> <p>TANK 4 Stock Access</p>	<p>Status – Restricted Discretionary Activity Stock Access to rivers lakes and wetlands</p> <p>Conditions/Standards/Terms The activity does not meet any one of the conditions (a) – (d) of Rule TANK 3.</p> <p>Matters for Control/Discretion</p> <ol style="list-style-type: none"> 1. An assessment of sources, scale and significance of adverse effects of sediment, phosphorus, nitrogen and bacterial inputs to the waterbody that could be effectively or efficiently reduced by stock exclusion, bridging or culverting 2. Alternative measures to meet water quality outcomes and improve ecosystem health, including by managing bank erosion or reducing sediment losses to water in contributing areas, altering land uses, or providing reticulated water for stock; 3. Whether stock exclusion is practicable in the circumstances including in relation to; <ol style="list-style-type: none"> a) total costs of stock exclusion measures compared to expected water quality benefit as assessed in relation to matter 1 and other possible adverse effects including stock welfare b) technical or practical challenges of any works required for stock exclusion to be effective c) potential costs and benefits provided by alternative measures compared to 	<p>That Rule TANK 4 be deleted or alternatively amended as follows:</p> <p>...</p> <p>Matters for Control/Discretion</p> <ol style="list-style-type: none"> 1. An assessment of sources, scale and significance of adverse effects of sediment, phosphorus, nitrogen and bacterial inputs to the waterbody that could be effectively or efficiently reduced, <u>where these are reduceable</u>, by stock exclusion, bridging or culverting <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>This is consequential to our relief sought in relation to Rule TANK 3</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>stock exclusion</p> <ol style="list-style-type: none"> 4. Measures to prevent or minimise any adverse effects on the quality of the source water used for a Registered Drinking Water Supply 5. Timeframes for any alternative mitigation measures 6. Duration of consent 7. Lapsing of consent 8. Review of consent conditions; 9. The collection, recording, monitoring and provision of information concerning the exercising of the consent 		
67	<p>6.10.1 Use of Production Land</p> <p>TANK 5 Use of Production Land</p>	<p>Status – Controlled Activity The changing of a use of production land on farm properties or farming enterprises that are greater than 10 hectares in the TANK catchments pursuant to Section 9(2) RMA and associated non- point source discharges pursuant to Section 15 of the RMA</p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> a) Any change to the production land use activity commencing after 2 May 2020 is over more than 10% of the property or farming enterprise area. b) The production land is subject to a Catchment Collective Programme meeting the requirements of Schedule 30B by a TANK Catchment Collective which meets the requirements of Schedule 30A. c) The Council may require information to be provided about production land use changes (note that the Schedule 30 requires collectives to record land use changes) <p>Matters for Control/Discretion</p> <ol style="list-style-type: none"> 1. Modelling using Overseer, or alternative model approved by Council to demonstrate the change in land use activity will be consistent with the requirements of Policy 21 2. The measures being undertaken by the TANK Landowner Collective in undertaking measures to meet water quality objectives, including how the effect of the new land use activity on contributing to the water quality objectives is being collectively addressed including by; <ol style="list-style-type: none"> a) Efficient use of nutrients and minimisation of nutrient losses, b) Wetland management c) Riparian management d) Management of farm wastes e) Management of stock including in relation to waterways and contaminant losses to ground and surface water f) Measures required to maintain or improve the physical and biological condition of soils so as to reduce risks of erosion, movement of soil into waterways, and damage to soil structure 	<p>That Rule TANK 5 be amended as follows:</p> <p>Status – Controlled Activity The changing of a use of production land on farm properties or farming enterprises that are greater than 10 hectares in the TANK catchments pursuant to Section 9(2) RMA and associated non- point source discharges pursuant to Section 15 of the RMA</p> <p><u>The changing of the use of productive land from</u> a. <u>any land use to commercial vegetable production or viticulture, or</u> b. <u>woody vegetation to farming; or</u> c. <u>any land use to dairy farming, that are greater than 50 hectares in the TANK catchments pursuant to Section 9(2) RMA and associated non- point source discharges pursuant to Section 15 of the RMA</u></p> <p>Conditions/Standards/Terms ... b) The production land is subject to a Catchment Collective Programme meeting the requirements of Schedule 30B by a TANK Catchment Collective which meets the requirements of Schedule 30A. ... Matters for Control/Discretion ... 2. The measures being undertaken by the TANK Landowner Collective in undertaking measures to meet water quality objectives,</p>	<p>Thresholds for this rule should be between different types of primary production activities to provide certainty. 10 hectares is too-low a threshold for requiring consent, for the reasons set forth in relation to our submission on Rule TANK 1.</p> <p>Requiring membership of a Catchment Collective as a trigger for compliance with controlled activity status unnecessarily, penalises people who cannot form a catchment collective.</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>g) Measures to prevent or minimise any adverse effects on the quality of the source water used for a Registered Drinking Water Supply</p> <ol style="list-style-type: none"> 3. Timeframes for any alternative mitigation measures 4. Duration of consent 5. Lapsing of consent 6. Review of consent conditions 7. The collection, recording, monitoring and provision of information including Overseer or alternative model files, <p>Consent applications will generally be considered without notification and without the need to obtain written approval of affected persons.</p>	<p>including how the effect of the new land use activity on <u>is</u> contributing to the water quality objectives is being collectively addressed including by;</p> <ol style="list-style-type: none"> a) Efficient use of nutrients and minimisation of <u>reduction of</u> reduceable nutrient losses, <p>...</p> <p>Alternatively, that different farm area thresholds be applied for agriculture, horticulture, viticulture, and silviculture systems, and that the threshold for requiring resource consent for pastoral agriculture farming properties be 50ha minimum.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	
68	<p>6.10.1 Use of Production Land</p> <p>TANK 6 Use of Production Land</p>	<p>Status – Restricted Discretionary Activity The changing of a use of production land on farm properties or farming enterprises that are greater than 10 hectares in the TANK catchments pursuant to Section 9(2) RMA and associated non-point source discharges pursuant to Section 15 of the RMA</p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> a) The activity does not meet the conditions of TANK 5. b) Any change to a production land use activity over more than 10ha of the property or enterprise area commencing after 2 May 2020 that results in the annual nitrogen loss increasing by more than the applicable amount shown in Table 2 in Schedule 29. <p>Matters for Control/Discretion</p> <ol style="list-style-type: none"> 1. Modelling using Overseer, or alternative model approved by Council to demonstrate the change in land use activity will be consistent with the requirements of Policy 21 2. Whether water quality limits and targets in Schedule 26 are being met in the catchment where the new activity is to be undertaken. 3. The extent to which the land use change will affect the ability to meet water quality objectives 4. Any measures required to reduce the actual or potential contaminant loss occurring from the property, taking into account their costs and likely effectiveness and including performance in relation to industry good practice and requirements for; <ol style="list-style-type: none"> a) Efficient use of nutrients and minimisation of nutrient losses, 	<p>That Rule TANK 6 be amended as follows:</p> <p>Status – Restricted Discretionary Activity The changing of a use of production land on farm properties or farming enterprises that are greater than 10 hectares in the TANK catchments pursuant to Section 9(2) RMA and associated non-point source discharges pursuant to Section 15 of the RMA</p> <p><u>The changing of the use of productive land from</u></p> <ol style="list-style-type: none"> a. <u>any land use to commercial vegetable production or viticulture, or</u> b. <u>woody vegetation to farming; or</u> c. <u>any land use to dairy farming.</u> <p><u>that are greater than 50 hectares in the TANK catchments pursuant to Section 9(2) RMA and associated non- point source discharges pursuant to Section 15 of the RMA</u></p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> a) The activity does not meet the conditions of TANK 5. b) Any change to a production land use activity over more than 10ha of the property or 	<p>The focus of this activity should be on limiting <i>intensification</i> (rather than ‘change of use’) of production land. <i>Change of use</i> is a generic factor. Use of this term is ambiguous and would create uncertainty. It could catch all manner of day-to-day changes that form part of farming activity, and which have little or no adverse effect on the environment. These could include having to temporarily de-stock and re-stock to cope with adverse events such as pandemics, weather-related events, and changing financial constraints</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<ul style="list-style-type: none"> b) Wetland management c) Riparian management d) Management of farm wastes e) Management of stock including in relation to waterways and contaminant losses to ground and surface water f) Measures required to maintain or improve the physical and biological condition of soils so as to reduce risks of erosion, movement of soil into waterways, and damage to soil structure g) Measures to prevent or minimise any adverse effects on the quality of the source water used for a Registered Drinking Water Supply <ul style="list-style-type: none"> 5. Timeframes for any alternative mitigation measures 6. Duration of consent 7. Lapsing of consent 8. Review of consent conditions 9. The collection, recording, monitoring and provision of information including Overseer or alternative model files. 	<p style="text-align: center;">enterprise area commencing after 2 May 2020 that results in the annual nitrogen loss increasing by more than the applicable amount shown in Table 2 in Schedule 29.</p> <p style="text-align: center;">...</p> <p style="text-align: center;">Matters for Control/Discretion</p> <p style="text-align: center;">...</p> <p>4. Any measures required to reduce the actual or potential contaminant loss occurring from the property, taking into account their costs and likely effectiveness and including performance in relation to industry good practice and requirements for;</p> <ul style="list-style-type: none"> a) Efficient use of nutrients and minimisation of <u>reduction of reduceable</u> nutrient losses, <p style="text-align: center;">...</p> <p>Alternatively, that different farm area thresholds be applied for agriculture, horticulture, viticulture, and silviculture systems, and that the threshold for requiring resource consent for pastoral agriculture farming properties be 50ha minimum.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>and personal circumstances of individual farmers. Having to apply for resource consent for such minor changes would mean day-to-day farming practices would be caught by requirement for resource consent, triggering costs and delays that would be onerous for individual farmers, for little or no environmental benefit.</p> <p>10 hectares is too-low a threshold for requiring consent for this activity, for the reasons set forth in relation to our submission on Rule TANK 1.</p> <p>The schedule 29 trigger is not needed because we have a better threshold for triggering consent in Rule TANK 5</p>
69	<p>6.10.2 Water – Take and Use</p> <p>TANK 7 Surface Water Take</p>	<p>Status – Permitted Activity</p> <p>The take and use of surface water in the TANK water Management Zones including under Section 14(3)(b) of the RMA</p> <p>Conditions/Standards/Terms</p> <ul style="list-style-type: none"> a) Any take first commencing after 2 May 2020 is not from any of the following: <ul style="list-style-type: none"> Maraekakaho Water Management Unit Ahuriri Water Management Unit Awanui Stream and its tributaries Poukawa Water Management Unit 	<p>That Rule TANK 7 be amended as follows:</p> <p style="text-align: center;">Status – Permitted Activity</p> <p>The take and use of surface water in the TANK water Management Zones including under Section 14(3)(b) of the RMA</p> <p style="text-align: center;">Conditions/Standards/Terms</p> <p style="text-align: center;">...</p> <ul style="list-style-type: none"> b) The take does not exceed 5 <u>20</u> cubic metres 	<p>Takes under section 14(3)(b) of the RMA should not be included in this rule.</p> <p>There is little practical difference between allowing existing permitted 20m³/day takes to continue, and</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>Louisa Stream and its tributaries</p> <p>b) The take does not exceed 5 cubic metres per day per any one property except:</p> <p>(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;</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>c) The taking of water does not cause any stream or river flow to cease.</p> <p>d) Fish, including eels shall be prevented from entering the reticulation system.</p> <p>e) The activity shall not cause changes to the flows or levels of water in any connected wetland.</p> <p>f) 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>A Means of Compliance for Condition d) 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.</p>	<p>per day per any one property except:</p> <p>(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;</p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>permitting a maximum take of 20m³/day per property.</p> <p>Further, the combined effect of a 20m³/day take from pastoral farming on the groundwater resource of the TANK catchment is minor. There are approximately 900 farms and lifestyle blocks in the TANK catchment. At 20m³/day, the total rate of water for all these properties is 208 l/s. This amounts to one-fifth of the 'worst-case scenario' of 1,000 l/s peak demand on Heretaunga Aquifer during a dry year (2013), as modelled by HBRC staff. 80% of the problem with allocation in the TANK catchment, is the way consented takes are managed. Besides their minor overall impact on water use, permitted takes provide an efficient method of enabling flexible water use for farms without cumbersome delays and costs in assessments. Therefore, permitted takes should not be</p>

	Name	Provision as notified	Relief sought	Reasons for relief
				<p>targeted in water allocation clawbacks.</p> <p>Provided that minimum flows are maintained for the water bodies in Schedule 31, the benefits of efficient allocation and enabling individual flexibility by permitting a 20m³/day take for these properties would far outweigh the minor effect on water allocation.</p>
70	<p>6.10.2 Water – Take and Use</p> <p>TANK 8 Ground Water Take</p>	<p>Status – Permitted Activity The take and use of groundwater in the TANK Water Management Zones including under Section 14(3)(b) of the RMA</p> <p>Conditions/Standards/Terms</p> <p>a) Any take first commencing after 2 May 2020 is not from the Poukawa Freshwater Management Unit (quantity).</p> <p>b) There is only one point of take per property and the take does not exceed 5 cubic metres per day except;</p> <p>(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.</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>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>	<p>That Rule TANK 8 be amended as follows:</p> <p>Status – Permitted Activity The take and use of groundwater in the TANK Water Management Zones including under Section 14(3)(b) of the RMA</p> <p>Conditions/Standards/Terms</p> <p>a) Any take first commencing after 2 May 2020 is not from the Poukawa Freshwater Management Unit (quantity).</p> <p>b) There is only one point of take per property and the take does not exceed 5 <u>20</u> cubic metres per day except;</p> <p>(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.</p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Takes under section 14(3)(b) of the RMA should not be included in this rule.</p> <p>There is little practical difference between allowing existing permitted takes to continue, and permitting a maximum take of 20m³/day.</p> <p>Further, the combined effect of a 20m³/day take from pastoral farming on the groundwater resource of the TANK catchment is minor. There are approximately 900 farms and lifestyle blocks in the TANK catchment. At 20m³/day, the total</p>

	Name	Provision as notified	Relief sought	Reasons for relief
				<p>rate of water for all these properties is 208 l/s. This amounts to one-fifth of the 'worst-case scenario' of 1,000 l/s peak demand on Heretaunga Aquifer during a dry year (2013), as modelled by HBRC staff.</p> <p>The benefits of efficient allocation and enabling individual flexibility by permitting a 20m³/day take for these properties would far outweigh the minor effect on water flows and levels.</p>
71	<p>6.10.2 Water – Take and Use</p> <p>TANK 9 Ground Water Take – Heretaunga Plains</p>	<p>Status – Restricted Discretionary Activity Take of water from the Heretaunga Plains Water Management Unit where Section 124 of the RMA applies (applies to existing consents).</p> <p>Conditions/Standards/Terms</p> <p>a) The activity does not comply with the conditions of Rule TANK 8. b) An application is either for the continuation of a water take and use previously authorised in a permit that was issued before 2 May 2020 or is a joint or global application that replaces these existing water permits previously held separately or individually.</p> <p>Actual and Reasonable Re-allocation</p> <p>c) The quantity taken and used for irrigation is the actual and reasonable amount. d) The quantity taken and used for municipal, community and papakāinga water supply is: (i) the quantity specified on the permit being renewed; or (ii) any lesser quantity applied for. e) Other than as provided in (c) or (d) the quantity taken and used is the least of: (i) the quantity specified on the permit due for renewal or (ii) any lesser quantity applied for (iii) the maximum annual water use in any one year within the 10 years preceding 1 August 2017 (including as demonstrated by accurate water</p>	<p>That Rule TANK 9 be amended as follows:</p> <p>...</p> <p>Actual and Reasonable Re-allocation</p> <p>...</p> <p>d) The quantity taken and used for municipal, community and papakāinga water supply <u>has regard to efficiency of use</u> is: (i) the quantity specified on the permit being renewed; or (ii) any lesser quantity applied for.</p> <p>...</p> <p>General Conditions</p> <p>i) A water meter is installed <u>unless the take is below 5L/s.</u></p> <p>...</p> <p>Matters for Control/Discretion</p> <p>...</p> <p>6. For applications to take water for municipal, community and papakāinga water supply;</p>	<p>Urban and non-urban supplies need to be on a level playing field.</p> <p>For takes smaller than 5L/s, it is too costly to install a water meter</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>meter records).</p> <p>Stream Flow Maintenance Scheme</p> <p>f) The water permit holder either:</p> <p>(i) contributes to or develops an applicable stream maintenance and habitat enhancement scheme that complies with the requirements of Schedule 36 at a rate equivalent to the stream flow depletion (in l/sec) which will be calculated using the Stream Depletion Calculator and based on the allocated amount of water.</p> <p>or</p> <p>(ii) The water take ceases when the flow in the affected stream fall below the specified trigger level in Schedule 31.</p> <p>g) Any take authorised under clause (d) is not subject to conditions (f) in respect of that part of the total allocated amount used for essential human health.</p> <p>General Conditions</p> <p>i) A water meter is installed.</p> <p>j) Back flow of water or contaminant entry into the bore shall be prevented.</p> <p>Advisory Note:</p> <p>Any application to change water use as specified under (c) (d) or (e) may trigger a consent requirement under Rules TANK 5 or 6</p> <p>Matters for Control/Discretion</p> <ol style="list-style-type: none"> 1. The extent to which the need for water has been demonstrated and is actual and reasonable provided that the quantities assessed or calculated may be amended after taking account of: <ol style="list-style-type: none"> a. the completeness of the water permit and water meter data record; b. the climate record for the same period as held by the Council (note: these records will be kept by the Council and publicly available) and whether that resulted in water use restrictions or bans being imposed; c. effects of water sharing arrangements d. crop rotation/development phases 2. The extent to which the application was subject to programmed or staged completion of authorised major infrastructure developments over time. 3. Previous history of exercising the previous consent. 4. The quantity, rate and timing of the take, including rates of take and any other requirements in relation to any minimum or trigger flow or level given in Schedule 31 and rates of take to limit drawdown effects on neighbouring bores. 5. Where the take is in a Source Protection Zone, the actual or potential effects of the rate of take and volume abstracted on the quality of source water for the water supply and any measures to prevent or minimise any adverse effects on the quality of the source water used for a Registered Drinking Water Supply 	<p>a. provisions for demand reduction and asset management over time so that water use is at reasonable and justifiable levels including whether an Infrastructure Leakage Index of 4 <u>1</u> or better will be achieved.</p> <p>b. Rate and volumes of take limited to the projected demand for the urban area provided in the HPUDS 2017....</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>irrespective of any treatment including notification requirements to the Registered Drinking Water supplier</p> <ol style="list-style-type: none"> 6. For applications to take water for municipal, community and papakāinga water supply; <ol style="list-style-type: none"> a. provisions for demand reduction and asset management over time so that water use is at reasonable and justifiable levels including whether an Infrastructure Leakage Index of 4 or better will be achieved. b. Rate and volumes of take limited to the projected demand for the urban area provided in the HPUDS 2017. c. water demand based on residential and non-residential use including for schools, rest homes, hospitals commercial and industrial demand within the planned reticulation areas d. any Source Protection Zone or extent (as specified in Schedule 35) and <ol style="list-style-type: none"> i. any proposed changes to provisional protection areas and ii. the impacts of any changes to restrictions on land or water use activities in the protection area. 7. Measures to achieve efficient water use or water conservation and avoid adverse water quality effects including the method of irrigation application necessary to achieve efficient use of the water and avoid adverse water effects through ponding and runoff and percolation to groundwater. 8. The effects of any water take and use for frost protection on the flows in connected surface water bodies. 9. For applications other than irrigation, municipal, community or papakāinga water supply or frost protection, measures to ensure that the take and use of water meets an efficiency of use of at least 80% 10. Management of bores including means of backflow prevention and ensuring well security. 11. Information to be supplied and monitoring requirements including timing and nature of water metering data reporting and the installation of telemetered recording and reporting 12. The duration of the consent (Section 123 of the RMA) as provided for in Schedule 33 timing of reviews and purposes of reviews (Section 128 of the RMA). 13. Lapsing of the consent (Section 125(1) of the RMA). 14. Stream flow depletion amount in litres per second calculated using the Stream Depletion Calculator 15. Stream flow maintenance and habitat enhancement. 		
72	<p>6.10.2 Water – Take and Use</p> <p>TANK 10 Surface and groundwater water takes</p>	<p>Status – Restricted Discretionary Activity To take and use water where Section 124 applies (applies to existing consents).</p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> a) The take is not from the Heretaunga Plains Water Management Unit (quantity). b) The taking and use of water from surface or groundwater water bodies does not 	<p>That Rule TANK 10 be amended as follows:</p> <p>...</p> <p>Actual and Reasonable Re-allocation</p> <p>...</p>	<p>The limiting factor should be focussed on preventing general <u>increases</u> in water use, as opposed to ‘change’ of water use. <i>Change</i></p>

	Name	Provision as notified	Relief sought	Reasons for relief
	(abstraction at low flows)	<p>comply with conditions of TANK 7, or TANK 8.</p> <p>c) Where the take 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.</p> <p>d) An application is either for the continuation of a water take and use previously authorised in a permit that was issued before 2 May 2020 or is a joint or global application that replaces these existing water permits previously held separately or individually.</p> <p>Actual and Reasonable Re-allocation</p> <p>e) The quantity taken and used for irrigation is the actual and reasonable amount.</p> <p>f) The quantity taken and used for municipal, community and papakāinga water supply is:</p> <p>(i) the quantity specified on the permit being renewed; or</p> <p>(ii) any lesser quantity applied for</p> <p>g) Other than as provided in (e) or (f), the quantity taken and used is the least of:</p> <p>(i) the quantity specified on the permit due for renewal; or</p> <p>(ii) any lesser quantity applied for;</p> <p>(iii) the maximum annual water use in any one year within the 10 years preceding 2 May 2020 (including as demonstrated by accurate water meter records).</p> <p>Surface Water Management (quantity)</p> <p>h) Any take from groundwater in Zone 1 authorised as at 2 May 2020 in any surface Water Management Unit (quantity) is subject to either;</p> <p>(i) a restriction in water flow when the applicable minimum flow is reached in the relevant zone (as shown in Schedule 31);</p> <p>Or</p> <p>(ii) the take complies with conditions (f) and (g) of rule TANK 9 where there is an applicable scheme.</p> <p>General Conditions</p> <p>i) A water meter is installed.</p> <p>j) Fish and eels are prevented from entering the reticulation system.</p> <p>k) Back flow of water or contaminants into any bore shall be prevented.</p> <p>Advisory Note:</p> <p>Any application to change water use as specified under (c) (d) or (e) may trigger a consent requirement under Rules TANK 5 or 6.</p> <p>Means of Compliance for Condition (j)</p> <p>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</p>	<p>f) The quantity taken and used for municipal, community and papakāinga water supply <u>has regard to efficiency of use</u> is:</p> <p>(i) the quantity specified on the permit being renewed; or</p> <p>(ii) any lesser quantity applied for</p> <p>...</p> <p>Matters for Control/Discretion</p> <p>1. The extent to which the need for water has been demonstrated and is actual and reasonable provided that the quantities assessed or calculated may be amended after taking account of:</p> <p>...</p> <p>e. <u>whether the existing consent holder has been able to previously conserve water use due to factors such as varying natural abundance of rainfall or through careful management, and the need for allocation is occasioned to be greater than what may be considered as 'actual and reasonable' under the circumstances.</u></p> <p>...</p> <p>5. For applications to take water for municipal, community and papakāinga water supply;</p> <p>a. provisions for demand reduction and asset management over time so that water use is at reasonable and justifiable levels including whether an Infrastructure Leakage Index of <u>4.1</u> or better will be achieved.</p> <p>b. Rate and volumes of take limited to the projected demand for the urban area provided in the HPUDS 2017.</p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p><i>of use</i> is a generic factor. Use of this term is ambiguous and would create uncertainty. It could catch all manner of day-to-day changes that form part of farming activity, and which have little or no adverse effect on the environment. These could include having to temporarily de-stock and re-stock to cope with adverse events such as pandemics, weather-related events, and changing financial constraints and personal circumstances of individual farmers. Having to apply for resource consent for such minor changes would mean day-to-day farming practices would be caught by requirement for resource consent, triggering costs and delays that would be onerous for individual farmers, for little or no environmental benefit.</p>

outer surface is less than 0.3 metres per second and is maintained in good working order at all times.

Matters for Control/Discretion

1. The extent to which the need for water has been demonstrated and is actual and reasonable provided that the quantities assessed or calculated may be amended after taking account of:
 - a. the completeness of the water permit and water meter data record;
 - b. the climate record for the same period as held by the Council (note: these records will be kept by the Council and publicly available) and whether that resulted in water use restrictions or bans being imposed;
 - c. effects of water sharing arrangements
 - d. crop rotation/development phases
2. Previous history of exercising the previous consent.
3. The quantity, rate and timing of the take, including rates of take and any other requirements in relation to any relevant minimum flow or level or allocation limit given in Schedule 31
4. Where the take is in a Source Protection Zone, the actual or potential effects of the rate of take and volume abstracted on the quality of source water for the water supply and any measures to prevent or minimise any adverse effects on the quality of the source water used for a Registered Drinking Water Supply irrespective of any treatment including notification requirements to the Registered Drinking Water supplier
5. For applications to take water for municipal, community and papakāinga water supply;
 - a. provisions for demand reduction and asset management over time so that water use is at reasonable and justifiable levels including whether an Infrastructure Leakage Index of 4 or better will be achieved.
 - b. Rate and volumes of take limited to the projected demand for the urban area provided in the HPUDS 2017.
 - c. water demand based on residential and non-residential use including for schools, rest homes, hospitals commercial and industrial demand within the planned reticulation areas
6. The location of the point(s) of take
7. The effects of any water take and use for frost fighting on the natural flow regime of the river.
8. Information to be supplied and monitoring requirements including timing and nature of water meter data reporting and the installation of telemetered recording and reporting.
9. For applications other than irrigation, municipal, community or papakāinga water supply or frost protection, evidence that the take and use of water meets an efficiency of use of at least 80%
10. Measures to achieve efficient water use or water conservation and avoid adverse water quality effects including the method of irrigation application necessary to achieve efficient use of the water and avoid adverse water effects through

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>ponding and runoff and percolation to groundwater.</p> <ol style="list-style-type: none"> 11. Management of bores and other water take infrastructure including means of backflow prevention. 12. Measures to prevent fish from entering the reticulation system. 13. The duration of the consent (Section 123 of the RMA) as provided for in Schedule 33 timing of reviews and purposes of reviews (Section 128 of the RMA). 14. Lapsing of the consent (Section 125(1) of the RMA). 15. For takes from Zone 1 in the Ngaruroro and Tūtaekurī Management Zones Contribution to services or works for the maintenance of river flows associated with groundwater abstraction and stream depletion in relation to takes subject to condition (h) provided in respect of the performance of conditions and administration charges (Section 108 of the RMA). 		
73	<p>6.10.2 Water – Take and Use</p> <p>TANK 11 Groundwater and Surface water take (low flow)</p>	<p>Status –Discretionary Activity The take and use of surface (low flow allocations) or groundwater.</p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> a) The activity does not comply with the conditions of Rules TANK 9 or TANK 10. b) Either <ol style="list-style-type: none"> (i) The application is either for the continuation of a water take and use previously authorised in a permit that was issued before 2 May 2020 or is a joint or global application that replaces these existing water permits previously held separately or individually in the following Management Units; <ol style="list-style-type: none"> i. Ahuriri ii. Poukawa iii. Ngaruroro groundwater iv. Tūtaekurī groundwater v. Heretaunga Plains or (ii) The total amount taken, either by itself or in combination with other authorised takes in the same water management unit does not cause the total allocation limit in the relevant management unit as specified in Schedule 31 to be exceeded except this clause does not apply to takes for: <ol style="list-style-type: none"> i. frost protection; ii. takes of water associated with and dependant on release of water from a water storage impoundment. <p>Matters for Control/Discretion Refer also to RRMP Rule 31, which is amended as part of this Plan Change and Rule TANK 18.</p>	That Rule TANK 11 be retained as notified	

	Name	Provision as notified	Relief sought	Reasons for relief
74	<p>6.10.2 Water – Take and Use</p> <p>TANK 12 Groundwater and Surface water take</p>	<p>Status –Prohibited Activity The take and use of surface or groundwater.</p> <p>Conditions/Standards/Terms a) The activity does not comply with the conditions of Rule TANK 11</p> <p>No application may be made for this activity</p>	<p>That Rule TANK 12 be amended as follows</p> <p>Status –Prohibited Non-complying Activity The take and use of surface or groundwater.</p> <p>Conditions/Standards/Terms a) The activity does not comply with the conditions of Rule TANK 11</p> <p>No application may be made for this activity</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>There may be unforeseen circumstances which mean that taking water in a manner that is not contemplated by Rule TANK 11 is necessary. In such cases, it would be prudent to include a gateway to consider such situations, rather than prematurely foreclose such possibilities. The statutory tests for non-complying activities create a high hurdle to get across, and this should be sufficient to deter mere opportunism.</p>
75	<p>6.10.2 Water – Take and Use</p> <p>TANK 13 Taking water – high flows</p>	<p>Status –Discretionary Activity The taking and use of surface water at times of high flow (including for storage in an impoundment).</p> <p>Conditions/Standards/Terms a) The activity does not comply with the conditions of RRMP 67 and 68. b) The take on its own or in combination with other authorised takes is still available for allocation within the limits specified in both columns (D) and (E) of Schedule 32 c) The activity either on its own or in combination with other activities does not cause the flow regime of the river to be altered by more than the amount specified in Schedule 32.</p> <p>Matters for Control/Discretion Note: The construction of dams greater than 4 metres in height and holding more than 20,000 m³ will also need a Building Consent. Dams smaller than this are exempt from the Building Act provisions.</p>	<p>That Rule TANK 13 be amended to provide for suitable allocation of surface water at times of high flow as a controlled activity, with a further trip to restricted discretionary activity where controlled activity standards are not complied with</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>A discretionary activity status does not enable water storage and harvesting</p>

	Name	Provision as notified	Relief sought	Reasons for relief
76	6.10.2 Water – Take and Use TANK 14 Damming water	Status –Discretionary Activity Damming of surface waters and discharge from dams except as prohibited by Rule TANK 17 Conditions/Standards/Terms a) Except as prohibited by Rule TANK 17, the activity either on its own or in combination with other dam or discharge activities in the same water management zone does not cause the flow regime of the river to be altered by more than the amount specified in Schedule 32	That Rule TANK 14 be amended as follows Status –Discretionary Activity Damming of surface waters and discharge from dams except as prohibited by Rule TANK 17 Conditions/Standards/Terms a) Except as prohibited by Rule TANK 17, the activity either on its own or in combination with other dam or discharge activities in the same water management zone does not cause the flow regime of the river to be altered by more than the amount specified in Schedule 32 And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.	A prohibited activity is unnecessary in situations where discretionary activity status is not met for damming water. See submission point on TANK 17
77	6.10.2 Water – Take and Use TANK 15 Take and use from storage	Status –Discretionary Activity Take and use from a dam or water impoundment Conditions/Standards/Terms a) The activity does not comply with Rule TANK 7 b) The activity either on its own or in combination with other dam or discharge activities in the same water management zone does not cause the flow regime of the river to be altered by more than the amount specified in Schedule 32	That Rule TANK 15 be amended to provide for take and use from a dam or water impoundment as a controlled activity, with a further trip to restricted discretionary activity where controlled activity standards are not complied with And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.	Takes from dams and impoundments should be enabled
78	6.10.2 Water – Take and Use TANK 16 Take and use from storage	Status – Non-complying Activity Damming, take and use at high flow or take from a dam or water impoundment Conditions/Standards/Terms The activity does not comply with the conditions of Rules TANK 13- 15	That Rule TANK 16 be retained as notified, subject to our relief sought for Rules Tank 13 to Tank 15	
79	6.10.2 Water – Take and Use TANK 17 Damming water	Status –Prohibited Activity Construction of dams or the damming of water Conditions/Standards/Terms a) The construction of dams or the damming of water on the mainstem of the following rivers (i) Ngaruroro River (ii) Taruarau River (iii) Omahaki River (iv) Tūtaekurī River:	That Rule TANK 17 be amended as follows Status –Prohibited Non-complying Activity Construction of dams or the damming of water Conditions/Standards/Terms a) The construction of dams or the damming of water on the mainstem of the following rivers (i) Ngaruroro River (ii) Taruarau River	There may be unforeseen circumstances which mean that damming water in these waterways is necessary. In such cases, it would be prudent to include a gateway to consider

	Name	Provision as notified	Relief sought	Reasons for relief
		(v) Mangaone River (vi) Mangatutu River No application may be made for these activities.	(iii) Omahaki River (iv) Tūtaekurī River: (v) Mangaone River (vi) Mangatutu River No application may be made for these activities. And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.	such situations, rather than prematurely foreclose such possibilities. The statutory tests for non-complying activities create a high hurdle to get across, and this should be sufficient to deter mere opportunism.
80	6.10.2 Water – Take and Use TANK 18 Stream Flow Maintenance and Habitat Enhancement Scheme	Status –Discretionary Activity Transfer and Discharge of groundwater into surface water in the Heretaunga Plains Water Management unit (quantity) Conditions/Standards/Terms a) The transfer and discharge of water is managed according to the applicable requirements of Schedule 36	That Rule TANK 18 retained as notified	.
81	6.10.3 Stormwater TANK 19 Small scale stormwater activities	Status – Permitted Activity The diversion and discharge of stormwater into water, or onto land where it may enter water from any new or existing and lawfully established: (a) residential activities; (b) non- industrial or trade premise; (c) industrial or trade premise with less than 1,000 m2 of impervious areas; (d) rural building Conditions/Standards/Terms a) The diversion and discharge shall not; (i) cause any permanent bed scouring or bank erosion of land or any water course at or beyond that point of discharge (ii) cause or contribute to flooding of any property (iii) cause any permanent reduction in the ability of the receiving environment to convey flood flows (iv) contain hazardous substances or, be from a site used for the storage, use or transfer of hazardous substances (v) contain drainage from a stockyard (vi) cause to occur or contribute to any of the following after reasonable mixing: i. production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials ii. any emission of objectionable odour iii. any conspicuous change in colour or the visual clarity of the receiving	That Rule TANK 19 be retained as notified:	

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>water body (including the runoff from bulk earthworks)</p> <p>iv. any freshwater becoming unsuitable for consumption by farm animals</p> <p>(vii) cause to occur or contribute to the destruction or degradation of any habitat, mahinga kai, plant or animal in any water body or coastal water</p> <p>(viii) cause to occur or contribute to the discharge of microbiological contaminants including sewage, blackwater, greywater or animal effluent.</p> <p>b) The property cannot connect to a current or planned reticulated stormwater network.</p> <p>c) Any structure associated with the point of discharge or diversion is maintained in a condition such that it is clear of debris, does not obstruct fish passage and is structurally sound.</p> <p>d) The person who discharges or diverts, or who causes the discharge or diversion to occur, shall provide such information upon request by the Council to show how Condition (a) will be met or has been met.</p>		
82	6.10.3 Stormwater TANK 20 Small scale stormwater activities	<p>Status – Restricted Discretionary Activity</p> <p>The diversion and discharge of stormwater into water, or onto land where it may enter water from any new or existing and lawfully established:</p> <p>(a) residential activities;</p> <p>(b) non- industrial or trade premise;</p> <p>(c) industrial or trade premise with less than 1,000 m² of impervious areas;</p> <p>(d) rural building.</p> <p>Conditions/Standards/Terms</p> <p>a) The activity does not comply with the conditions of Rule TANK 19.</p> <p>Matters for Control/Discretion</p> <ol style="list-style-type: none"> 1. Location of the point of diversion and discharge including its catchment area. 2. Volume, rate, timing and duration of the discharge, in relation to a specified design rainfall event. 3. Effects of the activity on downstream flooding. 4. Contingency measures in the event of pipe capacity exceedance. 5. Actual or likely adverse effects on fisheries, wildlife, habitat or amenity values of any surface water body. 6. Actual or likely adverse effects on the potability of any ground water. 7. The actual or potential effects of the activity on the quality of source water for Registered Drinking Water Supplies and any measures to reduce the risk to the water quality including notification requirements to the Registered Drinking Water supplier. 8. The actual or potential effects of the activity on the water quality objectives set out in Schedule 26. 9. Duration of the consent. 10. A compliance monitoring programme. 	That Rule TANK 20 be retained as notified)	

	Name	Provision as notified	Relief sought	Reasons for relief
		11. Bonds or Administrative charges.		
83	6.10.3 Stormwater TANK 21 Stormwater activities	<p>Status – Controlled Activity Diversion and discharge of stormwater from an existing or new local authority managed stormwater network into water, or onto land where it may enter water</p> <p>Conditions/Standards/Terms:</p> <p>a) The diversion and discharge shall not;</p> <ul style="list-style-type: none"> (i) cause any permanent bed scouring or bank erosion of land or any water course at or beyond that point of discharge (ii) cause or contribute to flooding of any property (iii) cause any permanent reduction in the ability of the receiving environment to convey flood flows (iv) contain hazardous substances or, be from a site used for the storage, use or transfer of hazardous substances (v) Contain drainage from a stockyard (vi) cause to occur or contribute to any of the following after reasonable mixing: <ul style="list-style-type: none"> i. production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials ii. any emission of objectionable odour iii. any conspicuous change in colour or the visual clarity of the receiving water body (including the runoff from bulk earthworks) iv. any freshwater becoming unsuitable for consumption by farm animals v. cause to occur or contribute to the destruction or degradation of any habitat, mahinga kai, plant or animal in any water body or coastal water vi. cause to occur or contribute to the discharge of microbiological contaminants including sewage, blackwater, greywater or animal effluent. <p>b) An application for resource consent must include an Integrated Catchment Management plan that includes;</p> <ul style="list-style-type: none"> (i) A monitoring programme to assess existing stormwater discharge quality and level of impact on receiving water quality standards. (ii) Identification of the spatial extent of the stormwater network to which the application for consent relates (iii) Identification of the priority streams or catchments where stormwater discharges currently result in receiving water quality below the standards specified in Schedule 26 (iv) A programme of mitigation measures including timeframes and milestones for the enhancement of streams identified in (b)(iii), (v) Identification of any industrial or trade sites, that use, store or produce the discharge of any contaminant of concern (as defined in Table 3.1 of Hawke’s Bay Waterway Guidelines Industrial Stormwater Design), 	That Rule TANK 21 be retained as notified	

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>(vi) Identification of sites within catchments that have a high risk of contaminants entering the stormwater network or land where it might enter surface or groundwater, including industrial and trade premises and areas subject to new urban development.</p> <p>(vii) For sites identified in (b)(vi), a programme to ensure Urban Site Specific Stormwater Management Plans are prepared and implemented so that stormwater quality risks are managed. (Schedule 34)</p> <p>(viii) Identification of areas at risk of flooding, and where levels of service to protect communities from flooding are not being met provide information about how this will be managed.</p> <p>(ix) The potential effects of climate change on infrastructure capacity and a description of any planned mitigation measures including the identification of secondary flow paths and the capacity of the receiving environment.</p> <p>(x) Identification of measures to demonstrate how discharges shall not cause scouring or erosion of land or any water course beyond the point of discharge</p> <p>(xi) Where the stormwater network (or part thereof) or discharge locations are situated within a Source Protection Zone of a registered drinking water supply, a description of measures to prevent or minimise adverse effects on the quality of the source water for the registered drinking water supply or any increase in the risk of unsafe drinking water being provided to persons and communities from the drinking water supply</p> <p>(xii) Description of measures to demonstrate how the discharge shall not contain hazardous substances or contaminants (including wastewater) and shall not cause any of the following to occur after reasonable mixing:</p> <ol style="list-style-type: none"> i. production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials; ii. any emission of objectionable odour; iii. Any conspicuous change in colour or visual clarity of the receiving water; iv. any freshwater becoming unsuitable for consumption by farm animals; v. the destruction or degradation of any habitat, mahinga kai, plant or animal in any water body or coastal water. <p>Matters for Control/Discretion</p> <ol style="list-style-type: none"> 1. The efficacy of the Integrated Catchment Management Plan including, but not limited to: <ol style="list-style-type: none"> a. Its contribution to achieving water quality objectives b. its implementation programme and milestones, c. The comprehensiveness and reliability of the monitoring regime d. The use of low impact stormwater design methods 2. The actual of potential effects of the activity on the water quality objectives set out in Schedule 26 including for aquatic ecosystem health, mahinga kai, contact 		

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>recreation and Māori customary use.</p> <ol style="list-style-type: none"> 3. The characteristics of the proposed discharge and its effects on the receiving environment. 4. The actual or potential effects of the activity on the quality of source water for Registered Drinking Water Supplies and any measures to reduce the risk to the water quality including notification requirements to the Registered Drinking Water supplier. 5. Duration of the consent 6. Review of consent conditions 7. Compliance monitoring 8. Administrative charges 		
84	6.10.3 Stormwater TANK 22 Stormwater activities	<p>Status – Restricted Discretionary Activity Discharge of stormwater to water or onto land where it may enter water from any industrial or trade premises</p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> a) An application for resource consent must include an Urban Site Specific Stormwater Management Plan (Schedule 34) b) The diversion and discharge; <ol style="list-style-type: none"> (i) shall not cause permanent bed scouring or bank erosion of land or alter the natural course of any water body (ii) shall not cause or contribute to flooding of any property, (iii) shall not cause any permanent reduction in the ability of the receiving environment to convey flood flows (iv) shall not contain hazardous substances c) The diversion and discharge shall not cause any of the following to occur after reasonable mixing: <ol style="list-style-type: none"> (i) production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials (ii) any emission of objectionable odour (iii) any conspicuous change in colour or the visual clarity (iv) result in any freshwater becoming unsuitable for consumption by farm animals d) the diversion and discharge shall not cause to occur or contribute to: <ol style="list-style-type: none"> (i) the destruction or degradation of any habitat, mahinga kai, plant or animal in any water body or coastal water (ii) the discharge of microbiological contaminants, including sewage, blackwater, greywater or animal effluent. e) There is no reticulated stormwater network at the property boundary f) Any structure associated with the point of discharge or diversion is maintained in a condition such that it is clear of debris, does not obstruct fish passage and is structurally sound. 	That Rule TANK 22 be retained as notified	

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>Matters for Control/Discretion</p> <ol style="list-style-type: none"> 1. The efficacy of the Urban Site Specific Stormwater Management Plan (Schedule 34) including measures adopted to minimise the risk of contaminants of concern entering stormwater including: <ol style="list-style-type: none"> a. Installation of stormwater management devices including as detailed in table 3.1 of the Hawke’s Bay Regional Council Industrial Stormwater Waterway Design Guidelines. b. Alignment with relevant industry guidelines and best practice standards. 2. Water quality standards in the discharge in relation to any contaminants being used on site and specific methods for treating these. 3. The actual or potential effects of the activity on the quality of source water for Registered Drinking Water Supplies and any measures to reduce the risk to the water quality including notification requirements to the Registered Drinking Water supplier 4. The characteristics of the proposed discharge and its effects on the receiving environment 5. Duration of the consent 6. Review of consent conditions 7. Compliance monitoring. 		
85	6.10.3 Stormwater TANK 23 Stormwater activities	<p>Status –Discretionary Activity The diversion and discharge of stormwater into water, or onto land where it may enter water.</p> <p>Conditions/Standards/Terms The activity does not comply with Rules TANK 19 to TANK 22.</p> <p>Matters for Control/Discretion The Council may at any time, by written notice to the owner or occupier (following a reasonable period of consultation), review a consent in light of new information that has become available or any change in circumstances that has occurred, and vary any condition of consent as a consequence.</p>	That Rule TANK 23 be retained as notified	
86	Amendments to 6.3.1 – Bore Drilling & Bore Sealing RRMP Rule 1 - Bore Drilling	<p>Controlled Activity The drilling, construction, and alteration of bores.</p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> a. The bore shall be cased and sealed to prevent aquifer cross-connection, and leakage from the ground surface into ground water. b. The bore is not located within a Source Protection Zone <p>⋮</p>	<p>That proposed amendments to RRMP Rule 1 - Bore Drilling, be amended as follows:</p> <p>Conditions/Standards/Terms</p> <p>...</p> <ol style="list-style-type: none"> b. The <u>proposed new bore</u> is not located within a Source Protection Zone <p>⋮</p>	The rule should only apply to proposed new bores. Existing lawfully established bores/water supplies should not be undermined by applications to protect source water.

	Name	Provision as notified	Relief sought	Reasons for relief
			<p>Advice note:</p> <p><u>This rule does not apply to existing lawfully established bores and water supplies that are situated within an area subject to application for small scale drinking water supplies or Source Protection Zones</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	
87	<p>Amendments to 6.3.1 – Bore Drilling & Bore Sealing</p> <p>RRMP Rule 2 - Bore drilling that does not comply with Rule 1</p>	<p>Restricted Discretionary Activity</p> <p>The drilling, construction, or alteration of bores that does not comply with Rule 1.</p> <p>...</p> <p>Matters for Control/Discretion</p> <p>a. Bore location diameter, depth.</p> <p>b. Bore screen slot size, length, depth and diameter.</p> <p>c. Bore head completion.</p> <p>d. Backflow prevention.</p> <p>e. Information requirements, including bore logs, hydraulic head levels and aquifer tests.</p> <p>f. <u>In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, the actual or potential effects of the bore and bore drilling on the quality of source water for Registered Drinking Water Supplies and any measures to reduce the risk to the water quality including notification requirements to the Registered Drinking Water supplier, the maintenance of the bore and the well head, including decommissioning the bore where necessary</u></p> <p>g. Duration of consent.</p> <p>h. Lapsing of consent.</p> <p>i. Review of consent conditions.</p> <p>j. Compliance monitoring.</p>	<p>That proposed amendments to RRMP Rule 2 - Bore drilling that does not comply with Rule 1, be amended as follows:</p> <p>Matters for Control/Discretion</p> <p>...</p> <p>f. In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, the actual or potential effects of the <u>proposed new bore and bore drilling on the quality of source water for Registered Drinking Water Supplies and any measures to reduce the risk to the water quality including notification requirements to the Registered Drinking Water supplier, the maintenance of the bore and the well head, including decommissioning the bore where necessary.</u></p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>The rule should only apply to proposed new bores. Existing lawfully established bores/water supplies should not be undermined by applications to protect source water.</p>
88	<p>Amendments to 6.3.1 – Bore Drilling & Bore Sealing</p> <p>RRMP Rule 4 - Decommissioning of bores</p>	<p>Permitted Activity</p> <p>The decommissioning or sealing of bores.</p> <p>Conditions/Standards/Terms</p> <p>a. Decommissioned bores shall be backfilled and sealed at the surface to prevent contamination of groundwater.</p> <p>b. Decommissioned holes and bores intersecting groundwater shall be sealed to prevent the vertical movement of groundwater, and to permanently confine the groundwater to the specific zone (or zones) in which it originally occurred.</p>	<p>That the proposed amendment (clause f.) to RRMP Rule 4 - Decommissioning of bores, be deleted as follows:</p> <p>...</p> <p>Conditions/Standards/Terms</p> <p>...</p> <p>f. <u>Where the bore is in a Source Protection Zone, information to confirm compliance with conditions (a) to (d) shall be provided to the Council upon request</u></p>	<p>The power for Council officers to require information about compliance with any plan rule can already be sought under Council's enforcement powers set forth in Section 322(1)(b)the</p>

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		<p>c. Backfill materials, where used between permanent seals, shall consist of clean sand, coarse stone, clay or drill cuttings. The material shall be non toxic.</p> <p>d. Decommissioning shall be undertaken by a suitably qualified person.</p> <p>e. The Council shall be advised of any bores that are decommissioned.</p> <p>f. <u>Where the bore is in a Source Protection Zone, information to confirm compliance with conditions (a) to (d) shall be provided to the Council upon request</u></p>	<p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Resource Management Act 1991, and there is no need for any such duplicate requirement in the RRMP for a permitted activity.</p>
89	<p>Amendments to 6.3.2 – Feed lots & feedpads</p> <p>RRMP Rule 5 - Feed lots & feedpads</p>	<p>Permitted Activity The use of land for the purposes of operating a feedlot or feedpad</p> <p>Conditions/Standards/Terms</p> <p>a. The land used for the feedlot or feedpad shall be managed in a manner that prevents any seepage of contaminants into groundwater.</p> <p>b. The feedlot or feedpad shall be located no less than 20 m from any surface water body.</p> <p>c. The feedlot or feedpad shall be located no less than:</p> <ol style="list-style-type: none"> i. 150 metres from a residential building or any other building being part of a place of assembly on another site ii. 50 metres from a property boundary, and iii. 20 metres from a public road. <p>d. Runoff from the surrounding catchment area is prevented from entering the feedlot or feedpad.</p> <p><u>e. The feedpad or feedlot is not located in a Source Protection Zone</u></p>	<p>That proposed amendments to RRMP Rule 5 - Feed lots & feedpads, be amended as follows:</p> <p>...</p> <p>Conditions/Standards/Terms</p> <p>...</p> <p>e. The Any new feedpad or feedlot is not located in a Source Protection Zone</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>The rule should only apply to proposed feedlots. Existing lawfully established feedlots should not be undermined by applications to protect source water. This could undermine adaptive management for the farmers concerned.</p> <p>Feedpads are permitted in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020</p>
90	<p>Amendments to 6.3.3 – Vegetation Clearance and Soil Disturbance Activities</p> <p>RRMP Rule 7 - Vegetation clearance and soil disturbance</p>	<p>Permitted Activity Vegetation clearance or soil disturbance activities</p> <p>Conditions/Standards/Terms</p> <p>a. All cleared vegetation, disturbed soil or debris shall be deposited or contained to reasonably prevent the transportation or deposition of disturbed matter into any water body¹⁵.</p> <p>b. Vegetation clearance or soil disturbance shall not give rise to any significant change in the colour or clarity of any adjacent water body, after reasonable mixing.</p> <p>c. No vegetation clearance shall occur within 5 metres of any permanently flowing river, or any other river with a bed width in excess of 2 metres, or any other lake or wetland, except that this condition shall not apply to:</p>	<p>That proposed amendments to RRMP Rule 7 - Vegetation clearance and soil disturbance, be amended as follows:</p> <p>...</p> <p>Conditions/Standards/Terms</p> <p>f. In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, there is no clearance of indigenous vegetation within 10m of any rivers except;</p> <p>...</p> <p>ii. where the clearance is necessary for construction of crossings or installation of a reticulated or network service,<u>or</u></p>	<p>Vegetation clearance for day-to-day farm maintenance of farm access tracks (including waterway crossings), fence-lines, water supply pipelines and stock water dams, rural fire breaks, vegetation clearance separation around farm buildings, pasture maintenance and pest</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>i. the clearance of plantation forestry established prior to the date of this Plan becoming operative, or 32a</p> <p>ii. the areas identified in Schedule X to this Plan.</p> <p>d. Deposition of soil or soil particles across a property boundary shall not be objectionable or offensive, cause property damage or exceed 10 kg/m².</p> <p>e. Where the clearance of vegetation or the disturbance of soil increases the risk of soil loss the land shall be:</p> <p>i. re-vegetated as soon as practicable after completion of the activity, but in any event no later than 18 months with species providing equivalent or better land stabilisation; or</p> <p>ii. retained in a manner which inhibits soil loss.</p> <p><u>f. In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, there is no clearance of indigenous vegetation within 10m of any rivers except;</u></p> <p><u>i. where the clearance is part of improvements to riparian management for water quality/biodiversity purposes as specified in the relevant Farm Environment or Catchment Collective Plan;</u></p> <p><u>ii. where the clearance is necessary for construction of crossings or installation of a reticulated or network service</u></p> <p><u>g) In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments there is no cultivation of land over 20 degrees of slope except where it is less than 10% of the paddock area.</u></p> <p><u>h) In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, there is no cultivation of land that results in exposure of bare soil within;</u></p> <p><u>(i) 5 m of any river, modified watercourse or drain or lake or wetland where the land is flat to gently rolling (0-7 degrees of slope);</u></p> <p><u>(ii) 10 m of any river, modified watercourse or drain or lake or wetland where the land is moderately rolling (>7 – 20 degrees of slope);</u></p> <p><u>(iii) 15 m of any river, modified watercourse or drain or lake or wetland where the land is over 20 degrees of slope;</u></p> <p><u>i) Except conditions h(i) – (ii) do not apply:</u></p> <p><u>(i) where cultivation is part of improvements to riparian management for water quality/biodiversity purposes as specified in the relevant Farm Environment or Catchment Collective Plan;</u></p> <p><u>(ii) where the cultivation is in relation to activities permitted by Rule 70.</u></p>	<p><u>construction of a fence for stock exclusion</u></p> <p>iii. <u>where the clearance is necessary to maintain farm access tracks (including waterway crossings), fence-lines, water supply pipelines and stock water dams, rural fire breaks, vegetation clearance separation around farm buildings, pasture maintenance and pest plant management.</u></p> <p>g) In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments there is no cultivation of land over 20 degrees of slope except where it is less than 10% of the paddock.</p> <p>h) In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, there is no cultivation of land that results in exposure of bare soil <u>except for seed drilling</u> within;</p> <p>(i) 53m <u>5m</u> of any river, modified watercourse, or drain or lake or wetland where the land is flat to gently rolling (0-7 degrees of slope);</p> <p>(ii) 40m <u>5m</u> of any river, modified watercourse, or drain or lake or wetland where the land is moderately rolling (>7 – 20 degrees of slope);</p> <p>(iii) 15m <u>10m</u> of any river, modified watercourse, or drain or lake or wetland where the land is over 20 degrees of slope;</p> <p>i) Except conditions h(i) – (ii) do not apply: ... <u>(iii) where cultivation is undertaken by direct seed drilling</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>plant management should not be caught by this rule. Otherwise, farmers will be subject to onerous delays and costs for resource consent for little or no environmental benefit.</p> <p>Land disturbance (including Cultivation) is managed under Resource Management (National Environmental Standards for Freshwater) Regulations 2020 Direct seed drilling should be exempt from no-cultivation restrictions.</p>
91	Amendments to 6.4.2 – Agricultural Activities & Other Activities on Production Land -	<p>Permitted Activity</p> <p>The discharge of contaminants into air, or onto or into land arising from the storage, transfer, treatment, mixing or use of stock feed on production land, including silage.</p> <p>Conditions/Standards/Terms</p>	<p>That proposed amendment (new Clause h.) to RRMP Rule 12 – Stock feed, be deleted as follows:</p> <p>...</p> <p>Conditions/Standards/Terms</p> <p>...</p>	<p>The power for Council officers to require information about compliance with any plan rule can already</p>

	Name	Provision as notified	Relief sought	Reasons for relief
	Discharges to Air/Land/Water RRMP Rule 12 – Stock feed	<p>a. Any area in the Heretaunga Plains unconfined aquifer (Schedule Va) or the Ruataniwha Plains unconfined aquifer (Schedule IV) which is used for storing stock feed, including silage, and when there is a potential for contamination of groundwater by seepage of contaminants, shall be managed in a manner that prevents such contamination.</p> <p>b. Any discharges to air shall not cause any offensive or objectionable odour, or noxious or dangerous levels of gases, beyond the boundary of the subject property</p> <p>c. There shall be no visible discharge of any material, including dust, beyond the boundary of the subject property, unless written approval is obtained from the affected property owner.</p> <p>d. The discharge shall not result in any airborne liquid contaminant being carried beyond the boundary of the subject property.</p> <p>e. There shall be no discharge within 20 m of any surface water body.</p> <p>f. There shall be no surface ponding in any area used to store stock feed or feed stock, and no runoff of contaminants into any surface water body.</p> <p>g. There shall be no discharge within 30 m of any bore or well.</p> <p><u>h. Where the activity is in a Source Protection Zone, information to confirm compliance with conditions (a) to (g) shall be provided to the Council upon request.</u></p>	<p>h. Where the activity is in a Source Protection Zone, information to confirm compliance with conditions (a) to (g) shall be provided to the Council upon request.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>be sought under Council's enforcement powers set forth in Section 322(1)(b) the Resource Management Act 1991, and there is no need for any such duplicate requirement in the RRMP for a permitted activity.</p>
92	Amendments to 6.4.2 – Agricultural Activities & Other Activities on Production Land - Discharges to Air/Land/Water RRMP Rule 13 – Use of compost, biosolids & other soil conditioners	<p>Permitted Activity The discharge of contaminants into air, or onto or into land, arising from the storage, transfer, treatment, mixing or use of compost, biosolids and other (solid or liquid) organic material for soil conditioning purposes¹⁹ including:</p> <ul style="list-style-type: none"> • paunch grass • apex meal • stockyard scrapings • grape marc • compost (except as regulated by Rule 28) and • poultry manure (except as regulated by Rule 11 or 14). <p>Conditions/Standards/Terms</p> <p>a. Any area in the Heretaunga Plains unconfined aquifer (Schedule Va) or the Ruataniwha Plains unconfined aquifer (Schedule IV) which is used for storing organic material and when there is a potential for contamination of ground water by seepage of contaminants, shall be managed in a manner that prevents such contamination.</p> <p>b. Any discharges to air shall not cause any offensive or objectionable odour, or noxious or dangerous levels of gases, beyond the boundary of the subject property.</p> <p>c. There shall be no visible discharge of any material, including dust, beyond the boundary of the subject property, unless written approval is obtained from the</p>	<p>That proposed amendments to RRMP Rule 13 – Use of compost, biosolids & other soil conditioners, be retained as notified</p>	

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>affected property owner.</p> <p>d. The discharge shall not result in any airborne liquid contaminant being carried beyond the boundary of the subject property.</p> <p>e. There shall be no surface ponding in the area used to store, mix or use the organic material, and no runoff of contaminants into any surface water body.</p> <p>f. There shall be no discharge within 30 m of any bore or well.</p> <p>g. The discharge shall occur no less than 600 mm above the winter ground water table.</p> <p>h. Where material is discharged onto grazed pasture, the application rate shall not exceed 150 kg/ha/y of nitrogen.</p> <p>i. Where material is discharged onto land used for a crop, the application rate shall not exceed the rate of nitrogen uptake by the crop.</p> <p>j. <u>Where the activity is in a Source Protection Zone, the storage or processing of compost or bio-solids and other soil conditions does not exceed 100 cubic metres of material.</u></p>		
93	<p>Amendments to 6.4.2 – Agricultural Activities & Other Activities on Production Land - Discharges to Air/Land/Water</p> <p>RRMP Rule 14 – Animal effluent</p>	<p>Controlled Activity The discharge of contaminants into air, or onto or into production land, arising from the management of liquid animal effluent, including dairy shed effluent, piggery effluent, and poultry farm effluent, including associated sludges (except as provided for by Rules 13 & 15).</p> <p>Conditions/Standards/Terms</p> <p>a. Any area used for storing animal effluent, where there is a potential for contamination of groundwater by seepage of contaminants, shall be managed in a manner that prevents any such contamination.</p> <p>b. Either:</p> <p>i. there shall not be offensive or objectionable odour, or noxious or dangerous levels of gases or other airborne liquid contaminants, beyond the boundary of the subject property, or</p> <p>ii. for discharges of effluent from piggeries, every point of discharge shall be sited so as to meet the requirements of the "Code of Practice - Pig Farming" (New Zealand Pork Industry Board, 1997), in respect of buffer zone distances.</p> <p>c. There shall be no visible discharge of any material, including dust, beyond the boundary of the subject property, unless written approval is obtained from the affected property owner.</p> <p>d. There shall be no runoff of any contaminant into any surface water body.</p> <p>e. There shall be no discharge within 30 m of any bore or well.</p> <p>f. Where effluent is discharged onto grazed pasture, the nitrogen loading rate from the effluent application shall not exceed 150 kg/ha/y of nitrogen.</p> <p>g. 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.</p>	<p>That proposed amendments to RRMP Rule 14 – Animal effluent, be amended as follows:</p> <p>...</p> <p>Conditions/Standards/Terms</p> <p>...</p> <p>h. <u>The activity The discharge of contaminants into air, or onto or into production land, which is associated with any new conversion to a new type of farming, that is arising from the management of liquid animal effluent, including dairy shed effluent, piggery effluent, and poultry farm effluent, including associated sludges (except as provided for by Rules 13 & 15)</u> is not in a Source Protection Zone</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Existing pastoral farms that discharge contaminants into air, or onto or into production land, arising from the management of liquid animal effluent, including dairy shed effluent, piggery effluent, and poultry farm effluent, including associated sludges, should not be disadvantaged because of a decision to require a Source Protection Zone. This would undermine the intent of adaptive management.</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>h. The activity is not in a Source Protection Zone</p> <p>...</p>		
94	<p>Amendments to 6.4.2 – Agricultural Activities & Other Activities on Production Land - Discharges to Air/Land/Water RRMP Rule 15 – Discharge of animal effluent in sensitive catchments</p>	<p>Discretionary Activity The discharge of contaminants into air, or onto or into production land, arising from the management of liquid animal effluent, including dairy shed effluent, piggery effluent, and poultry farm effluent in the following catchments as shown in Schedule VIb:</p> <ul style="list-style-type: none"> • Headwaters of Mohaka River • Headwaters of the Ngaruroro River • Maungawhio • Lake Hatuma • Lake Tutira • Heretaunga Plains unconfined aquifer • Ruataniwha Plains unconfined aquifer • Lake Whakaki • Headwaters of the Tutaekuri River • Headwater of the Tukituki River. <p><u>Or in any Source Protection Zone</u></p>	<p>That proposed amendments to RRMP Rule 15 – Discharge of animal effluent in sensitive catchments, be amended as follows:</p> <p>...</p> <p><u>Or any discharge of animal effluent resulting from any new conversion of farm to a different type of farming in any Source Protection Zone</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Existing pastoral farms that discharge contaminants into air, or onto or into production land, arising from the management of liquid animal effluent, including dairy shed effluent, piggery effluent, and poultry farm effluent, including associated sludges, should not be further disadvantaged because of a decision to require a Source Protection Zone</p>
95	<p>Amendments to 6.5.1 – Water - Discharges to Water RRMP Rule 31 – Discharge of water</p>	<p>Permitted Activity The discharge of water (excluding drainage water) into water.</p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> a. The discharge shall not cause or contribute to the flooding of any property, unless written approval is obtained from the affected property owner. b. The discharge shall not cause any scouring or erosion of any land or any watercourse beyond the point of discharge. c. The discharge shall not cause the natural temperature of any receiving water to be changed by more than 3°C from normal seasonal water temperature fluctuations, after reasonable mixing. <u>d. The discharge is not a discharge of groundwater into surface water in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments.</u> 	<p>That proposed amendments to RRMP Rule 31 – Discharge of water, be amended as follows:</p> <p>Conditions/Standards/Terms</p> <p>...</p> <ol style="list-style-type: none"> d. The discharge is not a discharge of groundwater into surface water in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments <u>except where discharge of such water into surface water is necessary due to structural failure of water retention vessels, drains, stop-banks, weirs, floodgates or dams deliberately sabotaged or damaged in emergencies such as fires, floods or earthquakes.</u> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>It may not be practical to prevent all water from being drained into surface water bodies in the TANK catchment. Practical exceptions need to be made for discharges that are necessary due to emergency events or infrastructure failure or damage.</p>

	Name	Provision as notified	Relief sought	Reasons for relief
96	Amendments to 6.6.2 – Drainage Water - Discharges to Land/Water RRMP Rule 32 – Discharge of drainage water (gravity flow systems)	<p>Permitted Activity The diversion and discharge of drainage water into water or onto or into land, from a gravity flow system (without pumping).</p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> There shall be no adverse flooding effects on any property owned or occupied by another person, as a result of any discharge from the drainage activity. The discharge shall not cause any scouring or erosion of any land or any water course beyond the point of discharge. The activity shall not adversely affect any wetland. The discharge shall not cause the natural temperature of any receiving water to be changed by more than 3oC from normal seasonal water temperature fluctuations, after reasonable mixing. Any discharge of water arising from a drainage system shall be to the same catchment as that to which the water would naturally flow. Any suspended solids in the discharge shall comply with Policy 72 except in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments. After ten years after 2 May 2020 in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, dissolved nutrient and sediment concentrations in the receiving water after reasonable mixing shall not increase as a result of the discharge when measuring: <ol style="list-style-type: none"> DIN DRP suspended sediment. 	<p>That proposed amendments to RRMP Rule 32 – Discharge of drainage water (gravity flow systems), be amended as follows:</p> <p>...</p> <p>Conditions/Standards/Terms</p> <p>...</p> <ol style="list-style-type: none"> Any suspended solids in the discharge shall comply with Policy 72, except in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments <u>where Clause g) (below) applies.</u> After ten years after 2 May 2020 in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, dissolved nutrient and sediment concentrations in the receiving water after reasonable mixing shall not increase, <u>compared to in-stream concentrations immediately upstream and outside the area of reasonable mixing,</u> as a result of the discharge when measuring: <ol style="list-style-type: none"> DIN DRP suspended sediment. <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>The relationship between Condition f and Condition g of this policy is confusing as notified.</p> <p>The specification for measuring in-stream concentration in Condition g needs to be clarified so it relates to in-stream concentration upstream of the zone of reasonable mixing when discharges are being assessed.</p> <p>Individual farmers should not be punished for increases in in-stream concentrations of nutrients that have been caused by other discharges.</p>
97	Amendments to 6.6.2 – Drainage Water - Discharges to Land/Water New RRMP Rule 33A – Drainage water	<p>Permitted Activity <u>The diversion and discharge of land drainage water from an existing pumped drainage system (small scale)</u></p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> <u>the discharge is in a Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments</u> <u>The pumped drainage system existed at 2 May 2020</u> <u>The land area being serviced by the drainage network is less than 10ha</u> <u>There shall be no increase in flooding on any property owned or occupied by another person, as a result of any discharge from the drainage activity.</u> <u>The discharge shall not cause any scouring or erosion of any land or any watercourse beyond the point of discharge.</u> <u>The activity shall not result in changes to water levels in any connected wetland</u> <u>The discharge shall not cause the natural temperature of any receiving water to be changed by more than 3°Celsius from normal seasonal water temperature fluctuations, after reasonable mixing.</u> 	<p>That proposed new RRMP Rule 33A – Drainage water), be amended as follows:</p> <p>Permitted Activity The diversion and discharge of land drainage water from an existing pumped drainage system (small scale)</p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> the discharge is in a Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments The pumped drainage system existed at 2 May 2020 The land area being serviced by the drainage network is less than 10ha <u>(See note below).</u> There shall be no increase in flooding on any 	<p>It may not be practical to prevent all water from being drained into surface water bodies in the TANK catchment. Practical exceptions need to be made for discharges that are necessary due to emergency events or infrastructure failure or damage</p> <p>The specification for measuring in-stream concentration in</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p><u>h) Any discharge of water arising from a drainage system shall be to the same catchment as that to which the water would naturally flow.</u></p> <p><u>i) After ten years after 2 May 2020 in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, dissolved nutrient and sediment concentrations in the receiving water after reasonable mixing shall not increase as a result of the discharge when measuring:</u></p> <p><u>i) DIN</u></p> <p><u>ii) DRP</u></p> <p><u>iii) suspended sediment</u></p>	<p>property owned or occupied by another person, as a result of any discharge from the drainage activity.</p> <p>e) The discharge shall not cause any scouring or erosion of any land or any watercourse beyond the point of discharge.</p> <p>f) The activity shall not result in changes to water levels in any connected wetland</p> <p>g) The discharge shall not cause the natural temperature of any receiving water to be changed by more than 3°Celsius from normal seasonal water temperature fluctuations, after reasonable mixing.</p> <p>h) Any discharge of water arising from a drainage system shall be to the same catchment as that to which the water would naturally flow.</p> <p>i) After ten years after 2 May 2020 in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, dissolved nutrient and sediment concentrations in the receiving water after reasonable mixing shall not increase, <u>compared to in-stream concentrations immediately upstream and outside the area of reasonable mixing</u>, as a result of the discharge when measuring:</p> <p><u>i) DIN</u></p> <p><u>ii) DRP</u></p> <p><u>iii) suspended sediment</u></p> <p><u>j) The above conditions shall not apply in any event where discharge is caused by structural failure of water retention vessels, drains, stop-banks, weirs, floodgates or dams occurs as a result of deliberate sabotage or damage in emergencies such as fires, floods or earthquakes.</u></p> <p><u>Note: Where there are multiple land drainage networks per farm property, each drainage network must comply with Condition c) above</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Condition g needs to be clarified so it relates to in-stream concentration upstream of the zone of reasonable mixing when discharges are being assessed. Individual farmers should not be punished for increases in in-stream concentrations of nutrients that have been caused by other discharges.</p>

	Name	Provision as notified	Relief sought	Reasons for relief
98	<p>Amendments to 6.6.2 – Drainage Water - Discharges to Land/Water</p> <p><u>RRMP Rule 33 – Discharge of drainage water (pumped systems)</u></p>	<p>Controlled Activity The diversion and discharge of drainage water into water or onto or into land, from a pumped system</p> <p>Conditions/Standards/Terms</p> <ol style="list-style-type: none"> There shall be no adverse flooding effects on any property owned or occupied by another person, as a result of the drainage activity. The discharge shall not cause any scouring or erosion of any land or any water course beyond the point of discharge. The activity shall not adversely affect any wetland. The discharge shall not cause the natural temperature of any receiving water to be changed by more than 3°C from normal seasonal water temperature fluctuations, after reasonable mixing. Any discharge of water arising from a drainage system shall be to the same catchment as that to which the water would naturally flow. Any suspended solids in the discharge shall comply with Policy 72 <u>except in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū water quality management units</u> <u>After ten years after 2 May 2020 in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū water quality management units, dissolved nutrient and sediment concentrations in the discharge water are no more than in the receiving water at the point of discharge as measured by:</u> <ol style="list-style-type: none"> <u>DIN</u> <u>DRP</u> <u>suspended sediment.</u> <p>Matters for Control/Discretion</p> <ol style="list-style-type: none"> Location of discharge. Rate of pumping. Time of pumping. Flood mitigation measures. Duration of consent. Review of consent conditions. Compliance monitoring. <u>For activities carried out in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments:</u> <ol style="list-style-type: none"> <u>measures or methods required for meeting the receiving water quality standards.</u> <u>Monitoring for water quality</u> <p>...</p>	<p>That proposed amendments to RRMP Rule 33 – Discharge of drainage water (pumped systems), be amended as follows:</p> <p>Conditions/Standards/Terms</p> <p>...</p> <ol style="list-style-type: none"> Any suspended solids in the discharge shall comply with Policy 72 except in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū water quality management units, <u>where Condition g (below applies).</u> After ten years after 2 May 2020 in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū water quality management units, dissolved nutrient and sediment concentrations in the discharge water are no more than in the receiving water at the point of discharge as measured by shall not increase, compared to in-stream concentrations immediately upstream and <u>outside the area of reasonable mixing</u>, as a result of the discharge when measuring: <ol style="list-style-type: none"> DIN DRP suspended sediment. <p>Matters for Control/Discretion</p> <p>...</p> <ol style="list-style-type: none"> For activities carried out in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments: <ol style="list-style-type: none"> measures or methods required for meeting the receiving water quality standards. Monitoring for water quality <u>Whether such diversion and discharge from a pumped system is replacing an existing discharge of the same or worse water quality characteristics</u> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Condition g needs to be clarified so it relates to in-stream concentration upstream of the zone of reasonable mixing when discharges are being assessed. Individual farmers should not be punished for increases in in-stream concentrations of nutrients that have been caused by other discharges.</p>
99	<p>Amendments to 6.6.4 – Domestic</p>	<p>Permitted Activity Except as provided for in Rule 35 or Rule 36, the discharge of contaminants (including greywater) onto or into land, and any ancillary discharge of contaminants into air,</p>	<p>That proposed amendments to 37 – New sewage systems, be amended as follows:</p>	<p>Replacement sewage treatment systems should be permitted</p>

	Name	Provision as notified	Relief sought	Reasons for relief
	Sewage – Discharges to Land <u>RRMP Rule 37 –</u> <u>New sewage</u> <u>systems</u>	from a new sewage system. Conditions/Standards/Terms a. Where the wastewater receives no more than advanced primary treatment, the discharge shall be onto or into a property with a land area of no less than 2500m ² . aA. Where the wastewater receives more than advanced primary treatment then: i. the discharge shall be onto or into a property with a land area of no less than 1000m ² ; and ii. the net site area to discharge volume ratio shall not be less than 1.5 m ² per litre per day 39. b. The rate of discharge of sewage (including greywater) shall not exceed 2 m ³ /d, averaged over any 7 day period. c. The treatment and disposal system shall be designed to cater for the peak daily loading. d. The discharge shall not occur over the Heretaunga Plains or Ruataniwha Plains unconfined aquifer as shown in Schedule IV. e. The discharge and land treatment field shall not be within 20 m of any surface water body (including any stormwater open drain or roadside drain), or any tile drain or within 1.5 metres of any property boundary. eA. The system shall be designed and installed in accordance with the requirements specified in Figure 6. f. There shall be no surface ponding as a result of the discharge, or direct discharge into any water body. g. The discharge shall be distributed evenly over the entire disposal area. h. There shall be no increase in the concentration of pathogenic organisms in any surface water body as a result of the discharge i. At the time of installation and commencement, the discharge shall not occur within 30 m of any bore drawing groundwater from an unconfined aquifer into which any contaminant may enter as a result of the discharge. j. The point of discharge shall be no less than 600 mm above the highest seasonal groundwater table. k. The discharge shall not result in, or contribute to, a breach of the “Drinking Water Quality Standards for New Zealand” (Ministry of Health, 2005 (Revised 2008)) in any groundwater body after reasonable mixing. l. The discharge shall not cause any emission of offensive or objectionable odour, or release of noxious or dangerous gases (including aerosols) beyond the boundary of the subject property or on any public land. m. For discharges using pit privies: i. the privy shall be constructed in soil with an infiltration rate not exceeding 150 mm/h, and ii. the privy shall not be the primary wastewater system for any permanently occupied dwelling. n. The system shall be designed, constructed, operated and maintained in a manner	... Conditions/Standards/Terms ... s. The activity is not located in a Source Protection Zone, <u>unless it is for a sewage system that is replacing an existing system with the same (or worse) sewage treatment and disposal characteristics (in which case such replacement sewage treatment system shall be permitted)</u> And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.	

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>which ensures that there is no clogging of the disposal system or soils.</p> <p>nA. The discharge shall not be into a trench or bed disposal system constructed in category 5 or 640 soil except where wastewater receives at least secondary treatment.</p> <p>o. Where the wastewater receives secondary treatment or better, the discharge shall not exceed 20 g/m³ of BOD, and 30 g/m³ of suspended solids.</p> <p>p. The wastewater treatment and land application system shall be maintained in accordance with the manufacturer's instructions, or if no manufacturer's instructions exist, in accordance with the best management practice as described in AS/NZS 1547, or TP58: On-site Wastewater Systems: Design and Management Manual (Auckland Regional Council Technical Publication No. 58), or other alternative recognised on-site wastewater design manuals. A schedule of maintenance shall be kept, and this schedule shall be available for inspection by the Regional Council upon request.</p> <p>q. The discharge shall not be disposed of by way of spray irrigation.</p> <p>r. The discharge shall not be into a raised bed.</p> <p>s. <u>The activity is not located in a Source Protection Zone</u></p>		
100	Amendments to 6.6.5 – Stormwater - Discharges to Land/Water	<p><u>Insert</u> after the heading;</p> <p><u>Rules 42 – 46 do not apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River Catchments. Refer to Section 6.10 for the new Tūtaekurī, Ahuriri, Ngaruroro and Karamū rules for stormwater.</u></p>	That proposed amendments to 6.6.5 – Stormwater - Discharges to Land/Water, be retained as notified.	
101	Amendments to 6.7.1 – Take & Use of Water	<p><u>Insert</u> after the heading;</p> <p><u>Rules 53 – 55 do not apply in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments Refer to Section 6.10 for the new Tūtaekurī, Ahuriri, Ngaruroro and Karamū rules for take and use of water.</u></p>	That proposed amendments to 6.7.1 – Take & Use of Water, retained as notified.	
102	Amendments to 6.7.3 – Transfer of Water Permits RRMP Rule 61 – Transfer of permits to take & use surface water from a river	<p>Controlled Activity The transfer of a permit to take and use surface water from a river, to another site.</p> <p>Conditions/Standards/Terms</p> <p>a. The transfer is to another site within the same stream management zone,⁴¹ where the flow is not significantly less than at the original site of abstraction.</p> <p>b. The transfer shall not result in any reduction in the rate of surface water recharge into groundwater.</p> <p>c. The transfer shall not adversely affect any lawfully established surface water abstraction, which existed prior to transfer of the take.</p> <p>d. The transfer shall not result in any increase in adverse effects on aquatic ecosystems or fish passage.</p> <p>e. The transfer is not in any Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchment</p>	<p>That proposed amendments to RRMP Rule 61 – Transfer of permits to take & use surface water from a river, be amended as follows:</p> <p>Conditions/Standards/Terms</p> <p>...</p> <p>e. The transfer is not in any Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchment <u>except that transfers of unused water allocated in water permits shall be allowed between irrigation users within the same Catchment.</u></p>	Transfers between irrigation users who are within the same Catchment should be allowed in recognition of individual and collective efforts to manage water use, make savings at times, and require more water at other times.

	Name	Provision as notified	Relief sought	Reasons for relief
		...	And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.	
10 3	Amendments to 6.7.3 – Transfer of Water Permits RRMP Rule 62 – Transfer of permits to take & use ground-water	<p>Controlled Activity The transfer of a permit to take and use groundwater, to another site.</p> <p>Conditions/Standards/Terms</p> <p>a. The transfer is to another site within the same aquifer.</p> <p>b. The transfer is to a location at which the aquifer has the same or greater aquifer transmission and storage characteristics.</p> <p>c. The transfer shall not adversely affect any lawfully established efficient groundwater abstraction,42 which existed prior to transfer of the take.</p> <p>d. The transfer shall not cause any reduction in the flow of any river or spring.</p> <p>e. The transfer is not in any Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchment</p> <p>...</p>	<p>That proposed amendments to RRMP Rule 62 – Transfer of permits to take & use ground-water, be amended as follows:</p> <p>Conditions/Standards/Terms</p> <p>...</p> <p>e. The transfer is not in any Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchment <u>except that transfers of unused water allocated in water permits shall be allowed between irrigation users within the same Catchment.</u></p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	Transfers between irrigation users who are within the same Catchment should be allowed in recognition of individual and collective efforts to manage water use, make savings at times, and require more water at other times.
10 4	Amendments to 6.7.3 – Transfer of Water Permits New RRMP Rule 62a – Transfer of permits to take and use water	<p>Controlled Activity <u>Permanent or temporary transfer of water in accordance with S136(2)(b)(i) of the RMA</u></p> <p>Conditions/Standards/Terms</p> <p>a. <u>The transfer is not part of stream flow maintenance provided by Rule TANK 18</u></p> <p>b. <u>The transfer is the whole or any part of the holder’s interest in the permit for taking and use of surface or groundwater:</u></p> <p>i. <u>To any person or occupier of the site in respect of which the permit is granted, or</u></p> <p>ii. <u>To another person on another site</u> iii. <u>To another site</u></p> <p>c. <u>The transfer is not between ground and surface water point of take.</u></p> <p>d. <u>The permit is:</u></p> <p>i) <u>within the same catchment to any point downstream (excluding downstream tributaries) of the location to which the permit applies;</u></p> <p>ii) <u>for groundwater takes in the Heretaunga Plains Water Management Unit (Quantity). the transfer is to any point downstream of any affected stream; and</u></p> <p>iii) <u>the transfer is within the same Freshwater Management Unit (Quantity)</u></p> <p>e. <u>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</u></p> <p>f. <u>The transfer does not result in an increase in nitrogen loss as specified in Table 2 in Schedule 29</u></p>	<p>That proposed new RRMP Rule 62a – Transfer of permits to take and use water, be amended as follows:</p> <p>...</p> <p>Conditions/Standards/Terms</p> <p>...</p> <p>b. The transfer is the whole or any part of the holder’s interest in the permit for taking and use of surface or groundwater:</p> <p>i. To any person or occupier of the site in respect of which the permit is granted, or</p> <p>ii. <u>To another person on another site</u></p> <p>iii. <u>To another site</u></p> <p>c. The transfer is not between ground and surface water point of take <u>except where groundwater take is affected by circumstances outside the water permit holder’s control such as structural or power failure, and/or damage of pumping or storage equipment that prevents ability to abstract or use groundwater.</u></p> <p>...</p> <p>g. All parties to the transfer shall have metering and reporting at any applicable recording and reporting level except for temporary transfers of less than <u>five days one calendar month</u> per annum.</p>	<p>The amendments to Conditions b) ii. and b) iii. would correct a formatting error.</p> <p>Regarding Condition (c), farmers may need to transfer the point of takes in situations where structural or power failure, and/or damage of pumping or storage equipment prevents ability to abstract or use groundwater. Disruptions could occur because of power, equipment or infrastructure failure or damage, caused by natural hazard events or emergency</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p><u>g. All parties to the transfer shall have metering and reporting at any applicable recording and reporting level except for temporary transfers of less than five days per annum.</u></p> <p><u>h. In fully or over-allocated management units, the transfer shall only be of that part of the permit for which there is actual and reasonable use*</u></p> <p><u>i. The purpose for the water use does not change except:</u></p> <p><u>i. that water takes for irrigation use may be transferred for irrigation of different crops subject to conditions (e) and (f)</u></p> <p><u>ii. for transfers that enable the operation of a flow enhancement scheme (ref Policy 38)</u></p> <p><u>iii. the transfer enables efficient delivery of water supply to meet the communities' human health needs.</u></p> <p>Advisory Notes</p> <ul style="list-style-type: none"> <u>Pursuant to s136(3) of the RMA, the transfer has no effect until written notice of the transfer is received by Hawkes Bay Regional Council. The HBRC will accept transfers via any website being managed for this purpose as satisfying this requirement</u> <u>Section 136(5) of the RMA provides that when notification of the transfer has occurred, the permit, or that part of the permit transferred shall be deemed to be cancelled, and the permit or part transferred shall be deemed to be a new permit subject to the same conditions as the original permit.</u> <p><u>Note that Rule TANK 5 or 6 may be triggered as a result of a transfer activity</u></p> <p>Matters for Control/Discretion</p> <p><u>a. Any applicable conditions on the permit being transferred and any water use permit at the location the water is to be transferred to.</u></p> <p><u>b. The quantity, rate and timing of the take, including rates of take and any other requirements in relation to any relevant minimum flow or level or allocation limit or drawdown effects, including in relation to any Source Protection Zone for a registered drinking water supply.</u></p> <p><u>c. Compliance with any applicable minimum flows and levels including flow maintenance in any applicable stream</u></p>	<p><u>h. In fully or over-allocated management units, the transfer shall only be of that part of the permit for which there is actual and reasonable use* <u>except that transfers of unused water allocated in water permits shall be allowed between irrigation users within the same Catchment.</u></u></p> <p><u>i. The purpose for the water use does not change except:</u></p> <p><u>i. that water takes for irrigation use may be transferred for irrigation of different crops subject to conditions (e), and (f) and (h).</u></p> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>incidents, or acts of sabotage.</p> <p>Regarding Condition g), 5 days per annum is inadequate for temporary transfers for farmers. Drought may require longer than this</p> <p>Regarding Condition (h), transfers between irrigation users who are within the same Catchment should be allowed in recognition of individual and collective efforts to manage water use, make savings at times, and require more water at other times.</p> <p>The change to Condition (i) i is consequential to our relief sought for Condition (h).</p>
10 5	Amendments to 6.7.3 – Transfer of Water Permits New RRMP Rule 62b – Permanent or temporary transfer of water	<p>Discretionary Activity <u>Permanent or temporary transfer of water in accordance with S136(2)(b)(i) of the RMA</u></p> <p>Conditions/Standards/Terms</p> <p><u>a. The transfer is the whole or any part of the holder's interest in the permit for taking and use of surface or groundwater that does not comply with Rule 62a</u></p>	<p>That proposed new RRMP Rule 62b – Permanent or temporary transfer of water, be amended as follows:</p> <p>Discretionary Activity <u>Permanent or temporary transfer of water in accordance with S136(2)(b)(i) of the RMA that does not comply with Rule 62a.</u></p>	<p>The relief sought here is consequential to our relief sought for Rule 62a.</p>

	Name	Provision as notified	Relief sought	Reasons for relief
			... And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.	
10 6	Amendments to 6.8.2 – Erection & Placement of Dams & Other Barrier Structures, & Damming of Water	<u>Insert</u> after the heading; <u>Rule 69 does not apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments. Refer to Section 6.10 for the new Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchment rules for dams and damming.</u>	That proposed amendments to 6.8.2 – Erection & Placement of Dams & Other Barrier Structures, & Damming of Water, be retained as notified.	
10 7	Amendments to 6.8.2 – Erection & Placement of Dams & Other Barrier Structures, & Damming of Water RRMP Rule 67 – Dams, weirs & other barrier structures in rivers, lakes and artificial water – course	Permitted Activity The erection or placement of any dam, weir or other barrier structure in, on, under, or over the bed of a river, lake and artificial watercourse, and: <ul style="list-style-type: none"> • any associated damming or diversion of water, and • any associated discharge of sediment; and • any associated disturbance of the river or lake bed. <u>This permitted activity does not apply to the erection of dams on the mainstem of any river where it is prohibited by Rule TANK 17</u> ...	That proposed amendments to RRMP Rule 67 – Dams, weirs & other barrier structures in rivers, lakes and artificial water – course, be amended as follows: Permitted Activity The erection or placement of any dam, weir or other barrier structure in, on, under, or over the bed of a river, lake and artificial watercourse, and: <ul style="list-style-type: none"> • any associated damming or diversion of water, and • any associated discharge of sediment; and • any associated disturbance of the river or lake bed. This permitted activity does not apply to the erection of dams on the mainstem of any river managed under Rule 6.10 where it is prohibited by Rule TANK 17 ... And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.	It is inappropriate to prohibit damming in the TANK catchment river mainstems. A resource consent framework should be able to appropriately address relevant issues. Prohibited activity status would prematurely foreclose the possibility of considering dams in mainstem areas which might be necessary for long term security of supply of water in the foreseeable future.
10 8	Amendments to 6.8.2 – Erection & Placement of Dams & Other Barrier Structures, & Damming of Water RRMP Rule 69 – River & lake bed activities that are	Discretionary Activity Any activity which cannot comply with any of the rules in section 6.8 of this Plan and which is not expressly regulated by other rules in this Plan. <u>This rule does not apply to rivers in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments (refer Rules TANK 13 – 17)</u>	That proposed amendments to w RRMP Rule 69 – River & lake bed activities that are not expressly regulated by other rules, be amended as follows: Discretionary Activity Any activity which cannot comply with any of the rules in section 6.8 of this Plan and which is not expressly regulated by other rules in this Plan.	It is inappropriate to prohibit damming in the TANK catchment river mainstems. A resource consent framework should be able to appropriately address relevant issues. Prohibited

	Name	Provision as notified	Relief sought	Reasons for relief
	not expressly regulated by other rules		<p>This rule does not apply to rivers in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments (refer Rules TANK 13 – 1716)</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>activity status proposed on Rule TANK 17 would prematurely foreclose the possibility of considering dams in mainstem areas which might be necessary for long term security of supply of water in the foreseeable future.</p>
109	Amendments to 6.8.3 – River Control & Drainage Works & Structures RRMP Rule 71 – Activities affecting river control & drainage schemes	<p>Discretionary Activity Any of the following activities, where they are undertaken by persons other than the local authority or persons acting on their behalf, within a land drainage or flood control scheme area that is managed by a local authority exercising its powers, functions and duties under the Soil Conservation and Rivers Control Act 1941, the Land Drainage Act 1908, or the Local Government Act 1974:</p> <ul style="list-style-type: none"> The introduction or planting of any plant including any tree in, on, or under the bed of any river, lake or artificial water course, or within 6 metres of the bed <u>except for riparian vegetation established to provide shade in the Karamū catchments.</u> <p>...</p>	That proposed amendments to RRMP Rule 71 – Activities affecting river control & drainage schemes, be retained as notified.	
110	Schedule 26	<p>Water Quality Objective/Target for Water Clarity</p> <p>Water clarity for Lower Ngaruroro and Lower Tūtaekurī Rivers: ≥ 3.75m</p> <p>Water clarity for Ngaruroro and Tūtaekurī tributaries: ≥ 3.75m</p>	<p>That the following amendments be made to Schedule 26:</p> <p>Water Quality Objective/Target</p> <p>Water clarity for Lower Ngaruroro and Lower Tūtaekurī Rivers <u>except for Ngaruroro River at Fernhill</u>: ≥ 3.75m</p> <p>Water clarity for Ngaruroro and Tūtaekurī tributaries, <u>except for Tutaekuri Waimate Stream at Chesterhope, Mangatutu Stream at Mangatutu Stream Bridge, Mangaone River at Rissington</u>: ≥ 3.75m</p> <p><u>Water clarity for Ngaruroro River at Fernhill, Tutaekuri Waimate Stream at Chesterhope, Mangatutu Stream at Mangatutu Stream Bridge, Mangaone River at Rissington: Current State or ≥ 1.6m, whichever is the lesser.</u></p>	<p>The NPSFM 2020 requires 80% of rivers and lakes suitable for Primary Contact by 2030 and 90% by no later than 2040. ANZECC (2000) defines minimum water clarity of 1.6m for contact recreation waters.</p> <p>HBRC State and Trend information (2020) shows that Ngaruroro River at Fernhill, Tutaekuri Waimate Stream at Chesterhope, Mangatutu Stream at Mangatutu Stream</p>

	Name	Provision as notified	Relief sought	Reasons for relief
			<p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Bridge, Mangaone River at Rissington are currently well below 3.75m water clarity.</p> <p>The 3.75m target is targeted at Trout Fishery values. However, not enough is understood about the reasons for the current state of water clarity in the Lower Ngaruroro and Lower Tūtaekurī Rivers and their tributaries to be able to realistically target 3.75m. This target is highly aspirational and unlikely to be realistically achievable.</p>
11 1	Schedule 26	<p>Water Quality Objective/Target for Deposited Sediment</p> <p>Deposited Sediment for Upper Ngaruroro and Upper Tūtaekurī Rivers: < 20% / < 15% (May-Oct)</p> <p>Deposited Sediment for Lower Ngaruroro and Lower Tūtaekurī Rivers: < 20 %</p> <p>Deposited Sediment for Ngaruroro and Tūtaekurī Tributaries: < 20 %</p> <p>Deposited Sediment for Lowland tributaries: < 20 %</p>	<p>That Water quality Objective/Target for deposited sediment be deleted or aligned with National Bands in the NPS FM 2020.</p>	<p>Water quality Objective/Target for deposited sediment should be aligned with National Bands in the NPS FM 2020.</p>
11 2	Schedule 26	<p>Water Quality Objective/Target for Periphyton cover</p> <p>Periphyton cover (seasonal max, %PeriWCC) for Upper Ngaruroro and Upper Tūtaekurī Rivers: ≤ 20 %</p> <p>Periphyton cover (seasonal max, %PeriWCC) for Lower Ngaruroro and Lower Tūtaekurī Rivers: ≤ 30 %</p> <p>Periphyton cover (seasonal max, %PeriWCC) for Ngaruroro and Tūtaekurī Tributaries:</p>	<p>That Water Quality Objective/Target for Periphyton cover be amended as follows:</p> <p>...</p> <p>Periphyton cover (seasonal max, %PeriWCC) for Ngaruroro and Tūtaekurī Tributaries <u>except for Maraekakaho Stream</u>: ≤ 30 %</p> <p><u>Periphyton cover (seasonal max, %PeriWCC) for Maraekakaho Stream</u>: > 40% and ≤ 80 %</p>	<p>The NPSFM 2020 requires 80% of rivers and lakes suitable for Primary Contact by 2030 and 90% by no later than 2040. Planktonic attribute states (including periphyton) apply to</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		≤ 30 %	<p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>lakes and river-fed lakes. The NPS 2020 requires water quality attributes to be maintained or enhanced, and only requires water quality to be lifted out of the NOF 'D' band.</p> <p>HBRC State and Trend information (2020) puts the Maraekakaho River in the NOF 'B' band. Requiring it to shift into the 'A' band by 2040 is unlikely to realistically achievable. But maintaining it in the 'B' band is realistic.</p> <p>(Whereas for the other Ngaruroro and Tūtaekurī Tributaries that HBRC monitors, periphyton cover already appears to be in the 'A' band, and are mostly ≤ 30 %.)</p>
11 3	Schedule 26	<p>Water Quality Objective/Target for DIN (mg/L)</p> <p>DIN (mg/L) for Upper Ngaruroro and Upper Tūtaekurī Rivers: < 0.05 mg/L</p> <p>DIN (mg/L) for Lower Ngaruroro and Lower Tūtaekurī Rivers: < 0.15 mg/L</p> <p>DIN (mg/L) for Ngaruroro and Tūtaekurī Tributaries: < 0.3 mg/L</p> <p>DIN (mg/L) for Lowland tributaries < 0.444 mg/L</p>	<p>That Water Quality Objective/Target for DIN be amended as follows:</p> <p>...</p> <p>DIN (mg/L) for Lower Ngaruroro and Lower Tūtaekurī Rivers <u>except for Tūtaekurī River U/S Mangaone River and Tūtaekurī River at Brookfields Bridge</u>: < 0.15 mg/L</p> <p><u>DIN (mg/L) for Tūtaekurī River U/S Mangaone River and Tūtaekurī River at Brookfields Bridge</u>: < 0.25 mg/L</p> <p>...</p>	<p>The NPSFM 2020 requires water quality attributes to be maintained or enhanced, and only requires water quality to be lifted out of the NOF 'D' band.</p> <p>HBRC State and Trend information (2020) indicates that the Ngaruroro River</p>

	Name	Provision as notified	Relief sought	Reasons for relief
			<p>DIN (mg/L) for Ngaruroro and Tūtaekurī Tributaries <u>except Poporangi Stream, Ohiwia Stream, Mangatutu Stream and Mangaone River at Rissington: < 0.3 mg/L</u></p> <p><u>DIN (mg/L) for Poporangi Stream, Ohiwia Stream, Mangatutu Stream and Mangaone River at Rissington: < 0.5 mg/L</u></p> <p>..</p> <p>DIN (mg/L) for Lowland tributaries < <u>0.75mg/L</u></p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Tūtaekurī River and their estuaries are all within the NOF 'A' Band for the DIN attribute, but that the targets for some monitoring sites in the TANK Plan as notified are too ambitious in the short-to-medium term. The targets in Schedule 26 should be adjusted to reflect current state and trend information as a starting point for managing water quality for DIN. Otherwise the plan risks focussing too much on striving to achieve unrealistic objectives in some places when management resources could be focused on higher priorities.</p>
11 4	Schedule 26	<p>Water Quality Objective/Target for DRP (mg/L)</p> <p>DRP (mg/L) for Upper Ngaruroro and Upper Tūtaekurī Rivers: < 0.003 mg/L</p> <p>DRP (mg/L) for Lower Ngaruroro and Lower Tūtaekurī Rivers: < 0.015 mg/L</p> <p>DRP (mg/L) for Ngaruroro and Tūtaekurī Tributaries: < 0.015 mg/L</p> <p>DRP (mg/L) for Lowland tributaries: < 0.015 mg/L</p>	<p>That Water Quality Objective/Target for DIN be amended as follows:</p> <p>...</p> <p>DRP (mg/L) for Lower Ngaruroro and Lower Tūtaekurī Rivers <u>except Ngaruroro at Chesterhope, Tūtaekurī US Mangaone and Tūtaekurī at Brookfields Bridge</u> : < 0.015 mg/L</p> <p><u>DRP (mg/L) for Ngaruroro at Chesterhope, Tūtaekurī US Mangaone and Tūtaekurī at Brookfields Bridge</u> : < 0.026 mg/L</p> <p>...</p>	<p>The NPSFM 2020 requires water quality attributes to be maintained or enhanced, and only requires water quality to be lifted out of the NOF 'D' band.</p> <p>HBRC State and Trend information (2020) indicates that the DRP targets for some monitoring sites in the</p>

	Name	Provision as notified	Relief sought	Reasons for relief
			<p>DRP (mg/L) for Ngaruroro and Tūtaekurī Tributaries <u>except Mangatutu Stream and Mangaone River at Rissington</u>: < 0.015 mg/L</p> <p><u>DRP (mg/L) for Mangatutu Stream and</u>: < 0.026 mg/L</p> <p><u>DRP (mg/L) for Mangaone River at Rissington</u>: < 0.034 mg/L</p> <p>DRP (mg/L) for Lowland tributaries: < 0.015 <u>0.030</u> mg/L</p> <p>And that Schedule 26 be otherwise aligned with the NPS FM 2020.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>TANK Plan as notified are too ambitious in the short-to-medium term. The targets in Schedule 26 should be adjusted to reflect current state and trend information as a starting point for managing water quality for DRP. Otherwise the plan risks focussing too much on striving to achieve unrealistic objectives in some places, when management resources could be focused on higher priorities.</p>
115	Schedule 26	<p>Water Quality Objective/Target for E. coli (cfu/100 ml)</p> <p>Upper Ngaruroro and Upper Tūtaekurī Rivers: <5% over 260/100ml, median < 130/100ml</p> <p>Lower Ngaruroro and Lower Tūtaekurī Rivers: <5% over 540/100ml <20% over 260/100ml, median < 130/100ml</p> <p>Ngaruroro and Tūtaekurī Tributaries: <5% over 540/100ml <20% over 260/100ml, median < 130/100ml</p> <p>Lowland tributaries: <5% over 1000/100ml, median < 130/100ml <30% over 260/100ml <10% over 540/100ml</p>	<p>That Water Quality Objective/Target for E. coli be amended to specify application to rivers and tributaries stream order 4 or greater.</p> <p>And that Schedule 26 be otherwise aligned with the NPS FM 2020.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>The standards proposed in this schedule are the NOF swimming standards. But in the NOF, these are applied to rivers that are Stream Order 4 or greater. Therefore, for these standards to be meaningfully applied in the TANK Plan, they should also only apply to Stream Order 4 or greater.</p>
116	Schedule 26	<p>Water Quality Objective/Target for Dissolved oxygen (mg/L or %) from continuous data</p> <p>Upper Ngaruroro and Upper Tūtaekurī Rivers, Lower Ngaruroro and Lower Tūtaekurī Rivers, Ngaruroro and Tūtaekurī Tributaries: ≥8 (7-d mean min) / ≥7.5 (1-d min) / (≥80% saturation)</p>	<p>That Water Quality Objective/Target for Dissolved oxygen (mg/L or %) from continuous data be retained as notified</p> <p>And that Schedule 26 be otherwise aligned with the NPS FM 2020.</p>	<p>These standards should be aligned with the National Objective Framework in the NPSFM</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		Lowland tributaries: ≥ 5 (7-d mean min) / ≥ 4 (1-d min)	And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.	
11 7	Schedule 26	<p>Water Quality Objective/Target for Temperature (°C) 5-day CRI from continuous data</p> <p>Upper Ngaruroro and Upper Tūtaekurī Rivers: $\leq 1^\circ\text{C}$ increment compared to reference state</p> <p>Lower Ngaruroro and Lower Tūtaekurī Rivers: $\leq 2^\circ\text{C}$ increment compared to reference state</p> <p>Ngaruroro and Tūtaekurī Tributaries: $\leq 2^\circ\text{C}$ increment compared to reference state</p> <p>Lowland tributaries: $\leq 2^\circ\text{C}$ increment compared to reference state</p>	<p>That Water Quality Objective/Target for Temperature (°C) 5-day CRI from continuous data be retained as notified</p> <p>And that Schedule 26 be otherwise aligned with the NPS FM 2020.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	These standards should be aligned with the National Objective Framework in the NPSFM
11 8	Schedule 26	<p>Water Quality Objective/Target for pH</p> <p>Upper Ngaruroro and Tūtaekurī: 6.5 – 8.</p> <p>All areas (not upper Ngaruroro and Tūtaekurī): 6.5- 8.5</p>	<p>That Water Quality Objective/Target for pH be retained as notified</p> <p>And that Schedule 26 be otherwise aligned with the NPS FM 2020.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	These standards should be aligned with the National Objective Framework in the NPSFM
11 9	Schedule 26	<p>Water Quality Objective/Target for BOD (ScBOD₅)</p> <p>All areas: <2 mg/l</p>	<p>That Water Quality Objective/Target for BOD (ScBOD₅) be retained as notified</p> <p>And that Schedule 26 be otherwise aligned with the NPS FM 2020.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	These standards should be aligned with the National Objective Framework in the NPSFM
12 0	Schedule 26	<p>Water Quality Objective/Target for Heavy metals and metalloids, pesticides and organic contaminants, radioactive contaminants</p> <p>Upper Ngaruroro and Upper Tūtaekurī Rivers: 99% species protection</p> <p>All areas (not upper Ngaruroro and Tūtaekurī): 95% species protection</p>	<p>That Water Quality Objective/Target for Heavy metals and metalloids, pesticides and organic contaminants, radioactive contaminants be retained as notified</p> <p>And that Schedule 26 be otherwise aligned with the NPS FM 2020.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	These standards should be aligned with the National Objective Framework in the NPSFM

	Name	Provision as notified	Relief sought	Reasons for relief
12 1	Schedule 26	<p>Water Quality attribute for Guideline value for any aesthetic determinand (Drinking Water Standards for New Zealand DWSNZ)</p> <p>Groundwater quality all areas: Within guidelines specified in the NZ Drinking Water Standards</p>	<p>That Water Quality attribute for Guideline value for any aesthetic determinand (Drinking Water Standards for New Zealand DWSNZ) be retained as notified</p> <p>And that Schedule 26 be otherwise aligned with the NPS FM 2020.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>These standards should be aligned with the National Objective Framework in the NPSFM</p>
12 2	Schedule 26	<p>Water Quality Objective/Target for E. coli (maximum concentration per 100mls)</p> <p>E. coli for Groundwater quality all Areas: <1 E.coli/100ml</p>	<p>That Water Quality Objective/Target for E. coli be retained as notified.</p> <p>And that Schedule 26 be otherwise aligned with the NPS FM 2020.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>These standards should be aligned with the National Objective Framework in the NPSFM</p>
12 3	Schedule 26	<p>Water Quality Objective/Target for Nitrate- nitrogen (concentration of nitrate-nitrogen (mg N-NO₃ /l))</p> <p>Nitrate- nitrogen (concentration of nitrate- nitrogen (mg N-NO₃ /l) for Groundwater quality all areas: <1mg/l</p>	<p>That Water Quality Objective/Target for Nitrate- nitrogen (concentration of nitrate- nitrogen (mg N-NO₃ /l) be retained as notified.</p> <p>And that Schedule 26 be otherwise aligned with the NPS FM 2020.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>These standards should be aligned with the National Objective Framework in the NPSFM</p>
12 4	Schedule 27	<p>Freshwater Quality Objectives</p> <p>Schedule 27 does not have a regulatory function. It is not a statutory requirement and is an optional provision. However, it is included because it satisfies cultural and social needs for a long term and more integrated approach to the way freshwater is managed. It also provides additional direction for the monitoring and research efforts of the Council. This is particularly relevant for the integration of freshwater and estuary ecosystems.</p> <p>...</p>	<p>That Schedule 27 be deleted</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>This schedule and the accompanying objective OBJ TANK 6 does not add anything practical to the goals of the plan change. Long term goals should be set as part of implementing the NPSFM 2020.</p>
12 5	Schedule 28	<p>Priority Catchments</p> <p>Refer to Rule TANK 1.</p>	<p>That Schedule 28 be amended as follows:</p> <p>...</p>	<p>The catchment maps available on the</p>

	Name	Provision as notified	Relief sought	Reasons for relief																																			
		<p>This schedule sets out the list of priority catchments or places that are where there is;</p> <ol style="list-style-type: none"> 1. Risk of sediment loss is higher than 500t/km²/year (as modelled by SedNet) 2. SOE monitoring shows the freshwater objectives for nitrogen concentrations for water quality are not being met 3. Probability that dissolved nutrients do not meet freshwater objectives for nitrogen (as modelled by SOURCE and using Overseer data) 4. The level of dissolved oxygen (specific for lowland streams with slope <2 m/km) 5. A Source Protection Zone <p>The priority order assigned in relation to each of these water quality issues is as follows;</p> <table border="1"> <thead> <tr> <th></th> <th>High priority</th> <th>Medium priority</th> <th>Low priority</th> <th>Long term</th> </tr> </thead> <tbody> <tr> <td>Sediment yield (SedNet)</td> <td>>500 t/km²/year</td> <td>350 - 500 t/km²/year</td> <td>250 - 350 t/km²/year</td> <td><250 t/km²/year</td> </tr> <tr> <td>TN concentrations (all flows, median)</td> <td>> 2 mg/L</td> <td>> 1.2 mg/L</td> <td>> 1 mg/L</td> <td><1 mg/L</td> </tr> <tr> <td>TN yield (modelled) (all flows, average per sub-catchment)</td> <td>> 10kg/ha/yr</td> <td>> 3.5 kg/ha/yr</td> <td>> 1.2 kg/ha/yr</td> <td>≤1.2 kg/ha/yr</td> </tr> <tr> <td>Dissolved Oxygen levels Class A streams (and /or where stream gradient <2m/km)</td> <td>anoxia (periods of little or no oxygen)</td> <td>< 3 mg/L daily minimum and/or DO saturation <30%</td> <td>< 4mg/L daily minimum and/or DO saturation < 40%</td> <td>< 6 mg/L daily minimum and/or DO saturation <60%</td> </tr> </tbody> </table> <p>Catchment maps showing spatial extent and location of the priority areas are available as part of this plan change but are not included as planning maps. This is because the thresholds for priority will remain fixed, however the status of catchments will change over time as work is completed within the catchment.</p> <p>Farm Environment and Catchment Collective Plans and Industry Programmes are to be completed in the following priority order; High, Medium and Low Priority over the first 3, 6 and 9 years respectively following <the operative date> of the plan (although work can commence at any time and farmers will be encouraged to start with their</p>		High priority	Medium priority	Low priority	Long term	Sediment yield (SedNet)	>500 t/km ² /year	350 - 500 t/km ² /year	250 - 350 t/km ² /year	<250 t/km ² /year	TN concentrations (all flows, median)	> 2 mg/L	> 1.2 mg/L	> 1 mg/L	<1 mg/L	TN yield (modelled) (all flows, average per sub-catchment)	> 10kg/ha/yr	> 3.5 kg/ha/yr	> 1.2 kg/ha/yr	≤1.2 kg/ha/yr	Dissolved Oxygen levels Class A streams (and /or where stream gradient <2m/km)	anoxia (periods of little or no oxygen)	< 3 mg/L daily minimum and/or DO saturation <30%	< 4mg/L daily minimum and/or DO saturation < 40%	< 6 mg/L daily minimum and/or DO saturation <60%	<p>Catchment maps showing spatial extent and location of the priority areas are available as part of this plan change but are not included as planning maps. This is because the thresholds for priority will remain fixed, however the status of catchments will change over time as work is completed within the catchment.</p> <p>Farm Environment and Catchment Collective Plans and Industry Programmes are to be completed in the following priority order; High, Medium and Low Priority over the first 3, 6 and 9 years respectively following <the operative date> of the plan (although work can commence at any time and farmers will be encouraged to start with their own programme as soon as possible).</p> <p>...</p> <table border="1"> <thead> <tr> <th></th> <th>High priority</th> <th>Medium priority</th> <th>Low priority</th> <th>Long term</th> </tr> </thead> <tbody> <tr> <td>TN yield (modelled) (all flows, average per sub-catchment)</td> <td>> 10kg/ha/yr</td> <td>> 3.5 kg/ha/yr</td> <td>> 1.2 kg/ha/yr</td> <td>≤1.2 kg/ha/yr</td> </tr> </tbody> </table> <p>...</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>		High priority	Medium priority	Low priority	Long term	TN yield (modelled) (all flows, average per sub-catchment)	> 10kg/ha/yr	> 3.5 kg/ha/yr	> 1.2 kg/ha/yr	≤1.2 kg/ha/yr	<p>Council website do not correspond with 2020 HBRC state and trend information about water quality attributes, and all reference to them should be removed from the proposed TANK plan</p> <p>TN Yield should not be a trigger for catchment management priority. TN Yield is an estimate of N-loss below the root zone, for the purpose of adjusting application of nitrogen to manage TN concentration within waterways and water bodies. TN Yield itself does not determine management priority as-such, but rather is a target for managing application of nitrogen to reduce TN concentration in waterways where it is at levels that would result in environmental degradation.</p>
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12 6	Schedule 29	<p>Land Use Change</p> <p>If the use of production land on farm properties or farming enterprises in the TANK catchments changes over more than 10 hectares per property , information may be requested from the landowner or land manager to demonstrate or model the annual Nitrogen loss (using Overseer or SPASMO or alternative model approved by HBRC) in order to;</p> <ol style="list-style-type: none"> show compliance with the requirements of Rules TANK 5 and 6 enable Policies 18 and 21 to be implemented assist landowners to implement the requirements of Schedule 30 <p>Calculation of changes to the annual nitrogen loss on a whole of property or whole of farming enterprise basis will be based on the data in Table 1 unless more accurate model data specific for the property in question is available.</p> <p>Table 2 specifies the allowable change in nitrogen load. The loads are calculated according to the following formula. For each column; the value given is the maximum difference between the highest and lowest Nitrogen loss x 10ha.</p> <p>Where the land use activity involves arable or vegetable cropping including grazing on a rotational basis, including on lease land at variable locations, production land use change does not include a change in the location of an arable and/or vegetable cropping rotation, where the area of the rotation is equivalent, (plus 10 ha) of the maximum rotation area in the 5 years prior to the plan notification</p> <p>table 1: Nitrogen Losses for Production Land</p> <table border="1"> <thead> <tr> <th rowspan="2">Land Use Type</th> <th rowspan="2">TN Load (kg/ha/y) (Overseer)</th> <th colspan="3">TN Load (kg/ha/y) SPASMO</th> </tr> <tr> <th>Esk/Omahu/Pakipaki Soils</th> <th>Average Other soils</th> <th>Farndon/Omarunui/TeAw a soils</th> </tr> </thead> <tbody> <tr> <td>Beef</td> <td>20</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Dairy</td> <td>32</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Scrub or tree cover</td> <td>3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Mixed sheep, beef and deer</td> <td>13</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Kiwifruit</td> <td></td> <td>9</td> <td>13</td> <td>23</td> </tr> <tr> <td>Pipfruit</td> <td></td> <td>9</td> <td>15</td> <td>24</td> </tr> <tr> <td>Summer fruit</td> <td></td> <td>9</td> <td>14</td> <td>23</td> </tr> <tr> <td>Grapes</td> <td></td> <td>1</td> <td>9</td> <td>18</td> </tr> <tr> <td>Winter forage crops</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Land Use Type	TN Load (kg/ha/y) (Overseer)	TN Load (kg/ha/y) SPASMO			Esk/Omahu/Pakipaki Soils	Average Other soils	Farndon/Omarunui/TeAw a soils	Beef	20				Dairy	32				Scrub or tree cover	3				Mixed sheep, beef and deer	13				Kiwifruit		9	13	23	Pipfruit		9	15	24	Summer fruit		9	14	23	Grapes		1	9	18	Winter forage crops					<p>That Schedule 29 be amended as follows:</p> <p>If the use of production land on farm properties or farming enterprises in the TANK catchments changes over more than 10 hectares per property <u>results in intensification of the stock unit rate by more than 10% per 5-year-period in sub-catchments where TN concentration in surfacewater bodies is already in the NOF D-Band, or is at risk of degradation below current state for TN concentration,</u> information may be requested from the landowner or land manager to demonstrate or model the annual Nitrogen loss (using Overseer or SPASMO or alternative model approved by HBRC) in order to;</p> <ol style="list-style-type: none"> show compliance with the requirements of Rules TANK 5 and 6 enable Policies 18 and 21 to be implemented assist landowners to implement the requirements of Schedule 30 <p>Calculation of changes to the annual nitrogen loss on a whole of property or whole of farming enterprise basis will be based on the data in Table 1 unless more accurate model data specific for the property in question is available.</p> <p>Table 2 specifies the allowable change in nitrogen load. 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There are too many variables affecting nutrient yield be confident that pursuing assessments when this threshold is triggered, will be a worthwhile expenditure of resources. HBRC has opted for a staged adaptive management approach (as stated in the s32 report accompanying the notified plan change). Therefore, any threshold for triggering assessment should be related to <i>long term intensification</i> (as opposed to short-term changes). Short-term changes may be necessary for several reasons, including having to de-stock and restock because of disruptions such as pandemics or drought. These could affect N load 'changes' in shorter timeframes. Also, the TN Load (kg/ha/year) allowances for different stock unit</p>
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		<table border="1"> <tr> <td>Arable/vegetable rotation</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p>Table 2 – Nitrogen Loss Thresholds per Property or Farm Enterprise (ref TANK Rule 5)</p> <table border="1"> <thead> <tr> <th colspan="4">Annual Nitrogen loss change threshold (kg/y)</th> </tr> <tr> <th></th> <th>Esk/Omahu/Pakipaki Soil types</th> <th>Other soils</th> <th>Farndon/Omarunui/Te Awa soil types</th> </tr> </thead> <tbody> <tr> <td>Unirrigated land uses</td> <td>290</td> <td></td> <td></td> </tr> <tr> <td>Irrigated land uses</td> <td>80</td> <td>240</td> <td>430</td> </tr> </tbody> </table> <p>Change between non-irrigated and irrigated land uses will be subject to a maximum permitted change of 290 (kg/ y) using SPASMO to calculate the change.</p>	Arable/vegetable rotation					Annual Nitrogen loss change threshold (kg/y)					Esk/Omahu/Pakipaki Soil types	Other soils	Farndon/Omarunui/Te Awa soil types	Unirrigated land uses	290			Irrigated land uses	80	240	430	<table border="1"> <tr> <td></td> <td></td> </tr> <tr> <td>Beef</td> <td>20-30</td> </tr> <tr> <td>Dairy</td> <td>32-40</td> </tr> <tr> <td>Scrub or tree cover</td> <td>3-4</td> </tr> <tr> <td>Mixed sheep, beef and deer</td> <td>13-20</td> </tr> <tr> <td>Winter forage crops</td> <td></td> </tr> <tr> <td>Arable/vegetable rotation</td> <td></td> </tr> </table> <p>Table 2...</p> <table border="1"> <thead> <tr> <th></th> <th>Annual Nitrogen loss change threshold (kg/y)</th> </tr> </thead> <tbody> <tr> <td>Unirrigated land uses</td> <td>290</td> </tr> </tbody> </table> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>			Beef	20-30	Dairy	32-40	Scrub or tree cover	3-4	Mixed sheep, beef and deer	13-20	Winter forage crops		Arable/vegetable rotation			Annual Nitrogen loss change threshold (kg/y)	Unirrigated land uses	290	<p>types are too conservative for a 'staged adaptive management approach'. These limits may have the perverse effect of preventing farmers from adapting, and in any event are unnecessary given the low TM concentrations evident in HRBC's 2020 TANK State and Trend reporting. More liberal limits are preferred, so that a staged adaptive management approach can be evaluated in a way that gives farmers latitude to plan and adapt.</p> <p>Requirements for Farm Environment Plans, Catchment Collective Plans, or approved Industry Programmes targeted at reducing TN concentration in surface water and/or groundwater FMUs should only apply in sub-catchments where TN concentration is at risk of overall degradation below current state (other than where TN is already with the NOF D-Band, where all such plans should be required anyway).</p>
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				<p>Given that Clause 33 of the NES for Freshwater Regulations (2020) sets a 190kg/ha/year cap for synthetic nitrogen fertiliser, and that HBRC State and Trend Reports (2020) indicates that there is no evident N pollution problem in the TANK catchment, a 290kg/ha/year N limit for unirrigated land uses is superfluous and unnecessary and such limit should be deleted.</p>
127	Schedule 30	<p>Landowner Collective, Industry Programme and Farm Environment Plan</p> <p>The TANK Plan provides for an Industry Group or a Catchment Collective to work collectively on behalf of their members to meet local water quality and environmental objectives. Alternatively, landowners may also prepare an individual Farm Environment Plan.</p> <p>This schedule sets out the requirements for the establishment of a TANK Industry Group or TANK Catchment Collective their operation and their environment plan in order for them to be approved by the Hawke’s Bay Regional Council. It also sets out the requirements for Farm Environment Plans. Heretaunga Plains Water Management Unit.</p> <p>In the Heretaunga Plains Water Management Unit, requirements for stream flow enhancement will be imposed through conditions of a water permit. Management of a stream flow enhancement scheme is not required to be done by water permit holders acting collectively, however, an Environmental Management Plan can address collective management of any flow enhancement scheme and also address water quality issues according to Sections A and B at the same time.</p> <p>Industry Groups and Catchment Collectives A TANK Industry Group or a TANK Catchment Collective must meet the requirements set out in Section A below.</p>	<p>That Schedule 30 be amended as follows:</p> <p>...</p> <p>Industry Programme or Catchment Collective Programme</p> <p>...</p> <p>This programme must identify the key water quality and water quantity management issues identified in this Plan that are relevant to;</p> <ul style="list-style-type: none"> • the catchment(s) <u>or sub-catchment(s) where:</u> <ul style="list-style-type: none"> • <u>there is a significant risk of degradation of water quality attributes or where water quality attributes are within the NOF D-Band, or</u> • <u>there is overallocation of water.</u> • the nature of the land and water use activities carried out within that catchment • the scale of the effects on water quality or water quantity from the land and water use activities in that catchment <p>The Programme will describe an environmental management strategy relevant to the freshwater water management objectives where the member properties are located <u>that demonstrates:</u></p>	<p>The focus of this whole section should be on requiring catchment collective plans of Industry Programmes or Farm Environment Plans only in catchment(s) or sub-catchment(s) where:</p> <ul style="list-style-type: none"> • there is a significant risk of degradation of water quality attributes or where water quality attributes are within the NOF D-Band, or • there is overallocation of water. <p>In regard to 2.2 b)(ii), LUC is not an</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>Industry Programme or Catchment Collective Programme Each TANK Industry or TANK Catchment Collective must prepare an Industry Programme or Catchment Collective Programme that meets the requirements set out in Section B below. This programme must identify the key water quality and water quantity management issues identified in this Plan that are relevant to;</p> <ul style="list-style-type: none"> • the catchment(s) • the nature of the land and water use activities carried out within that catchment • the scale of the effects on water quality or water quantity from the land and water use activities in that catchment <p>The Programme will describe an environmental management strategy relevant to the freshwater water management objectives where the member properties are located. An Industry Programme can be based on existing good agricultural practice industry programmes, and will in addition need to address local water quality and quantity issues.</p> <p>A summary of the Programme objectives and outputs will be made publicly available through the Council website.</p> <p>Any TANK Programme prepared in accordance with Schedule 30 may include or contribute to other initiatives or objectives (such as in relation to farm production, pest control, biodiversity or other land management issue) as desired by the Catchment Collective or Industry Programme. These aspects are not subject to the Council's approval, but may be a means of enabling integrated land and water management for a wider range of management objectives.</p> <p>Farm Environment Plan The requirements of the Farm Environment Plan are set out in Section C below.</p> <p>Programme Requirements</p> <p>Section A: Industry Groups and Catchment Collectives</p> <p>1. Governance and Management</p> <p>1.1 Each Catchment Collective or Industry Group must undertake to carry out the requirements of Sections A and B and must specify in writing the manner in which it will carry this out. This must address the following:</p> <p>Details relating to the governance and management arrangements of the Programme including:</p> <ul style="list-style-type: none"> a) How decisions are to be made and how the requirements of Section B will be carried out including obligations by members to carry out the property specific requirements b) Conditions of membership of the Programme by individual land managers 	<ul style="list-style-type: none"> a) <u>how water quality attributes will be prevented from overall degradation (or how water quality attributes will be improved out of the NOF D-Band).</u> b) <u>how water overallocation will be reduced</u> <p><u>Permitted activity takes and takes under RMA section 14(3)(b) shall not be affected by measures required to address b) above.</u></p> <p>...</p> <p>2.2 The Plan must address where appropriate;</p> <p>...</p> <ul style="list-style-type: none"> b) where water quality does not meet standards in Schedule 26, identifying how there will be reductions in losses that contribute to meeting the specified water quality including, where appropriate, reference to; <p>...</p> <ul style="list-style-type: none"> (ii) LUC (Land Use Capability) and soil type; <p>...</p> <ul style="list-style-type: none"> (iv) Stock management including <u>increases in rates and densities of different classes of stock;</u> <p>...</p> <ul style="list-style-type: none"> g) management of stock, including in relation to river or stream crossings and exclusion from waterways <u>except as provided for</u> in a manner that is consistent with Policy 22 and Rules TANK 1 or 3; <p>...</p> <p>3.1 The Catchment Collective plan or Industry Programme will be submitted for approval by the HBRC no later than by the end of the relevant year specified for that catchment in Schedule 28 <u>provided that HBRC has established an operational activity for assessing Catchment Collective Plans in terms of its activities and functions under the Local Government Act 2002.</u> In making decisions to approve the Programme the Council will take</p>	<p>appropriate proxy for assessing suitability of productive land for nutrient management.</p> <p>In regard to 2.2 b)(iv), the focus should be on managing increases in stock unit rates etc.</p> <p>Clause 2.2 g), needs clarification to understand its specific meaning</p> <p>Clause 3.1 needs clarification that Catchment Collective Plans pre-suppose that HBRC is ready to process such plans in terms of its operational budgets under the LGA.</p> <p>Clause 3.2 needs amending because of adding new Clause 3.3</p> <p>A new clause (3.3) is required to address the event of interim approval of Catchment Collective Plans while HBRC's operational activity for assessment of such plans is still pending being activated.</p> <p>The focus in Clause 5.1 should be on managing intensification of land</p>

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		<p>(the 'Members' who commit to the Programme), including the circumstances and terms of membership, sanctions or removal from the Collective or Industry Programme including in relation to unreasonable non-performance of actions identified in clause 2 below.</p> <p>c) The process for assessing performance at an individual property level compared to agreed actions at the catchment scale.</p> <p><i>Note 1: the Collective or Industry Programme may prepare its own terms of reference as well as manage their own decision making processes and administration. This may include appointing a spokesperson or secretary to ensure recording and reporting work is completed as necessary. Note 2: If a membership is lapsed, refused or discontinued, the Council will require the landowner to comply with rule TANK 1</i></p> <p>Information and management systems and processes to ensure:</p> <p>d) Competent and consistent performance in meeting the requirements of this schedule</p> <p>e) Robust data management, including up-to-date registers of Programme Members.</p> <p>f) Timely provision of suitable quality data and information required under the following clauses to Hawke's Bay Regional Council</p> <p>g) Conditions of membership of the Programme by individual land managers (the 'Members') who commit to the Programme including provision of information to enable reporting requirements to be met.</p> <p>A description of the Programme area including:</p> <p>h) locations and maps,</p> <p>i) land uses,</p> <p>j) locations of ;</p> <p>(i) drains (including subsurface drains), streams, rivers, wetlands and other water bodies,</p> <p>(ii) any Source Protection Zone or Extent for any Registered Drinking Water Supply that any properties in the programme area are located in, plus the contact details of the water supply manager (Note – Maps included with this plan show the locations of the SPZs and Extent for any Registered Drinking Water Supplies. Contact information for the supply manager is available on the Council website),</p> <p>k) activities at particular risk of nutrient loss,</p> <p>l) property boundaries,</p> <p>m) up-to-date details about ownership and property managers,</p> <p>n) up-to-date contact details of individual land managers and landowners within the Programme (the 'Members').</p> <p>Section B: Catchment Collective Requirements</p>	<p>into account;</p> <p>...</p> <p>3.2 Where approval is not given, it means the requirements of Rule TANK 1 are not able to be met and land use is therefore subject to either Rule TANK 1 (b)2 or Rule TANK 2 <u>except as provided by 3.3 below.</u></p> <p><u>3.3 Where HBRC has not yet established an operational activity for processing Catchment Collective Plans (as part of its functions under the Local Government Act 2002) including establishment and support for a catchment collective governance body, the ability of primary producers within the TANK Catchment to farm, shall not be prejudiced by any lack on HBRC's part in establishing such Council activity. Further, any Catchment Collective Plans that have been submitted under this part, while the establishment by HBRC of operational activity for assessing Catchment Collective Plans and a Catchment Collective governance body is still pending, shall be deemed to have interim approval upon submission of a Catchment Collective Plan. Such interim approval shall be subject to adjustment of conditions once HBRC's Catchment Collective Plan assessment programme has been established.</u></p> <p>...</p> <p>4.2 Information will be required where appropriate about:</p> <p>...</p> <p>b) nature and significance of any land use change in accordance with Policy 22 and Rule TANK 5 or 6 and based on land uses at 2 May 2020.</p> <p>...</p> <p>5.1 A summary report on the implementation of the Programme shall be submitted annually to the Hawke's Bay Regional Council or less</p>	<p>use that results in increased nutrient and pollutant contamination of freshwater resources (rather than on 'land use change' per se).</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>This section sets out the requirements for the environment plan for each Catchment Collective or Industry Programme</p> <p>2. Environmental Outcomes</p> <p>2.1 The Plan must include statements about the;</p> <ol style="list-style-type: none"> a) specified water quality outcomes in Schedule 26 of this Plan relevant to the location of Members' properties b) measures or practices needed to minimise and mitigating the cumulative environmental effects of land use that will enable the specified water quality objectives to be met. c) timeframes for when each of the actions or mitigations at a property or catchment scale are to be implemented and which are consistent with meeting the timeframes specified for relevant water quality objectives and milestones specified in the Plan <p>2.2 The Plan must address where appropriate;</p> <ol style="list-style-type: none"> a) managing contaminant losses (especially sediment, nutrients and bacteria) to waterways including efficient use of nutrients and good practice when carrying out land disturbance activities especially in relation to critical contaminant source areas b) where water quality does not meet standards in Schedule 26, identifying how there will be reductions in losses that contribute to meeting the specified water quality including, where appropriate, reference to; <ol style="list-style-type: none"> (i) in relation to industry specified benchmarks or good practice for nitrogen and phosphorus loss; (ii) LUC (Land Use Capability) and soil type; (iii) Olsen P levels in soil; (iv) Stock management including rates and densities of different classes of stock; (v) Application of fertilisers; (vi) Application of collected animal effluent; (vii) Cultivation, soil disturbance or vegetation clearance activities c) Management of riparian margins, including to meet the outcomes specified in Policy 11 and maintaining or improving the physical and biological condition of soils in a manner consistent with Policy 20 and RRMP Rule 7 in order to avoid, remedy or mitigate problems arising from; <ol style="list-style-type: none"> (i) Loss of topsoil by wind or water erosion; (ii) Movement of soils and contaminants into waterways; (iii) Damage to soil structure and health; (iv) Mass movements of soil; d) wetland management including to meet the outcomes specified in Policies 14 and 15; e) management of animal effluent to avoid contamination of ground and 	<p>frequently as determined by Council if all agreed mitigations have been completed, water quality objectives are being met and there is no land use change exceeding 10ha of the programme area <u>intensification of land use that results in increased nutrient and pollutant contamination of freshwater resources</u>.</p> <p>...</p> <p>Section C: Farm Environment Plans</p> <p>If a property is not subject to a TANK Industry Programme or a TANK Catchment Collective prepared under Section B of this schedule, <u>and the property is within a catchment(s) or sub-catchment(s) where:</u></p> <ul style="list-style-type: none"> • <u>there is a significant risk of degradation of water quality attributes or where water quality attributes are within the NOF D-Band,</u> • <u>there is overallocation of water,</u> <p>a Farm Environment Plan must be prepared in accordance with Section C.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>surface waters;</p> <p>f) measures required to reduce risk of contamination of the source water for any Registered Drinking Water Supply;</p> <p>g) management of stock, including in relation to river or stream crossings and exclusion from waterways in a manner that is consistent with Policy 22 and Rules TANK 1 or 3;</p> <p>h) in the Karamū and Lake Poukawa Catchments ; the identification of opportunities to provide shading of the adjacent waterway or improvements to riparian margin values as specified in Policy 2.</p> <p>2.3 The Plan must include measures to address Nutrient Management in any catchment or programme area where water quality objectives for nitrogen concentrations as detailed in Schedule 26 (or as further detailed for local rivers) are not being met, including;</p> <p>a) development of an inventory of the nitrogen loss rate (kg/ha/year) for every property as determined by application of Overseer (or an alternative nutrient budget model approved by the Hawke’s Bay Regional Council) by a suitably qualified independent practitioner;</p> <p>b) a description of any mitigation measures identified as necessary to meet water quality objectives on those properties or within the relevant catchment;</p> <p>c) annual recording and reporting of nutrient input and export data, including annual nitrogen loss rates.</p> <p>2.4 A Catchment Collective member may adopt or integrate a plan or documentation developed as part of an Industry Good Agricultural Practice programme, provided that the Plan or documentation is consistent with the requirements of the Catchment Collective Programme</p> <p>3. Approval</p> <p>3.1 The Catchment Collective plan or Industry Programme will be submitted for approval by the HBRC no later than by the end of the relevant year specified for that catchment in Schedule 28. In making decisions to approve the Programme the Council will take into account;</p> <p>a) whether the requirements of this Schedule are met</p> <p>b) whether the programme is consistent with the policies, water quality objectives and milestones that are relevant for that Catchment Collective or Industry Programme</p> <p>c) whether the Programme was appropriately informed by person(s) with the necessary professional qualifications to make assessments about the contaminant loss risk and mitigation measures</p> <p>d) whether the governance and management systems are in place to enable the implementation of the programme</p> <p>3.2 Where approval is not given, it means the requirements of Rule TANK 1 are not able to be met and land use is therefore subject to either Rule TANK 1 (b)2 or</p>		

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>Rule TANK 2.</p> <p>4. Information Requirements</p> <p>4.1 The Catchment Collective or Industry programme must prepare a statement of the data and information that will be collected in order to monitor implementation and report to Council.</p> <p>4.2 Information will be required where appropriate about:</p> <ul style="list-style-type: none"> a) changes to programme area and membership; b) nature and significance of any land use change in accordance with Policy 22 and Rule TANK 5 or 6 and based on land uses at 2 May 2020. c) the results of any environmental monitoring carried out by the Catchment Collective or Industry Programme; d) the mitigation measures or practices carried out to reduce contaminant loss (consistent with what is industry agreed good practice) that will be adopted by the property owners or managers and as detailed in clause 2.1; e) data, which may be aggregated across a catchment, about nitrogen loss and any changes in losses in respect of clause 2.3. <p>5. Reporting and Review</p> <p>5.1 A summary report on the implementation of the Programme shall be submitted annually to the Hawke's Bay Regional Council or less frequently as determined by Council if all agreed mitigations have been completed, water quality objectives are being met and there is no land use change exceeding 10ha of the programme area.</p> <p>5.2 The report will be supplied in the format specified by Council.</p> <p>5.3 The report will include;</p> <ul style="list-style-type: none"> a) information collected under section 4; b) any amendments to the programmed mitigation measures plus any changes made to them and reasons for them (including any adverse events such as severe weather, earthquakes etc); c) issues or matters that require input or direction from the Council, including the management of activities outside the Catchment Collective which may be adversely affecting the achievement of the of programme objectives, including identification of additional information/support from HBRC that would assist in the achievement of the objectives of the programme. <p>5.4 Every 5 years the annual report shall provide information about;</p> <ul style="list-style-type: none"> a) adoption of any new mitigation or good practice measures identified by industry; b) identification of opportunities for improvements to the programme including, where necessary, amending performance standards, and in relation to nutrient management in clause 2.3. <p>6 Auditing</p>		

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>6.1 The HBRC will;</p> <ul style="list-style-type: none"> a) Publicly report on the implementation of TANK Programmes; b) Undertake audits of TANK Industry or Catchment Collective Programmes including on member properties in relation to individual and programme implementation of programmed works, adoption of identified good management practices, including nutrient management budgets where required. <p><i>Note 2: that if the conditions of any applicable RRMP Rule 7 for specified activities are not being complied with by a landowner or manager, there must be information as outlined in section B2 above of the Catchment Collective or Industry Programme to show how the relevant contaminant loss risks are to be managed to a similar level of performance.</i></p> <p>Section C: Farm Environment Plans</p> <p>If a property is not subject to a TANK Industry Programme or a TANK Catchment Collective prepared under Section B of this schedule a Farm Environment Plan must be prepared in accordance with Section C.</p> <p>1. Requirements for Farm Environment Plans.</p> <p>1.1 A Farm Environment Plan must;</p> <ul style="list-style-type: none"> a) be prepared by a person with the professional qualifications necessary to prepare such a plan. b) contain the following information; <ul style="list-style-type: none"> (i) physical address; (ii) details about ownership and property managers including contact details for the person responsible for the implementation of the Plan. c) be accompanied by maps or aerial photograph at a scale to clearly show; <ul style="list-style-type: none"> (i) property boundaries; (ii) locations or activities likely to result in contaminant loss or at risk from contaminant loss including; <ul style="list-style-type: none"> i. areas at risk of sediment loss; ii. the location of drains (including subsurface drains), streams, rivers, wetlands and other water bodies; iii. the location of any Source Protection Zone or Extent for any Registered Drinking Water Supply that any properties in the programme area are located in, plus the contact details of the water supply manager (Note Maps included with this plan show the locations of the SPZs and Extents for any Registered Drinking Water Supplies. Contact information for the supply manager is available on the Council website. iv. activities at particular risk of nutrient loss; v. contaminant discharge activities. 		

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		<p>d) meet the requirements of Clauses 2 and 4 Section B of this Schedule as applicable for the property, its location and the land use activities being carried out.</p> <p>2. Reporting and Review</p> <p>2.1 The Farm Environment Plan will be submitted to the HBRC no later than by the end of the relevant year specified in Schedule 28 for the catchment(s) the property is located in.</p> <p>2.2 The report will be in the format specified by Council.</p> <p>2.3 The report will include:</p> <p>a) information collected under Clause 4 of Section B</p> <p>b) any amendments to the programmed mitigation measures plus any changes made to them and reasons for them (including any adverse events such as severe weather, earthquakes etc)</p> <p>2.4 Every 5 years the annual report shall provide information about;</p> <p>c) adoption of any new mitigation or good practice measures identified by industry,</p> <p>d) identification of opportunities for improvements to the programme including, where necessary, amending performance standards, and in relation to nutrient management in clause 2.3 of Section B.</p> <p>3. Auditing</p> <p>3.1 The HBRC will;</p> <p>(i) Publicly report on the implementation of TANK Farm Environment Plan requirements</p> <p>(ii) Undertake audits of properties in relation the Farm Environment Plan implementation of programmed works, adoption of identified good management practices, including nutrient management budgets where required.</p> <p><i>Note 3: that if the conditions of any applicable rules for specific activities in Section 6 of this plan are not being specifically complied with, there is information in the Farm Environment Plan to show how the relevant contaminant loss risks are to be managed to a similar level of performance.</i></p> <p>Note: the diagram below shows how the three environmental management approaches provided for in TANK 1 and Schedule 30 inter-relate with each other and their relationship with Council regulations. (The diagram is not part of the Plan Change but is included here for assistance in interpretation.)...</p>		

	Name	Provision as notified	Relief sought	Reasons for relief																																																									
12 8	Schedule 31	<p>Flows, Levels and Allocation Limits</p> <p>Minimum and Trigger Flows and Allocation Limits Refer to Rules TANK 9-11. 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.</p> <p>The allocation limits do not apply to water abstraction that is enabled by the release of water from water taken at times of high flow and stored for later release (refer to Schedule 32).</p> <p>The location and spatial extent of the management units is shown on the Planning Maps Schedule 31A – 31E</p> <table border="1"> <thead> <tr> <th>Water Management Units (quantity) and includes any tributaries of the named river</th> <th>Water bodies</th> <th>Minimum flow/flow maintenance site</th> <th>Minimum Flow (litres/second)</th> <th>Flow maintenance Trigger</th> <th>Allocation limit (litres/second for surface water and zone 1 and M³/ per year for groundwater)</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Ahuriri</td> <td>All surface water</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> <td>Existing use only¹</td> </tr> <tr> <td>All groundwater</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> <td>Existing use only¹</td> </tr> <tr> <td rowspan="8">Karamū/ Clive River</td> <td rowspan="2">Awanui Kawerawera/ Paritua</td> <td>The Flume</td> <td>120</td> <td>120</td> <td rowspan="5">Total not to exceed 30 l/s</td> </tr> <tr> <td>Pakipaki</td> <td></td> <td>75</td> </tr> <tr> <td>Irongate</td> <td>Clarks Weir²</td> <td>100</td> <td>100</td> </tr> <tr> <td>Louisa Stream</td> <td>Te Aute Rd</td> <td>30</td> <td>30</td> </tr> <tr> <td>Mangateretere Stream</td> <td>Napier Rd</td> <td>100</td> <td>100</td> </tr> <tr> <td>Karamū River</td> <td>Floodgates</td> <td>1100</td> <td>1100</td> </tr> <tr> <td>Raupare Stream</td> <td>Ormond Rd</td> <td>300</td> <td>300</td> <td>70 l/sec</td> </tr> <tr> <td>Poukawa incl Lake Poukawa Groundwater</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> <td>Existing use only¹</td> </tr> <tr> <td>Poukawa incl Lake Poukawa Surface</td> <td>At Douglas Rd²</td> <td>20</td> <td>n/a</td> <td>Existing use only¹</td> </tr> </tbody> </table>	Water Management Units (quantity) and includes any tributaries of the named river	Water bodies	Minimum flow/flow maintenance site	Minimum Flow (litres/second)	Flow maintenance Trigger	Allocation limit (litres/second for surface water and zone 1 and M ³ / per year for groundwater)	Ahuriri	All surface water	n/a	n/a	n/a	Existing use only ¹	All groundwater	n/a	n/a	n/a	Existing use only ¹	Karamū/ Clive River	Awanui Kawerawera/ Paritua	The Flume	120	120	Total not to exceed 30 l/s	Pakipaki		75	Irongate	Clarks Weir ²	100	100	Louisa Stream	Te Aute Rd	30	30	Mangateretere Stream	Napier Rd	100	100	Karamū River	Floodgates	1100	1100	Raupare Stream	Ormond Rd	300	300	70 l/sec	Poukawa incl Lake Poukawa Groundwater	n/a	n/a	n/a	Existing use only ¹	Poukawa incl Lake Poukawa Surface	At Douglas Rd ²	20	n/a	Existing use only ¹	<p>That Schedule 31 be amended as follows:</p> <p>To allow reallocation of unused allocated water amounts in existing water permits between irrigation users who are within the same Catchment Collective, within any FMU.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Catchment Collectives are intended to enable collective members to work together to manage their water resource in ways that support staged adaptive management of the freshwater resource. Allowing reallocation of unused water between members of the same collective will incentivise farmers to work in collectives.</p>
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Name		Provision as notified					Relief sought			Reasons for relief		
					<p>high flow in any tributary of the Ngaruroro</p> <ul style="list-style-type: none"> the amount specified in column (E) 				<p>in any tributary of the Ngaruroro</p> <ul style="list-style-type: none"> the amount specified in column (E) 			<p>the perverse effect of discouraging individual farmers to seek to construct dams for storage of high flow abstraction, especially where the construction cost hangs in the balance (especially for many smaller individually owned family farms).</p>
				All Trigger flows above 5000 l/sec	<p>Abstraction of up to 1 m³/sec authorised in consents existing as at 2 May 2020. Included in the 1m³/sec is abstraction of up to 400l/sec which is solely available to be discharged into the Paritua Stream to provide for stream enhancement</p>		n/a				n/a	<p>If Schedule 31 is intended to be tied to bigger water storage/augmentation schemes, then there needs to be clear parameters/rules around how it will be applied, with threshold(s) that don't capture private dams on individual farms.</p>
				Trigger flows above 2400l/sec	<p>200 l/sec which is solely available to be discharged into the Paritua Stream to provide for stream enhancement</p>				<p>Abstraction of up to 1 m³/sec authorised in consents existing as at 2 May 2020. Included in the 1m³/sec is abstraction of up to 400l/sec which is solely available to be discharged into the Paritua Stream to provide for stream enhancement</p>			<p>If storage of such 20% allocation is not exercised, it could just end up flowing down the river and thus acting as a <i>de facto</i> extra limit of high flow allocation, and could then amount to waste of a precious resource.</p>
	Ngaruroro and Tūtaekurī Tributaries		Median flow	<p>The high flow allocation from the tributary is proportional to its contribution to the mainstem. It is part of the total allocation for the mainstem high flow allocation.</p>	<p>20% of any high flow allocation from any tributary.</p>	<p>No change of more than 10% to FRE3 in the mainstem of the applicable River. Damming on the mainstem of the Taruarau Omahaki, Mangaone and Mangatutu is prohibited.</p>						<p>The references to prohibited activity status should be removed</p>
	Tūtaekurī	Puketapu	8,000 litres per second	<p>2,500 litres per second This includes</p> <ul style="list-style-type: none"> the amount taken from high flow in any tributary of the 	<p>500 litres per second</p>	<p>Damming on the mainstem of the Tūtaekurī River is prohibited</p>						

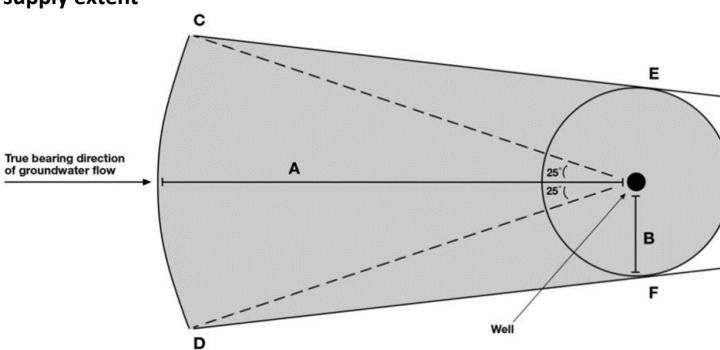
	Name	Provision as notified					Relief sought				Reasons for relief	
					<ul style="list-style-type: none"> Tūtaekurī the amount specified in column (E) 			Ngaruroro and Tūtaekurī Tributaries	The high flow allocation from the tributary is proportional to its contribution to the mainstem. It is part of the total allocation for the mainstem high flow allocation.	20% of any high flow allocation from any tributary.	No change of more than 10% to FRE3 in the mainstem of the applicable River tributary. Damming on the mainstem of the Faruarau, Omahaki, Mangaone and Mangatutu is prohibited.	The limit for high flow allocation in tributaries should relate to FRE3 in the applicable tributary.
								Tūtaekurī/Puketapu	2,500 litres per second This includes <ul style="list-style-type: none"> the amount taken from high flow in any tributary of the Tūtaekurī the amount specified in column (E) 	500 litres per second	Damming on the mainstem of the Tūtaekurī River is prohibited n/a	
		<p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>					<p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>					
130	Schedule 33	<p>Water Permit Expiry Dates Refer to Policy 45 and Rules TANK 9 - 11. The Council will consider the following Schedule when determining the duration of any permit to take and use water. Where appropriate, the duration of the consent will be consistent with the next common expiry date for the relevant water management as shown in this Schedule. If an application is made up to three years before the next due date for the relevant zone, the Council may issue the permit for the following expiry date. For applications in an area for which no expiry date is specified, the duration of the consent will be a matter for Council's discretion.</p>					<p>That all expiry dates in Schedule 33 be amended to a minimum of 20-year intervals</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>				15-year expiry periods are inadequate for primary production users preparing and presenting management plans for primary production land within the TANK catchment under this plan change.	

	Name	Provision as notified				Relief sought	Reasons for relief
		Current common expiry date	Management Area	Next expiry dates			Primary producers will need a longer time period to be able to utilise water permits in order to get a return on their investment and alongside all the other measures they will need to undertake as part of their staged adaptive management of the freshwater resource.
			Groundwater (HPWMU)				
		2019 + 2018	Poraiti – (Heretaunga Plains WMU)	2033	2048		
		2019 + 2018	Ahuriri	2033	2048		
		2019	Unconfined Aquifer & Unconfined Part Of Twyford	2035	2050		
		2020	Twyford Confined	2035	2050		
		2021	St George	2036	2051		
		2022	Te Mata	2037	2052		
		2023	Longlands/Pakipaki, Hastings	2038	2053		
		2024	Haumoana, Whakatu/Clive,	2039	2054		
		2024	Twyford	2040	2055		
		2025	Pakowhai, Omarunui,	2040	2055		
		2025	Moteo	2041	2056		
		2026	Napier/Meeanee	2042	2057		
		2027	Poraiti				
		2028?	Poraiti				
		2023	Karamū Catchment	2040	2058		
		2028	Karamū Catchment	2043	2058		
		Groundwater (not including Zone 1 or Heretaunga Plains)					
		2019	Ahuriri	2039	2059		
		2029	Ahuriri	2044	2059		
		2023	Karamū Catchment	2040	2058		
		2028	Karamū Catchment	2043	2058		
		2028?	Tūtaekurī Catchment	2043	2058		
		2025	Ngaruroro Catchment	2040	2055		
		Surface Water (including Zone 1 groundwater)					
		2023	Karamū (and all tribs except Raupare)	2040	2058		
		2028	Karamū (and all tribs except Raupare)	2043	2058		
		2025	Raupare	2044	2029		
		2026	Tūtaekurī-Waimate	2041	2056		

	Name	Provision as notified				Relief sought	Reasons for relief						
		2028	Tūtaekurī (Whole Catchment)	2043	2058								
		2025	Ngaruroro (Whole Catchment)	2040	2055								
		2019	Ahuriri	2039	2059?								
		+ 2028		2043	2059?								
13 1	Schedule 35	<p>Source Protection for Drinking Water Supplies Refer to Policies 6 - -8 and Rules TANK 2-23 and RRMP Rules 1 – 4, 12 -15, 37, 62, 62B. The location and details of groundwater wells (including water infiltration galleries) and surface water intakes used as the source of a Registered Drinking Water Supply can be found on the Registered Drinking Water Supply Protection Zone map layers on the HBRC website.</p> <p>Source Protection Zones Existing Registered Drinking Water Supplies that provide drinking water to no fewer than 501 people for not less than 60 days per year will have provisional Source Protection Zones determined according to the provisions of Table 1 until the relevant resource consent requires replacement or until an application for resource consent to amend a Source Protection Zone is made. The maps showing the spatial extent of these areas are shown below</p> <p>Table 1: Method for calculating provisional SPZ</p> <table border="1"> <thead> <tr> <th>Registered Drinking Water supply</th> <th>Method for calculating SPZ</th> </tr> </thead> <tbody> <tr> <td>Hastings District Council Municipal Supply</td> <td>Hawkes Bay Regional Council Heretaunga Plains Groundwater Model</td> </tr> <tr> <td>Napier City Council Municipal Supply</td> <td>Analytical Element Model meeting artesian head criterion</td> </tr> </tbody> </table> <p>Where the holder of a water permit for an existing Registered Drinking Water Supply considers the Source Protection Zone is not adequate for the level of protection required for that supply or where new information significantly amends the modelling output, an application may be made to amend the resource consent conditions of the water permit and establish an amended Source Protection Zone The dimensions of a Source Protection Zone shall form part of any application for resource consent to take or use water for a new Registered Drinking Water Supply or the replacement of an existing permit for that purpose. The location of a Source Protection Zone around a Registered Drinking Water Supply are to be determined using site specific information listed in Table 2 below and according to the minimum requirements for the relevant population in Table 3</p>				Registered Drinking Water supply	Method for calculating SPZ	Hastings District Council Municipal Supply	Hawkes Bay Regional Council Heretaunga Plains Groundwater Model	Napier City Council Municipal Supply	Analytical Element Model meeting artesian head criterion	<p>That Schedule 35 be amended so that:</p> <p>Provisions for drinking water source protection be amended to recognise that the risk of contamination of drinking water supplies is not uniform across the entire area of each provisional Water Source Protection Zone, and that factors such as:</p> <ul style="list-style-type: none"> • the distance/proximity of other land use activities to each drinking water supply abstraction point; and • specific characteristics of various potential contaminant pathways entering the source water may reduce contaminants in source water (such as subsoil nitrification and denitrification processes) that, can reduce the level of risk of contamination of source water. <p>And that the associated maps for provisional source water protection zones be re-drawn accordingly.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>The provisional Water Source Protection Zones are interim protection zones that are rather blunt tools which have not been configured to recognise different levels of risk or pathways of source water contamination.</p> <p>These provisional source water protection mechanisms need further refinement so that other water resource users or landowners within such areas are not unduly restricted from carrying on day-to-day activities that rely on access to water, or ability to discharge to land, for their continued economic well-being, at least until more rigorously defined Drinking Water Source Protection Areas have been identified and introduced into the plan framework.</p>
Registered Drinking Water supply	Method for calculating SPZ												
Hastings District Council Municipal Supply	Hawkes Bay Regional Council Heretaunga Plains Groundwater Model												
Napier City Council Municipal Supply	Analytical Element Model meeting artesian head criterion												

	Name	Provision as notified	Relief sought	Reasons for relief										
		<p>Table 2: Site Specific Information</p> <table border="1"> <tr> <td>Site Specific Information</td> </tr> <tr> <td>1. the topography, geography and geology of the site;</td> </tr> <tr> <td>2. the depth of the well;</td> </tr> <tr> <td>3. the construction of the well;</td> </tr> <tr> <td>4. pumping rates;</td> </tr> <tr> <td>5. the type of aquifer;</td> </tr> <tr> <td>6. the rate of flow in the surface waterbody;</td> </tr> <tr> <td>7. the types of actual or potential contaminants;</td> </tr> <tr> <td>8. the level of treatment that the abstracted water will receive;</td> </tr> <tr> <td>9. any potential risk to water quality</td> </tr> </table> <p>Table 3: Methodology for Determining Source Protection</p>	Site Specific Information	1. the topography, geography and geology of the site;	2. the depth of the well;	3. the construction of the well;	4. pumping rates;	5. the type of aquifer;	6. the rate of flow in the surface waterbody;	7. the types of actual or potential contaminants;	8. the level of treatment that the abstracted water will receive;	9. any potential risk to water quality		
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9. any potential risk to water quality														

	Name	Provision as notified					Relief sought	Reasons for relief
		Population served class	Microbial Treatment?	Meets Artesian Head criterion	Method	Uncertainty assessment approach		
		25 – 100	Yes	Yes or No	Manual	None		
	No		Yes	Manual	None			
	No		No	Manual	Sensitivity analysis			
		100-500	Yes	Yes	Manual	None		
	Yes		No	Manual	Sensitivity analysis			
	No		Yes	Manual	Sensitivity analysis			
	No		No	Analytical Element Model	Sensitivity analysis			
		501-5,000	Yes	Yes	Manual	Sensitivity analysis		
	Yes		No	Analytical Element Model	Sensitivity analysis			
	No		Yes	Analytical Element Model	Sensitivity analysis			
	No		No	Analytical Element Model	Stochastic Uncertainty Analysis			
		>5000	Yes	Yes	Analytical Element Model	Stochastic Uncertainty Analysis		
	Yes		No	Numerical Model	Sensitivity analysis			
	No		Yes	Numerical Model	Sensitivity analysis			
	No		No	Numerical Model	Stochastic Uncertainty Analysis			
		<p>Source Protection Extent</p> <p>Method for calculating the area of a provisional Registered Drinking Water Supply Protection Extent.</p> <p>Existing groundwater Registered Drinking Water Supplies that provide drinking water to between 25 and 500 people for not less than 60 days per year will be protected for the distances specified in Figure 1 and Table 4 below. This provisional protection extent applies until the relevant resource consent requires replacement or until an application to amend the protection extent is made in accordance with the requirements of Tables 2 and 3.</p>						

	Name	Provision as notified	Relief sought	Reasons for relief																															
		<p>Figure 1 Method for calculating the area of a provisional registered drinking water supply extent</p>  <p>The area of the source protection extent is determined by selecting from the Table 4 below depending on the screen depth (or well depth if no screen depth is recorded) and aquifer type.</p> <p>Table 4; Provisional Protection Extent</p> <table border="1"> <thead> <tr> <th rowspan="2">Screen Depth (or well depth if no screen depth is recorded)</th> <th rowspan="2">Aquifer Type</th> <th colspan="2">Protection Distances (m)</th> </tr> <tr> <th>Up-gradient from bore (A)</th> <th>Radius around bore</th> </tr> </thead> <tbody> <tr> <td><10m</td> <td>All</td> <td>2,000</td> <td>200</td> </tr> <tr> <td rowspan="2">10 - <30 m</td> <td>Unconfined or semi- confined</td> <td>1,000</td> <td>200</td> </tr> <tr> <td>Confined</td> <td>100</td> <td>100</td> </tr> <tr> <td rowspan="2">30 – 70 m</td> <td>Unconfined or semi- confined</td> <td>500</td> <td>200</td> </tr> <tr> <td>Confined</td> <td>100</td> <td>100</td> </tr> <tr> <td rowspan="2">>70 m</td> <td>Unconfined or semi- confined</td> <td>100</td> <td>100</td> </tr> <tr> <td>Confined</td> <td>100</td> <td>100</td> </tr> </tbody> </table> <p>Public Information All existing and new Registered Drinking Water Supplies and their source protection zones or extent will be added to the Registered Drinking Water Supply Source Protection map layers on Hawkes Bay Regional Council GIS mapping website</p>	Screen Depth (or well depth if no screen depth is recorded)	Aquifer Type	Protection Distances (m)		Up-gradient from bore (A)	Radius around bore	<10m	All	2,000	200	10 - <30 m	Unconfined or semi- confined	1,000	200	Confined	100	100	30 – 70 m	Unconfined or semi- confined	500	200	Confined	100	100	>70 m	Unconfined or semi- confined	100	100	Confined	100	100		
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	Name	Provision as notified	Relief sought	Reasons for relief
13 2	Schedule 36	<p>Heretaunga Plains Stream Flow Maintenance And Habitat Enhancement Scheme</p> <p>The TANK Plan provides for a Water User Collective to work collectively by or on behalf of permit holders to meet local water quality, quantity and environmental objectives for streams affected by stream depletion.</p> <p>Alternatively, water permit holders would be subject to cease take requirements when relevant trigger flows in affected streams are reached.</p> <p>A Water User Collective will manage stream flow depletion from applicable permits for streams affected by stream depletion. A permit may have stream depletion effects on more than one stream, and will be required to manage stream depletion through a Water User Collective based on the total stream depletion amount.</p> <p>Heretaunga Plains Water Management Unit requirements for stream flow maintenance and habitat enhancement will be imposed through conditions of a water permit as specified in Rule TANK 8.</p> <p>The transfer and discharge of water required to operate such a scheme is subject to Rule TANK 18.</p> <p>This schedule sets out the requirements for the establishment of a Water User Collective and its operation and management in order for it to be enabled under Rule TANK 18.</p> <p>Note; Where appropriate, the requirements of this Schedule can be combined with those of Schedule 30 in order that wider water quality issues can also be met through this collective approach.</p> <p>A TANK Water User Collective must prepare a Project Plan that meets the requirements set out below. This project plan must identify the key water quality and water quantity management issues identified in this (TANK) Plan that are relevant to:</p> <ul style="list-style-type: none"> • The affected streams and any applicable trigger flows for management • The extent and duration of stream flow pumping • The management of riparian land to improve ecosystem health, including by reduction of macrophytes growth • The water quality state, especially in relation to oxygen and temperature <p>A summary of the (TANK) Plan objectives and outputs will be made publicly available through the Council website.</p> <p>Section A: Plan Development Mana Whenua</p> <ol style="list-style-type: none"> 1. The development of a flow maintenance and habitat enhancement scheme must consider the views of mana whenua in relation to; <ol style="list-style-type: none"> a) scheme design elements aimed at improving ecological health of affected waterbodies; b) opportunities to provide improved public access to affected waterways; c) the collection of baseline information, and monitoring water quality and quantity. 	<p>That Schedule 36 be amended as follows:</p> <p>That the Schedule be re-written so that Catchment Collective participation in Heretaunga Plains Stream Flow Maintenance and/or Habitat Enhancement schemes is voluntary for those collectives that choose to participate through application for resource consent under Rule TANK 18.</p> <p>And any consequential amendments needed to give effect to the above relief or to otherwise satisfy our concerns.</p>	<p>Amendments are needed to this Schedule to fit better with the intent of Stream Flow Maintenance or Habitat Enhancement Schemes established under Rule TANK 18.</p> <p>The purpose of such schemes should be intended as an incentive for Catchment Collectives to gain additional advantage in relation to water takes and/or discharges managed by Collectives who choose to participate. (Nevertheless, there should be clear processes to manage handover or cessation of any such schemes should the need arise. These would primarily be managed through review or cancellation of consent conditions or consents granted under Rule TANK 18)</p>

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>Section B: Plan Requirements Governance and Management</p> <p>2. Each TANK Water User Collective must undertake to carry out the requirements of Sections B and C and must specify in writing the manner in which it will carry this out. This must address details relating to the governance and management arrangements of the Plan including;</p> <ul style="list-style-type: none"> a) How decisions are to be made and how the requirements of Sections B and C will be carried out including obligations by members to carry out the property specific requirements. b) Conditions of membership of the Collective by individual water permit holders (or the person giving effect to the permit), including the circumstances and terms of membership, sanctions or removal from the Collective including in relation to unreasonable non-performance of actions identified in clause 2 below. c) The process for assessing water or habitat enhancement contributions at an individual property level compared to combined collective actions and responsibilities for managing stream flow triggers and habitat enhancement. <p>Note 1: the Collective may prepare its own terms of reference as well as manage their own decision making processes and administration. This may include appointing a spokesperson or secretary to ensure recording and reporting work is completed as necessary.</p> <p>Note 2: If a membership is lapsed, refused or discontinued, the Council will require the permit holder to comply with cease take conditions required under Rule TANK 8</p> <p>3. Information and management systems and processes to ensure;</p> <ul style="list-style-type: none"> d) Competent and consistent performance in meeting the requirements of this schedule a) Robust data management, including up-to-date registers of TANK Water User Collective Members. b) Timely provision of suitable quality data and information required through consent conditions and under the following clauses to Hawke’s Bay Regional Council c) Conditions of membership of the Collective by individual permit holders or the person giving effect to the water permit (the ‘Members’) who commit to the Plan including provision of information to enable reporting requirements to be met. <p>4. A description of the Plan area including</p> <ul style="list-style-type: none"> a) locations and maps, b) land uses, c) locations of: <ul style="list-style-type: none"> (i) rivers, streams 		

	Name	Provision as notified	Relief sought	Reasons for relief
		<ul style="list-style-type: none"> (ii) drains (including subsurface drains), (iii) wetlands, springs d) property boundaries, e) up-to-date details about holders of permits subject to this programme and anyone with responsibility for compliance with permit conditions. <p>Section C: Requirements for Water User Collective Plan</p> <p>This section sets out the requirements for each Water User Collective Plan</p> <p>5. The Plan must include information as relevant about;</p> <ul style="list-style-type: none"> a) The total stream flow depletion quantity in litres per second calculated using the Stream Depletion Calculator for each permit that is subject to this Collective. b) Locations of points of take where the flow depletion water will be taken for stream flow maintenance and how this is to be provided for within relevant water permit allocations c) Details about water storage solutions that will be used to maintain stream flows d) Locations of points of take where water is to be discharged for stream flow maintenance provided; <ul style="list-style-type: none"> (i) The length of stream to be affected by stream flow maintenance is maximised within the catchment subject to the trigger flow; (ii) The amount of water transferred and discharged, including the rate and total amount of the discharge and the length of time the scheme operates, is able to be separately metered or measured. (iii) The length of stream above flow discharge sites and any changes to their extent over time are recorded e) Drawdown and stream depletion effects of any water taken and discharged for stream flow maintenance where they may be different from drawdown effects that occur as a result of exercise the permit. f) Management (such as through rostering, ceasing pumping or other measures) of water takes subject to this scheme to reduce cumulative stream flow depletion effects g) Locations where riparian land can be managed to meet the outcomes specified in Policy 11 including; <ul style="list-style-type: none"> (i) Where riparian planting will provide shade that reduces macrophyte growth and water temperature (ii) re-construction of stream profile to provide both flooding and drainage as well as improved ecosystem habitat. h) Whether wetlands will be constructed to improve ecosystem health and hydrological functions including to meet the outcomes specified in Policies 14 and 15 i) Timeframes for when each of the actions or mitigations at a property or catchment scale are to be implemented and which are consistent with 		

	Name	Provision as notified	Relief sought	Reasons for relief
		<p>meeting the timeframes specified for relevant water quality objectives and milestones specified in the Plan</p> <p>j) Monitoring of ecosystem health, water quality and water quantity, including in relation to meeting objectives for dissolved oxygen and temperature in Schedule 26.</p> <p>6. Approval</p> <p>6.1 The Water User Collective Plan prepared subject to the requirements of this Schedule will be submitted in association with a water permit application as required by Rule TANK 18. In making decisions to approve this plan as part of the conditions of the water permit application the Council will take into account;</p> <p>a) whether the requirements of this Schedule are met</p> <p>b) whether the plan is consistent with the policies, water quality objectives and milestones that are relevant for the Water User Collective</p> <p>c) whether the Plan was appropriately informed by person(s) with the necessary professional qualifications to make assessments about the cumulative stream depletion effects and the effects of the pumping for stream flow maintenance including through the application of the Hawkes Bay Heretaunga Plains Groundwater Model and Stream Depletion Calculator</p> <p>d) whether the governance and management systems are in place to enable the implementation of the programme.</p> <p>6.2 Where consent is not granted, and the requirement of Rule TANK 18 not able to be met, permit holders are then subject to Rule TANK 9 (f)</p> <p>7. Information Requirements</p> <p>7.1 The Water User Collective must prepare a statement of the data and information that will be collected in order to monitor implementation and report to Council.</p> <p>7.2 Information will be required where appropriate about:</p> <p>a) changes to membership, including holders of water permits or anyone giving effect to the water permit;</p> <p>b) the results of any environmental monitoring carried out by the Collective including in relation to oxygen and temperature in streams being managed by this plan;</p> <p>c) water meter data to record the amount and duration of stream flow maintenance pumping</p> <p>d) the mitigation measures or practices carried out to enhance ecosystem habitat and water quality. that will be adopted by the property owners or managers and as detailed in clause 3.1;</p> <p>e) any other relevant information</p> <p>8. Reporting and Review</p> <p>8.1 A summary report on the implementation of the Plan shall be submitted</p>		

	Name	Provision as notified	Relief sought	Reasons for relief																								
		<p>annually to the Hawke's Bay Regional Council or less frequently as determined by Council if all agreed mitigations have been completed, and water quantity and quality objectives are being met.</p> <p>8.2 The report will be supplied in the format specified by Council.</p> <p>8.3 The report will include;</p> <ul style="list-style-type: none"> a) information collected under clause 7, including an assessment of information in comparison with previous year's data; b) any amendments to the programmed mitigation measures plus any changes made to them and reasons for them (including any adverse events such as severe weather, earthquakes etc); c) issues or matters that require input or direction from the Council, including the management of activities outside the Water User Collective which may be adversely affecting the achievement of the of programme objectives, including identification of additional information/support from HBRC that would assist in the achievement of the objectives of the programme. <p>8.4 Every 5 years the annual report shall provide information about;</p> <ul style="list-style-type: none"> a) any trends in; <ul style="list-style-type: none"> (i) the quality of water in the streams subject to the trigger flow (ii) the state of ecosystem health b) identification of opportunities for improvements to the programme 																										
13 3	Amendments to 5.4 – Surface Water Quality	<p><u>Insert</u> under heading;</p> <p><u>The provisions of Chapter 5.4 do not apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments.</u></p> <p>Table 8. Environmental Guidelines – Surface Water Quality Part II - Guidelines that Apply to Specific Catchments</p> <table border="1"> <thead> <tr> <th>Catchment Area</th> <th>Faecal Coliforms (cfu/100 ml)</th> <th>Suspended Solids (mg/l)</th> </tr> </thead> <tbody> <tr> <td>Aropoanui River</td> <td>200</td> <td>50</td> </tr> <tr> <td>Clive Rivers and tributaries</td> <td>200</td> <td>10</td> </tr> <tr> <td>Esk River</td> <td>200</td> <td>50</td> </tr> <tr> <td>Ikanui Stream</td> <td>200</td> <td>50</td> </tr> <tr> <td>Kopuawhara Stream</td> <td>200</td> <td>50</td> </tr> <tr> <td>Mangakuri Stream</td> <td>200</td> <td>50</td> </tr> <tr> <td>Maraetotara River</td> <td>200</td> <td>50</td> </tr> </tbody> </table>	Catchment Area	Faecal Coliforms (cfu/100 ml)	Suspended Solids (mg/l)	Aropoanui River	200	50	Clive Rivers and tributaries	200	10	Esk River	200	50	Ikanui Stream	200	50	Kopuawhara Stream	200	50	Mangakuri Stream	200	50	Maraetotara River	200	50	That proposed amendments to 5.4 – Surface Water Quality, be retained as notified.	
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	Name	Provision as notified			Relief sought	Reasons for relief		
		Mohaka River	50	10				
		Ngaruroro River upstream of Fernhill Bridge	50	10				
		Ngaruroro River between Fernhill Bridge and Expressway Bridge	100	25				
		Ngaruroro River downstream of the Expressway Bridge	150	25				
		Opoutama Stream	200	50				
		Porangahau River	200	50				
		Puhokio Stream	200	50				
		Taharua Stream	50	10				
		Tutaekuri River upstream of Redclyffe Bridge	50	10				
		Tutaekuri River between Redclyffe Bridge and SH50	100	25				
		Tutaekuri River downstream of the Expressway Bridge	150	25				
		Waingonoro Stream	200	50				
		Waipatiki Stream	200	50				
		Waipuka Stream	200	50				
		Wairoa River and tributaries upstream of Frasertown	100	25				
		Wairoa River at and downstream of Frasertown	200	25				
		<p>POL 72A DISCHARGE PERMITS – Matters for consideration in catchments other than the Tukituki River catchment and the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments</p> <p>...</p>						
13 4	Amendments to 5.5 – Surface Water Quantity	<p><u>Insert</u> under heading;</p> <p><u>The provisions of Chapter 5.5 do not apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments.</u></p> <p>.../</p> <p>Table 9. Minimum Flow and Allocatable Volumes for Specified Rivers</p>			That proposed amendments to 5.5 – Surface Water Quality, be retained as notified.			

	Name	Provision as notified					Relief sought	Reasons for relief
		River name	Minimum Flow Site Name	Minimum Flow (l/s)	Allocatable Volume (m ³ /week)	Map Reference		
		Awanui Stream	At The Flume	120	0	V21:357613		
		Awanui Stream	At Paki Paki Culvert	35	0	V21:351608		
		Esk River	At Shingle Works	1,400	355,018	V20:432945		
		Esk River	At SH2	1,000		V20:438939		
		Irongate Stream	At Clarks Weir	100	0	V21:367666		
		Karamū River	At Floodgates	1,100	18,023	V21:427708		
		Karewarewa River	At Turamoe Road	75	-	V21:341622		
		Louisa Stream	At Te Aute Road	30	0	V21:410625		
		Mangateretere Stream	At Napier Road	100	0	V21:438659		
		Maraekakaho River	At Taits Road	100	5,443	V21:170668		
		Maraetotara River	At Te Awanga Bridge	220	30,971	W21:520661		
		Ngaruroro River	At Fernhill Bridge	2,400	956,189	V21:330729		
		Nuhaka River	At Valley Road	80	41,731	X19:225329		
		Ongaru Drain	Wenley Road	5	0	V21:234653		
		Pouhokio Stream	At Allens Bridge	80	-	V22:498441		
		Poukawa Inflow	Site No. 1 (d/s dam)	10	0	V22:282504		
		Poukawa Inflow	Site No. 1a (u/s dam)	10	0	V22:285502		
		Poukawa Inflow	Site No. 6	3	0	V22:266478		
		Poukawa Stream	At Douglas Road	20	0	V22:298533		

Name		Provision as notified				Relief sought	Reasons for relief						
		Raupare Stream	At Ormond Road	300	93,844	V21:398713							
		Te Waikaha Stream	At Mutiny Road	25	-	V22:361572							
		Trib. of Kauhauroa Stream	(Taylors)	5	0	X19:970397							
		Tutaekuri River	At Puketapu	2,000	928,972	V21:357812							
		Tutaekuri-Waimate	At Goods Bridge	1,200	367,114	V21:384751							
		Waimaunu Stream	At Duncans	10	15,304	X19:229300							
13 5	Amendments to 5.6 – Groundwater Quality	<p>Insert after Heading</p> <p><u>The provisions of Chapter 5.6 do not apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments</u></p> <p>...</p> <p>POL 75 ENVIRONMENTAL GUIDELINES - GROUNDWATER QUALITY</p> <p>1. Other than in the productive aquifer systems in the Tukituki River catchment <u>and the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments</u>, to manage the effects of activities affecting the quality of groundwater in accordance with the environmental guidelines set out in Table 10.</p> <p>Table 10. Environmental Guidelines – Groundwater Quality</p> <table border="1"> <thead> <tr> <th colspan="2">CONFINED, PRODUCTIVE AQUIFERS IN THE HERETAUNGA PLAINS AQUIFER SYSTEM (as shown in Schedule IV)</th> </tr> </thead> <tbody> <tr> <td>1. No degradation</td> <td>There should be no degradation of existing water quality.</td> </tr> <tr> <th colspan="2">OTHER PRODUCTIVE AQUIFERS</th> </tr> </tbody> </table>				CONFINED, PRODUCTIVE AQUIFERS IN THE HERETAUNGA PLAINS AQUIFER SYSTEM (as shown in Schedule IV)		1. No degradation	There should be no degradation of existing water quality.	OTHER PRODUCTIVE AQUIFERS		That proposed amendments to 5.6 –Groundwater Quality, be retained as notified.	
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OTHER PRODUCTIVE AQUIFERS													

	Name	Provision as notified	Relief sought	Reasons for relief				
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; padding: 5px;">1. Human consumption</td> <td style="padding: 5px;">The quality of groundwater should meet the “Drinking Water Quality Standards for New Zealand” (Ministry of Health, 1995) without treatment, or after treatment where this is necessary because of the natural water quality.</td> </tr> <tr> <td style="padding: 5px;">2. Irrigation</td> <td style="padding: 5px;">The quality of groundwater should meet the guidelines for irrigation water contained in the “Australian Water Quality Guidelines for Fresh and Marine Waters” (Australian and New Zealand Environment and Conservation Council, 1998) without treatment, or after filtration where this is necessary because of the natural water quality.</td> </tr> </table> <p>POL 76A Discharge Permits – Matters for consideration in catchments other than the Tukituki River catchment <u>and the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments...</u></p>	1. Human consumption	The quality of groundwater should meet the “Drinking Water Quality Standards for New Zealand” (Ministry of Health, 1995) without treatment, or after treatment where this is necessary because of the natural water quality.	2. Irrigation	The quality of groundwater should meet the guidelines for irrigation water contained in the “Australian Water Quality Guidelines for Fresh and Marine Waters” (Australian and New Zealand Environment and Conservation Council, 1998) without treatment, or after filtration where this is necessary because of the natural water quality.		
1. Human consumption	The quality of groundwater should meet the “Drinking Water Quality Standards for New Zealand” (Ministry of Health, 1995) without treatment, or after treatment where this is necessary because of the natural water quality.							
2. Irrigation	The quality of groundwater should meet the guidelines for irrigation water contained in the “Australian Water Quality Guidelines for Fresh and Marine Waters” (Australian and New Zealand Environment and Conservation Council, 1998) without treatment, or after filtration where this is necessary because of the natural water quality.							
13 6	Amendments to 5.7 – Groundwater Quantity	<p>Insert after the heading</p> <p><u>The provisions of Chapter 5.7 do not apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments</u></p> <p>POL 78A Water Permits – Matters for consideration in catchments other than the Tukituki River catchment <u>and the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River Catchments...</u></p>	That proposed amendments to 5.6 –Groundwater Quantity, be retained as notified.					

FURTHER SUBMISSION



TELEPHONE 0800 327 646 | WEBSITE WWW.FEDFARM.ORG.NZ

To: **Hawkes Bay Regional Council**

From: Federated Farmers of New Zealand

On the: **Proposed Plan Change 9 (Proposed TANK Plan Change)**
Hawkes Bay Regional Resource Management Plan

Date: 9 December 2020

Further submission by: Federated Farmers of New Zealand

JIM GALLOWAY
HAWKES BAY PROVINCIAL PRESIDENT
Federated Farmers of New Zealand

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Please find Federated Farmers of New Zealand Further Submission on the Proposed Plan Change 9 – TANK Plan Change detailed in the table in the attached Schedule.

Where Federated Farmers submitted on the same point as any other submitter it stands by its original submission. This Further Submission seeks only to provide Federated Farmers views on points raised by other submitters that are not already covered in our original submission.

Federated Farmers has an interest in the proposal that is greater than the interest the general public has. The grounds for saying that I come within this category are that:

- Federated Farmers of New Zealand is a representative body for all farmers. The subject matter of the appeal is a matter of interest for the farmers of the **Hawkes Bay Region** and

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
5.10 Introduction					
120.3 120.4 120.66 120.70 120.79 120.80 120.81	Ngati Kahungunu Iwi	Amend	Amend PC9 to explicitly provide for the re-establishment, restoration and protection of the relationship of Ngati Kahungunu with water and waterways within the TANK catchments including a new objective/s (which reference Ngati Kahungunu values in a new schedule within PC9), policy/policies and rules/methods including attributes and provision for the resourcing, development and implementation of indicators and monitoring using matauranga Maori. Reduce the number of objectives and policies in the plan. If retained in PC9, a set of refined, clear and concise Issue statements could be developed which would assist in guiding the objectives to improve the use and implementation of the Plan. Redraft or delete the background discussion Tangata whenua indicators add value and provide a strong foundation and framework for sound holistic assessment	Oppose in part	FFNZ supports the introduction and sought it to be retained as notified. FFNZ considers the background discussion is useful in that it provides an overview of freshwater management issues in the catchment, along with contextual information such as reference to higher order documents the Plan Change needs to give effect to. FFNZ is concerned that the relief sought would fundamentally change PC9, potentially resulting in a Plan Change that would not achieve sustainable management or give effect to the relevant higher order documents. FFNZ agrees that there are a lot of detailed objectives and policies and they could benefit from a review to reduce or refine them as proposed in FFNZ's submission
123.19 123.20 123.21	DoC	Oppose	Delete the background statement and water management overview from PC9. TANK issues - Clearly articulate or delete the TANK issues from PC9. 5.10 Introduction - Delete the introduction to 5.10 and provide a schedule of the identified values and where they apply in respect of each FMU within the body of PC9 as Schedule X. Include objectives and/or policies which consider and recognise Te Mana o te Wai with particular reference to Te Hauora o te Taiao, Te Hauora o te Wai and Te Hauora o te Tangata. Provide consequential track changes to Table 2A of the RRMP to reflect the values of PC9 and where they apply.	Oppose	FFNZ considers the background discussion is useful and therefore should be retained in the Plan. Similarly, FFNZ seeks retention of the issues proposed, consistent with the amendments proposed in FFNZ's submission to the Plan Change. FFNZ considers that PC9 recognises Te Mana o Te Wai as required under the NPSFM 2014 (as amended in 2017). In respect of the NPSFM 2020, to the extent that Te Mana o te Wai may be different from the use of that concept in the previous NPSFM, Council will need to give effect to the NPSFM 2020 in subsequent plan changes (and a Schedule 1 process).
132.2 132.3 132.7 132.33 132.80 132.81 132.82 132.190	Te Taiwhenua o Heretaunga	Amend	Delete the "TANK VALUES Attributes for water quality" and delete or amend the interpretation part of Figure 2 to express the broader aspects of each wariu in the main diagram Amend issue statements to be brief, clear and concise, followed by one or two objectives, then policies. Delete introductory comments on TANK plan change processes that are superfluous and do not contribute anything meaningful or constructive. Rearrange Issue Statements' content by specific topic or theme and condense. Separate Mauri and other tikanga Maori values and issues and combine them into two distinct issue statements and include acknowledgment of the principles of the Treaty of Waitangi. Move the Issue statements so where they relate to a specific objective, each of the statements immediately precede the relevant objective and associated policies. Provide for an "Implementation Plan" for PC9, that includes a summary of specific actions and their timing to meet certain dates and commitments in the plan, and full implementation of different parts of the plan. Include monitoring of Mauri and budget provision through reference to long-term plans, and achievement of targets and elements of the NPS-FM 2020.	Oppose	FFNZ seeks to retain the background section as drafted and seeks amendment to the issues consistent with the relief sought in our submission to the Plan Change. In principle, FFNZ would support the development of an implementation plan, in consultation with stakeholders. However, FFNZ is concerned that the submitter's proposal goes beyond implementing the plan by referring to matters that ought to be part of a Schedule 1 process (if they were to be part of the plan). FFNZ is also concerned that the submission point would inappropriately constrain future councils (by constraining decision making on long term plans and future budgets). FFNZ also does not agree that it is appropriate to attempt to give effect to the NPSFM 2020 (which ought to be subject to a robust community process).
5.10.1 TANK Objectives					
90.5	S Millington	Not Stated	The TANK Plan needs to specify objectives, policies and targets that set up an effective and directive regulatory system with firm bottom lines to monitor and enforce the requirements of the NPS FW. With regards to effects of land use and water takes.	Oppose in part	FFNZ seeks amendments to TANK appropriate to freshwater management in the catchment and does not agree that there is a need for "firm bottom lines."

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
120.12 120.13 120.64 120.78	Ngati Kahungunu	Amend	<p>Include a new objective and policy relating to restoring and revitalising the mauri and te mana o te wai of the TANK catchments and Heretaunga muriwaihou; recognising and providing for Ngati Kahungunu's relationships, tikanga and beliefs with their ancestral waters and taonga; and repatriate and protect tangata whenua values, customs, culture and relationships with these waters. Wording provided.</p> <p>Amend Change 9 to include clear objectives and policies to maintain or improve water quality, safeguard life-supporting capacity, ecosystem health and human health, protect the significant values of outstanding freshwater bodies and wetlands and provide for other instream freshwater values (including tangata whenua values).</p> <p>Re-order the objectives so that the key priorities are first, then objectives relating to the values for each water body, then the methods based (actions) and consideration (decision making) objectives.</p>	Oppose	FFNZ seeks amendment to the objectives consistent with the relief sought in our submission to the Plan Change. FFNZ does not consider the Plan to be structured according to priority. Doing so may overly complicate the consenting process and create unintended consequences.
202.8	Māori Climate Commission	Amend Oppose	Supports a specific objective providing for Tangata Whenua to undertake monitoring throughout the life of the plan to enable the application of a diversity of systems of values and knowledge, such as matauranga Maori to the management of freshwater within the TANK catchments.	Oppose	FFNZ considers Tangata Whenua to be able to monitor without the need for this to be provided for as a specific objective in the Plan.
210.2 210.3 210.15 210.24	Forest and Bird	Amend/ Oppose	<p>No specific relief requested but raises concerns with the way objectives are drafted.</p> <p>Remove all 18 objectives from the plan and replace with new objectives.</p> <p>Clarify the "freshwater objectives" in respect of all FMUs. Consider a table similar Waikato Regional Council in their decisions on PC1.</p> <p>Remove from the plan and replace with the objectives suggested earlier in our submission.</p>	Oppose	FFNZ seeks amendment to the objectives consistent with the relief sought in our submission to the Plan Change. FFNZ does not agree with the wording for the 6 new objectives (they will not achieve sustainable management, are not within scope and/or will not give effect to the relevant higher order documents) or that these objectives are freshwater objectives).
General Objectives					
197.2	BLNZ	Amend	<p>Amend existing and include as required new objectives to give effect to the following intent:</p> <ul style="list-style-type: none"> • Provide for a range and flexibility in land use... • Restrict the reach of objectives to the values of the NPS-FW... • Reference to the management of water quality pertains to the achievement of the objectives... • Otherwise water quality is maintained where the objectives are met. • Attribute state should be set to achieve the values.... 	Support in part Oppose in part	In principle, FFNZ agrees with the relief sought, however FFNZ considers the amendments proposed in the FFNZ submission, more appropriately address the concerns raised.
Objective TANK 1					
135.3	Ravensdown Limited	Amend	Amend Tank OBJ 1 - "support good decision making by resource users including rural and urban communities through marae and hapu" initiatives, community or other catchment management programmes and monitoring initiatives, urban stormwater programmes, landowner collectives, farm management environment plans and industry good practice programmes."	Support in part	FFNZ seeks amendments to OBJ TANK 1 consistent with our submission to the Plan Change. FFNZ also agrees that the focus ought to be on all sectors of the community and land use activities, and that a range of options ought to be provided for managing contaminants and improving practices.
Objective TANK 2					
58.4	HB Fish and Game	Amend	Amend Clause b to insert "the habitat of trout and salmon" after "indigenous biodiversity"	Oppose	FFNZ does not agree that it is appropriate to provide for trout and salmon or that they are consistent with the intent of OBJ 2.
120.87 120.88 132.71 132.72	Ngati Kahungunu Te Taiwhenua o Heretaunga	Amend	<p>The proposed TANK plan should recognise and provide for the values of Outstanding Water Bodies [PC7], and should not compromise or influence the values of Outstanding Water Bodies.</p> <p>Heretaunga Aquifer Muriwaihou should be recognised as Taonga and an Outstanding Water Body.</p>	Oppose	FFNZ considers that outstanding water bodies are more appropriately addressed in PC9 and does not agree to the inclusion of the aquifer (inclusion or not of that aquifer ought to be considered through PC7).

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
135.4	Ravensdown	Amend	Amend OBJ TANK 2 as follows: <i>When setting objectives, limits and targets; b) A continuous improvement approach to the use and development of natural resources and the protection of indigenous biodiversity is adopted and the collective sustainable management of freshwater is enabled;</i>	Support in part	FFNZ agrees that the focus should not be on continuous improvement. Such an approach would not recognise that some catchments or waterbodies might not require improvement in water quality or that one or more contaminants may not be of issue.
123.9	DoC	Not Stated	Include schedules of FMUs and freshwater values and clearly define where they apply.	Oppose	FFNZ considers that the FMUs and freshwater values have been addressed in PC9 in a way that is tailored to the particular catchments to which the plan change applies.
Climate Change					
210.22 210.23 229.4	Forest and Bird Ahuriri Estuary Protection Society	Amend	Integrate the consideration of potential causes of and impacts from climate change clearly throughout the objectives and policies to provide council scope to consider these in making resource management decisions. Consider PC9 in light of the recent MFE climate risks report, the Adapting to Climate Change in NZ report, the Coastal Hazards and Climate Change Guidance for Local Councils, and any other relevant work and ensure PC9 is consistent.	oppose in part	While, in principle, FFNZ considers that climate change ought to be considered, it considers that this needs to be in a way that is based on robust science and data, as well as takes into account social, economic and cultural wellbeing. FFNZ considers that the amendments it seeks to OBJ TANK 2 will appropriately recognise the effects of climate change.
224.3	Mission Estate	Oppose	Realistic to cap water use based on the driest season (noted as 2019/20). Climate change will require cap to be periodically reviewed	Support in part	The relief sought is consistent with the amendment sought by FFNZ to OBJ TANK 2.
Objective TANK 3					
58.5	HB Fish and Game	Amend	Amend Clause (b) to insert "the habitat of trout and salmon" after "indigenous biodiversity"	Oppose	FFNZ does not agree that it is appropriate to provide for trout and salmon or that they are consistent with the intent of OBJ 3.
123.24	DoC	Not Stated	Amend in a way that: - the mauri of waterbodies is protected and restored to provide for Te Hauora o te Taiao, Te Hauora o te Wai and Te Hauora o te Tangata and to provide for the values in Schedule X, - safeguards life-supporting capacity and aquatic ecosystem processes -the connectivity between land, surface water, groundwater, freshwater and the coast - Ki uta, ki tai is recognised, - provides for the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga	Oppose in part	FFNZ seeks amendments to OBJ TANK 3 to recognise the relationship between the social, economic and cultural wellbeing of communities to the freshwater resource. FFNZ opposes the relief sought by these submitters on the basis that it does not appropriately provide for social, economic and cultural wellbeing and considers that the amendments sought in its submission more appropriately balance these matters (whilst giving effect to the relevant higher order documents)
Water Quality General					
198.9 198.10 198.11 198.13	EDS	Amend	Include clear objectives and policies to maintain or improve water quality, safeguard life-supporting capacity, ecosystem health and human health, protect the significant values of outstanding freshwater bodies and wetlands and provide for other instream freshwater values. Include schedules for FMUs (and the freshwater values that apply) and outstanding freshwater bodies and wetlands. Include all water quality objectives in Schedule 26 and identify targets to be achieved by 2040 where objectives are not currently met. Control the use of production land for farming in all catchments to maintain water quality.	Oppose	FFNZ considers that PC9 (as amended in its submission) will appropriately focus on maintaining or (where appropriate) improving water quality. FFNZ does not agree that schedules for FMUs need to be provided or that targets ought to be hard wired and achieved by 2040. FFNZ considers that all sources of contaminants need to be considered and, where appropriate managed and does not agree that production land for farming must be "controlled" in all catchments to maintain water quality.
Objective TANK 4					
58.6	HB Fish and Game	Amend	Clarify how the determination of past, current, or future state instream applies.	Oppose in part	In principle, FFNZ would support clarifying how instream states are determined. However, FFNZ has concerns about how that may then be applied (e.g. will it be used to allocate contaminants or require changes in practices or to impose limits) and therefore opposes the relief sought.
131.11 131.12	Ballance Agri-Nutrients	Amend	Supports aspirational goals for water quality and recommends that the evidence for the chosen attribute values is clearly identified. Should the achievability of any of these water quality values be in question, the plan change should include allowance for confirming	Support in part Oppose in	FFNZ agrees that robust data ought to be relied on, a realistic timeframe ought to be provided and that goals need to be practical and re-evaluated as things change. However, FFNZ has concerns

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			progress toward the attribute 'goals' in 2030 to allow re-setting of attributes or policies in order to meet practical goals.	part	that if goals are too aspirational or timeframes too short, they will either impose significant cost or set the community/catchment up for failure.
135.5	Ravensdown	Amend	Amend OBJ TANK 4 as follows: <i>Land and water use, contaminant discharge and nutrient loss activities are carried out so that the quality of the TANK freshwater bodies is maintained where the freshwater quality objectives in Schedule 26 are currently being met, or is improved in degraded waterbodies so that they meet the fresh water quality attribute states targets in Schedule 26 by 2040, provided that: a) For any specific water body where the fresh water quality attribute state is found to be higher than the freshwater quality objective that given in Schedule 26, the existing higher state is to be maintained; and</i>	Support in part	FFNZ agrees that the focus ought to be on maintaining targets rather than states and maintaining within a band (as opposed to a specific numeric state). FFNZ agrees with clarifying that the freshwater quality objectives in Schedule 26 are what is attempting to be achieved, and not broad and ambiguous "objectives." However, FFNZ considers that Schedule 26 needs amendment (and refers to its submission).
180.14	Horticulture New Zealand	Amend	It is unclear where the target attribute states are to be achieved – if this includes all current monitoring locations, or at a subset of monitoring sites at a smaller sub-catchment scale. Amend the maps in Schedule 26 to show the location of monitoring sites. It is unclear whether or not modelled state data will be used where actual monitoring data is not available, and if 'modelled' state data is used does 'maintenance' mean that it can't decline within the relevant NOF band? This needs to be clarified.	Support in part	FFNZ supports an approach of maintaining water quality within a band (as opposed to a specific numeric attribute state at a specific site). FFNZ also agrees that actual data ought to be relied on and where this is not available that should be clearly stated but there should not be the same obligation to maintain a modelled state (as the actual state may or may not have been modelled correctly).
198.12	EDS	Amend	Regulate and manage all point source and stormwater discharges. Requirement: meet water quality objectives and targets in Schedule 26 by 2040	Oppose	While FFNZ considers that all sources of contaminants and land uses ought to be managed, it does not agree that they should be regulated or that water quality objectives and targets ought to be achieved by 2040 (for reasons including that there will be natural and other sources of contaminants contributing to the water quality state that are not able to managed, and it does not take into account any load to come or groundwater travel time).
233.6	HBDHB	Amend	Add bullet point c): <u>"Where measured states require improvement to meet the attribute stated in Schedule 26, improvement must be measurable within 5 years of this Plan becoming operative. For measured states that have not improved within 5 years, a review of Plan effectiveness should be completed with policy and rules review to be commenced."</u>		FFNZ does not agree that a requirement to "measure" specific attribute states and achieve within 5 years is realistic or appropriate. It will also impose significant social and economic cost and is unlikely to be achievable (even with wholesale land use change)
Objective TANK 5					
123.25	DoC	Oppose	Amend in a way that: the mauri of waterbodies is protected and restored to provide for Te Hauora o te Taiao, Te Hauora o te Wai and Te Hauora o te Tangata and to provide for the values in Schedule X, -safeguards life-supporting capacity and aquatic ecosystem processes -the connectivity between land, surface water, groundwater, freshwater and the coast - Ki uta, ki tai is recognised, -provides for the relationship of Maori culture and traditions with ancestral lands, water, sites, waahi tapu, and other taonga	Oppose	FFNZ seeks to have OBJ TANK 5 retained as notified. FFNZ considers the objective is appropriate to freshwater management in the catchment. FFNZ considers that OBJ TANK 5 has appropriately provided for sustainable management and gives effect to the higher order documents.
Objective TANK 6					
29.41	HB Winegrowers	Amend	Adjust the Grape kg/ha/yr for all soils to recognise winter sheep grazing rotation. 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.	Support in part	FFNZ seeks to have OBJ TANK 6 deleted as long term goals should be a part of implementing the NPSFM 2020. However, if the objective is not deleted, FFNZ would support changes to ensure it more appropriately reflects the activities it manages. FFNZ also supports the use of alternative models to estimate contaminant loss and mechanisms to provide for version changes.
Objective TANK 7					

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
120.71	Ngati Kahungunu	Amend	Increase the level of regulation with regard to nutrient and sediment loss from land use and farm plans by setting clear environmental standards for these activities in the plan, in line with the identified water quality issues across TANK in a way that the actual effects are able to be managed and measured now and into the future.	Oppose	FFNZ considers that an approach that focuses on managing the contaminants at issue and sources ought to be adopted (based on good catchment forensics and robust data) and does not support approaches that require reductions of all contaminants everywhere (especially in a blanket/non-tailored way, or in a way not supported by robust data and science). FFNZ considers that any regulatory intervention needs to be the least intervention needed to achieve the particular outcome and does not support an approach of increasing regulation in the TANK catchments.
123.29	DoC	Oppose	<u>“Freshwater bodies, estuaries and the coastal environment are healthy and free from sedimentation and land use is sustainably managed in an integrated way ki uta ki tai to achieve this”</u> or words to similar effect.		
Objective TANK 8					
58.7	HB Fish and Game	Amend	Insert “the habitat of trout and salmon” as an additional clause	Oppose	FFNZ does not agree that it is appropriate to provide for trout and salmon or that they are consistent with the intent of OBJ 8.
123.30	DoC	Oppose	<u>“Riparian margins are healthy and contribute to achieving the objectives in Schedule 26 and providing for the freshwater values in Schedule X, including ecosystem health, human health and mauri”</u> or similar words.	Oppose	FFNZ seeks amendment to OBJ TANK 8 so that water quality is improved where there is degradation of water quality or where water quality attributes are within the NOF ‘D’ Band. FFNZ does not agree that there ought to be a blanket requirement for riparian margins and considers they ought to be considered on a case by case basis where appropriate (but without obligation to consider in every farm plan, for example).
180.16	Horticulture NZ	Amend	Query what ‘appropriate management’ entails. Amend to say ‘is improved by appropriate management of riparian margins <u>that</u> to: a) reduces effects of contaminant loss from land use activities etc.....’	Support	FFNZ supports the relief sought to delete appropriate. FFNZ agrees that the addition of appropriate does not add any further clarity to the provision.
Objective TANK 9					
203.4	The Oil Companies	Amend	Amend to clarify that the objective is to protect source water. <i>Activities in source protection areas for Registered Drinking Water Supplies are managed to ensure that they do not cause source water in these zones to become unsuitable for human consumption, and that risks to the supply of safe drinking water are appropriately managed.</i>	Support	FFNZ considers that the relief sought by the Oil Companies to include ‘source’ is a helpful clarification.
Catchment Objectives					
120.36 120.47 120.132	Ngati Kahungunu Iwi	Amend	Place a limit on each river and stream both for total instantaneous rate of take and weekly volume which are supported by policies and rules. Set allocation limits for the Karamu and Ahuriri catchments Amend Change 9 to enable a specific management plan in partnership with tangata whenua and Maori landowners for Lake Poukawa	Oppose	FFNZ seeks to retain objectives 10, 11, 12, 13, and 14 as notified. FFNZ considers the objectives are appropriate to freshwater management in the catchment. FFNZ considers that there is insufficient data/science to place a limit on all waterbodies and does not agree that doing so would achieve sustainable management. FFNZ does not agree that further regulation of production farming is necessary or appropriate or that farm plans should be required for all farms over 10ha. Doing so would impose unnecessary and unreasonable cost for uncertain benefit. FFNZ does not agree that catchments are overallocated or that overallocation ought to be phased out or controlled by capping takes.
123.13 123.15 123.32	DoC	Not Stated/ Oppose	Control the use of production land for farming in all other catchments to maintain water quality. Require farm plans for all farms >10ha in the TANK catchments. Objectives 10, 11, 12 & 13 - Delete and include (reworded) as a policy for the associated catchment. Include all catchment specific values in a Schedule in PC9. Alternatively, redraft a catchment-specific objective which concisely and clearly captures the management intent and goals for the catchment.		
180.4	Horticulture New Zealand	Not Stated	All references to ‘catchment collectives’ should be amended to refer more broadly to ‘collectives’ and any other necessary changes be made to ensure that collective groups are enabled and recognised at any and every scale they form at.		

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
197.3	BLNZ	Amend	Catchment objectives - amend existing and include as required new objectives to give effect to the following intent: Replace words 'improve' & 'enhanced' in the context of water quality and quantity with 'managed or where degraded enhanced' or words to that effect. So as to achieve a shift in intent of objectives to be driven by the achievement of the end state values associated with freshwater. Replace objectives which seek to 'enable' with objectives which seek to 'provide for'.	Support in part	FFNZ supports an approach that focuses on maintaining within a NOF band or improving where below the national bottom line (or where the community determines it needs to be improved). FFNZ supports the intent of the amendments sought but has concerns about how "degraded" is defined (and considers it should be consistent with FFNZ's view on maintain/improve).
123.13 123.15 123.32 198.3	DoC EDS	Oppose Amend	Control the use of production land for farming in all other catchments to maintain water quality. Require farm plans for all farms >10ha in the TANK catchments. Objectives 10, 11, 12 & 13 - Delete and include (reworded) as a policy for the associated catchment. Include all catchment specific values in a Schedule in PC9. Alternatively, redraft a catchment-specific objective which concisely and clearly captures the management intent and goals for the catchment. Set allocation limits, minimum flow and high flow limits for all catchments	Oppose	FFNZ does not agree that production land for farming needs to be necessarily "regulated" or "controlled." Practices can be improved, for example, through non regulatory measures or industry programmes. FFNZ does not support all farms above 10ha having farm plans. FFNZ does not agree that it is necessary, appropriate or reasonable to set limits for all catchments. FFNZ is concerned that this will not achieve sustainable management and that there is insufficient data/science to do this.
216.6 216.7	NZ Apples & Pears	Not Stated	Water bans on a single minimum flow point is a very crude water management tool, a better approach could be staged reductions to maintain flow regimes and provide some water to maintain crops/rootstock in dry. Allocation based on the 'lesser amount of actual and reasonable' will directly impact land use change, land value, and growth, effectively locking the plains into historic patterns of water and land use. PC9 needs to provide opportunities for change that will enable improvements in freshwater management to be achieved and without adverse effects of the industry's potential for growth.	Support	FFNZ agrees that water restrictions based on single minimum flow points are crude and can have significant social and economic cost. FFNZ considers that restrictions ought to be based on robust data/science. FFNZ agrees that existing, lawfully established land uses ought to be recognised.
Objective TANK 10					
12.2	Ministry of Ed	Amend	Amend OBJ TANK 10 - ... healthy and diverse indigenous aquatic plant, fish and bird populations; c) people and communities to safely meet their domestic water needs and provide for the social infrastructure necessary to support these people and communities; primary production water for community social and economic well-being; and provide for; ...	Support in part	FFNZ agrees that domestic water needs, infrastructure to support people and communities and primary production water needs to be recognised and provided for.
58.8	HB Fish and Game	Amend	Amend (c) to insert "the habitat of trout and salmon" as additional wording	Oppose	FFNZ does not agree that it is appropriate to provide for trout and salmon or that they are consistent with the intent of OBJ 10.
180.12	Horticulture New Zealand	Not Stated	The provisions proposed in the plan may not be sufficient to address the issues challenging the ecosystem health of the Ahuriri Estuary. Sediment inflow to the estuary, at least in recent times, have largely been the consequence of recent, large scale subdivisions on the hills of the catchment. It is unclear how the rules of this plan change will tackle such activities.	Support	FFNZ agrees that there is a need for proper catchment forensics based on robust data/science to identify issues and to control the activities contributing to the issues. There should not be a requirement for primary production, for example, to have to make further reductions in sediment if this has been caused by urban subdivision.
Objective TANK 11					
29.42	HB Winegrowers	Amend	Amend to Rule TANK 11a) (ii) ii read: "takes of water associated with and dependant on release of water from a water storage impoundment <u>or from a managed aquifer recharge scheme.</u> " or similar wording to achieve the outcome sought in this submission. Amend OBJ 11 to read: "...and the taking, using, damming...".	Oppose in part	FFNZ is concerned about how "managed aquifer recharge scheme" is defined and that it may be beyond the scope of the plan change. Therefore it opposes the submission point.
123.5	DoC	Amend	Significantly increase the minimum flow in the Ngaruroro River to provide more habitat for indigenous fish at low flows (e.g., 80 - 90% of habitat at MALF).	Oppose	FFNZ is concerned about the reliability of setting minimum flows for the catchment as a whole and is concerned about the lack of robust science/data to set such allocation limits/volumes.
135.10	Ravensdown	Amend	Amend OBJ TANK 11 as follows: <i>g) primary production, industrial and commercial water needs and water required for associated processing and other urban activities to provide for</i>	Support	FFNZ agrees that all water needs, not just primary protection, need to be considered and subject to the same requirements.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
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3.13	Limestone Properties	Oppose	Mend clause (g): "primary production water needs and water required for associated processing and other urban and rural residential activities to provide for community social and economic well-being"		
Objective TANK 13					
117.5	Silver Fern Farms	Amend	Considers that retention of the operative limit under Band B would be appropriate as it is suitable in the Karamu Catchment.	Support in part	FFNZ supports an approach that focuses on maintaining within a band. However, it has some reservations about the appropriateness of the proposal without better understanding the science and implications.
Objective TANK 14					
120.41	Ngati Kahungunu	Amend	Limit groundwater allocation to 70 million m3 per year from the Heretaunga Plains Aquifer Impose limits of abstractions from the Heretaunga plains aquifer system so that Springs that feed into the Karamu are not restricted.	Oppose	FFNZ considers that limits ought to be based on robust data/science.
123.33 123.34 123.35	DoC	Oppose Amend	Delete objective 14 and replace with new objectives C and D (see points 123.34 and 123.35). Objective C - include as new objective. " <u>The mauri and quality of groundwater is maintained, enhanced or restored, to protect the health of groundwater dependent ecosystems, improve surface water quality, and make groundwater suitable for human drinking consumption</u> " Objective D - include as new objective. "Groundwater levels are maintained, enhanced or restored to protect the health of groundwater dependent ecosystems, future overallocation is avoided, and existing overallocation is phased out by 2040" or words to similar effect. Alternatively, overallocation could be addressed as one objective across surface water and groundwater (see new objective 'J' below). This would be more concise drafting but may not have the desired level of detail to direct the policies and rules.	Oppose	FFNZ considers that the amendments will likely impose significant economic and social costs for unknown or uncertain environmental benefit. FFNZ does not agree to a requirement that overallocation is phased out or that it is phased out by 2040.
124.23	Brownrigg Agriculture	Amend	Add after clause (f): and in doing so will: (g) continue to enable existing primary production land use activities adjacent to wetlands	Support	FFNZ agrees that existing primary production land use activities need to be enabled.
216.15 216.16	NZ Apples & Pears	Not Stated	As newer / lower consented allocation information numbers become available they should be used to update the different HBRC assessment models (e.g. over allocation, stream depletion impact assessment). Stream or river depletion assessments - provision for individuals to manage their own effects.	Support	FFNZ agrees that data around takes needs to be updated as it changes.
Objective TANK 15					
123.36	DoC	Oppose	Delete and redraft as an outcome " <u>Wetlands and lakes are maintained or restored and their extent in the TANK catchments is increased to support the freshwater values in Schedule X including healthy ecosystems, indigenous species and their habitats, mahinga kai (etc)</u> " or words to similar effect. Redraft policies on the management of activities (land use, damming, diversion and the taking of water) and on increasing wetland extent to support this objective. Clarify use of Waahi Taonga	Oppose	FFNZ does not agree that there should be a blanket requirement to increase wetland extent and considers that the proposed changes will likely impose significant economic and social cost. FFNZ is concerned about the social and economic costs of such changes.
58.9	HB Fish and Game	Amend	Insert "recreational" into the list of values	Support in part	FFNZ supports the relief to include recreational in the list of values, to ensure that HBRC wetland construction should be a notified consent with public input and also the placement of detailed wetland targets
145.5	Awanui	Amend	HBRC wetland construction should be a notified consent with public input. A proviso to		

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
	Station		protect landowners from such issues needs to be included		further into the Plan. We also support the relief sought to provide evidence with regard to evidence and transparency with regard to areas of concern. We consider these are helpful clarifications to the Objective along with the relief sought by FFNZ (inclusion of a note to clarify that wet, damp, or boggy ground, not intended to be captured within the meaning of 'Wetland and Lake waahi taonga.
29.54	Hawke's Bay Winegrowers	Not Stated	OBJ 15.g: Consider relocating detailed wetland targets into a policy for drafting consistency.		
180.17	Horticulture New Zealand	Oppose	Delete specific areas specified in (g) to be restored and created, unless evidence can be provided that shows where these areas are, and that no adverse off-site effects will result from the work.		
197.4	BLNZ	Amend	Amend existing and include as required new objectives to give effect to the following intent: Strengthen the requirements to provide for the economic wellbeing of people and communities; and In formulating freshwater objectives and limits, the economic wellbeing, including productive economic opportunities are provided for in the context of environmental objectives, values and limits.	Support in part	FFNZ supports the relief sought, to include in the objectives, recognition of the importance of primary production to the communities (economic and social wellbeing). We consider these amendments appropriate along with that sought from FFNZ (and submitters noted immediately above).
124.21	Brownrigg Ag	Oppose	Add as clause (g): primary production water needs and water required for associated processing and other urban activities to provide for community social and economic well-being		
Water Quantity					
145.11	Awanui Station	Not Stated	Water storage by way of a series of smaller dams sited beside the Ngaruroro River upstream is a simple and practical solution.	Support in part	FFNZ supports encouraging/enabling water storage
11.1, 11.2, 11.4, 11.5, 11.7, 11.8, 11.9	Matt Edwards	Oppose	Telemetry for all consents taking above 5l/sec appropriate for large takes. Smaller takes should be able to report directly to Council. Ninety-five percent reliability of water availability, lacks evidence. No information about reduction of available water for irrigation into the future as a result of urban requirements. 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. Urban not required to be efficient.	Support in part	FFNZ agrees with the concerns about ensuring that the obligation to install telemetry is reasonable (with an alternative option for smaller takes) and that minimum flow limits ought to be based on robust science/data. FFNZ also agrees that all takes need to be considered i.e. urban and rural.
22.1 22.2	PB & BG Clayton	Amend	Recommend the irracalc model is used for water allocation purposes and the 90% allocation level be raised, preferably to 100%. High flow allocation and water harvesting - Greater direction be given to minimising residual flows in high flow periods whilst water harvesting.	Support in part	FFNZ agrees that there should be flexibility to use the most appropriate and reliable model.
219.76	M & J Russell	Oppose	Changing land use needs to be provided for (e.g from orchard or horticulture- concern will not be able to do this if our water supply is limited by volume). Also the ability to store water to irrigate pasture in dry seasons.	Support	FFNZ agrees that land use change ought to be provided for.
54.2	Apatu Farms	Amend	Amend Change 9 to ensure that sufficient water is available to provide for the critically important role of horticulture (some submitters focus on agriculture or farming) to the future sustainability of the TANK Catchments (a number of submitters discuss economic consequences in particular)	Support in part	FFNZ agrees that sufficient water ought to be provided , noting that s 14(3)(b) specifically recognises animal drinking needs. FFNZ considers that sufficient water could be addressed in a range of ways e.g. enabling water storage, reasonable minimum flows or water restrictions, greater certainty around when water shut down would occur etc.
24.9, 133.3, 49.75, 138.5, 207.70, 207.71, 207.73, 207.76,		Not Stated	Retain opportunities for wider initiatives (rural, urban, infrastructure). A number of submitters also propose that existing water right holders need to reapply.	Support in part	FFNZ agrees that all water takes ought to be considered (not just rural). FFNZ does not agree that all consent holders should apply (and considers they should only have to re-apply for consent upon expiry of consent)
29.4	HB Winegrowers	Oppose	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 (some submissions also refer to efficient users shouldn't be punished).	Support in part Oppose in part	FFNZ considers that all land uses (urban and rural) need to do their part to improve water quality. FFNZ also considers that any controls ought to be effects based and tailored to the particular land use and water quality issue

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
46.4 46.10 46.12 46.13 46.14	Peter Beaven & Tom Belford	Support/ Amend	Water harvesting and on-land storage schemes will be permitted, but these will need to proceed through normal RMA review processes to establish their environmental suitability. Water storage is not just a matter of interest to irrigators. The need is to store water in every conceivable way and venue.	Support in part	FFNZ agrees that a range of water storage options ought to be considered and encouraged.
230.2, 232.2		Amend	Water allocation for irrigation developments must be reduced to keep all of our Tributaries full to capacity – to feed rivers. A substantial reduction of allocation and abstractions from ground water & surface water that contribute to low flows in – or no water being available to already diminishing streams.	Oppose	FFNZ considers this a blunt approach that does not consider the particular irrigation/activity or the efficiency of the take or the water flows.
237.5, 237.6, 237.7	Whitewater NZ	Amend	Include limits and rules to maintain or improve water quality. Prohibit damming on the mainstem of the Ngaruroro and in all tributaries above Whanawhana and further abstraction of water (other than as provided for under section 14(3)) from the Ngaruroro River and tributaries above Whanawhana.	Oppose	FFNZ considers this a blunt approach that does not consider the particular activity or water quality issue.
16.13, 209.2, 209.3, 209.4	B Hamlin W Davis	Oppose	Amend Change 9 so that when river, streams, groundwater levels artesian pressure is depleted there are strategies implemented to restore (sub point 16.13 suggests to original state).	Oppose	FFNZ agrees in principle that when water is low there ought to be strategies to improve flows (and this could include water storage and options to conserve water). However, FFNZ considers that the proposal is too vague and blunt.
123.2, 123.3 123.4, 123.6, 123.7 123.37, 123.3, 123.39 198.4, 198.5, 198.6 198.8	DoC EDS	Oppose/ Amend	Ensure all water takes are required to cease at minimum flows except essential water takes for human drinking water supplies (which should be required to reduce during water shortage and at minimum flows).Abstractions which deplete streams should cease when minimum flows are reached in all cases. Ensure all water takes (including those for water storage and stream flow maintenance schemes) are within low flow and high flow allocation limits. Ensure all allocation limits are less than 30% MALF. Set high flow allocations for all rivers that ensure hydrological alteration of the flow regime is minimised and maintained close to natural flow regimes. Do not allow transfer of water permits into over-allocated ground and surface water management units. Objectives 16, 17 and 18. Delete from objectives and move in PC9 to include as a policy and apply also to groundwater.Add new objectives E and F (see points 123.38 and 123.39). Objective E - include as a new objective. “Flows and levels in surface waterbodies are maintained or enhanced to safeguard lifesupportingcapacity and ecosystem health, recognise Te Mana o te Wai and to provide for the values in Schedule X and water is allocated efficiently within the limits in Schedules 31 and 32 and all water is used efficiently” Objective F - include as a new objective. “Future overallocation of surface water will be avoided and any existing overallocation will be phased out by 2040” or words tosimilar effectAlternatively, this objective could be combined with the suggested objective relating to overallocation of groundwater Include clear objectives and policies to phase out over-allocation of surface and groundwater and to avoid future overallocation, safeguard life-supporting capacity and ecosystem health, protect the significant values of outstanding freshwater bodies and wetlands Ensure that water takes are required to cease at minimum flows (except essential water takes for human water drinking supplies) and that all water takes are within low flow and high flow allocation limits Set high flow allocations for all rivers that ensure hydrological alteration of the flow regime is minimised and maintained close to natural flow regimes Prevent the transfer of water-permits into over-allocated ground and surface water freshwater management units	Oppose	FFNZ considers that the proposal is too restrictive, will impose significant economic and social cost, and there are no grounds for adopting a precautionary approach. FFNZ considers the most appropriate activity status ought to be adopted and prohibited is unreasonable. FFNZ does not agree with the way the submitters propose to prioritise streams or determine over allocation. FFNZ does not agree with imposing more stringent minimum flows or water restrictions or limits on takes.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
120.6 120.7 120.8 120.9 120.32 120.33 120.34 120.39 120.45 120.46 120.55 120.57 120.58 120.61 120.67 120.68 120.69 120.76	Ngati Kahungunu Iwi	Amend	<p>Amend Change 9 to</p> <ul style="list-style-type: none"> include a capped total groundwater allocation limit of a maximum of 70 million m3 per annum cease mining groundwater and phase out overdrafting within the Heretaunga Plains Aquifer System, reduce over abstraction and allocation of TANK surface waters (see Attachment 2 for numerical values). to introduce (over the 10 year life of the Plan) a new system of allocation of water in the TANK catchments that does not rely exclusively on "first in, first served" and "grandparenting"; and that enables allocation of water in a way that provides for tikanga, whakapapa, recognition of rangatiratanga and Ngati Kahungunu's native title and proprietary interests in the TANK catchments and wider sustainable management – water permits should be discretionary ensure that Te Mana o Te Wai is given full and proper effect and that the Mauri and other cultural values of the waterbodies within the TANK catchments are restored and protected <p>And to ensure alignment between PC9 and the RRMP</p> <ul style="list-style-type: none"> Consider all groundwater (including shallow groundwater) within the allocation limits and stream depletion provisions. Ensure all water takes are within low flow, cultural allocation to Ngati Kahungunu and high flow allocation limits (less than 30% naturalised MALF) Protect and enhance lowland springs so no negative effects on spring flows from water allocation Restore depleted surface water flows and extent of streams, wetlands and springs through sustainable and precautionary allocation limits Phase out, during the life of PC9, the grand-parenting and first in, first served regime in favour of an improved allocative model that enables recognition of the cultural and biodiversity values identified. Ensure commercial water takes (particularly groundwater) do not compromise existing private drinking water bores (existing infrastructure) and human health is the priority consideration. Remove presumption that existing consent holders will be able to renew water take permits regardless of use or volume and require all takes to be within sustainable (high and low) allocation limits and takes will cease at minimum flow except provision for explicitly prioritised essential uses e.g community supply Implement a framework by which existing takes will be phased out (along with over-allocation and over abstraction) and consequently enable a (low flow) tangata whenua allocation to be provided for. Any cultural allocation to Ngati Kahungunu shall not have a stipulation as to its use and the policy should not be used as a tokenistic method of addressing the cultural needs and aspirations of Maori. 	Oppose	<p>FFNZ does not agree with the way the submitters propose to prioritise streams or determine over allocation.</p> <p>FFNZ does not agree with imposing more stringent minimum flows or water restrictions or limits on takes.</p> <p>FFNZ does not support phasing out grand parenting or first in first served and considers that any over allocation ought to be address through a community and future plan change process.</p>
180.1 180.2 180.8	Horticulture New Zealand	Not Stated	<p>Critically important Plan Change 9 maintains sufficient flexibility in water use moving forward to allow other technological advancements to be facilitated.</p> <p>It is critical that the harvesting of water at high flows, and storage for later utilisation, is provided for by the TANK plan change. The total allocation of high flow water identified in the plan must be able to be harvested, and further work also needs to be done to identify whether or not additional water can be taken for this purpose.</p> <p>PC9 also effectively locks everyone into historic patterns of water and land use, which arguably is a pattern of water and land use that has resulted in some adverse effects on the environment. This plan change needs to provide opportunities for change that will enable</p>	Support	FFNZ agrees that flexibility is important and that water storage/harvesting ought to be enabled.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			improvements in freshwater management to be achieved. If the changes set out in this submission are incorporated into the plan change, then that could potentially be addressed.		
193.18 193.20 193.21 193.23 193.24	Heinz Wattie's Limited	Not Stated	<p>Policies concerning consent renewal reliant on good water allocation records should not be enacted unless those records exist</p> <p>There is little opportunity to effect change, especially around new water use, even from storage</p> <p>The policies that support water storage are laudable, but the policies around harvesting, reticulating and utilising that stored water are inconsistent with the objectives. If a significantly greater proportion of irrigation was provided from storage, that would lessen the perceived impact on surfacewater bodies. Augmentation of these waterways may not be necessary.</p> <p>The consequence of policies as worded regarding reallocation of consents on the basis of "Actual and Reasonable" will not allow the use of previously allocated but not utilised water to be used to augment surface water flows (as is currently practiced by the Twyford Water Users group) because there will no longer be un-utilised water. The Global consents model that has been lauded a success by the HBRC will no longer be effective, unless as a collective they seek to augment with water from elsewhere (Storage).</p>	Support in part	FFNZ agrees that consent renewal should be based on efficient and actual water use.
197.5 197.6	BLNZ	Amend Oppose	<p>OBJ 16, 17 and 18 and associated policies and rules - Amend existing and include as required new objectives, policies and rules to give effect to the following intent:</p> <ul style="list-style-type: none"> • Provide for stock drinking water as a priority(permitted activity) take; • Establish take volumes (eg 70L per animal per day) which provide for animal health and wellbeing... • Enable these volumes to be taken as permitted activity; • Enable priority takes below minimum flows; or • Amend minimum flows to 1st limit takes for non priority uses; and <p>Enable priority takes to down to limits required to safeguard ecological health.</p> <p>Include new or amend existing objectives for Water quantity and allocation - Water quantity is managed to enable people, industry and agriculture to take and use water to meet their reasonable needs while ensuring</p> <p>a) For surface water:</p> <ol style="list-style-type: none"> i. minimum flows and allocation regimes are set for the purpose of maintaining or enhancing (where degraded) the existing life supporting capacity of rivers and their beds, and providing for communities' values for freshwater. These values include community wellbeing, cultural values, economic values, and existing use and investment; ii. in times of water shortage where limits are being approached or are breached, takes are restricted to those that are essential to the health or safety of people and communities, and drinking water for animals, and other takes are progressively reduced; the amount of water taken from waterbody does not compromise its existing life-supporting capacity or physical form and function; 	Support in part Oppose in part	<p>FFNZ agrees that priority ought to be given to animal drinking and welfare needs (such as dairy shed washdown). However, FFNZ has concerns about specifying limits for animal drinking needs as this will vary depending on season and should not result in an obligation to install telemetry just for that take.</p> <p>FFNZ does not agree with the proposals to set more stringent minimum flows.</p>
Objective TANK 16					
25.6	Xan Harding	Amend	<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>	Support in part Oppose in part	FFNZ supports an approach which enables and provides for primary production and under which all activities or land uses play their part

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
58.1	HB Fish and Game	Amend	Amend objective to state "subject to limits, targets, and flow regimes that reflect Te Mana o Te Wai or the mauri of the waterway" or as recommended by tangata whenua.	Oppose	FFNZ does not agree that the objective should be subject to limits, targets and flow regimes and is concerned that such an approach may result in no activity being able to obtain consent (which would involve significant social and economic cost).
63.2, 63.3	Napier City Council	Amend	Amend subclause (b) to read: (b) The allocation and reservation of water for domestic supply including for marae and papakainga, and for municipal supply so that existing and future demand as described in HPUDS (2017) and successive versions and/or any requirements prescribed under a NPS on Urban Development can be met within the specified limits; Amend Objective 16 to ensure that sufficient water is allocated for domestic and municipal supplies to allow for future and existing growth demands.	Oppose in part	FFNZ is concerned that water should not be allocated for existing or future growth demands given that these are not present water needs but forecast future needs that may or may not eventuate. It could also result in an existing agricultural water need not obtaining consent on the basis of a future need that may or may not happen.
135.15	Ravensdown	Amend	Amend OBJ TANK 16 as follows: <i>c) Primary production on versatile soils ;</i>	Support	FFNZ agrees that priority ought to be given to primary production, irrespective of where that occurs.
207.2	HDC	Amend	Amend subclause (b) to read: The allocation and reservation of water for domestic supply including for marae and papakainga, and for municipal supply so that existing and future demand as described in HPUDS (2017) <u>and successive versions and/or any requirements prescribed</u> under a NPS on Urban Development can be met within the specified limits;	Oppose	FFNZ considers that PC9 should provide for the current NPS and any future NPS for Urban Development should require amendment through a plan change (and Schedule 1 process)6
Objective TANK 17					
180.18, 180.28	Hort NZ	Amend	Amend to clearly state that subsections a)-d) are <u>not</u> listed in any order of priority. Amend as follows: 'The Council will achieve or maintain the freshwater targets or freshwater objectives in Schedule 26 <u>by working with</u> landowners, <u>landowner collectives</u> , industry groups, and other stakeholders and will implement the following measures; a) <u>establishing</u> programmes and processes through Farm Environment Plans, <u>Catchment Landowner</u> Collectives and Industry Programmes to ensure land managers; (i) <u>adopt industry good management practice</u> ; (ii) identify critical source areas of contaminants at all relevant scales; (iii) <u>adopt effective measures to mitigate or reduce contaminant loss where this is necessary to achieve good management practice</u> ; prepare nutrient management plans in catchment not meeting targets for dissolved nitrogen;	Support	FFNZ agrees that the matters are not prioritised and agrees that the proposed wording changes improve readability and clarity.
Objective TANK 18					
29.8	HB Winegrowers	Amend	Amend OBJ TANK 18.e to read "water harvesting, storage and <u>controlled release</u> ." or similar wording to achieve the outcome sought in this submission.	Support	FFNZ agrees that a range of water harvesting and storage activities or practices ought to be provided for.
58.12	HB Fish and Game	Amend	Amend to place the present and future mauri of the waterway ahead of the needs of future generations or as recommended by tangata whenua.	Oppose	FFNZ does not agree that priority should be given to the mauri, particularly when this has not been defined or the implications assessed, and the focus of the objective is on matters like water storage (which would help to increase water flows)
180.19	Hort NZ	Amend	Amend to state that sub-sections <u>are</u> in order of priority, and reorder to list as follows: a) Water harvesting and storage; b) Flexible water allocation and management regimes; c) Aquifer recharge and flow enhancement; d) Water conservation, water use efficiency, and innovations in technology and management; e) Water reticulation	Oppose	FFNZ is concerned that requiring a-d to be considered in priority would unduly constrain options for improving water security.
233.9	HBDHB	Amend	Add new bullet point a) Sustainable water allocation	Oppose	FFNZ considers the focus of the policy is not on water allocation.
5.10.2 Policies: Surface Water and Groundwater Quality Management					

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
120.37 120.38 120.59 120.131	Ngati Kahungunu	Amend	Consents for groundwater abstraction near Maraekakaho should be aligned with total surface water depletion quantum and accounted for in the Ngaruroro management regime. Surface water depletion effects of groundwater takes near Maraekakaho need to be regulated through Fernhill OR the monitoring site could be moved to the actual confluence. Increase minimum flow requirements for the TANK catchment to address the cultural and biodiversity issues identified in this submission. Totally review land drainage and wetland management provisions to give effect to national policy direction and regulation and adequate protect groundwater	Oppose	FFNZ does not support changing allocation limits or increasing minimum flows. FFNZ does not agree that a different management regime is required.
197.7	BLNZ	Amend	Amend existing and include as required new policies to give effect to the following intent: More explicitly provide for the development and implementation of Farm Environment Plans, Catchment Collectives and Industry Programmes as the preferred approach to environmental management and recognise them as a priority to achieving freshwater targets and objectives.	Support	FFNZ supports a tailored approach and flexibility to provide for farm plans and improved farming practices through a range of regulatory and non regulatory options
Priority Management Approach					
29.9	HB Winegrowers	Amend	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.	Support in part	FFNZ supports the use of catchment groups and catchment management plans as non regulatory methods to improve water quality.
142.15	Big Hill Station	Amend	Amend Policies 1 and 4: No regulatory impositions on sediment control until accurate data sets are available for defined catchments. With reference to accurate data sets establish reasonable and separate sediment and phosphorus outcome criteria for land users to abide by	Support in part	FFNZ agrees that regulatory requirements to reduce contaminants ought to be based on robust data/science
120.73 120.91	Ngati Kahungunu	Amend	Provide for consideration of the appropriateness and efficiency of an activity within the TANK catchments in terms of its water use and contaminant loss aspects by removing the presumption that all existing water takes will automatically be renewed and that land uses will continue unchecked by regulation. Amend policies 1-5 to make it clear that improvement is needed in all TANK catchments wherever water quality objectives are not currently met, to achieve targets by 2040, and detail the means by which decision makers and plan users are guided to achieve this (e.g., through regulating activities).	Oppose	FFNZ does not support an assumption that all land use must be regulated or reduce takes or that targets ought to be met by 2040.
192.2	T&G Global Limited	Amend	Sufficient water must be made available to provide for horticulture. If water becomes available for reallocation, priority should be given to the use of water for horticulture.	Oppose	FFNZ does not agree that priority for ought to be given to horticulture above all other land uses.
POL TANK 1					
14.4, 15.3, 20.6		Amend	Amend Policy 1 - Amend to require Council to establish and maintain a community catchment governance body to oversee subcatchment activities within the TANK catchments.	Support in part	FFNZ agrees that clear rules or structure needs to be provided for catchment collectives but is concerned to ensure this is not unduly bureaucratic and is able to be tailored to the particular catchment/community
58.13	HB Fish and Game	Amend	Amend Policy to include nitrogen in Policy 1 and/or in all other policies that recursively reference Policy 1.	Oppose	FFNZ does not agree that there should be a focus on nitrogen
123.4	DoC	Amend	The water quality of surface and groundwater bodies will be maintained where objectives of Schedule 26 are currently met and improved to meet targets in Schedule 26 where these are not met by 2040 by: a)Working with mana whenua, landowners, local authorities... etc b)Managing and regulating land use activities to improve water quality in catchments identified in Schedule 28 as a priority c)Where phosphorous and microbial pathogens are not meeting the objectives of Schedule	Oppose	FFNZ does not agree that there should be a requirement to achieve Schedule 26 by 2040 and does not support actions proposed to meet targets.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			26, also regulate and manage land use activities which generate sediment (as a key contaminant pathway) d) Managing and regulating land use activities to reduce sedimentation and macrophyte growth in lowland rivers e) Managing and regulating land use to reduce nutrient loads to the Waitangi and Ahuriri estuaries f) Enable the maintenance of existing and creation of new sustainable riparian margins g) Manage and regulate stormwater networks to reduce contaminants to water h) Manage and regulate land use activities to protect the water quality of domestic and municipal water Manage and regulate point source discharges to reduce contaminants to water		
126.14	James Lyver	Amend	Amend Policy 1 under the heading "Water Management Overview" to read: The Council will regulate or Manage land use activities and surface and groundwater bodies in the <u>Tutaekuri, Ahuriri, Ngaruroro and Karamu catchments</u> so that water ... n in <u>Freshwater Objectives in Schedule 26 are met by focussing on:</u> a) <u>requiring a general improvement in farming practice to reduce the diffuse discharge of contaminants;</u> b) <u>requiring a greater level of scrutiny on the management of farming enterprises located within 'High' and 'Medium' priority catchments</u> water quality .. subcatchments (as described in Schedule 28) <u>where current state water quality is not meeting specified freshwater quality targets objectives in Schedule 26;</u> c) <u>focussing on the enhancement and</u> management of riparian margins; d) <u>requiring a greater level of scrutiny for the management of urban stormwater networks to and the reduction</u> reduce of contaminants in urban stormwater <u>discharges into TANK waterbodies and TANK estuarine systems;</u> e) <u>requiring the protection of water quality for domestic and municipal water supply;</u> f) <u>recognising reductions in the discharge of contaminants will need to continue more than 10-years after PC9 is operative to achieve freshwater objectives in Schedule 26.</u> b) sediment management as a key <u>Waitangi estuaries;</u>	Oppose	FFNZ is concerned that the proposed amendments have the effect of requiring everyone to improve everywhere (not just where water quality is degraded or farming practices are "poor"). FFNZ does not agree that the objectives are freshwater objectives or that there should be a focus on riparian margins or that it is appropriate to signal reductions beyond the lifetime of this plan.
201.32	Heretaunga Tamatea	Amend	The Council will regulate land use activities and activities affecting surface and ground water bodies so that water quality attributes are maintained at their current state or where required show an improving trend towards the water quality targets shown in Schedule 26 by focussing on (matters outlined in submission).	Oppose	FFNZ considers that Policy 1 (as amended in its submission) better achieves sustainable management and is concerned that the proposed changes do not provide for a "maintain within a band" approach or appropriately take into account social and economic cost.
210.25	Forest and Bird	Amend	Reword the policy to make it clear that water quality improvements are needed wherever objectives are not currently met, and targets should be achieved by 2040, then state the way decision makers will achieve this. Care should be taken to reflect national planning standards format and the NPS Freshwater Mgmt. Also remove the interdependency between this policy and Policy 6, and format the policies in a clear way so that decision makers are not required to move back and forward through the plan in making decisions.	Oppose	FFNZ does not agree that water quality improvements are required everywhere or that they have to be achieved by 2040
POL TANK 2					
99.104, 180.21		Amend	Amend by adding 'landowner collectives' to the start of the policy, and add to the end of a)i) and biosecurity requirements of adjacent land use'	Oppose in part	FFNZ is not sure what is meant by "landowner collectives" and is concerned about the governance of such groups and how they would be responsible achieving the required outcomes. FFNZ is also concerned about what is meant by "biosecurity requirements" and the obligaitons this would impose.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
210.26	Forest and Bird	Oppose	Remove parts of the policy that would be better in a 'methods' section (e.g. "establishment of riparian vegetation to shade the water and reduce macrophyte growth while accounting for flooding and drainage objectives"). Reword to provide more direction on what the water quality objectives are, and how and when they will be achieved (without writing methods).	Oppose in part	FFNZ would support removing matters that are better described as methods but does not support changing the wording of the policy to specific the water quality objectives and how they should be achieved.
POL TANK 3					
58.14	HB Fish and Game	Amend	Amend to refer to catchments where a lake or wetland is a receiving environment, including most sensitive receiving environment for catchments above the lake or wetland.	Oppose	FFNZ does not agree that a different management approach should be adopted where a lake or wetland is the receiving environment
123.42	DoC	Amend	Policy 3 - The significant values and ecosystem health of wetlands and lakes will be protected and enhanced where necessary by: a) <u>Working with landowners in wetland and lake catchments</u> b) <u>Managing and regulating land use activities in wetland and lake catchments to reduce sediment and nutrient inputs, improve water quality and support indigenous macrophyte growth in shallow lakes</u> c) as currently worded d) <u>Meet water quality objectives and targets in Schedule 26 in downstream waterbodies affected by wetland or lake water quality</u> <u>Enable landowners to protect, increase and restore existing wetland and create new wetlands</u> Add attribute states for lakes to Schedule 26	Oppose	FFNZ considers the policy ought to be amended as proposed in its submission. It does not agree with the amendments proposed by DoC.
210.27	HB Forest and Bird	Amend	Remove parts of the policy that would be better in a 'methods' section. Reword the policy to focus on what is to be protected/restored (i.e. the outcome) rather than what council will do. E.g. "The values and ecosystem health of wetlands and lakes will be protected and enhanced by..."	Oppose in part	FFNZ would support removing matters that are better described as methods but does not support changing the wording of the policy to specific the water quality objectives and how they should be achieved.
POL TANK 4					
123.43	DoC	Amend	<u>Manage and regulate land use in priority catchments in Schedule 28 to address priority water quality issues in Schedule 28 and to maintain objectives and achieve targets in Schedule 26 by 2040.</u>	Oppose	FFNZ supports a prioritised approach but considers that the amendments proposed will not appropriately prioritise catchments/water quality issues and it is not appropriate to require this to be achieved by 2040.
180.22	Hort NZ	Amend	Amend by adding definition of 'lower Ngaruroro' and planning map outlining extent of area.	Support	FFNZ agrees that it would improve certainty if "lower Ngaruroro" was defined.
210.28	Forest and Bird	Amend	Remove parts of the policy that would be better in a 'methods' section Reword to provide more direction on what the water quality objectives are, and how and when they will be achieved (without writing methods).	Oppose in part	FFNZ would support removing matters that are better described as methods but does not support changing the wording of the policy to specific the water quality objectives and how they should be achieved.
POL TANK 5					
123.44	DoC	Amend	Manage and regulate land use in priority catchments in Schedule 28 to address priority water quality issues in Schedule 28 and to maintain objectives and achieve targets in Schedule 26 by 2040. Insert point E) to work with Napier city to improve fish passage and restore spawning habitat.	Oppose	FFNZ supports a prioritised approach but considers that the amendments proposed by DoC will not appropriately prioritise catchments/water quality issues and it is not appropriate to require this to be achieved by 2040
210.29	Forest and Bird	Amend	Remove parts of the policy that would be better in a 'methods' section. Reword to provide more direction on what the water quality objectives are, and how and when they will be achieved (without writing methods).	Oppose in part	FFNZ would support removing matters that are better described as methods but does not support changing the wording of the policy to specific the water quality objectives and how they should be achieved.
Protection of Source Water					

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
29.10, 29.39	HB Winegrowers	Amend	Amend Policies 6, 7 and 8 – 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.	Support	FFNZ agrees that the focus should be on reducing risks using farm plans etc and not on assessing actual and potential effects (which can be very difficult to quantify and assess)
207.67, 207.77	HDC	Amend	TANK Plan Change needs to ensure that it is not inconsistent with the legislative requirements and regulatory framework for source water protection. The specific wording and provisions may need to be amended as the Water Services Bill process progresses.	Oppose	Any amendment as a result of a new Act should occur through a future plan change process
POL TANK 6					
180.23	Hort NZ	Amend	Amend by adding as subsection (b) <u>'requiring Registered Drinking Water Suppliers to quantify the vulnerability of the registered drinking water supply to contamination, and then undertake an assessment of options to relocate existing drinking water supplies to less vulnerable locations'</u> .	Support	FFNZ agrees that drinking water suppliers ought to have an obligation to look for less vulnerable locations for sourcing water.
123.45	DoC	Amend	Policy 6 - Source protection zones need to be clearly identified in Schedule 28.	Oppose	FFNZ does not agree that it is appropriate to add the zones to Schedule 28
233.11	HBDHB	Amend	Extend the definition of Water Source Protection Zone to all registered water supplies serving 25 persons or more.	Oppose	FFNZ considers this is too broad
POL TANK 7					
180.24	Hort NZ	Amend	Amend by adding subsection e) as follows: <u>require applications to include an assessment of the vulnerability of the location to contaminants from existing activities, and sites that are vulnerable are avoided where possible.</u>	Support	FFNZ agrees that drinking water suppliers ought to have an obligation to look for less vulnerable locations for sourcing water.
POL TANK 8					
180.25	Hort NZ	Amend	Amend by adding an additional subsection to b) <u>as follows: nature of existing land and water use within Source Protection Zone, existing investment in those activities, and the specific locational needs of those activities.</u>	Support	FFNZ agrees that existing land and water use ought to be taken into account
207.41	HDC	Amend	Amend Policy 8 to read: (v) any risks to the proposed landuse, <u>water takes</u> or discharge activity has either on its own or in combination with other existing activities as a result of non-routine event. (vi) <u>any risks ensuring the water supplier is aware</u> of any abstraction of groundwater where abstraction has the potential to have more than a minor impact on flow direction and speed and/or hydrostatic pressure (viii) <u>outcomes of consultation with the Registered Drinking Water Supplier with respect to the risks to source water from the activity, including measures to minimise risk and protocols for notification to the Registered Drinking Water Supplier in the event of an event which would present a risk to source water."</u>	Oppose	FFNZ does not agree it is appropriate to consider water take risks in this policy
Managing Point Source Discharges					
120.106	Ngati Kahungunu	Amend	Amend so that all point source discharges are subject to the objectives and targets in Schedule 2, timeframes to achieve those targets, and continuous improvement.	Support in part	FFNZ considers that all land use activities or discharges ought to be subject to the same objectives and targets
POL TANK 10					
58.15	HB Fish and Game	Amend	Amend to state a no greater than 20% change in QMCI downstream (after reasonable mixing) of the point source discharge site when compared with a reference site immediately upstream of the discharge site.	Oppose	FFNZ is concerned this is an unreasonably high standard.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
123.46	DoC	Amend	Amend to include reference to reducing contaminant from point source discharges where objectives in Schedule 26 are not being met currently in order to meet targets by 2040.	Oppose	For same reason as FFNZ opposes this requirement of diffuse discharges (see above)
210.31	Forest and Bird	Amend	Amend to reference meeting Schedule 26 targets where objectives are not currently being met and include timeframe.	Oppose	FFNZ does not agree that there should be a requirement to meet specific numeric attribute targets or that a timeframe should be imposed on this
135.22	Ravensdown	Amend	Amend Policy 10 as follows: <i>c) when it is an existing activity, identification of the mitigation measures, where necessary, and timeframes for their adoption that contribute to the meeting of fresh water quality objectives.</i>	Support in part	FFNZ agrees that activities will “contribute” to meeting objectives but does not agree that they should be specified as “freshwater” objectives
Riparian Land Management					
17.6, 21.6, 40.6, 45.8, 112.6, 114.3,		Amend	Support with amendments objectives to increase riparian planting and wetlands. 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.	Oppose	FFNZ does not support a blanket requirement to increase riparian planting and wetlands. FFNZ considers that a tailored approach ought to be adopted.
106.10, 120.56, 120.128, 120.129, 120.130		Amend	Restore and revegetate immediate area surrounding lowland springs, and ensure access to these springs for cultural reasons is Improved. Amend to link to stock exclusion, cultivation, and setbacks from water and address catchment-wide land use. Require riparian management, adequate setbacks and wider catchment management where there are specific water quality issues or targets. Suggestions for other sediment control mechanisms provided. Specifically link riparian management to providing for freshwater values.	Oppose	FFNZ considers tailored solutions ought to be adopted and not a blanket approach or requirement to restore and revegetate everywhere, for example
141.6, 145.7		Amend	To be accessed case by case. Maybe not fencing in difficult terrain but just planting trees. The planting of trees and shrubs by waterways should not affect or interfere with drain efficiency or waterflow. Riparian planting may well limit access by drain clearing machinery or may be an impediment to the widening or deepening of drains that could be required. This needs to be signalled in PC9.	Support in part	FFNZ supports a tailored approach that considers a range of options to address a critical source area or risk. FFNZ is also concerned that solutions/options need to be practicable and workable.
POL TANK 11					
123.47	DoC	Amend	Amend to include reference to reducing contaminant from point source discharges where objectives in Schedule 26 are not being met currently in order to meet targets by 2040. 11b - Amend to include shading of other catchment tributaries	Oppose	FFNZ does not agree that there should be an obligation to achieve Schedule 26 by 2040 or a blanket approach to contaminant management or to the actions required.
210.32	Forest and Bird	Amend	Support in part. Amend as per our comments (move to methods)		
POL TANK 13					
180.26	Hort NZ	Support	HortNZ supports and encourages the council to work alongside growers to improve riparian management (where it is appropriate taking into account biosecurity matters), and as highlighted earlier, encourage the council to start providing this support as soon as they can, to enable landowners to start making improvements ahead of this plan change becoming operative. HortNZ also notes a need to potentially clear indigenous vegetation for biosecurity purposes, which is addressed in relation to the specific rules later in this submission.	Support	FFNZ agrees that council should work with growers (and farmers and other land uses) and that actions needs to be practicable and workable (including recognising that addressing biosecurity risks might require clearance of indigenous vegetation).
123.49	DoC	Amend	Values are not listed in Policies 11 and 12. PC9 needs a schedule of identified freshwater values and where they apply (Schedule X) which can then be referenced by this policy.	Oppose	FFNZ considers that tailored solutions (regulatory and non-regulatory) are required and does not support blanket requirements to do things like riparian planting. FFNZ does not agree with adopting a schedule of freshwater values.
201.35	Heretaunga Tamatea	Amend	Amend bullet points and add new bullet points starting with a) working with industry groups and land owner collectives to identify where riparian management needs to be improved; and additional points to align with broader submission		

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
210.34	Forest and Bird	Amend	Move to a 'methods' section, or reword to better reflect best practice policy frameworks. Remove 'significant' from (c) – i.e. “regulating cultivation, stock access and indigenous vegetation clearance activities that have an significant adverse effect on functioning of riparian margins in relation to water quality and aquatic ecosystem” Create a schedule of freshwater values with a note on where they apply (Schedule X) which can then be referenced by this policy.		
Wetland and Lake Management					
113.9, 113.1	Te Tumu Paeroa	Amend	Land utilisation and management practices could be more appropriately determined by an individual or site specific plan rather than a generic approach as signalled by the provisions of schedule 24 - wetland mapping area for Poukawa (2015). The determination of the setback area from the water edge (and incoming freshwater requirements) is unclear when viewed in conjunction with the lake (verge) and the outline of the wetland as shown in schedule 24 (Pc5). Recommends the following; That council engage directly with Te Tumu Paeroa and the Poukawa 13B Trust to develop and determine a site specific plan for Poukawa Waiu, including land utilisation and improvement of the water quality of the lake; Mitigation and alignment of the restoration plan to Te Mana o te Wai	Oppose	FFNZ does not consider it appropriate or necessary to amend the policies and schedules relating to lakes and wetlands.
123.5	DoC	Amend	Policy 14 & 15 - Include description of wetland and lake values in Policy 3. Policy 14e - Amend to include enhancement of lake water quality and include attributes for lakes in Schedule 26.		
POL TANK 14 & 15					
58.16	HB Fish and Game	Amend	Amend (a) to state “as a habitat for indigenous and valued introduced” species. This may also require a subsequent change to the definitions.	Oppose in part	FFNZ considers Policies 14 and 15 ought to be retained as notified.
210.35	Forest and Bird	Support	Reword and merge with Policy 3 or split into method/policy components. Amend to include reference to wetlands' value in creating drought resilience, for soil moisture retention, and for groundwater recharge. Amend (f) to read “f) fish habitat and spawning”		
58.17	HB Fish and Game	Amend	Amend to include Hawke's Bay Fish and Game Council on the list	Oppose in part	FFNZ sought to amend Policies 14 and 15 to be retained as notified. We accept the relief sought by Fish and Game to be included.
210.36	Forest and Bird	Amend	Reword and merge with Policy 3 or split into method/policy components.		
Phormidium Management					
POL TANK 16					
123.51	DoC	Amend	Amend as: To meet benthic cyanobacteria objectives and targets by 2040 and to support the values in Schedule X Delete all references to Phormidium and replace with potentially toxic benthic cyanobacteria as this is no longer the correct name for this genus.	Oppose	FFNZ does not agree with broadening the scope of Policy 16 to new contaminants and requiring new actions.
210.37	Forest and Bird	Amend	Consider what might be better placed in a 'methods' section. Amend to read: “The Council will address the risks to human health and dogs from <u>potentially toxic benthic cyanobacteria phormidium</u> by; (e) <u>maintaining flushing flows</u> ” (g) <u>regulating land use activities and diffuse discharges to assist in preventing the occurrence</u>		

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			of blooms” Refer to Schedule 26 targets and timeframes for achievement.		
5.10.3 Managing Adverse Effects From Land Use on Water Quality (Diffuse Discharges)					
120.23, 120.24, 120.72, 120.107	Ngati Kahungunu	Amend	Regulate (require consent for) production land in priority catchments to resolve water quality issues in Schedule 28 and in catchments required to meet water quality targets in Schedule 26 within the life of the plan. Control the use of production land all other catchments to maintain water quality. Require Farm Environment Plans within specified, short term timeframes and within a consenting (not a permitted activity) framework with defined performance, monitoring and auditing standards. These policies must be subject to the objectives and targets in Schedule 26 and the priority water quality issues in Schedule 28.	Oppose	FFNZ does not agree that all production land needs to be regulated by resource consents
197.9	BLNZ	Amend	Policies 17, 18, 19 and 21 - Amend existing and include as required new provisions to give effect to the following intent: * Management approaches are tailored to addressing water quality issues identified on a sub catchment basis... * Provide for flexibility in Nitrogen use and discharge where these will not exceed long term determined sub catchment determined loads. * Enable land uses which are leaching at or less than the ‘sustainable level’ to continue... Enable changes in land use which occur within the sustainable level for the sub-catchment. Continued in submission.	Support in part Oppose in part	FFNZ supports a flexible and tailored approach to managing land use and targeting contaminants that are an issue for the particular sub-catchment. FFNZ does not support an approach that determines that activities above a “sustainable level” must reduce because this typically involves allocation and there is no reliable basis to determine what a “sustainable level” is or to measure how much a particular farm is above that level
240.21	Ngati Parau	Not stated	Ensuring that all agricultural land use activities utilise best management practices to minimise erosion, sediment supply, and nutrient losses.	Oppose	FFNZ supports the adoption of good management practices for all farmers. However, it considers that best management practice is a completely different concept based on actions intended to achieve a specific limit or target. As no property scale allocation or limits have been set, FFNZ considers that BMP is not appropriate.
Adaptive Approach to Nutrient and Contaminant Management					
99.83	Twyford Water	Oppose	Amend Change 9 so that all provisions that relate to industry schemes to better align requirements with existing and established industry programs such as GAP schemes.	Support in part	FFNZ sought amendment to provide a more balanced approach to nutrient management and implies support for a staged adaptive management approach and provided recommendations regarding successful implementation.
29.11	HB Winegrowers	Amend	Amend 17.a to read “establish programmes and processes through Farm Environment Plans, Catchment Collectives and , Industry Programmes <u>and other catchment-based groups</u> ”, or similar wording to achieve the outcome sought in this submission.	Support	FFNZ supports an approach that is inclusive and provides as many options for improving practices as possible
58.18	HB Fish and Game	Amend	Amend by directly referencing “rules that govern land use intensification”	Oppose	FFNZ consider that the amendment is not appropriate.
120.1081 20.11012 0.111120 112	Ngati Kahungunu	Amend	Where targets for water quality are not being achieved, clear management of land use activities which contribute to degraded water quality must be included in the plan with a timebound pathway of improvement to achieving targets. Replace terms like 'good practice' with more directive wording, and define with regulatory performance standards Critical source areas, nutrient budgeting, contaminant loss, reduction and mitigation, must all be required to meet performance standards Action to reduce nutrient (and sediment) contamination of waterbodies is needed in PC9 now	Oppose	FFNZ does not support an approach that allocates contaminants or requires properties to meet specific limits for reasoning including that there is no reliable or equitable basis to allocate contaminants. FFNZ also considers that good management practice ought to be the requirement and does not support performance standards (which are non-tailored and not appropriate).

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
216.18	NZ Apples and Pears	Amend	There are currently limited options available for modelling nutrient loss, particularly from horticultural systems, so it is important that flexibility is incorporated to allow the applicant to use an approved model to calculate their land use change impact.	Support in part	FFNZ sought amendment to provide a more balanced approach to nutrient management and implies support for a staged adaptive management approach and provided recommendations regarding successful implementation.
POL TANK 17					
99.9	Twynford Water	Amend	Many horticultural growers have already adopted industry good practice, and in some cases operate above it, and this should be acknowledged in the wording of (a)(i) and (iii). With regards to (a)(ii), catchment groups, existing and established industry programmes should be recognised as being an important party and key to the achievement of this policy, and the wording at the start of the policy should be amended to reflect that.	Oppose in part	FFNZ considers that the appropriate standard is that everyone should adopt good management practice
123.52	DoC	Oppose	Delete Policy 17 and replace with: "Schedule 26 freshwater quality objectives will be maintained where they are currently met, and targets will be achieved by 2040 through regulating the use of land in priority catchments for the water quality issues in Schedule 28, the intensification of all land, and requiring farm plans in all catchments that: a) Meet industry good practice as defined in Schedule XX b) Manage all critical source areas c) Mitigate and reduce contaminant losses to water d) Meet nutrient budgets for nitrogen in priority catchments in Schedule 28 e) All land users providing contaminant loss and nutrient budget information annually, or on request by the Council" F) Provide for appropriate enforcement actions Or similar words Include a regulatory implementation pathway to achieve objectives and targets by 2040 Include regulation of land use in priority catchments and for waterbodies where contaminants are not currently meeting objectives in Schedule 26 as a minimum and require FEPs for all farming land use >10ha.	Oppose	FFNZ does not agree that Schedule 26 objectives must be achieved by 2040 or that all contaminants must be reduced everywhere.
126.17, 126.18	Maungaharuru Tangitu Trust	Amend	Insert new Policy 17A to read: <u>In addition to Policy 1, require land use activities located within 'Low' and 'Long term' priority catchments (as described in Schedule 28) to prepare a Farm Environment Plan for:</u> <u>a) farming enterprises in accordance with Section C of Schedule 30;</u> <u>b) TANK catchment collectives, TANK industry programmes, catchment collectives and industry groups in accordance with Section A and B of Schedule 30; within 6 years of PC9 becoming operative.</u> Amend Policy 17 to read: The Council will achieve or maintain the freshwater targets or freshwater objectives in Schedule 26 with landowners, industry groups, and other stakeholders and will implement the following measures <u>In addition to Policy 1, require land use activities located within 'High' or 'Medium' priority catchments (as described in Schedule 28) to (iv) prepare nutrient management plans in catchment not meeting targets for dissolved nitrogen. prepare a Farm Environment Plan for:</u> <u>a) farming enterprises establish programmes and processes through Farm Environment Plan in accordance with Section C and B of Schedule 30 inclusive of the matters set out in Policies 11, 14, 20, 21, 22 and 27;</u> <u>b) TANK catchment collectives, TANK industry programmes, catchment collectives and industry groups in accordance with Section A and B of Schedule 30 inclusive of the matters set out in Policies 11, 14, 20, 21, 22 and 27; within 3 years of PC9 becoming operative</u>	Oppose	FFNZ does not support expanding the scope of the policies or requiring additional farms to do farm plans. FFNZ is also concerned that the effect is to allocate contaminant discharges to a property scale and FFNZ does not support such an approach.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
135.23	Ravensdown	Amend	Amend Policy 17 as follows: a) (iv) <i>implement measures for prepare nutrient management plans in catchments not meeting targets for dissolved nitrogen.</i>	Oppose in part	FFNZ is concerned that the obligation created by the proposed amendments is to require the implementation of actions in farm plans and that that will result in obligations that cannot be tailored to the particular farm.
210.38	Forest and Bird	Oppose	Delete Policy 17. Take components to a methods section. Replace with a policy that better reflects the requirements of the NPSFM, RMA, and NES FW, and references the targets and timeframes in Schedule 26.	Oppose in part	In principle, FFNZ would support moving parts of the policy to a method. However, it does not support re-writing the policy as proposed by this submitter
POL TANK 18					
126.19	Maungaharu ru-Tangitū Trust	Oppose	Amend Policy 18 to read: The Council will <u>work with landowners, industry groups, and other stakeholders to assist with achieving or maintaining the short-term numerical attribute targets in Schedule 26AA</u> or freshwater objectives in Schedule 26 by; a) gathering information to determine sustainable nutrient loads; a) <u>establishing and operating a publicly available freshwater quality accounting system in each FMU;</u> b) <u>Collating and analysing contaminant loss data provided through Farm Environment Plans prepared in accordance with Policy 17A and Policy 17;</u> c) a) gathering information necessary to determine sustainable nutrient loads <u>develop nutrient limits and a nutrient an allocation regime for discharge of nitrogen in 'High' priority catchments; if the management framework in Policy 17 is not leading to improved attribute states by the time this plan is reviewed;</u> d) <u>signalling further regulation of land use activities</u> where there is a significant risk of increased nitrogen loss; e) gathering and assessing information about environmental state and trends and the impact of land use activities on these; f) working into; <u>additional measures to reduce nutrient losses at a property and catchment scale.</u> g) nutrient pathways, nitrogen att; .. programmes.	Oppose in part	While there are discreet elements of the proposed amendments that could improve the policy (such as council working with a range of stakeholders and the actions "assisting" with achieving targets, as opposed to achieving the targets themselves), FFFNZ does not agree that there should be a requirement to meet the numerical targets (FFNZ supports an approach to maintaining within a NOF band) and is concerned that the actions of collaging data at farm scale will lead to property scale allocation of contaminants/nutrients. FFNZ does not support allocation for reasons including that there is no robust, reliable or equitable way of allocating them. FFNZ considers that water quality can be improved by management of land use activities without the need to allocate contaminants/nutrients. For these reasons FFNZ opposes the amendments sought by this submitter.
123.53	DoC	Oppose	"The maintenance or improvement of water quality to meet freshwater objectives and 123.53 targets by 2040 will be supported by: a) Collating, analysing and reporting on contaminant loss data provided by all land users (through Policy 17) b) Developing a contaminant allocation regime (nitrogen) in priority catchments c) Further regulation of land use in areas outside of priority catchments where targets are not being achieved by 2030 d) Measuring and reporting against the objectives and targets in Schedule 26 every five years e) Working with industry groups, landowners, mana whenua and other stakeholders to research and investigate additional mitigations and actions to meet targets at a property and catchment scale"	Oppose	FFNZ does not support allocation of contaminants/nutrients for reasons including that there is no robust, reliable or equitable way of allocating them. FFNZ considers that water quality can be improved by management of land use activities without the need to allocate contaminants/nutrients. FFNZ does not support a requirement to achieve numeric targets by 2040 or to apply a limit/target at a property scale. For these reasons FFNZ opposes the amendments sought by this submitter.
210.39	Forest and Bird	Oppose	Replace with a policy that better reflects the requirements of the NPSFM, RMA, and NES FW, and references the targets and timeframes in Schedule 26. A clear regulatory pathway is needed to achieve 2040 targets. That must include nutrient management – either via inputs or outputs.	Oppose	FFNZ does not support allocation of contaminants/nutrients for reasons including that there is no robust, reliable or equitable way of allocating them. FFNZ considers that water quality can be improved by management of land use activities without the need to allocate contaminants/nutrients. FFNZ does not support a requirement to achieve numeric targets by 2040 or to apply a limit/target at a property scale. For these reasons FFNZ opposes the amendments sought by this submitter.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
135.24	Ravensdown	Amend	Amend Policy 18 as follows: <i>The Council will achieve or maintain the freshwater targets or freshwater objectives in Schedule 26 by;</i> a) <i>gathering information to determine sustainable nutrient loads;</i> b) <i>developing nutrient limits and a nutrient allocation regime if the management framework in Policy 17 is not <u>achieving the freshwater quality objectives leading to improved attribute states</u> by the time this plan is reviewed;</i>	Oppose	FFNZ does not support allocation of contaminants/nutrients and is concerned that “hardwiring” a requirement to allocate if the targets in Schedule 26 are not met will make allocation more of an imperative than if the requirement was “improved attribute states” as notified.
180.29	Hort NZ	Amend	Amend as follows: ‘The Council will achieve or maintain the freshwater targets or freshwater objectives in Schedule 26 by... c) regulating land use change to manage contaminant loss across a range of contaminants; e) working with industry groups, collectives, landowners and other stakeholders to undertake research and investigation into; (i) nutrient pathways, concentrations and loads in rivers and coastal receiving environments; (ii) nutrient uptake and loss pathways at a property scale; measures to reduce contaminant losses at a property as well as catchment scale including those delivered through industry programmes an landowner collectives.	Support in part Oppose in part	FFNZ agrees that paragraph (c) focuses on nitrogen and there might be reason to consider land use change due to other contaminant losses. However, FFNZ is concerned that “regulating” land use change on the basis of nitrogen or any other contaminant is a very strong and paternalistic regulatory response and should be the last response. FFNZ considers there would need to be robust evidence/science/data to make such a decision and compensation and appropriate transition periods would need to be considered. FFNZ agrees that a focus on contaminants is broader than just nutrients and may be appropriate to appropriately and fully consider the effects associated with diffuse discharges on water quality.
POL TANK 19					
180.30	Hort NZ	Amend	Amend as follows: ‘In catchments that do not meet objectives for dissolved nutrients-nitrogen specified in Schedule 26, the Council will ensure landowners, landowner collectives and industry groups have nutrient management plans according to the priority order in Schedule 28.’	Oppose	FFNZ does not agree that the focus should be solely on nitrogen and considers that management plans are an appropriate response to managing dissolved nutrients that do not meet objectives.
194.37	Pernod Ricard	Amend	PRWM seeks that 5.10.3.19 be amended to differentiate between high and low nitrogen loss land uses. This could be amended through reference to Schedules 29/30 which may themselves require consequential amendments. In addition, PC9 should acknowledge the requirements for FMPs under Part 9 RMA and ensure the plan provisions are not inconsistent or more stringent than these.	Oppose	FFNZ does not agree with a focus solely on nitrogen.
Sediment Management					
120.124 120.125 120.126	Ngati Kahungunu	Amend	Amend Policy 20 AND/OR add new provisions to set out a clear plan for managing sedimentation Amend Policy 20 to be more directive and directly reference achieving the water quality objectives and targets in Schedule 26 (including all of the objectives of Schedule 27) Control both sources of sediment (adjacent to waterbodies and broader land use in highly erodible catchments)	Oppose	While FFNZ considers it appropriate to manage sediment (where that is causing water quality issues), it does not agree that there should be a regulatory response (a management approach through things like catchment plans or farm plans is more appropriate) or that there should be a direct reference or link to water quality objectives and targets in Schedule 26.
Policy 20					
123.55	DoC	Oppose	Amend Policy 20 as: “Sediment loss, erosion and effects on freshwater and coastal ecosystems will be mitigated and reduce to maintain the objectives and meet the targets in Schedule 26 by 2040 by: a) Controlling cultivation, stock access and vegetation clearance in all catchments b) Regulating land use in priority catchments vulnerable to erosion listed in Schedule 28 to manage critical source areas at the property and catchments scales c) requiring and supporting tree planting, afforestation and retirement of land, particularly where multiple water quality objectives and targets can be maintained or met Requiring and supporting and improved and sustainable riparian management in all	Oppose	FFNZ does not support a requirement to meet the objectives by 2040. FFNZ does not support changes to “control” a range of activities in all catchments and “regulate” activities or require tree and riparian planting. FFNZ considers these to be blunt planning responses to issues that are more appropriately addressed in a tailored way through catchment management plans or farm plans.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			catchments”		
135.26	Ravensdown	Amend	Amend Policy 20 as follows: <i>The Council will reduce manage adverse effects on freshwater and coastal aquatic ecosystems from eroded sediment, and from the phosphorus associated with this, by prioritising the following mitigation measures;</i>	Support	FFNZ agrees that the focus ought to be on managing adverse effects as opposed to requiring reduction.
210.41	Forest and Bird	Oppose	Amend to make more directive towards management measures and bottom lines.	Oppose	FFNZ does not support an allocation or limit or bottom line approach. FFNZ considers that to be a blunt approach that does not provide for tailoring the appropriate solution to the specific situation and will cause unnecessary and unreasonable social and economic cost. FFNZ also considers that there is insufficient data/science to support such a position.
Land Use Change and Nutrient Losses					
29.12	HB Winegrowers	Amend	Amend so that Catchment Collectives and Industry Programmes may manage land use change in accordance with the 2040 timeline for meeting water quality objectives. 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.	Support in part Oppose in part	It is not clear what the role or mandate would be for catchment collectives or industry programmes, but FFNZ has concerns about giving catchment collective and industry programmes the power to manage land use change and how that might impact on individual land owners. FFNZ has concerns that “avoid” in policy (d) is too strong and supports amendments to qualify or soften this.
29.16	HB Winegrowers	Amend	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. Amend 26.c (now 26.d) to read “ <u>where the processes in Policy 26.a-c have been exhausted</u> , take appropriate enforcement action.” or similar wording to achieve the outcome sought in this submission.	Support in part Oppose in part	It is not clear what the role or mandate would be for catchment collectives or industry programmes, but FFNZ has concerns about giving catchment collective and industry programmes the power to manage land use change and how that might impact on individual land owners. FFNZ has concerns that enforcement action is a strong step and supports amendments to qualify this.
POL TANK 21					
10.3	David Renouf	Amend	Amend Policy 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 (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 out in Plan Change 6 of Land Use Capability by 2025"	Oppose	FFNZ considers that a timeframe of 2025 or 2030 is unrealistic and there is insufficient data/science to support a requirement to achieve the soil content or nitrogen leaching loss rates.
66.1, 70.2		Oppose	Delete Policy 21 (d). Failing that, the wording of 21 (d) should be amended so that the word “avoid” retains its common meaning i.e. “to minimise” or “prevent as far as practical” rather than simply “not allow” as interpreted in the Supreme Court decision for Environmental Defence Society Inc v New Zealand King Salmon Company Limited (2014) NZSC 38 .	Support in part	FFNZ agrees that the word “avoid” is not appropriate and supports amendments to use a more appropriate term. FFNZ is concerned that, while better than avoid, the terms “minimise” or “prevent as far as practicable” may not be appropriate either and considers that the focus ought to be on “managing or reducing” nutrients where these are an issue.
180.31	HortNZ	Amend	Amend as follows: ‘The Council will remedy or mitigate the potential impact of diffuse discharge of nitrogen on freshwater quality objectives by regulating land and water use changes that modelling indicates are likely to result in increased <u>contaminant</u> loss (modelled on an <u>average</u> annual, whole of farm or <u>collective</u> basis) and in making decisions on resource consent applications, the Council will take into account: ...	Support in part Oppose in part	FFNZ supports the amendments so that the focus is on land use change as opposed to diffuse nitrogen discharges. It may also be appropriate to provide for consideration of contaminant loss at a farm and collective basis. However, FFNZ has concerns to ensure that there is still an effects based assessment.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			<p>a) contaminant losses modelled to result from the land use change, in relation to whether freshwater quality objectives or targets are being met in the catchment where the activity is to be undertaken; and will;</p> <p>d) avoid land use change that will result in increased nitrogen loss that contributes to water quality objectives and targets in Schedule 26 for dissolved nitrogen not being met.</p> <p>e) <u>support crop rotation across highly productive land to maintain the soil health of highly productive land</u></p> <p>f) <u>Recognise the importance of the TANK catchments for supplying vegetables for domestic food supply</u></p> <p>g) <u>Support the transition to a low emissions economy by enabling land use change that reduces greenhouse gas emissions, improves sequestration and promotes climate change adaptation.</u></p>		<p>FFNZ recognises that the diffuse discharges associated with crop rotation and the activity itself are different from pastoral grazing activities. However,</p> <p>FFNZ is concerned that crop rotation should not be given a higher priority than other primary and food production and considers that there should still be an effects based assessment.</p>
	DoC	Oppose	<p>Delete and reword as:</p> <p>“The impacts of diffuse contaminants from intensification of land use will be controlled in all catchments to maintain water quality where freshwater objectives are met and to improve water quality to meet targets by 2040. In making decisions on resource consents, taking into account:</p> <p>a) The current state and trends in water quality for the catchment in which intensification is planned</p> <p>b) Whether the intensification is in a priority catchment listed in Schedule 28</p> <p>c) The efficient use of land to reduce contaminant losses</p> <p>d) Planned mitigations and timeframes for actions to reduce contaminant losses from intensive land use</p> <p>e) Industry good practice as defined by the standards in Schedule XX</p> <p>f) Avoiding land use intensification where water quality objectives will not be maintained, or targets not met</p> <p>Considering the contribution of intensification to degraded water quality, including cumulative contaminant loss in the catchment”</p>	Oppose	<p>FFNZ does not support hard wiring the 2040 timeframe into the policy. FFNZ considers an approach of “controlling” land use change or intensification in all catchments is too blunt an approach and does not support a requirement to allocate or meet targets at a property scale or to reduce all contaminants everywhere.</p> <p>FFNZ also has concerns about how “efficient use of land” would be determined, but does support the adoption of industry agreed good farming practices.</p>
216.8	NZ Apples and Pears	Not Stated	<p>Question nitrogen loss being used as a trigger for resource consent to allow a land use change to occur. Land use change should consider and encourage change based on land use suitability and overall environmental impact and against broader benefits / impacts for the area or region, and not on nitrogen loss alone.</p>	<p>Support in part</p> <p>Oppose in part</p>	<p>FFNZ agrees that nitrogen is a blunt instrument for assessing effects and determining resource consent. However, FFNZ has concerns that land use suitability is not a term/assessment that has been developed and does not support an approach of assessing suitability based on LUC.</p> <p>FFNZ does agree that where they are able to be assessed, the whole environmental footprint should be considered as well as the regional and community benefits, and social and economic costs.</p>
Stock Exclusion					
120.120 120.123	Ngati Kahungunu	Amend	<p>Support the need to exclude stock from waterways</p> <p>Amend to include provisions with respect to break-feeding of stock and setbacks from water, which may need to be more stringent than the regulations.</p>	Oppose	<p>FFNZ does not agree that setbacks for these activities need to be more stringent than the regulations.</p>
POL TANK 22					
123.14, 123.57	DoC	Oppose	<p>Exclude stock from all wetlands, lakes and riparian margins used for fish spawning (specifically including inanga (<i>Galaxias maculatus</i>)) regardless of slope with minimum setbacks of at least 10 metres.</p> <p>Exclude break feeding from all waterbodies regardless of slope. Include defined setbacks from water for all stock exclusion provisions.</p> <p>Delete and amend as:</p> <p>“<u>To maintain water quality where objectives are met or to meet targets in Schedule 26 and to</u></p>	Oppose	<p>FFNZ considers that the proposed minimum setbacks are too blunt as a minimum standard to be applied everywhere and will cause significant cost for uncertain benefit. FFNZ supports a tailored approach whereby the appropriate setback can be tailored through a farm plan.</p> <p>FFNZ does not support a requirement for stock to be excluded from</p>

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			provide for the values in Schedule X, stock will be excluded from all waterbodies and their margins by 2023”		all waterbodies and margins by 2023 for reasons including that this will result in significant cost and better environmental outcomes can be achieved through a tailored approach.
239.3	Mangaone Catchment	Amend	Change stock exclusion requirements to land less than 10 degrees in slope.	Support in part	FFNZ supports the submission point if the implication is that the requirement to consider stock exclusion applies to land less than 10 degrees in slope but would oppose it if there was a requirement to exclude stock on all land less than 10 degrees in slope.
Industry Programmes and Catchment Management					
120.113 120.114 120.115 120.116 120.117	Ngati Kahungunu	Amend	Introduce an element of discretion (e.g., through consenting pathways) into the Farm Environment Plan process Amend Change 9 so that no contaminant loss is acceptable All groundwater must be considered when considering the effects of land use on waterbodies. Management of land use activities (and land use change) must be clearly linked to the water quality objectives and targets in Schedule 26 Ambitious but reasonable timeframes for regulating activities must be linked to a clear improvement pathway to maintain and achieve the water quality objectives and targets in Schedule 26 and to resolve the water quality issues in Schedule 28.	Oppose	FFNZ supports a FEP and consenting process that is clear and certain, and recognises that these are existing farming activities (as opposed to new activities). FFNZ does not support the proposal to introduce discretion. FFNZ does not support proposals that no contaminant loss is acceptable because that does not recognise the economic and social costs/benefits or that these are existing activities. FFNZ does not support imposing a timeframe on this or linking regulation of activities to water quality objectives and targets (for reasons including that there is insufficient data/science to do so and FFNZ does not support allocation of contaminants).
123.58	DoC	Oppose	Delete policies 23 and 24	Oppose	FFNZ supports the use of farm plans and catchment collectives, subject to the amendments proposed in its submission.
POL TANK 23					
135.28	Ravensdown Limited	Amend	Amend Policy 23 as follows. <i>d) support catchment and farm scale decision making to meet freshwater <u>quality</u> objectives and encourage local solutions and innovative and flexible responses to water quality issues;</i>	Support in part	FFNZ agrees that there may be merit in focusing this policy on the water “quality” objectives as opposed to all of the water objectives.
210.44	Forest and Bird	Oppose	Delete and/or move components to a ‘methods’ section. Replace with a system that gives effect to NPSFM.	Oppose	FFNZ considers that policy 23 requires amendment (as set out in its submission) but does not support the deletion of it and does not agree that an entirely new approach is required to give effect to the NPSFM.
POL TANK 24					
135.29	Ravensdown	Amend	Amend Policy 24 as follows: <i>The Council will continue to work with landowners, industry groups and other stakeholders to manage land and water use activities so that they meet objectives for freshwater/aquatic ecosystems by:</i> <i>a) further supporting the development of Industry Programmes that contribute to meeting applicable freshwater <u>quality</u> objectives and that;</i> <i>(i) identify practices that contribute to meeting applicable freshwater <u>quality</u> objectives;</i> <i>(ii) specify timeframes for completion or adoption of measures to <u>manage</u> mitigate contaminant losses;</i> <i>(iii) ensure individual performance under an Industry Programme is monitored;</i> <i>(iv) provide annual reports to the Council on progressive implementation of measures identified in Industry Programmes established under Schedule 30 and progress towards meeting applicable <u>freshwater quality</u> objectives for water quality ;</i> <i>(v) promote adoption of good industry practice;</i> <i>(vi) ensure that Industry Programmes are consistent with the requirements of Schedule 30;</i> <i>b) supporting landowners to establish Catchment Collectives to develop and implement environmental management plans that contribute to meeting applicable freshwater <u>quality</u> objectives and that;</i>	Support in part	FFNZ agrees that there may be merit in focusing this policy on the water “quality” objectives as opposed to all of the water objectives. FFNZ also agrees that the focus should be on managing or reducing as opposed to mitigating contaminant losses.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			<p>(i) identify and adopt measures at a property scale and collectively with other land managers that reduce contaminant losses or remedy or mitigate the effects of land uses on freshwater objectives;</p> <p>(ii) specify timeframes for completion or adoption of measures to <u>reduce</u> mitigate contaminant losses;</p> <p>(iii) ensure individual performance under a catchment collective is monitored; provide annual reports to the Council on progressive implementation of measures identified in landowner collectives established under Schedule 30 and progress towards meeting applicable <u>freshwater quality objectives</u> for water quality;</p>		
180.33	Hort NZ	Amend	Amend to more accurately reflects the functional capability of industry programmes to better reflect how industry programmes, such as GAP work in practice, so that those industry schemes can be used by growers to satisfy the farm planning requirements of this proposed plan. Specific wording provided in submission.	Support in part	FFNZ supports the role of industry in witting with farmers and growers to improve practices and to help to tailor the best solution to the particular situation. However, FFNZ has concerns to ensure that an effects based approach is adopted and that all land uses are doing their part to improve water quality.
210.45	Forest and Bird	Oppose	Delete and/or move components to a 'methods' section	Oppose	FFNZ considers that policy 24 requires amendment (as set out in its submission) but does not support the deletion of it.
POL TANK 25					
1.1	Ben Goodwin	Amend	Provision needs to be made for farms on the boundary of two catchments, such that the rules of catchment in which the majority of a farming enterprise is in, should apply to the whole farm and the rules of the minor part don't apply. This would reduce the confusion and cost if rules differ from catchment to catchment.	Support	FFNZ supports clarification of which rules apply where a property straddles two catchments and supports an approach that results in a fair and cost effective solution for the farmer.
58.22	HB Fish and Game	Amend	Amend so that the dates and timeframes within this comply with any new NPS-FM changes.	Oppose	FFNZ considers that giving effect to the NPSFM will require a community consultation and new freshwater farm plan process. It does not consider it appropriate to retrospectively change PC9 to make parts of it comply with the NPSFM without consideration of the NPSFM as a whole and through the freshwater plan change process.
123.59	DoC	Oppose	Delete policy 25– already included in policy 17 relief	Oppose	FFNZ considers that policy 25 requires amendment (as set out in its submission) but does not support the deletion of it. FFNZ does not agree that an entirely new approach is required to give effect to the NPSFM.
210.46	Forest and Bird	Oppose	Delete. Replace with a system that gives effect to NPSFM.		
Management and compliance					
POL TANK 26					
123.60	DoC	Oppose	If a catchment collective or industry programme are included as methods for implementing PC9 then this policy will be needed in some form and should require resource consent application and the Council should take enforcement action.	Oppose	FFNZ does not agree that a regulatory approach to catchment collectives is necessary and considers that all options (regulatory and non regulatory) ought to be provided for.
180.34	Hort NZ	Amend	Amend as follows: Where individuals are members of a Catchment Collective or Industry Programme but do not undertake their activity in accordance with the approved plan prepared in accordance with Schedule 30, or do not follow the agreed terms of membership the Council will; a) provide a conflict resolution service; where an If a property/enterprise owner is not a member of a landowner collective or industry programme individual is no longer, or is deemed through conflict resolution processes not to be, a member the Council will;	Oppose	FFNZ considers that there is merit in Council providing a process for resolving disputes that arise in catchment collectives or industry programmes.
210.47	Forest & Bird	Not Stated	Move to a 'methods' section if required.	Oppose	FFNZ considers that policy 26 requires amendment (as set out in its submission) but does not support the deletion of it.
Timeframes; Water and Ecosystem Quality					

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
POL TANK 27					
123.61	DoC	Amend	Delete Policy 27 and reframe into associated other policy relief	Oppose	FFNZ considers that Policy 27 requires amendment to be consistent with the NES (Stock Exclusion) 2020, further define wetland, and include dates from when the plan is operative. However it does not agree it should be deleted or that it should be reframed as the submitter proposes.
126.21	Maungaharuru-Tangitū Trust	Amend	Re-word the header of Policy 27 as a non-regulatory Method to read: <u>The Council will work collectively with industry groups, landowners, water permit holders, tangata whenua, and other stakeholders to prepare and fund an implementation plan for PC9.</u> Amend Policy 27 so that the timeframes in Table 1 are re-worded and merged into proposed Policies 11 [Riparian land management], 14 [wetland and lake management], 20 [sediment control], 21 [land use change and nutrient losses], 22 [stock exclusion] and 27 [timeframes: water and ecosystem quality]	Support in part Oppose in part	FFNZ supports the development of an implementation plan but does not support hard writing timeframes into the policy
180.35	Hort NZ	Oppose	Move table to Schedule 30, and then delete remainder of policy in its entirety	Support in part	FFNZ considers that there may be merit in moving the table to Schedule 30 but this is contingent on how the rest of the policy section of the plan is worded.
Ahuriri Catchment, POL TANK 32					
120.139	Ngati Kahungunu	Amend	Amend to require an integrated catchment management for the Ahuriri (and the Waitangi) Estuary, which specifies a near future date	Oppose	FFNZ does not support hardwiring in timeframes and seeks retention of the policy as notified.
210.53	Forest & Bird	Oppose	Rework to remove circular nature. Consider moving to a methods' section. Amend to include a timeframe.		
123.66	DoC	Amend	Amend as: "HBRC will support the development of an Ahuriri Integrated Catchment Management Plan to be implemented by 1 January 2025 by..."		
180.32 180.36	Hort NZ	Amend	Amend as follows: 'The Council will support the establishment and operation of Industry Programmes and Catchment landowner Collectives and: <ul style="list-style-type: none"> ensure any relevant information or expertise for making sustainable land management decisions is available to land managers; support development and use of catchment scale models that assist in identification and management of critical source areas; support catchment collective and farm scale decision making to meet freshwater objectives and encourage local solutions and innovative and flexible responses to water quality issues;... Amend as follows: 'The Council will support the development of an Ahuriri Estuary Integrated Catchment Management Plan by <u>a representative group of stakeholders, that includes (but is not limited to) representatives from the primary sector;</u>	Support	FFNZ agrees that the focus should be on better understanding the catchments and critical source areas, providing for flexible and innovative responses and including the primary sector representatives as stakeholders
5.10.5 Policies: Monitoring and Review					
16.14	B Hamlin	Oppose	Amend Change 9 so that there are yearly reviews of adherence to plans.	Oppose	FFNZ considers that annual reviews of farm plans is too frequent and will impose significant cost (on council and farmers) for no or uncertain benefit
120.40 120.94 120.95 120.97 120.98	Ngati Kahungunu	Amend	Resource and support the development and implementation of a matauranga Maori framework to monitor the mauri of the Heretaunga Aquifer and its groundwater dependent ecosystems. There should be a clear separation between monitoring and review of the plan between knowledge systems (i.e., matauranga Maori and Western science).	Support in part Oppose in part	While FFNZ recognises the role and importance of matauranga Maori, it is concerned about what this would involve and the associated cost/benefit. It is also not clear how this would relate to the objectives/targets in PC9 and FFNZ is concerned that this should not lead to limits that are applied on a property basis or to require

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
120.99 120.100			Monitoring policies in PC9 should specifically support and resource the development and implementation of matauranga Maori frameworks and tools (led by tangata whenua/hapO) to monitor the success of the Plan in improving Maori relationships with the environment and protection of mauri. Amend to include matauranga Maori monitoring of the mauri of the Heretaunga Aquifer, including all of its groundwater dependent ecosystems. Any implementation should be subject to clear policies and regulation which do not abdicate council statutory duties or functions to a third party and ideally are co-managed or co-governed in partnership with Ngati Kahungunu (e.g., under Mana Whakahono a Rohe or other mechanisms). Amend all monitoring and review provisions to ensure that cumulative effects are adequately monitored and reported on and that appropriate feedback loops are in place to ensure that cumulative effects are taken into account in decision making and plan review Data from monitoring as it becomes available is used to inform Council to refine targets and limits and subsequently how management might be adapted.		amendments to farm plans or resource consents.
Monitoring and Review					
29.18	HB Winegrowers	Amend	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.	Support	FFNZ agrees that it council could play a role in overseeing and coordinating sub-catchment groups.
POL TANK 33					
123.67	DoC	Amend	Reword and include as two separate nonregulatory methods specific to mana whenua and then the local community Amend PC9 to include policy on how mana whenua will be involved in freshwater management and decision making, not only with respect to monitoring and matauranga Maori.	Support in part Oppose in part	While FFNZ recognises the role and importance of matauranga Maori, it is concerned about what this would involve and the associated cost/benefit. It is also not clear how this would relate to the objectives/targets in PC9 and FFNZ is concerned that this should not lead to limits that are applied on a property basis or to require amendments to farm plans or resource consents.
135.37	Ravensdown Limited	Amend	Amend Policy 33 as follows: <i>c) assessing effectiveness of mitigation measures adopted to meet freshwater quality objectives;</i>	Support in part	As above, FFNZ considers that may be merit in limiting the application of the policy to freshwater "quality" objectives
5.10.6 Policies: Heretaunga Plains Groundwater Levels and Allocation Limits					
48.2 48.21	Alpha Domus	Oppose	Allow new water use if it is used to enhance the current business or maintain / improve a level of business supporting the local community. Do not reduce current levels of water usage. Allow business with existing land use enough water to be able to continue farming in the way that it has been operating in the past 10 years.	Support in part	FFNZ agrees that the social and economic impacts/benefits need to be considered
63.53	Napier City Council	Amend	Amend Change 9 so that the current wording of an 'interim' aquifer limit of 90 million m3 is treated as a target, with a view to developing a formal limit in accordance with policy 42	Support in part	FFNZ agrees that PC9 should focus on targets and any limits should be set through a future process
123.71	DoC	Oppose	Policy 36, 37, 38, 39 and 42 - considers the actual and reasonable use of groundwater and the maximum sustainable abstraction from a groundwater system are two separate things (see point 123.72 and 123.73).	Oppose	FFNZ does not agree with the concerns raised about actual and reasonable use and maximum sustainable abstraction
179.2	Otawahao Farms Ltd	Oppose	Seeks a more scientific approach to determine the amount of water that can sustainably be extracted from the aquifer. A reconsideration of the IRRICALC calculations and an allocation for planting and/or replanting.	Support in part	FFNZ agrees that any approach to determining sustainable abstraction ought to be based on robust data/science and agrees that riparian planting ought to be based on a tailored or some other approach as opposed to a blanket minimum standard.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
197.8	Beef + Lamb New Zealand Ltd	Oppose	Include new/ or amend existing Policies for Water quantity and allocation - <u>Water quantity is managed to ensure that the take and use of water is reasonable and justifiable for the intended use. The specific measures to ensure reasonable and justified use of water that must be taken into account when establishing catchment plans and considering consent applications are outlined in the submission.</u>	Support in part Oppose in part	FFNZ agrees that water take and use ought to be reasonable but has concerns about how the amendments to this policy relate with amendments sought elsewhere in this submitter's submission.
Heretaunga Plains Aquifer Management					
58.23	HB Fish and Game Council	Amend	Amend Policies 36 and 37 to cap groundwater use at 70M cubic metres until the hydrological investigations and aquifer modelling have been undertaken.	Oppose	FFNZ is concerned that a cap of 70m3 is arbitrary and too conservative and could result in significant and unnecessary social and economic cost.
63.5, 207.5		Amend	Introduce an additional Policy (referred to as Policy 37A) to guide situations where the granting of new takes will be considered. Suggested wording provided.	Support in part Oppose in part	FFNZ considers there may be merit in providing more guidance about when new takes will be considered. FFNZ's concern is to avoid increasing a situation of overallocation.
123.70, 210.57		Oppose	Policy 36, 37 and 38 - Delete and include policy to give effect to the NPSFM 2014 section B	Oppose	While FFNZ considers that Policies 36, 37 and 38 require amendment (as set out in its submission), FFNZ does not agree that the policies ought to be deleted or that a new policy is required, as proposed.
POL TANK 36					
123.71 123.72	DoC	Oppose	Policy 36 - Add "Groundwater dependent ecosystems" to list. Policy 36 a) - Delete "aquifer depletion", means the same thing. Policy 36 b) – include water levels in wetlands Policy 36 d) - Stop at seawater intrusion, delete words after this, not needed. • Add a clause – to include leaching of pollutants into groundwater	Oppose	FFNZ is concerned that the proposed restrictions go beyond the intent of the policy and would likely impose significant cost.
124.24	Brownrigg Agriculture Group Ltd	Oppose	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).	Support	FFNZ agrees that the focus ought to be on mitigating and restricting, as opposed to avoiding/not allowing. FFNZ is concerned that the current wording may impose significant cost in situations where it may be appropriate to allow some takes.
135.39	Ravensdown Limited	Amend	Amend Policy 36 as follows: • <i>f) avoiding <u>mitigating</u> further adverse effects by not allowing <u>restricting</u> new water use</i> • <i>k) including plan review directions to assess effectiveness of these measures.</i>		
180.38	Hort NZ	Amend	Amend to ensure consistency with other sections of the plan including f) must be reworded to enable that water to be take and • to 'restrict' new allocations, rather than avoid. Specific wording provided in submission.		
POL TANK 37					
25.10	Xan Harding	Amend	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 <u>30 June 2020</u> (the end of the 2020 water year)...". or similar wording to achieve the outcome sought in this submission.	Support in part	FFNZ agrees that if the 10 year period to 2017 is not the appropriate timeframe, and 2020 is more reasonable, that would justify choosing that time period

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
54.9 54.42 54.44 54.46 54.50 54.74	Apatu Farms Ltd	Oppose	<p>Amend every reference to 'actual and reasonable' to read "actual and reasonable".</p> <p>Amend Change 9 so that 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 is 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.</p> <p>Amend Change 9 so that water can be re-allocated to any applicant - not restricted to existing water permit holders (as at 2020).</p> <p>Amend Change 9 so that Schemes can 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.</p> <p>Amend Change 9 to ensure that flow maintenance requirements only apply to lowland streams where it is feasible.</p> <p>Amend Change 9 to remove the presumption that the mainstem of the Ngaruroro River will be augmented in whole or in part and reflect the TANK collaborative group's position that augmentation should be investigated.</p>	Support in part	FFNZ supports changes that would result in a more efficient allocation and use of water (including re-allocation where water becomes available) and reduces costs for water users and council.
59.1 59.2 59.3 59.4 59.5 59.6	WaterForce Limited	Oppose	<p>Amend Policy 37(a) to read: ... reasonable water use prior to 2017 <u>2 May 2020</u>.</p> <p>Amend Policy 37 to specify a clear time-frame/deadline for a confirmation of the new permanent limit.</p> <p>Amend Policy 37(b) to read: avoid 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 until there has been a review of the relevant allocation limits within this plan;</p> <p>Delete Policy 37(c).</p> <p>Amend Policy 37(d)(ii) to read: apply an assessment of actual and reasonable use but will not grant water if the take exceeds the allocation limit for the catchments as stated in a and b that reflects land use and water use authorised in the ten years up to August 2017 (except as provided by Policy 50);</p> <p>No specific decision requested but states support for Policy 37(e) with the following recommendation: Reference to proposed stream flow maintenance schemes.</p>	Support in part Oppose in part	FFNZ supports changes that would result in a more efficient allocation and use of water (including re-allocation where water becomes available) and reduces costs for water users and council.
63.4 207.4	Napier City Council, HDC	Amend	<p>Amend Policy 37 to:</p> <ul style="list-style-type: none"> • Treat the interim 'limit' as a target • Still manage the resource as over-allocated (generally) subject to exceptions – particularly those supported by Policy LW2 of the RPS. • Better acknowledge that new allocations based on actual use over previous years may not be a reasonable approach for all replacement processes. Suggested wording provided 	Support in part Oppose in part	<p>FFNZ agrees that the interim limits should be a target (particularly as they are interim in nature).</p> <p>FFNZ has some concerns about how renewal of consents will be treated when more is sought than actual use over previous years, particularly where this is justified by projected growth that may or may not happen.</p>

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
66.2 66.3 66.4 66.5 66.6	Ngaruroro Irrigation	Oppose	Amend Policy 37(a) so that date of 2017 is 2 May 2020 and there is a timeframe specified for confirmation of the new permanent limit. Amend Policy 37(b) to read: “avoid <i>the</i> re-allocation of any water surrendered to the Council that might become available within if the interim groundwater allocation limit or within the limit of any connected water body remains in excess of the interim limit until there has been a review of the relevant allocation limits within this plan; Delete Policy 37(c) Amend Policy 37(d)(ii) to read: “apply an assessment of actual and reasonable use <u>but will not grant water</u> if the take exceeds the allocation limit for the catchment as stated in a and b reflects land use and water use authorised in the ten years up to August 2017 (except as provided by Policy 50); Amend Policy 37(e) reference to proposed stream flow maintenance schemes	Support in part Oppose in part	FFNZ supports changes that would result in a more efficient allocation and use of water (including re-allocation where water becomes available) and reduces costs for water users and council.
76.21	Te Mata Estate Winery Ltd	Not Stated	We ask that council take into account the fact that grapes have a very low water requirement and that many grape growers already employ a range of techniques to ensure that they only supply their vines with exactly the amount of water they require. Grape growers should not be penalised for efficiently managing a crop with an inherently low water requirement . The 2019/20 season would provide a reasonable baseline for the highest potential water use in any future season. The Irricalc model should be used in conjunction with 2019/20 data to provide a baseline for future allocations of water to vineyards.	Support in part	FFNZ agrees that if 2017 was not the appropriate season or timeframe, then a more appropriate season/timeframe ought to be adopted.
123.73	DoC	Oppose	Policy 37 – provide evidence to support that the allocation limit is less than the maximum sustainable yield of the groundwater system, and will not result in adverse effects, particularly to connected surface water bodies. This assessment should also include a comparison of the maximum sustainable yield against all groundwater abstraction, no just irrigation lakes. Policy 37 e) - insert mitigate stream depletion effects on lowland stream and wetlands.	Oppose	FFNZ considers that this would be an onerous obligation and not necessarily achieve sustainable management.
210.58	Forest & Bird	Oppose	Delete and replace with a new policy that gives effect to the NPSFM.	Oppose	FFNZ considers that Policy 37 requires amendment but does not support the deletion and replacement with a new policy as proposed.
134.5	Patoka Trust	Not Stated	Policy 37a - annual allocation of 90M3 should NOT be the limit. Does not leave room for augmentation against stream depletion over and above adequate irrigation needs (as per Irricalc modelling). It is a round number not based on science. All restrictions need to identify the adverse effect and leave an opportunity for mitigation of that adverse effect. Disagree with treating the Heretaunga plains water management as an over-allocated unit preventing any further allocations of ground water without reference to adverse effects, mitigation and actual water usage.	Support in part	FFNZ shares this submitter’s concerns about the limit being arbitrary and potentially too conservative. However, FFNZ has concerned about how future allocations would be managed.
135.40	Ravensdown Limited	Amend	Amend Policy 37 as follows: avoid <u>minimise</u> 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; <i>manage the Heretaunga Plains Water Management Unit as an over-allocated management unit and prevent restrict any new allocations of groundwater;</i>	Support	FFNZ agrees that the words “avoid and prevent” are unduly restrictive and an appropriate alternative could be “minimise and restrict”

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
180.39	Hort NZ	Amend	Amend to avoid the policy being unnecessarily restrictive given that our knowledge about what a sustainable groundwater limit might be is still incomplete. Specific wording provided in submission.	Support	FFNZ agrees that "avoid" is unduly restrictive and would support appropriate alternative wording.
194.46 194.47 194.48 194.49 194.50 194.51	Pernod Ricard	Oppose/ Amend	<p>Policy 37 - general approach - Amend the definition of 'actual and reasonable' to provide for the efficient allocation and use of water.</p> <p>Policy 37(a) - 5.10.6.37(a) should be amended along the lines of 'adopt an interim allocation limit of 90 million cubic meters per year based on <i>estimated/modelled</i> water use prior to 2017'.</p> <p>Clarification on how the interim allocation limit of 90 million cubic meters aligns with the provisions of PC9, particularly Schedule 31.</p> <p>Policy 37(b) - 5.10.6.37(b) should be amended along the lines of 'restrict or limit re-allocation of any allocated but unused groundwater that might become available within the interim groundwater allocation limit'.</p> <p>The term 're-allocation' also needs to be either defined or clarified in the provisions; PRWM submits that in the context of this policy it should be confined to redistribution of previously allocated water to new users, and not apply to standard replacement consent applications.</p> <p>Policy 37(c) - 5.10.6.37(c) should be amended along the lines of 'manage the Heretaunga Plains Water Management Unit as an overallocated management unit (based on cumulative consented volume) and prevent any new allocations of groundwater above the interim allocation limit'.</p> <p>Policy 37(d)(i) - 5.10.6.37(d) should be amended to reflect its intent more clearly.</p> <p>Policy 37(d)(ii) - 5.10.6.37(d) should also be expressed as a standalone policy so as to apply to all applications rather than just those located within the HPWMU.</p>	Support in part Oppose in part	FFNZ shares this submitter's concerns that the wording and limits of this policy may be unduly and unnecessarily restrictive. However, it considers that alternative wording needs to be carefully considered and thought through.
233.13	HBDHB	Amend	Clarify point d) i) to reconcile differences between maximum quantity able to be extracted under an existing permit and the assessment of actual and reasonable use.	Support in part	FFNZ would support clarification of this policy but not if the intent was to make it more restrictive.
POL TANK 38					
135.41	Ravensdown Limited	Oppose	Delete Policy 38 in its entirety.	Support in part	FFNZ has concerns about this policy and has suggested alternatives in its submission. It would support deleting the policy, in the alternative.
180.40	Hort NZ	Amend	Amend as follows: 'The Council will 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 and will review permits or allocate water according to the plan policies and rules either: ...	Support in part	FFNZ has concerns about Policy 38 and sought amendments to it. It would support the submitter's proposal in the alternative, and in the event that FFNZ's amendments were not made.
194.52	Pernod Ricard	Amend	Policy 38 should be amended along the lines of 'restrict the reallocation of allocated but unused groundwater...' It is also necessary to define or clarify the meaning of the term 're-allocation.	Support in part	FFNZ has concerns about this policy and has suggested alternatives in its submission. It would support limiting the policy to allocated but unused water, in the alternative.
207.6	HDC	Amend	Amend the Policy to outline what is proposed to be investigated/enabled prior to replacement processes to achieve a reduction in allocation as a result of those processes.	Support in part	FFNZ has concerns about this policy and has suggested alternatives in its submission. It would support clarifying this policy to restrict its application and/or create greater certainty for water users, in the alternative.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
210.59	Forest & Bird	Oppose	Delete and replace with a new policy that is clearer and gives effect to the NPSFM.	Oppose	FFNZ considers that Policy 38 requires amendment but does not support the deletion and replacement with a new policy as proposed.
Flow Maintenance					
29.25 29.26	HB Winegrowers	Amend	<p>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 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> <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 <u>to the extent required to maintain the Ngaruroro River at or above the Minimum Flow specified in Schedule 31;</u>"</p> <p>Note that consequential changes in the TANK rules 9 & 10 will be required, to remove the Stream Flow Maintenance Scheme</p>	Support in part	FFNZ would support a wide range of options for flow maintenance and management
54.47 54.51 54.54	Apatu Farms Ltd	Oppose	<p>Amend Change 9 so that Schemes can 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.</p> <p>Amend Change 9 to ensure that flow maintenance requirements only apply to lowland streams where it is feasible.</p> <p>Amend Change 9 to remove the presumption that the mainstem of the Ngaruroro River will be augmented in whole or in part</p> <p>and reflect the TANK collaborative group's position that augmentation should be investigated.</p>	Support in part	FFNZ would support a wide range of options for flow maintenance and management, as well as an equitable basis and appropriate timeframe for reviewing any consents that expire.
58.24	Hawkes Bay Fish and Game Council	Amend	<p>Amend policies 39 and 40 to include clauses that read:</p> <p>"A numeric assessment of the degree of aquifer/streamflow depletion at the point of take versus the length and value of the habitat restored by streamflow enhancement"</p>	Oppose	FFNZ is concerned that there is insufficient science/data to support the change proposed and that it would likely result in significant cost and uncertainty for water users.
120.54 120.75	Ngati Kahungunu	Amend	<p>Remove and do not enable managed aquifer recharge or flow maintenance policies and schemes.</p> <p>Remove provisions relating to 'stream flow maintenance and enhancement' and the ability to transfer water take permits between catchments. Instead address the effects of stream depletion and over-abstraction and require riparian habitat</p> <p>enhancement through consent standards for Farm Environment Plans</p>	Oppose	FFNZ is concerned that the proposed changes would likely result in significant cost and uncertainty for water users.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
54.48 54.52 54.55	Apatu Farms Ltd	Oppose	Amend Change 9 so that Schemes can 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. TANK 18: Amend Change 9 to ensure that flow maintenance requirements only apply to lowland streams where it is feasible. TANK18: Amend Change 9 to remove the presumption that the mainstem of the Ngaruroro River will be augmented in whole or in part and reflect the TANK collaborative group's position that augmentation should be investigated.	Support in part	FFNZ would support a wide range of options for flow maintenance and management.
104.55	Rockit Global Limited	Oppose	TANK18: Amend Change 9 to remove the presumption that the mainstem of the Ngaruroro River will be augmented in whole or in part and reflect the TANK collaborative group's position that augmentation should be investigated.	Support in part	FFNZ agrees that augmentation should be investigated and better understood.
210.99	Forest & Bird	Oppose	TANK 18: Delete rule and associated framework for stream flow compensation schemes. Delete all references to maintenance/enhancement/augmentation throughout the plan.	Oppose	FFNZ considers that an appropriate regime based on maintenance, management etc needs to be retained.
POL TANK 39					
36.10	Mr Apple New Zealand Ltd	Amend	Clarify/amend Policy 39. b) 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.	Support	FFNZ considers that such takes ought to be addressed by s 14(3) of the RMA but to the extent they are not (or there is uncertainty) FFNZ supports clarifying this in the plan
99.15	Twynford Water	Not Stated	Supports maintaining (a)(i) and providing ongoing ability for individuals to manage their own effects. Twynford Water also supports the ability for stream depletion effects to be managed collectively, but believes it will be extremely difficult for schemes to be developed by consent applicants, and therefore submits that these schemes are developed in a progressive manner by HBRC – based on water permit expiry dates . It is critical that HBRC takes on a central role in their development. Important to ensure that the stream depletion calculator, that will be used to calculate the stream depletion effect of each take, has been developed using robust scientific approaches, and it has been adequately peer reviewed, given how significant the impact of its calculations are going to be for water permit holders.	Support in part	FFNZ supports provision of a range of options for flow maintenance and management
123.74	DoC	Oppose	Delete all references to stream flow maintenance from PC9. Policy 39 a) - Insert wording to the effect that flows need to be above cut off trigger when schemes start.	Oppose	FFNZ supports provision of a range of options for flow maintenance and management and does not support a requirement for flows to be above cut off when schemes start
124.25	Brownrigg Agriculture Group Ltd	Oppose	Amend Policy 5.10.6 Policy 39 to also enable individual consent holder stream augmentation mitigation or offsetting actions.	Support in part	FFNZ supports provision of a range of options for flow maintenance and management

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
129.2	Hawke's Bay Regional Council	Oppose	<p>Delete policy 39 and replace with new policy in relation to assessing applications to take groundwater in the Heretaunga Plains that includes the following direction:</p> <p>A commitment by Council to:</p> <p>consult with iwi and other relevant parties to investigate the environmental, technical, cultural and economic feasibility of options for stream flow maintenance and habitat enhancement schemes including water storage and release options and groundwater pumping and discharge options that: maintain stream flows in lowland rivers above trigger levels where groundwater abstraction is depleting stream flows and: improve oxygen levels and reduce water temperatures.</p> <p>determine the preferred solutions taking into account whether: wide-scale aquatic ecosystem benefits are provided by maintaining stream flow across multiple streams multiple benefits can be met including for flood control and climate change resilience</p> <p>the solutions are efficient and cost effective scheme design elements to improve ecological health of affected waterbodies have been incorporated opportunities can be provided to improved public access to affected waterways. develop and implement a funding mechanism that enables the Council to recover the costs of developing, constructing and operating stream flow maintenance and habitat enhancement schemes from permit holders, including where appropriate, management responses that enable permit holders to manage local solutions and commitment to develop any further plan change within an agreed timeframe if necessary to implement a funding solution.</p> <p>ensure that stream flow maintenance and habitat enhancement schemes are constructed and operating within ten years of the operative date of the Plan while adopting a priority regime according to the following criteria:</p> <p>solutions that provide wide-scale benefit for maintaining stream flow across multiple streams</p> <p>solutions that provide flow maintenance for streams that are high priority for management action because of low oxygen levels.</p> <p>review as per Policy 42 if no stream flow maintenance and habitat enhancement schemes are found to be feasible</p>	Support in part Oppose in part	FFNZ is concerned about the wording of Policy 39 potentially requiring offsetting to be provided (as opposed to volunteered by the applicant). FFNZ is also concerned about providing a range of options for flow maintenance and management. FFNZ would support amendment to the policy to clarify that and create greater certainty for water uses but not amendments that would make the policy more restrictive.
135.42	Ravensdown Limited	Amend	<p>Amend policy 39 as follows: a)(ii) enable <i>encourage</i> consent applicants to develop or contribute to stream flow maintenance and habitat enhancement schemes that;</p> <p>b) <i>assess the relative the 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; and</i></p>	Support in part Oppose in part	FFNZ would support the use of the word “encourage” but has concerns that offsetting ought to be a voluntary option and therefore does not support retention of that policy as notified.
193.6	Heinz Wattie's Limited	Amend	Policy 39 b) - There should be a stated volume per head per day, thereafter municipal authorities are responsible to offset equitably the cost of these “unknown” schemes. Develop the stream depletion maintenance and enhancement programmes based on water supply originating from stored water. Begin the programme with the most responsive and cost effective surface water bodies, and monitor effectiveness. Policy needs to be considered in terms of possible financial impacts on water users.	Support in part	FFNZ agrees that all water users ought to do their part, including municipal authorities, and that economic costs ought to be taken into account.
210.60	Forest & Bird	Oppose	Delete policy and all references to stream flow maintenance in the plan	Oppose	FFNZ supports provision of a range of options for flow maintenance and management

POL TANK 40

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
63.8	Napier City Council	Amend	Amend Policy 40 to enable transfers of allocated but un-used water if this to assist augmentation. Suggested wording provided.	Support in part	FFNZ supports provision of a range of options for flow maintenance and management (as long as transfer of allocated but unused water is an option, not a requirement).
123.75, 210.61	Oppose		Delete policy and all references to stream flow maintenance from PC9.	Oppose	FFNZ supports provision of a range of options for flow maintenance and management
POL TANK 41					
66.8	Ngaruroro Irrigation Society	Support	Amend Policy 40(e) to read: "further investigating the environmental, technical, cultural and economic feasibility of a water storage and release scheme to offset the <u>effects of flow below the minimum flow (2400L/s) cumulative stream depletion effect of groundwater takes</u> "	Support in part/oppose in part	It is not clear whether the proposed amendment is intended to make the policy more or less restrictive. If the intent is that only effects are investigated on those below a minimum flow (i.e. less restrictive) then FFNZ would support the amendment.
123.76, 210.62	Oppose		Delete and include policies to manage stream depletion effects through sustainable allocation of water resources	Oppose	FFNZ supports the regime notified in PC9 (subject to the amendments in its submission0 and does not support writing new policies from scratch.
180.42	Hort NZ	Oppose	Amend as follows: The Council will <u>further consider the option of remedying</u> 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: a) further investigating the environmental, technical, cultural, <u>social</u> and economic feasibility of a water storage and release scheme to off-set the cumulative stream depletion effect of groundwater takes;...	Support	FFNZ agrees this should be an option for Council to consider an that social costs need to be taken into account.
Groundwater Management Review					
29.27	HB Winegrowers	Amend	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. 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.	Support in part	FFNZ would support the amendments to the extent that they provide greater clarity
63.1, 201.10	Amend		Amend Change 9 so that there is a more strategic approach around investigating and establishing flow enhancement schemes to inform/enable this review.	Support	FFNZ agrees that there needs to be a strategic approach to flow enhancement schemes.
84.21	Redmetal Vineyards Ltd	Oppose	Amend the policy to give efficient users of the resource a greater proportion of their calculated needs and also to allow some leeway in the event of a crop change that would require higher water use. This could be achieved by an "averaging" of water use so that inefficient users would need to become significantly more efficient and already efficient users would not have their property values constrained by a lack of allocation for more water intensive crops. This particularly applies to smaller blocks where water storage is impractical and they are more likely to convert to more intensive high value crops.	Support in part Oppose in part	While FFNZ would support a regime that focuses on efficiency and encouraging efficiency, FFNZ is concerned that the proposal will require an objective determination of efficiency (which is likely to be difficult) and may result in significant cost.
POL TANK 42					
47.8	John Bostock & Eddie Crasborn	Amend	Amend Policy 42 g) - The plan change should not be based on theoretical over-allocation but on actual use and real-world adverse effects and mitigation.	Support	FFNZ agrees that any requirement for change or imposition of cost should be based on actual overallocation, and based on robust science/data.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
58.25	HB Fish and Game	Amend	Remove Policy 42 in its entirety.	Oppose	FFNZ considers that Policy 42 should be retained, with amendment as set out in its submission
3.11, 207.11	Amend		Amend the Policy to include consideration of information on the long term sustainable equilibrium of the groundwater resource. Suggested wording provided.	Support in part	FFNZ would support in principle amendments to focus on long term approach rather than short term (to remove the impact of seasonal fluctuations and events)
123.77, 210.63	Oppose		42 g) - Provide a date when the over allocation of groundwater will be phased out.	Oppose	FFNZ considers that more data/science is required to determine actual over allocation, it is premature to require overallocation to be phased out and when such a requirement is approach an appropriate transition time is required.
135.44	Ravensdown Limited	Oppose	Delete Policy 42 in its entirety.	Oppose	FFNZ considers that Policy 42 should be retained, with amendment as set out in its submission
194.58	Pernod Ricard	Amend	Policy 5.10.6.42(d) should be amended along the lines of 'the extent of any stream flow maintenance, augmentation, or habitat enhancement schemes'. Policy 5.10.6.42(e)(ii) should be amended along the lines of 'effectiveness of stream flow maintenance schemes and augmentation schemes in maintaining water flows and improving water quality'.	Support in part	FFNZ agrees that there should not be a requirement to consider such schemes but where they exist they can be considered.
5.10.7 Policies: Surface Water Low Flow Management					
120.42 120.44	Ngati Kahungunu	Amend	Ensure all water takes are required to cease at minimum flows, except essential water takes for human drinking water supplies (which should be required to reduce during water shortages and at minimum flows). Abstractions which deplete streams should cease when minimum flows are reached in all cases	Oppose	FFNZ is concerned that such a requirement would place significant cost on water users, particularly in the context of minimum flows and the science/data being poorly understood
210.13 210.16 210.17	Forest & Bird	Amend	Remove any provisions for 'stream flow augmentation/maintenance/enhancement' Insert increased minimum flows, for the Ngaruroro River in particular, with interim timeframes to achievement (like that for the Tukituki River in PC6) Insert minimum flows for the Ahuriri catchment (and other omitted waterbodies).	Oppose	FFNZ is concerned that the changes proposed will significantly restrict the policy, are not based on robust data/science and will impose significant cost.
Flow Management Regimes; Tutaekuri, Ahuriri, Ngaruroro and Karamu					
POL TANK 43					
36.11	Mr Apple New Zealand Ltd	Amend	Clarify/amend Policy 43. e) 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.	Support	FFNZ would support amendments to clarify the policy and to ensure that more recent data/science/monitoring is taken into account
42.12	Glenmore Orchard	Oppose	Amend Change 9 so that historical low flow river bans are taken into account when determining actual use of individual permit holders.	Support in part	FFNZ would support the amendment if the intention is to clarify that permit holders are using less water due to the impact of shut down periods
51.2 51.3	Wairua Dairies Ltd	Oppose	Oppose Policy 43.b. Reducing the effects of abstraction from the mainstem and connected groundwater in Zone 1 by reducing allocation limit for the Ngaruroro River.	Support in part	FFNZ agrees that the economic cost and practical effects of the application of this policy needs to be taken into account and amendments are required to manage/reduce/mitigate these costs

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			<p>If the proposed allocation reduction, was implemented, we believe the maximum effective take would reduce from 650,000 m³/week (68% of current allocation) to 534,643 m³ /week 56% of current allocation and 68% of the recommended 786,240 m³/week allocation. I.e. (786,240 m³/week x 68% = 534,643 m³/week). This would place further stress on irrigation reliant crops not only in drought years. Low flow limits and rates of take are effectively an allocation limit. To further reduce the volume of water by reducing the allocation limit would put further stress on existing irrigators and their business viability and viability of downstream infrastructure in future dry years.</p> <p>Policy 43.b. - The Agfirst and Nimmo Bell economic analysis presented to TANK specifically looked at the effects of increasing low flow ban settings on the Ngaruroro and Tutaekuri rivers. We suggest it would be beneficial to investigate the financial effects of this change to allocation in the same way. This type of economic analysis may also help to inform better decision making with less community stress.</p> <p>We believe a new methodology and terminology should be developed to maximise water availability at the same time as protecting the environment. The current system fails to maximise the economic benefit of this resource, which is a requirement of Regional Council under the Resource Management Act along with environmental protection.</p> <p>If the Twyford Zone 1 was to be included as part of the Ngaruroro River allocation the current Twyford Zone allocation should be added to the Ngaruroro River allocation limit. In the past, Zone 1 has been affecting river flows, but has not been included in the river allocation limits or the actual river take figures.</p> <p>Consent holders facing a reduction in allocation of 2400 l/sec water should be offered at least an equivalent volume of high flow water in compensation.</p>		
123.78, 210.64	Oppose		Delete and amend to cease takes at minimum flows in Schedule 31.	Oppose	FFNZ is concerned that this would be a blunt policy response that would impose significant cost.
129.3 129.4	Hawke's Bay Regional Council	Amend	<p>Insert into clauses (b) and (e) reference to the allocation limit being for consumptive water use at times of low flow.</p> <p>Insert into clause (j) reference to the allocation limit being for consumptive use and the total of all abstraction throughout the year.</p>	Support in part	FFNZ would support the amendments if the intention is to provide greater clarity of actual water use
Paritua/Karewarewa Streams					
120.49	Ngati Kahungunu	Amend	Recognise the Karewarewa and Paritua as separate distinct streams with separate characteristic hydrology and mauri with each having their own individual minimum flows, and respective flow monitoring sites.	Support in part	FFNZ agrees that a tailored approach may be appropriate but its support would depend on how this is developed or provided for in PC9
POL TANK 44					
123.79	DoC	Oppose	The Council "will recognise" should be reframed as "the Council recognises".	Oppose	FFNZ considers "will recognise" is more appropriate
210.65	Forest & Bird	Oppose	<p>Reframe as "The Council will recognises..."</p> <p>Amend as "investigate opportunities for <u>create</u> wetlands creation to..." Delete provisions d-f</p> <p>Amend to be consistent with RMA and NPSFM requirements to manage effects.</p>	Oppose	FFNZ considers "will recognise" may be more appropriate does not support the other amendments sought

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
General Water Allocation Policies					
203.19	The Oil Companies	Amend	Provide a permitted activity pathway for temporary construction dewatering takes to avoid a technical requirement for water metering which is not practicable given the nature of these takes.	Support in part	FFNZ would support a practicable and workable regime but considers that if water metering is not practicable there should be clear criteria for any exemption
POL TANK 45					
8.38	Delegat Limited	Oppose	Oppose Policy 45(d) - 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.	Support in part	FFNZ agrees an individual consent holder should be able to choose how to mitigate their effects (provided that any offsetting/compensation remains voluntary)
58.26	Hawkes Bay Fish and Game C	Amend	Remove Policy 45(a) and/or clarify to ensure it is not misused.	Oppose	FFNZ considers that paragraph (a) is appropriate and creates appropriate incentives for water harvesting and storage etc
59.10	WaterForce Limited	Support	Amend Policy 45(b) to include reference to the installation and verification of water meters to be completed by a person with suitable qualifications and that the work is completed to the industry agreed code of practice The New Zealand Water Measurement Code of Practice.	Oppose in part	FFNZ is concerned that a requirement for water meters to be installed by suitably qualified persons may unduly restrict this policy but would support greater certainty about water metering
123.80	DoC	Oppose	Requiring metering and telemetry of water takes is supported and is consistent with national regulations. However, the regulations do not allow metering exceptions (e.g., in cases of technical limitations) and this part of the clause should be deleted.	Oppose	FFNZ considers that it is appropriate to provide reasonable exceptions (in appropriate circumstances) to recognise it is not physically or technically possible everywhere
210.66	Forest & Bird	Oppose	Amend the provisions around high flows to clearly state that allocation of high flows will be managed in a way that gives effect to the NPSFM, protects Te Mana o te Wai and ecosystem health, and meets Schedule 26 targets. Retain requirements for telemetric monitoring and ensure they are consistent with recent NPS/NES direction.	Oppose	FFNZ considers that the policy needs amendment but does not support deletion and replacement with a new policy
224.7	Mission Estate Winery	Oppose	Where telemetry equipment is operating to specification and needs to be replaced this cost should be subsidised.	Support	FFNZ agrees that this would be appropriate for metering is effective but for some reason needs to be upgraded or replaced
Water Use and Allocation – Efficiency					
29.29 29.3	HB Winegrowers	Amend	Include a definition of "IRRICALC water demand model" in the Glossary that reflects the agreement to develop a Hawke's Bay- specific model. Amend 5.10.7.47.f to read "...maintained and operated to ensure on- going efficient water use in accordance with any <u>the most relevant</u> applicable industry codes of practice." or similar wording to achieve the outcome sought in this submission.	Support in part	FFNZ agrees that this would provide greater certainty and may be a more appropriate metric
POL TANK 46					
8.43	Delegat Limited	Oppose	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>	Support in part	FFNZ would support appropriate amendments to ensure that irrigation needs are taken into account

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
74.2	Bayley Produce Ltd	Amend	Amend Policy 46 - The wording in c) above specifically states the Council will ensure efficient allocation by "encouraging and supporting flexible management of water by permit holders..." 2, yet the proposed policy around transfers contradicts this statement. Regarding d) on---going data collection and monitoring of water use, we would like to see effective and meaningful use of this data, not only to verify actual use information, but to ensure the investment made on behalf of the landowner is justified.	Support in part	FFNZ agrees that if there are requirements for telemetry the data ought to be used. However, has concerns about privacy of such data and that it is used for appropriate purposes.
123.81, 210.67	DoC	Oppose	Delete policy 46	Oppose	FFNZ considers the policy ought to be retained as notified.
124.26	Brownrigg Agriculture Group Ltd	Oppose	Amend clause (a) to read: ensuring allocation limits and allocations of water for abstraction are calculated with known security of supply, <u>including an</u> irrigation reliability standard that meets demand 95% of the time.	Support in part	FFNZ would support appropriate amendments to ensure that irrigation needs are taken into account
POL TANK 47					
8.44	Delegat Limited	Oppose	Oppose Policy 47(b) - 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;	Support in part	FFNZ would support the use of alternative models to calculate irrigation need where this will result in a more reliable or robust estimate
51.4	Wairua Dairies Ltd	Oppose	Policy 47. C & d. Opposes the current wording and recommend the following wording. It is recommended that HBRC adopt the definition "80% of applied water is retained within the root zone, after an irrigation event and/or for the irrigation season".	Support in part	FFNZ would support the use of methods to calculate irrigation need where this will result in a more reliable or robust estimate
58.27	Hawkes Bay Fish and Game Council	Amend	Replace with 90% reliability to reflect other regions or explain why 95% is required.	Oppose	FFNZ considers that such a change would be unduly restrictive
123.82 123.84	DoC	Amend/ Oppose	Reliability standards to meet demand are not water use efficiency measures and should be deleted, otherwise clauses a-f are supported. 47 b) - Allow applicants to use their own more detailed soil information within Irricalc when this data is of higher resolution and quality than existing available data.	Support in part Oppose in part	FFNZ would support the use of alternative models to calculate irrigation need where this will result in a more reliable or robust estimate but does not support deleting the other clauses of this policy
180.43	Hort NZ	Amend	Amend to better align the policy with terminology as used within the irrigation industry. Specific wording provided in submission.	Support in part	FFNZ agrees that the wording ought to reflect industry use
192.13	T&G Global Limited and ENZIL	Amend	Amend Policy 47(b) to say: "using the IRRICALC water demand model or a suitable equivalent approved by Council to determine efficient water allocations for irrigation uses;"	Support in part	FFNZ would support the use of alternative models to calculate irrigation need where this will result in a more reliable or robust estimate
194.66	Pernod Ricard Winemakers	Support	The relief sought is that the Glossary and Policy 47 are amended to 'as specified by a consistent and appropriate water demand model', where IRRICALC can be included as an example.	Support in part	FFNZ would support the use of alternative models to calculate irrigation need where this will result in a more reliable or robust estimate

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
	New Zealand Limited				
210.68	Forest & Bird	Amend	Amend to state "best practice" Delete reference to reliability standard.	Oppose	FFNZ supports Policy 47 as notified
Water Use Change/Transfer					
63.56	Napier City Council	Amend	Amend Change 9 so that where the policy wording allows transfer to municipal supplies but excludes transfers to industrial uses above 15m3, this option be reinstated.	Oppose in part	FFNZ supports an equitable approach to allocation and transfer
120.52	Ngati Kahungunu	Amend	Do not allow transfer of water permits into over-allocated ground and surface water management units or between catchments	Oppose in part	FFNZ considers that if a transfer can be made to a more efficient use or achieve a better environmental outcome it ought to be provided for
POL TANK 48					
36.12	Mr Apple New Zealand Ltd	Amend	Clarify/amend Policy 48. e) - If the water allocation 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.	Support in part	FFNZ agrees with the issues raised by this submitter in respect of Policy 48
37.36	Dartmoor Estate Ltd	Oppose	Amend Change 9 so that transfers of all water permits that have been exercised should be enabled.	Support	FFNZ agrees that transfers should be provided for, especially if they can be made to a more efficient use or achieve a better environmental outcome
123.83 123.85	DoC	Oppose	Water use change or transfer should not be allowed in any overallocated waterbody – applications to transfer into overallocated waterbodies should be declined (and supported by a prohibited activity status in the rules of PC9). Transfers should be declined wherever significant adverse effects on life-supporting capacity, ecosystem health and other instream freshwater values are likely. References to flow enhancement or ecosystem improvement schemes should be deleted as these are inappropriate measures to manage adverse effects. The needs of people and communities for water supply for drinking and domestic use should be prioritised above water used for irrigation. Clause g is supported – water used for frost protection generally is not used when rivers and streams are under the most flow stress (e.g., summer). 48 a) - Make the transfer of surface water to groundwater a separate line item to make people more aware of this option. Also allow the use of alternative defensible models/methods.	Oppose	FFNZ considers that transfers should be provided for, especially if they can be made to a more efficient use or achieve a better environmental outcome and is concerned that the proposed amendments will result in a more stringent regime at significant cost.
180.44	Hort NZ	Amend	Amend as follows: 'When considering any application to change the water use specified by a water permit, or to transfer a point of take to another point of take, to consider:...g) declining	Support	FFNZ agrees that primary production should be excluded from this paragraph

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			applications for a change of use from frost protection to any other end use <u>except primary production</u> ;		
210.69	Forest & Bird	Amend	Amend to make it clear that applications for transfer to overallocated zones and waterbodies will be declined. Delete reference to stream flow augmentation/maintenance schemes Increase consistency with NPSFM and RMA direction on allocation Elevate status of ecosystem health, te mana o te wai, and human health over irrigation and other uses. Include provision for mana whenua consultation when considering transferring use and takes Retain clause (g)	Oppose	FFNZ supports policy 48 (with amendment as proposed in its submission) and does not agree that it needs to be changed to increase consistency with higher order documents or that there should be a blanket direction to decline consents in overallocated catchments.
Water Allocation - Permit Duration					
29.31	HB Winegrowers	Amend	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.	Support	FFNZ agrees that public notification should not be required in the circumstances suggested by the submitter
29.32	HB Winegrowers	Amend	Amend 5.10.7.49.f to read “ <u>efficacy operation of flow enhancement and aquifer recharge schemes and any riparian margin upgrades;</u> ” or similar wording to achieve the outcome sought in this submission.	Support	FFNZ agrees the additional wording proposes improves certainty
POL TANK 49					
63.13 207.13	Napier City Council, HDC	Amend	Amend the Policy as follows: ... h) will impose a consent duration for municipal <u>supply for 30 years to align with the required infrastructure and planning decisions under the NPS-UD 2020</u> consistent with most recent HPUDS and will impose consent review requirements that align with the expiry of all other consents in the applicable management unit;	Oppose in part	FFNZ is concerned that the proposed amendments lock in consents for a long time
123.86	DoC	Oppose	Impose shorter water permit durations	Oppose	FFNZ considers that the consent terms should not be shorter
135.47	Ravensdown Limited	Amend	Amend Policy 49 as follows: <i>When making decisions about applications for resource consent to take and use water, the Council will set common expiry dates, <u>or include a review condition</u>, for water permits to take water in each water management zone, that enables consistent and efficient management of the resource and will set durations that provide a periodic opportunity to review effects of the cumulative water use and to take into account potential effects of changes in:</i> ... <i>g) will impose consent durations of 15 years, <u>or impose review conditions reflecting the same timeframe</u> , according to specified water management unit expiry dates. Future dates for expiry or review of consents within that catchment are every 15 years thereafter.</i> ...	Support in part Oppose in part	FFNZ considers that review conditions may be a way of managing consents and consent durations but is concerned about how such a condition would be exercised

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			<i>i) may grant consents granted within three years prior to the relevant common catchment expiry date with a duration to align with the second common expiry or review condition date, except where the application is subject to section 8.2.4 of the</i>		
141.9	Kereru Station	Oppose	Strongly oppose. This needs to be a minimum of 25years	Support in part	FFNZ would support longer durations for consents
180.45	Hort NZ	Amend	Amend as follows: "...i) <u>except where an application is to take and use water storage projects, consent durations of greater than 15 years will be considered and may be granted if a longer consent term is justified on the basis of the quantum of investment required to construct the scheme.</u>	Support in part	FFNZ would support longer durations for consents
193.8	Heinz Wattie's Limited	Amend	Consents that required significant investment either in water storage, or improved technology or in other areas should be considered at terms up to 35 years.	Support in part	FFNZ would support longer durations for consents
210.70	Forest & Bird	Amend	Amend to explicitly state that consent reviews allow council to change allocated amounts of water. Shorten consent duration or remove this reference to 15 years.	Oppose	FFNZ does not support shorter consent durations or consent reviews to change allocated water
Water Allocation - Priority					
29.33	HB Winegrowers	Amend	Amend 5.10.7.51 to read "...emergency water management group that shall have representatives from Napier City and HDCs, 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.	Support	FFNZ agrees affected primary sector groups ought to be consulted
POL TANK 50					
53.22	CD & CM Howell Partnership	Amend	Amend to require territorial authority applicants to promote water conservation in the urban community by way of metered supplies at the consumer level Amend to ensure territorial authorities have a continuous improvement model for reducing water reticulation losses rather than a broad statement of an Infrastructure Leakage Index of 4 or better	Support in part	FFNZ agrees that municipals ought to also be subject to water conservation and improvement requirements
82.3	Lowe Corporation Limited	Amend	Amend Policy 50 to refer in the first line to resource consent applications for regionally significant industry and insert a new Policy 50(aa) worded as follows: "Allocate water for the operational needs of existing and future regionally significant industry not supplied as part of a municipal water supply based on existing and likely demand for that purpose, while requiring water use by regionally significant industry to meet or exceed best industry practice, including for efficiency of water supply and water use." Alternatively, provide at a policy level for water allocation enabling continuity of supply to regionally significant industry.	Oppose	FFNZ is concerned about how "regionally significant industry" would be defined and the implications for primary sector takes
210.71	Forest & Bird	Support	Retain	Support in part	FFNZ would support investigating water metering for urban water use, depending on cost, feasibility and benefit

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			Introduce a new clause "(d) investigate water metering for all residential and commercial urban water users"		
POL TANK 51					
123.88, 210.72	Amend		Remove reference to horticultural crops and primary production.	Oppose	FFNZ considers that animal welfare and survival of horticulture ought to be provided for
135.48	Ravensdown Limited	Amend	Amend Policy 51 as follows: <i>e) uses where water uses is subject to <u>required to meet the seasonal demands for of primary production</u>;</i> <i>f) uses for which water is essential for the continued operation of a business (commercial or industrial activity) and primary production not provided for by (e) above. , except where water is subject to seasonal demand for primary production or processing.</i> <i>The following uses will not be authorised under a water shortage direction:</i> <i>use of water not associated with the continued operation of a business (commercial or industrial activity) or community</i>	Support	FFNZ would support amendments to clarify the provision of water for primary production
180.46	Hort NZ	Support	HortNZ supports the recognition of the need to enable water to be made available to irrigate horticultural tree crops to ensure their survival.	Support	FFNZ agrees
Over Allocation					
29.34	HB Winegrowers	Amend	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 and new water made available by high flow take and release and by offset or managed aquifer recharge)" or similar wording to achieve the outcome sought in this submission.	Support	FFNZ agrees that the policy should not capture allocations during high flows
210.12	Forest & Bird	Amend	Provide clear policy direction to phase out over allocation within 5 years	Oppose	FFNZ considers there is insufficient data/science and that if there was overallocation ought to be phased out over an appropriate length of time
POL TANK 52					
51.6	Wairua Dairies Ltd	Oppose	Policy 52b)(i) - oppose. Many consents have been sort with multi-year developments planned. Unused allocation averaged over the past 10 years up to 2 May 2020 will be deducted from a consent to enable the total river allocation to be reduced by 17.8%. This is in-equitable for those planning long term development. A further 14.2 % of current allocation could be extracted without exceeding the new allocation limit. First an economic assessment of the impact of this allocation change should be commissioned, then alternative options for implementation of this allocation change should be investigated. Consent holders who face losing 2400 l/sec water under this allocation change should be granted an equivalent volume of high flow water to compensate for their loss.	Support in part	FFNZ would support consideration of a range of alternative options

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
58.28	HB Fish and Game	Amend	Amend to place primacy on the total allocation volume as driving the consent consideration.	Oppose	FFNZ considers that there is insufficient data/science
63.15	Napier City Council	Amend	Amend the Policy if it applies from the outset so as to better align with other areas of relief sought in relation to concerns raised. Suggested wording provided	Oppose in part	It is not clear what is meant by having this policy apply from the outset or how it would affect other water takes
82.12	Lowe Corporation Limited	Amend	Amend Policy 52(b)(ii) to refer to conditions “that require implementation of industry good practice standards for efficiency of water use, including through alterations in the volume, rate or timing of water take where necessary to achieve industry good practice standards”, or words to like effect. Add new subclause (iii) allowing for imposition of conditions requiring information sufficient to verify efficiency of water use relative to industry good practice standards.	Support in part Oppose in part	FFNZ supports the adoption of good management practice but has concerns about how this is interpreted and applied and about relying on it to review existing consents
123.89	DoC	Oppose	Include clear methods with timeframes to phase out overallocation.	Oppose	FFNZ is concerned there is insufficient data/science to phase out allocation now and that if there was an appropriate transition period would be required (along with alternatives such as water storage and harvesting)
135.49	Ravensdown Limited	Amend	Amend Policy 52 as follows: <i>The Council will phase out over-allocation by;</i> <i>a) preventing <u>restricting</u> any new allocation of water (not including any reallocation in respect of permits issued before 2 May 2020);</i> <i>c) provide for, within the duration of the consent <u>or review conditions</u> , meeting water efficiency</i> <i>f) prevent <u>restrict</u> site to site transfers of allocated but unused water that does not meet the definition of actual and</i>	Support	FFNZ agrees that “restrict” is a better term than “prevent” and that instead of reducing the consent duration, concerns could be addressed through review conditions
180.47	Hort NZ	Amend	Amend to ensure that new water from high flow allocations can be assessed, and makes policy more practically appropriate in its application. Specific wording provided in submission.	Support	FFNZ agrees that the policy ought to provide for high flow water takes and ought to be more practicable
207.15	HDC	Amend	Amend the Policy if it applies from the outset so as to better align with other areas of relief sought in relation to concerns raised. Suggested wording provided	Oppose in part	It is not clear what is meant by having this policy apply from the outset or how it would affect other water takes
210.73	Forest & Bird	Oppose	Include clear methods for how overallocation will be addressed with timeframes.	Oppose	FFNZ is concerned there is insufficient data/science to phase out allocation now and that if there was an appropriate transition period would be required (along with alternatives such as water storage and harvesting)
POL TANK 53					
5.10.8 Policies: High Flow Allocation					
120.51 120.53 120.63 120.133	Ngati Kahungunu	Amend	Set high flow allocations for all rivers that ensure hydrological alteration of the flow regime is minimised and maintained close to natural flow regimes Prohibit all new large run-of-river damming and require safe fish passage for all new small dams (catchment <50ha).	Oppose	FFNZ is concerned there is insufficient data/science to support the changes sought and that this would impose significant cost

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
120.134 120.135 120.136			Ensure to streams and rivers for the purposes of diverting water for impoundment does not alter the natural character of the area, does not impede fish passage or recruitment processes, and does not significantly adversely effect the ability of tangata whenua to exercise Kaitiakitanga, and conduct their cultural practices. Offline storage activities should be considered on a case by case basis and not enabled through objectives and policies Any allocation to storage must also be captured within allocation limits and minimum flows, not exempt from them New, large run of river damming should be prohibited The focus of this policy should be on water retention and not simply water storage.		
Adverse Effects - Water Damming					
POL TANK 54					
108.2	Jet Boating New Zealand	Support	Support retention of this clause as it is worded because flows three times above the median are extremely important for maintaining the intensity and frequency of the braided river characteristics.	Oppose	FFNZ is concerned about the robustness of the statement the submitter relies on
123.91	DoC	Oppose	Prohibit run of river damming as adverse effects are permanent. Run of river damming should not be enabled by PC9.	Oppose	FFNZ does not consider it appropriate to adopt a prohibited activity status
180.49	Hort NZ	Amend	Amend to delete a) and c).	Support in part	FFNZ would support reasonable amendment to Policy 54
210.75	Forest & Bird	Oppose	Delete. Replace with a policy that clearly states dams in river channels will be prohibited. Allow instead for 'off-line' water storage with a clear provision for the consideration of those effects, including 'end use' effects (policy 55 could be amended to do this).	Oppose	FFNZ does not consider it appropriate to adopt a prohibited activity status
Adverse Effects - Water Take and Storage					
POL TANK 55					
58.29	Hawkes Bay Fish and Game Council	Amend	Insert 50:50 flow sharing to ensure that blocks of water between median and FRE3 are fairly allocated. Further information on this is in the Rules and Schedules.	Oppose	FFNZ has concerns about how this may impact on water takes and the additional cost or uncertainty
123.92	DoC	Not Stated	Water taken for offline storage should be subject to minimum flows and allocation limits (including high flow allocation limits). 55b- request clarification of this point.	Oppose	FFNZ is concerned that this may disincentivise water storage and impose additional cost
180.5	Hort NZ	Amend	Amend to more appropriately reflect the water take focus of the policy, and the fact it relates to offstream dams, which have less effects than in-stream dams. Specific wording provided in submission.	Support	FFNZ agrees that the policy ought to adopt an effects based approach

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
210.76	Forest & Bird	Amend	Add (viii) "the physical condition of the active channel, riparian areas, and floodplain, and the habitat they provides" Amend (ix) to state that takes are subject to minimum flows and allocation limits, and state where the allocation limits and cease takes are situated in the plan (i.e. what schedule). Insert limit on the proportion of flow that can be taken above the median flow and reflect that in a relevant schedule.	Oppose	FFNZ considers that restricting the policy in this way will impose additional cost and is not justified
Benefits of Water Storage and Augmentation					
POL TANK 56					
123.93	DoC	Not Stated	All reference to flow or water augmentation should be removed from PC9 as it is an inappropriate way to manage the effects of overallocation and abstraction. This policy should be redrafted as a method (if included at all).	Oppose	FFNZ does not support removal of flow or water augmentation from PC9
133.5	Wi Huata	Not Stated	Support water storage being owned by Tangata Whenua. 56c - this rule provides for capture, storage and use of surface water at times of high flow. Given the refusal of council to end the free transfer of wealth to those who already have water consents, then the next choice is to allow Maori in particular to achieve the remedies we seek from generations of discrimination and allocation of water rights to the privileged.	Oppose	FFNZ does not agree that water storage should be owned by tangata whenua
201.45	Heretaunga Tamatea	Oppose	Amend plan to ensure security of supply is 90%. Introduce new provision to enable replacement of resource consents to abstract groundwater, with consents for abstraction from water storage.	Oppose in part	While FFNZ supports encourage water storage and considering a range of options, it does not agree that there should be a requirement to replace groundwater consents with water storage consents
207.16	HDC	Amend	Amend the Policy to provide discretion as to the type of activity and scale of activity that is to be subject to the full extent of the Policy. Suggested wording provided.	Oppose in part	FFNZ would support a greater range of activities but is concerned that if too much discretion is provided there will be a lack of certainty
210.77	Forest & Bird	Oppose	Delete policy.	Oppose	FFNZ considers the policy ought to be retained
POL TANK 57					
63.17	Napier City Council	Amend	Amend the policy to read: To support and inform the review under Policy 42, the Council will carry out further investigation to understand the present and potential future regional water demand and supply...	Support	The additional wording helps to provide greater clarity
123.94	DoC	Not Stated	This is method not a policy	Support in part	FFNZ considers that it is appropriate as a policy but would also support it as a method, in the alternative
207.17	HDC	Amend	Amend the policy to read: To support and inform the review under Policy 42, the Council will carry out further investigation to understand the present and potential future regional water demand and supply...	Support	The additional wording helps to provide greater clarity
210.78	Forest & Bird	Oppose	Move to a methods section and amend to clarify what is meant by environmental enhancement (and ensure that reference is to managing allocation, not compensating for adverse effects).	Oppose	FFNZ does not agree with how this submitter has defined environmental enhancement or how it has focused on allocation and removing the ability to provide environmental compensation

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
POL TANK 58					
123.95	DoC	Support	Support in part - all run of river dams should be prohibited	Oppose	FFNZ does not agree that a prohibited activity status is appropriate
210.79	Forest & Bird	Support	Amend to prohibit all run of river dams (i.e. only allow 'off line' storage).	Oppose	FFNZ does not agree that a prohibited activity status is appropriate
High Flow Reservation					
	HB Winegrowers	Oppose	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 Maori development, reduce the proposed Maori 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 Maori development portion of the high flow allocation.	Support in part	FFNZ agrees that the policy could be clarified and amended to be more consistent with the TANK framework
29.36	HB Winegrowers	Amend	Amend Policy 60 to read "When making decisions about resource consent applications to take and store high flow water, the Council will <u>may</u> take into account the following matters: a) whether water allocated <u>any benefits</u> for development of Maori well-being." [deleting the wording in clauses b-f], or similar wording to achieve the outcome sought in this submission.	Support	FFNZ agrees with the addition of the words "may" and "any benefits"
POL TANK 59					
108.5	Jet Boating New Zealand	Oppose	Oppose policy 59, the allocation of 20% of the total water available. JBNZ is concerned about the changes to riverbed morphology that will result from high flow takes beyond those specified in Schedule 32 and seeks a change to the policy so that the schedule reflects the policy. Schedule 32 sets an acceptable take when the river exceeds the high flow trigger. The massive gap between the sensible schedule 32 and the policy it sits under must be resolved. <i>Wording like the following is proposed Abstraction at high flows will limit the amount of flow alteration so that the take, either on its own or in combination with other takes in the catchment does not cumulatively adversely affect the frequency of flows above three times the median flow by more than a minor amount.</i>	Oppose	FFNZ is concerned that this would impose significant cost and discourage takes during high flow
133.4	Wi Huata	Amend	Policy 59 needs to be changed so that the 20% is for Maori development full stop. Concern that where council staff are involved in allocating resources, water or finance, then Pakeha will take the resources meant to right an injustice through the environmental enhancement loophole or through Pakeha paying for the "Maori development" water and funds used for Maori goods.	Oppose	FFNZ supports an equitable and effects based approach to allocation
180.51	Hort NZ	Amend	Amend by deleting c).	Support	FFNZ agrees that removing this paragraph would result in a more effects based approach
193.12	Heinz Wattie's Limited	Amend	Policy 59 c) - Has inadvertently created a "price" for water, that being "the commercial returns resulting from the application. The reservation of some allocation is not opposed in principle, however the opportunity to "sell" that reservation and apply that financial benefit to a sector of our society (for Maori land) is opposed.	Support	FFNZ agrees that creating a price for water would not be an appropriate outcome
210.8	Forest & Bird	Amend	Revise with iwi input Make it clear that any allocation to iwi is independent of allocations to address environmental issues (i.e. low flows). Ensure consistency with NPSFM and RMA.	Oppose	FFNZ is concerned that this would not achieve an effects based regime

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
POL TANK 60					
63.18	Napier City Council	Amend	Amend the Policy to link it to takes considered under Policy 59. Suggested wording provided.	Support in part	FFNZ would support the amendment if it meant that all takes were considered and an effects based approach adopted
99.22	Twyford Water	Amend	Submits that an amendment is required to make clear that Policy 60 is only relevant to consideration of applications under Policy 59.	Support	FFNZ would support the amendment if it meant that all takes were considered and an effects based approach adopted
180.52	Hort NZ	Amend	Amend as follows: 'When making decisions about resource consent applications to take and store high flow water <u>in</u> accordance with Policy 59, the Council will take into account the following matters:...'.	Support	FFNZ would support the amendment if it meant that all takes were considered and an effects based approach adopted
194.77	Pernod Ricard Winemakers New Zealand Limited	Amend	Amend 5.10.8.60 in order to clarify that (b)-(f) only relate to decisions about applications relating to 5.10.8.59, and for all other applications to take and store high water flow – only 5.10.8.60(a) applies. Or conversely, if it is intended to apply more generally, clarify this and also consider whether it would be appropriate to confine these requirements to takes over a certain threshold.	Support	FFNZ would support the amendment if it meant that all takes were considered and an effects based approach adopted
207.18	HDC	Amend	Amend the Policy to link it to takes considered under Policy 59. Suggested wording provided.	Support in part	FFNZ would support the amendment if it meant that all takes were considered and an effects based approach adopted
210.81	Forest & Bird	Amend	Revise with iwi input	Oppose	FFNZ does not agree that Policy 60 needs to be revised as suggested
Chapter 6: New Regional Rules					
29.44	HB Winegrowers	Amend	TANK Rule 1 - Add a Condition to 6.3.1 Rule 1 reading: "c. The bore is located within a Source Protection Zone but is a replacement for an existing bore that will be decommissioned." or similar wording to achieve the outcome sought in this submission.	Support in part	FFNZ would support the amendment if it was an alternative condition and not a standalone requirement
58.31	Hawkes Bay Fish and Game Council	Amend	Amend all rules to state matters of control/discretion/ <u>notification</u>	Support in part	FFNZ would agree to amendment if "notification" provided more certainty and did not change the intention of the rules as notified
120.103	Ngati Kahungunu	Amend	Amend Change 9 so that it does not permit the discharge of contaminants to water from land use (TANK 1)	Oppose	FFNZ supports an effects based approach and one that manages effects as opposed to requiring no effects
129.5 129.6	Hawke's Bay Regional Council	Amend	Amend the provisions of the proposed TANK Plan Change so that they are consistent with the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (Freshwater NES), Amend the provisions of the proposed TANK Plan Change so that they are consistent with the Resource Management (Stock Exclusion) Regulations 2020.	Support in part	FFNZ agrees that it would be efficient and certain for the provisions to be consistent with the NES. FFNZ reserves its position on the stock exclusion rules depending on how they are amended to be "consistent" with the regulations
210.82	Forest & Bird	Oppose	TANK 1: Amend to make consistent with the NPSFM and to increase Council's scope to assess whether an activity and associated discharge is appropriate. This could be achieved by making the use of productive land for farming a restricted discretionary activity in some catchments or where water quality targets are not met a full discretionary activity. Amend to include matters of discretion.	Oppose	FFNZ does not agree that more stringent activity statuses should be adopted or that wholesale changes are needed to make the rules consistent with the NPSFM

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			Provide scope for council reviews of all farm plans.		
10.1 Use of Production Land					
25.15 25.16	Xan Harding	Amend	<p>Rule TANK 5 - 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 - 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>	Support in part	FFNZ considers that the rules need to reasonably provide for the activities, including sheep grazing rotation
27.1	Richmond Beethan	Oppose	Rule TANK 3 - 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.	Support	FFNZ supports a pragmatic and workable approach to stock exclusion
29.37 29.38 29.62	HB Winegrowers	Amend	<p>TANK 1 - 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> <p>TANK 2 - 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> <p>Amend TANK 5 conditions/standards/terms to read “...subject to a Catchment Collective Programme meeting the requirements of Schedule 30B or by a TANK Catchment Collective...</p>	Oppose	FFNZ is concerned that it will not necessarily improve practicality and workability to refer to FEPs and FW-FPs
51.8	Wairua Dairies Ltd	Amend	<p>Amend Rules TANK 5&6 - “Any change to production land use activity over more than 50 ha or 10% of the enterprise or farm area whichever is greater commencing from 2 May 2020”</p> <p>Our reasons regarding this, are included in comments on Schedule 29 in submission point 51.10.</p>	Support in part	If there was a more appropriate threshold, FFNZ would support it
66.17	Ngaruroro Irrigation Society Incorporated	Oppose	Amend TANK 5(a) to read: a) Any change to the production land use activity commencing after 2 May 2020 is <u>either over more than 10 hectares or 10% of the property or farming enterprise area, whichever is the greater</u>	Support in part	If there was a more appropriate threshold, FFNZ would support it
66.18		Oppose	Amend TANK 6(b) to read: b) Any change to a production land use activity over more than either, 10ha or 10% of the property or enterprise area <u>whichever is the greater</u> , commencing after 2 May 2020 that results in the annual nitrogen loss increasing by more than the applicable amount shown in Table 2 in Schedule 29.		
83.8	Jim Galloway	Not Stated	Rule TANK 1 - Amend Change 9 so that the minimum area to need a Farm Environment Plan to be lifted to 50ha	Support	FFNZ agrees that FEPs should be required to properties 50ha or larger
85.2 85.3 85.6	M Truebridge	Oppose Amend	<p>Rule TANK 5 - oppose land use specific Nitrogen Loss restrictions. Famers should be able to remain flexible and adaptive to change in circumstances. I support more flexibility and amendment so that the land use threshold for change is 20ha or 20% of the property whichever is greater.</p> <p>Rule TANK 3 - Clarification and some certainty is required that farm access is not compromised by the need for expensive engineered bridges and crossings. I support a more practical approach</p>	Support	FFNZ agrees that nitrogen loss restrictions are not necessarily practical or appropriate and supports flexibility for land management and land use change

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			where a measure of frequency would be far more reasonable. I seek further clarification for this rule. I further seek the me frame to comply with this rule is extended to 2025.		
89.1 118.4		Amend Oppose	Please choose the yearly stocking rate and make this explicit in the regulations. It is essential that it is average stocking rate for the whole year NOT stocking rate on any one day. Tank 3 -;Remove limit of 18SU/Ha.	Support in part	FFNZ agrees that the stock exclusion rules need to be workable and practicable
120.26 120.27 120.28	Ngati Kahungunu	Amend	Exclude stock from all wetlands, lakes and rivers and from riparian margins used for fish spawning (specifically including inanga) regardless of slope with minimum setbacks of at least 10 metres. Rule TANK 3 - Exclude breakfeeding from all waterbodies regardless of slope. Include defined setbacks from water for all stock exclusion provisions	Oppose	FFNZ is concerned that these requirements would impose significant cost for uncertain or little benefit
RULES: Land Use Change					
54.65 54.70	Apatu Farms Ltd	Oppose	Amend Plan Change 9 to provide a definition of what a change to production land use is to clarify what the provisions actually relate to. Amend Plan Change 9 so that some land use change is enabled by requiring the management of nutrients to be done at the collective level.	Support	FFNZ supports an effects based approach and flexibility for land use change
118.5	Hugo Beamish	Amend	Tank 6 ;Suggest that the criteria should be 10Ha or 10%, whichever is greater. Schedule 29 - Currently schedule 29 does not provide the necessary Nitrogen loss detail to determine what land use changes are permitted (ie how changes from dry stock or dairy to arable/vegetation rotation).	Support in part	FFNZ would support a higher threshold
129.7	Hawke's Bay Regional Council	Amend	TANK 5 and TANK 6 - Either Insert at the end of condition (a): <i>"that results in the annual nitrogen loss increasing by more than the applicable amount shown in Table 2 in schedule 29."</i> Or Delete TANK 5 and TANK 6 and replace with a new rule that requires a restricted discretionary application to be made where a land use change on properties that are greater than 10 ha in size results in a change to the predominant land use which is the land use over more than 50% of the property or farm enterprise area changes from a lower leaching category to a higher category as shown in Table 1 of Schedule 29. The matters for discretion are as proposed for TANK 6 and includes matter 2 from TANK 5 where a Landowner collective is relevant.	Support in part	FFNZ would support a higher threshold and an effects based approach and flexibility for land use change
6.10.2 Water					
8.50 8.51	Delegat Limited	Oppose	Oppose Rule TANK 9(e) - Amend clauses (e)(ii) and (g)(iii) to refer to "preceding 1 August 2017 2 May 2020".	Support in part	FFNZ would support a time period of preceding 2 May 2020 if that was appropriate

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			Oppose Rule TANK 10(g) - Amend clauses (e)(ii) and (g)(iii) to refer to "preceding 1 August 2017 2 May 2020".		
12.15	Ministry of Education	Amend	Amend Rule TANK 7 - ... (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; (iii) (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. (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. c) The taking of water does not cause any stream or river flow to cease. ...	Oppose	It is not clear what takes of 20m3 pr day for "social infrastructure" would provide for
12.16	Ministry of Education	Amend	Amend Rule TANK 8 - ... (iii) The taking of water for aquifer testing is not restricted (iv) <u>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> c) The rate of take shall not exceed 10 l/s other than aquifer testing for which the rate of take is not restricted. ...	Oppose	It is not clear what takes of 20m3 pr day for "social infrastructure" would provide for
21.13	Newstead Farm Ltd	Oppose	Rule TANK 8 - Propose that the taking of water for reasonable domestic 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 nonessential takes.	Support	FFNZ considers domestic and animal drinking needs ought to be provided for
47.13	John Bostock & Eddie Crasborn	Amend	Amend Rule TANK 9 - This condition is too restrictive and may have the perverse effect of incentivising growers to stay with high water demand crops. BF believe water allocation should be based on the Irricalc calculator model for crop types in place or planned. The last water metres were required to be installed in 2016 therefore taking the maximum in last 10 years will use incomplete data.	Support in part	FFNZ supports a practicable and workable rule and the use of appropriate models to estimate irrigation demand
50.20	Olrig Limited	Oppose	Rule TANK 16, 17 - strongly oppose the proposed limits reducing water for these purposes from 20cm3 to 5cm3. The right to take water for those purposes is critical to survival and health of stock on farm, and normal human behaviour. Analysis we have seen suggests this falls materially below sustainability levels. There appears to be no basis for this proposed reduction. Due to its critical nature, we see no reason for any caps/limits to be imposed. HBRC has remedies it can pursue if it finds any property abusing the right.	Support	FFNZ shares this submitter's concerns about reducing water limits
58.32	Hawkes Bay Fish and	Amend	Amend TANK 17 to also include the following rivers and tributaries Gold Creek, Donald River Otakarara Stream Kiwi Creek, Rocks Ahead Stream Ngaawapurua (Harkness) Stream Panoko	Oppose	FFNZ does not support broadening the scope of TANK 17 to include additional rivers

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
	Game Council		Stream (Gold Creek) Mangamingi Stream, Te Waiotupuritia Stream Poporangi Stream, Ohara Stream Waikonini Stream		
66.26	Ngaruroro Irrigation Society Incorporated	Oppose	Amend TANK 9 matter for control/discretion 4) to ensure the rate of take and therefor the system flow rate is protected.	Oppose	FFNZ is concerned about the impact of this on other water users
66.27			Opposes TANK 9 matter for control/discretion 7	Oppose	FFNZ considers this matter of control ought to be retained
66.30			Amend TANK 10(g)(iii) to include a definition for Accurate Water Use Data.	Support in part	FFNZ would support a reasonable definition to provide greater certainty but has concerns that the proposed definition requires further refinement
66.32			Amend TANK 10 matters for control/discretion to clarify the definition of the completeness of the water use record.		
66.33			Amend TANK 10 matters for control/discretion to ensure the rate of take and therefor system flow rate is protected.	Oppose	FFNZ is concerned about the impact of this on other water users
66.34			Opposes TANK 10 matters for control/discretion 10	Oppose	FFNZ considers this matter of control ought to be retained
99.25	Twynford Water	Not Stated	<p>Rule TANK 7 & 8 - In general supports the reduction of permitted water takes . However, during periods of low flow when water permits linked to minimum flows have been unable to be us the permitted take of up to 20m3 could be used to irrigate to ensure the survival of horticultural tree crops.</p> <p>An exclusion should be provided within both TANK 7 & 8. Such takes could be considered to be existing, because they have occurred prior to 2 May 2020 . However it is not clear if this will remain in place when consents are renewed. Therefore an additional exclusion should be added to subsection b) takes up to 20 cubic meter's per property per day to aid the survival of permanent horticultural crops and or for stock water use</p>	Support in part	FFNZ supports a permitted take of at least 20m3 per day
99.26			<p>Rule TANK 9&10 - the quantity of water taken and used for irrigation should be the actual and reasonable amount – as determined based on the quantity specified on the expiring water permit, or Irricalc – whichever is the lesser. Supports the inclusion of the option to cease take when trigger level is reached, although questions why the cease take is not linked to the minimum flow . The inclusion of options is important, and while there are clearly advantages to joining a stream maintenance and habitat enhancement scheme.</p>	Support	FFNZ supports a range of options for determining irrigation demand and the ability to consider a range of options for effects management
99.27			<p>Rule TANK 18 - questions the discretionary status of such applications, and suggests that this doesn't incentivize joining a stream flow maintenance and habitat enhancement scheme. A restricted discretionary status provides a slightly higher level of comfort for an applicant, and also through identification of matters of discretion, provides clearer guidance about what information needs to be provided in a consent application, which has material impacts on cost and me associated with preparing them.</p>	Support	FFNZ agrees that a RDA activity status would create better incentives and the matters of discretion ought to be able to be clearly identified.
116.5	A J Macphee	Not Stated	<p>Rule TANK 7 (b) - This is unworkable, and even with the existing allowance of 20m3 per day, it is simply not possible on manyfarms. The rule makes no allowance for properties of differing sizes and assumes that a 10 ha property has the same requirements as a 100 or even 1000 ha property. There should be no limit on the amount of water that can reasonably be taken for both stock water and domestic use.</p> <p>The right to take water for irrigation purposes on hill country - the landowner, through perhaps a controlled activity, should have a right to use a percentage of that water for their commercial use.</p>	Support	FFNZ agrees that the rules need to be workable and practicable and ought to recognise property size and location of take

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			That should not add to the overall take from the catchment as a whole, but may mean a reduction as to the take of those “downstream”		
120.60	Ngati Kahungunu	Amend	Rule TANK 9 - Introduce prohibited status for allocations that do not meet the above criteria	Oppose	FFNZ does not support the use of a prohibited activity status
123.102 123.103 123.104 123.105 123.106 123.107 123.108 123.109 123.110 123.111 123.113	DoC	Oppose	<p>Rule TANK 7 - Retain as notified with amendment to clarify that Rule 7(b)(i) AND (ii) apply together</p> <p>Rule TANK 8 - Change to:e) <u>The take shall not cause changes to the flows or levels of water in any connected wetland or surface water body.</u></p> <p>Rule TANK 9 f) (i) and (ii) - f) <u>The water permit holder either:contributes to or develops an applicable stream maintenance and habitat enhancement scheme that complies with the requirements of Schedule 36 at a rate equivalent to the stream flow depletion (in l/sec) which will be calculated using the Stream Depletion Calculator and based on the allocated amount of water; or an alternative method where it can be demonstrated to provide a more realistic prediction of effects. OR where a groundwater take is demonstrated as having a high or direct connection to surface water, the water take ceases when the flow or level of water in the surface water body falls below the trigger level specified in Schedule 31. Where a groundwater take is predicted to have a moderate or lesser connection to surface water, the surface water depletion effect must be offset using an applicable water scheme instead as outlined in (i) above.</u></p> <p>Rule 10 (g)(iii) may allow maximum annual water use in the last 10 years to become the reallocated volume As currently drafted it appears as though water will be able to be taken under minimum flow when it is an existing take and meets reasonable and actual use.</p> <p>Rule TANK 11 - Delete reference to water storage. All takes outside of the allocation limits should be prohibited.</p> <p>Rule TANK 12 - Consequential to amendment of Rule 11 (submission point 123.106)</p> <p>Rules TANK 13, 14, 15 - Include in matters of discretion - significant values of outstanding waterbodies and wetlands</p> <p>Rule TANK 16 - Amend activity status to prohibited.</p> <p>Rule TANK 18 - Include as a matter of control whether water quality targets in Schedule 26 or water quality issues in priority catchments (Schedule 28) will be achieved or addressed as a result of the quality of discharged groundwater to surface water.</p>	Oppose	FFNZ is concerned that the proposed amendments significantly raise the bar and will impose significant cost on water users as well as uncertainty
124.28	Brownrigg Agriculture	Oppose	Rule TANK 9 - Amend TANK Rule 9 condition (f) to make it clear that individual consent holder stream augmentation mitigation or offsetting actions are acceptable.	Support	FFNZ agrees that a full range of mitigation and offsetting options ought to be able to be considered
131.7	Ballance Agri-Nutrients	Amend	Rule TANK 7 or 8 - Amend to provide clarity over the supply of water for domestic and stock water. Specific wording provided.	Support	FFNZ agrees that water supply for domestic and animal drinking needs ought to be provided for
141.4 141.5	Kereru Station	Oppose	Opposes Rule 7. Water for domestic and stock should be a permitted activity and not limited to 5 cubic metres for new takes or 20 cubic metres for existing takes. Disagrees with Rules 11 and 18		
180.58 180.59	Hort NZ	Amend	Rule TANK 7&8 - Amend to include a specific exemption for the ongoing abstraction of up to 20m3 if water is abstracted for the purpose of assisting the survival of permanent horticultural crops.	Support in part	FFNZ agrees that a small take for root survival would appear to be appropriate. FFNZ also agrees that the focus should be on reasonable

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
180.60 180.61			<p>Rule TANK 9&10 - All references to 'actual and reasonable' are amended to just be to 'reasonable'.</p> <p>An additional matter of discretion is added as follows: '<u>The effects of any take and use for root stock survival on flows in</u> connected surface water bodies.</p> <p>Rule TANK 12 - Amend status to be 'noncomplying'</p> <p>Rule TANK 18 - Amend status to be 'restricted discretionary'</p>		takes (and efficiency). FFNZ also agrees that a prohibited activity status is not appropriate
192.15 192.17	T&G Global Limited and ENZIL	Amend	<p>A specific exemption should be provided in TANK 7 and 8 to allow up to 20m³ per day to be taken to assist in survival of permanent horticultural crops and rootstock.</p> <p>Condition TANK 9 (e)(iii) should be amended to refer to "the maximum annual water use in any one year within the 10 years preceding 2 May 2020 (including as demonstrated by accurate water meter records)."</p>	Support in part	FFNZ agrees that a small take for root survival would appear to be appropriate. FFNZ would also support a 10 year period up to 2 May 2020 if that was appropriate
194.84 194.85 194.86 194.87 194.88 194.89 194.90 194.91 194.92 194.93 194.96 194.97	Pernod Ricard	Amend/ Oppose	<p>Rule TANK 10 - Actual and Reasonable Reallocation</p> <p>e) The quantity taken and used, other than provided for under d) is:</p> <p>(i) the actual and reasonable amount; or</p> <p>(ii)any lesser quantity applied for.</p> <p>f) The quantity taken and used for municipal, community and papakainga water supply is:</p> <p>(i) the quantity specified on the permit being renewed; or</p> <p>(ii)any lesser quantity applied for</p> <p>Rule TANK 10(e) - Amend the definition of 'actual and reasonable' to provide for the efficient allocation and use of water.</p> <p>Rule TANK 10(h) - Amend TANK 10 to: 1) allow that the taking of water for the sole purpose of avoiding the death of horticultural or viticultural root stock or crops should be exempt from cease takes; 2) take into account the extent to which groundwater takes have a stream depleting effect on surface water and apply restrictions in a proportional way.</p> <p>Rule TANK10(h) - Clarify how Zone 1 takes relate to stream flow maintenance schemes and how they are to be provided for under TANK 18 and Schedule 36.</p> <p>Rule TANK 11 - Amend TANK 11 to clarify that frost protection is exempt from complying with the allocation limits in Schedule 31. It would also be clearer to include paragraph (a) of the conditions/terms as part of the description in the 'Activity' column – as these are not requirements to be met under Rule TANK 11 but the circumstances (activity) for which the rule is triggered. Amend the 'Activity' column of TANK 11 to recognise that this rule applies to s124 and new takes.</p> <p>TANK 12 should be amended to be a Non-Complying activity rather than a Prohibited Activity.</p> <p>Rule TANK 15 - Amend to clarify application of this rule and what would need to be assessed.</p> <p>Rule TANK 18 - Amend Schedule 36 to provide more comprehensive guidance about how the schemes would operate and the extent to which (and circumstances in which) water takes would be able to continue once minimum flow (or flow maintenance) levels were reached.</p>	Support in part Oppose in part	FFNZ would support an appropriate definition of actual and reasonable take that focuses on efficiency. FFNZ also agrees that a prohibited activity status is not appropriate

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
197.16	Beef + Lamb New Zealand Ltd	Oppose	<p>Rule TANK 7 and 8 - B+LNZ seek that 6.10.2 is amended so as to preclude water take for stock drinking water from any Take and Use Rules.</p> <p>Water quantity rules are amended in accordance with relief sought above (Obj 16,17,18) Water quantity Policies - Water quantity is managed to ensure that the take and use of water is reasonable and justifiable for the intended use, and takes for stock drinking water are permitted to provide for the health and wellbeing of domestic and production animals</p>	Support in part	FFNZ agrees that takes for animal drinking needs ought to be provided for. FFNZ would support a focus on reasonable and efficient use but has concerns with (and does not agree with) how "justifiable" intended use are defined
132.160	Te Taiwhenua o Heretaunga	Amend	<p>Oppose TANK Rules 9, 10, 11, and Schedule 33 until the objectives and policies have been more integrated with the RPS and NPS-FM provisions, and the rules have been amended to:</p> <ul style="list-style-type: none"> delete all references to "actual and reasonable" use and other provisions relating to this criteria, and make the rules for water abstraction for irrigation purposes discretionary activities. Delete all "Stream Flow Maintenance Scheme" provisions. Require consent renewals to occur upon consent expiry or when PC9 becomes operative, whichever occurs first. Reduce total consent volumes for groundwater takes (Heretaunga Plains Groundwater) so the total is within a 70 Million m3 per year limit. Require groundwater takes to operate within a cumulative rate of take limit in litres per second. Require high flow allocation to operate within both volumetric and cumulative rate of take limits. Include stream depletion rates of 0.5 lps and above, and associated depletion volumes, within surface water take limits (for the affected surface water body). Prescribe seasonal irrigation restrictions from 1 November to 30 April for each consent to take groundwater or surface water for irrigation. Amend schedule 33 to reflect the changes above Restrict takes within Water Management Zones identified in Operative Schedule Via and link this Schedule to TANK rules. Amend Rule 54 to include PC9 provisions where relevant 	Oppose	FFNZ considers that there ought to be references to "actual and reasonable" use and flow maintenance schemes. FFNZ does not support reducing groundwater takes to 70million m3 on the basis that this is not support by data/science and will result in significant cost
RULES: Damming and Storage					
54.29 54.30	Apatu Farms Ltd	Oppose	TANK 14 and 15: Amend Change 9 so that high flow allocations are specified for the Karamu, and Ahuriri Catchments (if storage is physically feasible within the Ahuriri Catchment).	Support in part	FFNZ would support revising allocation limit for high flow takes to provide for greater takes during times of high flow
146.4	New Zealand Defence Force	Oppose	<p>Rule TANK 17 - Oppose Section 6.10.2 - Insert a new rule to provide for temporary dams as a permitted activity, subject to standards, as requested below:</p> <p><u>The construction of a temporary dam and associated take and use of surface water for use of water treatment units. a) The activity must be undertaken by the New Zealand Defence Force;</u></p> <p><u>b) The temporary dam must not intersect groundwater;</u></p> <p><u>c) The temporary dam must not be built within 500m upstream of a dwelling, formed public road or designated rail infrastructure; and</u></p> <p><u>d) The dam must be constructed to enable dismantling at the completion of each use. e) The dam must not be on the mainstem of the following rivers:</u></p>	Support in part Oppose in part	FFNZ seeks an effects based regime. If the NZDF could demonstrate that the proposed take would not have adverse effects then FFNZ

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			(i) Ngaruroro River (ii) Taruarau River (iii) Omahaki River (iv) Tutaekuri River: (v) Mangaone River (vi) Mangatutu River		
210.95	Forest & Bird	Oppose	TANK 14: Amend to prohibited status, except where that dam is constructed 'offline'. Address ecological effects of offline dams by adding ecological considerations in the conditions and a standard for maintaining the natural character / habitat quality of the river water is taken from using the Natural Character / Habitat Quality Index. We also suggest an acknowledgement within the plan of the potential impact of dams on riverine ecosystems.	Oppose	FFNZ does not consider a prohibited activity status to be appropriate
210.96	Forest & Bird	Oppose	TANK 15: Amend to give effect to the NPSFM and RMA.	Oppose	FFNZ does not support replacing the rule with a new rule/regime
210.97	Forest & Bird	Amend	TANK 16: Strengthen to prohibited status	Oppose	FFNZ does not consider a prohibited activity status to be appropriate
210.98	Forest & Bird	Support	TANK 17: Amend the list to include all water bodies in the region.	Oppose	FFNZ does not support extending this rule to all waterbodies in the region
221.30	W Scott	Oppose	TANK 15: Amend Change 9 so that high flow allocations are specified for the Karamu, and Ahuriri Catchments (if storage is physically feasible within the Ahuriri Catchment).	Oppose in part	FFNZ is concerned that this change may limit the application and/or flexibility provided for in this rule
6.10.3 Stormwater					
10.15 10.16 10.17	David Renouf	Amend	Amend TANK Rule 19, 20, 21	Oppose	FFNZ is concerned that the proposed amendments will make the rules more stringent and impose significant cost and uncertainty. FFNZ also does not agree that the objectives/targets should be standards that are required to be met by 2025
58.33	HB Fish and Game Council	Amend	Amend TANK22 to include a requirement for no greater than 20% MCI/QMCI change between upstream and downstream of the discharge of stormwater.	Oppose	FFNZ is concerned that this may be difficult to measure/monitor, the threshold is not based on data/science and it will likely impose significant cost and uncertainty on water and land uses.
63.38 63.39 63.40 63.41 63.42 63.43 63.44 207.56 207.57 207.58	Napier City Council, HDC	Amend	Amend TANK 19 to clarify the implementation of Condition (b) in relation to what 'planned reticulation' is defined as. Amend Clause 7 of Matters for Control/Discretion in TANK 20 to read: "The actual or potential effects of the activity on the quality of source water for Registered Drinking Water Supplies irrespective of treatment " Amend TANK 20 to add the following matter of discretion: "Where consent is required because TANK 19(b) cannot be met due to a planned reticulation network not being available, conditions requiring connection to the network when that network becomes available." Amend Conditions in TANK 21 to read: "a)(ii) cause or contribute to flooding of any property except where flooding occurs over a watercourse or designated secondary flow path a)(vi)(v) cause to occur or continue to the destruction or degradation of any habitat, mahinga kai, plant or animal in any water body or coastal water (vi)(vi) Cause to occur or continue to the exceedance of water quality targets for discharge of microbiological contaminants including sewerage, blackwater, greywater or animal effluent " b)(xi) Where the stormwater network (or part thereof) of discharge locations are situated within a	Oppose in part	FFNZ would supports amendments to ensure the rules are workable and practicable but is concerned about how the proposed amendments will be applied

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
207.59 207.60 207.61 207.62			<p>Source Protection Zones of a registered drinking water supply, a description of measures to prevent or minimise adverse effects on the quality of the source</p> <p>Amend TANK 22 conditions to read: a) An application for resource consent must include an Urban Site Specific Stormwater management Plan Schedule 34. ...d)(ii) the <u>exceedance of water quality targets for</u> discharge of microbiological contaminants including sewerage, blackwater, greywater or animal effluent</p> <p>Amend TANK 22, Clause 1 Matters for Control/Discretion to read: 1. the efficacy of the Urban Site Specific Stormwater Management Plan</p> <p>Amend TANK 22 Clause 3 of Matter for Control/Discretion to read: 3 The actual or potential effects of the activity on the quality of source water for Registered Drinking Water Supplies irrespective of treatment...</p>		
120.29	Ngati Kahungunu	Amend	Regulate and manage all stormwater discharges and require them to meet water quality objectives and targets in Schedule 26 within the life of the plan.	Oppose	While FFNZ agrees that all discharges and adverse effects on water quality ought to be appropriately managed, FFNZ is concerned that it may not be practicable or appropriate to manage all stormwater discharges
123.114 123.115 123.116	DoC	Amend	<p>Rule TANK 19 - Include reference to significant adverse effects on aquatic life</p> <p>Rule TANK 21 - Include a condition/standard to exclude stormwater discharges into inanga spawning habitats</p> <p>Rule TANK 22 - Include as a matter of discretion reference to the water quality objectives and targets in Schedule 26 and inanga spawning habitats.</p>	Oppose	FFNZ is concerned that adding these requirements to these rules will create additional cost and uncertainty
127.22	Te Taiwhenua o Te Whanganui a Orotu	Not Stated	<p>Regulate and manage all stormwater discharges and require them to meet water quality objectives and targets in Schedule 26 by 2040.</p> <p>Regulate and manage all point source discharges and require them to meet water quality objectives and targets in Schedule 26 by 2040.</p>	<p>Support in part</p> <p>Oppose in part</p>	FFNZ agrees that all sources of contaminants or adverse effects ought to be appropriately managed. However, FFNZ has concerns with requiring targets to be met by 2040 and considers that any targets and timeframes ought to be reasonable and appropriate

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
132.122 132.123	Te Taiwhenua o Heretaunga	Amend	Rule TANK 21 - Elevate the activity status for stormwater discharges in the TANK catchments, to restricted discretionary where they are from an urban reticulated stormwater system or discretionary where they discharge to a site, river, or area of cultural significance. Add new stormwater Rule 21A- to manage stormwater discharges from tile drainage, Novaflow drainage systems (or similar), and farm drainage systems in the rural areas of the TANK catchments, and stormwater discharges from roadside drains into land or water, as a restricted discretionary activity. Specific wording provided.	Oppose in part	While FFNZ considers that all sources of discharges and contaminants ought to be appropriately managed, FFNZ has concerned that the changes sought may result in onerous obligations and impose significant cost on land and water uses.
135.56 135.58 135.59	Ravensdown Limited	Amend	Amend controlled activity Rule TANK 21 as follows: Conditions/Standards/Terms <i>a) The diversion and discharge shall not: (iv) contain hazardous substances or, be from a site used for the storage, use or transfer of hazardous substances</i> Amend discretionary activity Rule TANK 23 as follows: Conditions/Standards/Terms - The activity does not comply with Rules TANK 19 to TANK 22 Matters for Control/Discretion - The Council may at any time, by written notice to the owner or occupier (following a reasonable period of consultation), review a consent in light of new information that has become available or any change in circumstances that has occurred, and vary any condition of consent as a consequence Retain new Conditions (f) to (i) of Rule 7 as notified, while making the following amendment in Conditions (f)(i) and (i)(i): ... <i>Farm Environment Plan</i> , <i>Catchment Collective Plan</i> or <i>Industry Programme prepared in accordance with Schedule 30</i> .	Support in part	FFNZ agrees that if industry programmes are to be part of the plan then they ought to be provided for in this rule
10.65	Hort NZ	Not Stated	Rule TANK 19, 20, 22 & 23 - The term rural building is too broad, and not defined therefore it is very difficult to understand what the impact of these rules will be on horticultural growers, who own many buildings in rural areas. With regards to the wording of Condition b) in TANK 19, unless a reticulated stormwater network is available, then an onsite stormwater discharge must occur – even until a planned network is constructed. Condition b) needs to be amended to reflect this.	Support	FFNZ would support amendments to clarify “rural building” and to also limit the rule to where there is a reticulated stormwater network
210.100 210.101 210.102 210.103 210.104	Forest & Bird	Amend/ Oppose	TANK 19: Amend to include limits and restrictions to address te mana o te wai, and ensure that any adverse effects are no more than minor on ecosystem health, and to refer to schedule 26 objectives/targets TANK 20: Amend the rule for consistence with changes sought to Rule 19. TANK 21: Make restricted discretionary. Include current matters of control as matters of discretion and add impacts on native fish spawning areas. TANK 22: Amend to include reference to schedule 26 and associated timeframes. TANK 23: Amend the rule for consistence with changes sought to Rule 19 to 22.	Oppose	FFNZ does not agree that amendments and restrictions are needed to address Te Mana o Te Wai or that the activity status ought to be made more stringent.
Chapter 6.9 Amendments to Regional Resource Management Plan Rules					
10.8 - 10.11	David Renouf	Amend	Amendments to rules – combined rate of nitrogen	Oppose	FFNZ does not agree that the rules should focus on nitrogen or that the rules should impose a nitrogen limit on properties

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
29.46 29.63	HB Winegrowers	Amend	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. 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. Amend Transfer of Water Permits Rule 62a to read "...f. The transfer does not result in an increase in nitrogen loss <u>exceeding the amounts</u> as specified in Table 2 in Schedule 29"	Support in part	FFNZ would support amendments to ensure the rules are workable and practicable
50.21	Olrig Limited	Oppose	RRMP Rule 67- Strongly oppose the limits set on permitted dams. Consider the parameters to be unnecessarily constraining. If we comply with maintenance of minimum average flows in these areas such that downstream is unaffected, we can see no rationale for constraining storage of winter surpluses in areas which have non-permanent streams for use in the summer dry experienced at Olrig. There is ample opportunity to do so at Olrig in natural storage areas in excess of 20,000 cm ³ , without detriment to the environment, and no downstream consequences. We have received separate advice that this is part of existing national legislation. We urge HBRC to review and recommend amendments to this legislation, to ensure their appropriateness for rural environments.	Support in part	FFNZ would support amendments to ensure the rules are workable and practicable
54.38 54.39 54.40 54.41	Apatu Farms Ltd	Oppose	RRMP 61, 62, 62a, 62b : Amend so that transfers of all water permits that have been exercised should be enabled.	Support	FFNZ supports amendments that will provide greatest flexibility whilst still appropriately managing effects
58.34	HB Fish and Game	Oppose	Opposes Rule 70 in its entirety, and wishes to see such works fall to the default discretionary activity standard.	Oppose	FFNZ considers that Rule 70 ought to be retained to provide a pathway for appropriate and necessary river and drainage works and structures.
120.31	Ngati Kahungunu	Amend	Increase setbacks for vegetation clearance and cultivation to 10 metres to avoid sedimentation	Oppose	While it may be appropriate to provide a larger setback to manage sediment in some locations, FFNZ considers that this is better addressed in a tailored FEP and not a blanket minimum standard that would apply everywhere
123.118 123.119 123.120 123.121	DoC	Amend/ Oppose	RRMP rules 32, 33 and new RRMP rule 33A - Include reference to the water quality objectives and targets in Schedule 26 RRMP Rule 62 - Change to: e) The transfer shall not cause any reduction in the flow or level of a surface water body connected to groundwater Add to the list of adverse effects that a transfer shall not cause: Seawater intrusion, Adverse effects on groundwater dependent ecosystems, Adverse effects on structures as a result of subsidence groundwater abstraction and uplift / liquefaction from groundwater injection / recharge. RRMP Rule 67 - Include provisions to maintain and/or improve fish passage as conditions/standards/terms 67h – clarification RRMP Rule 71 - Include reference to the Ngaruroro, Tutaekuri and Ahuriri catchments.	Oppose	FFNZ is concerned that the amendments proposed are too stringent and will create significant additional cost

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
210.105 210.106 210.107 210.108 210.109 210.110 210.111	Forest & Bird	Amend/ Oppose	<p>RRMP 7: Retain (f) - Amend to increase setback distances to minimum of 10m and state that no cultivation should occur in critical source areas (e.g. swales where runoff will easily enter nearby waterways).</p> <p>Include as a matter for control where water quality targets are not being met.</p> <p>Clarify how cultivation can lead to improvements in riparian condition (clause i). Is it referring to cultivation of permanent native plants?</p> <p>RRMP 32, 33, and 33A: Amend to refer directly to schedule 26 targets</p> <p>RRMP 62a: Amend to give effect to NPSFM - I.e. Amend as: "for transfers that enable the operation of a flow enhancement scheme (ref Policy 38)"</p> <p>RRMP 67: Amend to have a higher activity status threshold. Amend to state that the dam must be solid and have no capacity to kill fish migrating downstream (or words to that effect).</p> <p>RRMP 68: Amend to include provision for fish passage.</p> <p>RRMP 70: Amend to require consent for river works.</p> <p>RRMP 71: Amend to provide for ecological enhancement planting in other catchments.</p>	Oppose	FFNZ considers that the matters raised by the submitter are better addressed in tailored FEPs, where appropriate and are not appropriate to apply as blanket minimum standards everywhere
124.29 124.30	Brownrigg Agriculture	Oppose	<p>RRMP Rule 7 - Amend new condition (f) to make provision for necessary drain maintenance activities.</p> <p>RRMP Rule 33 - Amend new condition (g) so that it is exactly the same as new RRMP Rule 33A condition (i)</p>	Support	FFNZ agrees that drain maintenance ought to be provided for
129.28 129.29 129.30 129.31 129.32 129.33 129.34 129.35	Hawke's Bay Regional Council	Amend	<p>RRMP 2 - Amend matter (f) to clarify that notification is a consent holder advising a water supply manager (not notification of the consent application).</p> <p>RRMP 33 - Delete condition (g)</p> <p>RRMP Rule 62a - Delete Condition b. i. "To any person or occupier of the site in respect of which the permit is granted,</p> <p>RRMP Rule 62a - Delete Advisory note commencing "Pursuant to s136(3)..."</p> <p>RRMP Rule 62a - Condition d.(ii) delete</p> <p>RRMP Rule 62a - Amend condition (e) so that it requires that no increased drawdown is caused on neighbouring efficient bores groundwater take.</p> <p>RRMP 71 - Delete new bullet point referring to Karamu catchments and replace with "this rule does not apply to rivers in the Karamu catchment". Insert new permitted activity rule 71A</p> <p>Activities affecting river control and drainage schemes</p> <p>"The introduction or planting of any plant including any tree in or on the bed of a river, lake or artificial watercourse or within 6 metres of the bed of any river within the Heretaunga Plains Flood Control and Drainage Scheme.</p> <p>Conditions: (a) The planting complies with the planting design, including species, setbacks and density requirements specified in the Council's Water Way Planting Guide for the Heretaunga Plains Flood Control and Drainage Scheme (date)</p>	Support in part	FFNZ supports the changes to clarify provisions and remove ambiguity.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
132.119 132.162 132.163 132.164	Te Taiwhenua o Heretaunga	Amend	<p>Amend Rule 53 so takes for stock water purposes within the water-short areas in the Tutaekuri, Ahuriri, Ngaruroro and Karamu catchments, as specified in Schedule VI, are controlled activities and required to be 60 m3 per week or less. Above this limit require these to be assessed as Restricted Discretionary</p> <p>Amend operative Rule 54 to include water bodies within the areas specified in Schedule Via, restrict surface water allocation to a 60 m3 per week threshold for stock water provision, and add the Mangateretere Stream, the Paritua Stream and the Karewarewa Stream to the water body exclusions in the second column</p> <p>OR draft a similar rule for application in TANK catchments.</p> <p>Add new Rule 54A as a restricted discretionary activity for minor takes in those TANK water bodies excluded from Rule 54 and located in TANK catchments. Acknowledge tangata whenua as affected parties and restrict takes so any water abstraction for irrigation is seasonal 23 . Matters for control/discretion provided.</p> <p>Make the new rule and criteria applicable from the date when PC9 becomes operative and call-in all relevant consents (refer to consent expiry dates for Karamu and surface water depleting takes).</p> <p>Amend the permitted activity rule (Rule 53 -Groundwater takes) to limit weekly volumes to 60 m3 per week for applications/takes in the TANK catchments and prescribe limits for stock water takes of up to 60 m3 per week. Consider changing allocation references in PC9 to "abstraction" so that allocation limits become abstraction limits (or take limits as in the NPS-FM 2020). OR draft a similar rule for PC9 with the same criteria above.</p>	Oppose	FFNZ does not support a requirement for resource consent for water takes for animal drinking purposes. FFNZ has concerns about limiting water takes to 60m3 imposing significant cost and a lack of data/science to support setting the limit at this level.
180.62 180.63 180.64 180.66	Hort NZ	Amend	<p>RRMP 7 - Add exclusions to rule that allow the clearance of indigenous vegetation where it is required for biosecurity purposes, and also allow cultivation within setbacks where it is intermittently required for soil health and operational needs.</p> <p>RRMP 13 - Amend by adding 'at any one time' to end of (j).</p> <p>RRMP 32 & 33 - Amendments to 32 and 22 are deleted.</p> <p>RRMP 62a - Amend by deleting (d)(i) (related to groundwater takes in HPWMU). Delete (f). (h) is amended to refer only to 'reasonable'</p>	Support	FFNZ agrees that the rules ought to be practicable and provide for matters such as biosecurity and soil health
194.98 194.99 194.100	Pernod Ricard	Oppose	<p>Rule RRMP 7 - Further clarification of definitions is required, particularly in that there is a contradiction between the existing definition of 'soil disturbance'¹¹ which excludes 'cultivation and grazing', yet the proposed amendments to RRMP 7 relate to cultivation.</p> <p>Rule RRMP 62a - Clause (f) should be deleted. RRMP 62a should be amended to allow for transfers of permits to take and use water between land uses and crops irrespective of nitrogen loss.</p> <p>Clause (h) should be deleted.</p> <p>General comment on Chapter 6 New Regional Rules - Clarification on the applicability of amendments to Chapter 6 and how this would then apply to other catchments.</p>	Support in part	FFNZ agrees that the rules ought to be workable and practicable and ought to provide flexibility for a range of options and management responses
Consequential Amendments to Chapter 5 of the Regional Resource Management Plan					

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
210.21	Forest & Bird	Oppose	We oppose these changes to the RRMP which weaken original rules and seek that the original RRMP provisions apply where they are stronger than proposed TANK provisions.	Oppose	FFNZ considers the consequential amendments are a necessary part of the plan change
Chapter 9 Glossary					
54.8	Apatu Farms Ltd	Oppose	Actual and Reasonable - amend 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 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.	Support in part	FFNZ supports flexibility to use the most appropriate model to estimate irrigation demand
54.63	Apatu Farms Ltd	Oppose	Amend Change 9 so that all provisions that relate to industry schemes to better align requirements with existing and established industry programs such as GAP schemes.	Support in part	FFNZ agrees that the role of industry schemes and industry practices/standards ought to be recognised.
58.3	HB Fish and Game Council	Amend	Create a definition of local authority	Oppose	It is not clear what this submitter seeks. FFNZ considers that local authority is defined in the Act and should not be defined further/differently in the plan
59.39	WaterForce Limited	Not Stated	Actual and Reasonable - amend definition so that it reads: Actual and Reasonable in relation to applications to take and use water means; a) no more than the quantity specified on the permit due for renewal or any lesser amount applied for; and the least of either; b) for non irrigation takes, the maximum annual amount as measured by accurate water meter data in the ten years preceding 2 May 2020 1 August 2017 for groundwater takes in the Heretaunga Plains Water Management Unit or in the preceding ten years preceding the 2 May 2020 as applicable elsewhere if accurate water meter data is available. (If insufficient or no accurate data is available either clause a) or c) will apply) or c) 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 with an equivalent method), and to a 95% reliability of supply where the irrigated area is; no more than in the permit due for renewal, or any lesser amount applied for, and in the case of Heretaunga Plains Water Management Unit, is not more than the amount irrigated in the ten years preceding 2 May 2020 1 August 2017 and evidence is supplied to demonstrate that the area has, and can continue to be, irrigated and the permit substantially given effect to.	Support in part	FFNZ agrees that flexibility to use the most appropriate model to estimate irrigation demand ought to be provided and that the 10 year period preceding 2020 ought to be able to be considered, where this is more appropriate
59.40			Add new definition for "Accurate Water Meter Data" as follows: Is water use data that has been assessed against the National Environmental Monitoring Standard (NEMS) for Water Metering: Measurement, Processing and Archiving of Water Meter Data and assigned a Quality Code of QC600.		FFNZ would support an appropriate definition of "accurate water meter data."
59.41			Add new definition for "Application of Efficiency (for irrigation)" as follows: 80% Application Efficiency means that 80% of applied water is retained within the plant root zone, after an irrigation event.		FFNZ would support an appropriate definition of "application of efficiency (for irrigation)" but has concerns about whether this definition will appropriately provide for all activities.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
59.42			Add new definition for "Distribution Uniformity" as follows: Distribution uniformity is a measure of how evenly water is applied to the ground. It is calculated using the low quarter distribution uniformity coefficient DU _{lq}		FFNZ would support an appropriate definition of "distribution uniformity" but has concerns about whether this definition will appropriately provide for all activities.
82.1 82.4 82.5	Lowe Corporation	Amend	Define Regionally Significant Industry for the purposes of PC9 as meaning "an economic activity based on the use of natural and physical resources in the region and which has social, economic or cultural benefits that are significant at a regional or national scale", or words to similar effect.	Support in part	FFNZ agrees that recognition needs to be given to economic activity but has concerns about whether this is better achieved through amendments elsewhere in the plan as opposed to the definition of regionally significant industry.
			Amend point (B) of definition of "actual and reasonable" to read: "The maximum amount of water taken in any 12 month period over the ten years preceding 2 May 2020 as measured by accurate water meter data if accurate water meter data is available (if insufficient or no accurate data is available either clause (a) or (c) will apply); or"		FFNZ would support amendments to provide for situations where there is no data available and a 10 year period ending in 2020 if that was appropriate
			Amend point (c) of the definition of "actual and reasonable" to make the date of notification the reference point, consistently with the amendment sought in submission point 52.4		FFNZ would support such an amendment if it helped with the workability and practicality of the provisions
120.143	Ngati Kahungunu	Amend	Align Maori terminology with that used in the Regional Policy Statement, and other Regional Planning documents, and reflect appropriate and accurate language as identified and used by tangata whenua. Some specific examples provided.	Support in part	FFNZ would support the use of more appropriate terminology that is supported by tangata whenua. However, this is on the basis that the terminology does not change the meaning or application of provisions
120.144		Amend	We see seek that changes are made to the phrasing within PC9, through review and improvement of terms and definitions and added to the glossary. Te reo Maori should be defined by tangata whenua.		
123.160	DoC	Oppose	Oppose in part - Change to: a) Least of either the quantity specified on the permit due for renewal or a lesser amount	Oppose	FFNZ is concerned that this change will significantly impact those renewing water takes
123.161		Oppose	Oppose in part - Would like to see stream depletion changed to surface water depletion and stream replaced with surface water body to make it more inclusive of rivers, lakes, springs wetlands as well as streams. This makes it clearer for non- technical people. ... continued in submission	Oppose	FFNZ is concerned that this will have significant implications for consent applications and effects assessments
123.162		Not Stated	Suggested wording of new and existing terms in PC 9: Groundwater dependent ecosystem (GDE) : groundwater dependent ecosystems that occur above and below the ground, including stygofauna, groundwater interconnected surface water features such as springs, streams, rivers, drains, lakes and wetlands.		
123.163		Not Stated	Suggested wording of new and existing terms in PC 9: Maintained : Water quality, quantity and ecosystem health maintained at is current state and not degraded any further as at (specify a date)	Oppose	FFNZ supports an approach that focuses on maintaining within a NOF band and is concerned that the proposed changes will require maintenance to a numeric attribute state and not appropriately take into account factors outside anyone's control, for example
123.164		Not Stated	Suggested wording of new and existing terms in PC 9: Enhanced : Improvement on current state but not restored to its original unaffected state.	Oppose	FFNZ is concerned that this definition is new terminology that has not been tested in case law and does not agree that this term should be defined
123.165		Not Stated	Suggested wording of new and existing terms in PC 9: Restored : Restored to its original unaffected state or better.		
123.166		Oppose	a) no more than the quantity specified on the permit due for renewal or any lesser amount applied for; and the least of either; Change to:	Oppose	FFNZ is concerned that this change will significantly impact those renewing water takes

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			a) Least of either the quantity specified on the permit due for renewal or a lesser amount;		
126.34	Maungaharuru-Tangitū Trust	Not Stated	Insert new definition of "aquatic ecosystem" to read: <u>Aquatic ecosystems – means an ecosystem in a body of water and includes all TANK freshwater bodies and TANK estuarine systems.</u>	Oppose	FFNZ is concerned that the proposed definition is very broad and would likely have very far reaching (and potentially unintended) consequences, costs and uncertainty
126.35		Not Stated	Insert new definition of "TANK estuarine systems" to read: <u>TANK estuarine systems – means the following estuarine systems located within the Tutaekuri, Ahuriri, Ngaruroro and Karamu catchments: Waitangi estuary; Te Whanganui-a-Orotu (Ahuriri estuary);</u>	Oppose	FFNZ is concerned that this would have significant implications for the application of provisions and likely involve significant cost and uncertainty
126.36		Not Stated	Insert new definition of "TANK waterbodies" to read: <u>TANK waterbodies – means any surface or ground waterbody that is located within the Tutaekuri, Ahuriri, Ngaruroro and Karamu catchments.</u>		
129.40	Hawke's Bay Regional Council	Amend	Allocation limit - Delete meaning and replace with new meaning as follows:" Allocation limit for surface water means the maximum quantity that is able to be allocated in water permits in a management unit and abstracted for consumptive water use, expressed in L/s and calculated as the average rate required to abstract the maximum weekly or 28 day volume allocated to each water permit and summed for all water permits in the applicable management unit	Support in part Oppose in part	FFNZ would support change to make the definition more practicable and workable but has concerns about how the proposed amendments may impact on the application of other provisions.
129.41		Amend	Allocation limit - Insert a new sentence at the end: Allocation limits may apply to takes during low flow periods from October to April or apply to takes during high flows		
129.42		Amend	Consumptive Water Use - Insert new meaning: Consumptive water use – means any use of fresh water that alters the flows and or levels in a water body on either a temporary or permanent basis, but excludes any non-consumptive use where: a) the same amount of water is returned to the same water body at or near the location from which it was taken; and b) there is no significant delay between the taking and returning of the water. For the purposes of allocation limits and specified rationing provisions in the rules, the term 'consumptive use' does not apply to water used in hydro-electric power generation or water use or diversions which substantially return the water used to the same water body.	Support in part Oppose in part	FFNZ would support change to make the definition more practicable and workable but has concerns about how the proposed definition of allocation limits may impact on the application of other provisions.
129.43		Amend	Overseer - Insert meaning: Overseer means a set of models used to model nutrient flows and Green House Gas emissions to the farm boundary and down to 60cm and which is the Overseer model version publicly available on the Overseer.org website	Support in part Oppose in part	FFNZ agrees that it may be appropriate to define Overseer but considers that the proposed definition is not the best way to define Overseer and could be improved on
131.5	Ballance Agri-Nutrients Limited	Amend	Farm Environment Plans - amend to state specific qualifications for persons preparing and / or auditing FEPs	Oppose in part	FFNZ is concerned about the scope of Farm Environment Plans as proposed in that we do not consider it an appropriate requirement for all farms over 20ha without good reason. We therefore oppose the inclusion of specific qualifications for persons preparing and /or auditing FEPs, as this has potential to be a further tier of compliance burden/ cost for many low risk farming operations.
132.135	Te Taiwhenua o Heretaunga	Amend	Provide a definition of "water mining" in a glossary specific to PC9 as - " <u>The abstraction of groundwater from an aquifer over a 12-month period, at a rate that exceeds the annual volume and rate of natural recharge</u> ".	Oppose in part	FFNZ does not consider a definition for water mining is appropriate as it is not used in the Proposed Plan.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
132.139		Amend	Add definition of hazardous substances to PC9 glossary, that includes the potential for nutrient concentrations in fresh water to have toxicity effects on aquatic life and on human health.		FFNZ notes that the Proposed Plan makes reference to the Drinking Water Quality Standards for New Zealand and provides for water quality in Schedule 26 (which FFNZ has sought amendment to align with the NPSFM National Bands.
132.168		Amend	Add a definition for "cultural flow" to the glossary section(s) in the regional plan - "a flow or water level that is sufficient to maintain the health and well-being of the surface water body or groundwater body, and provide for tikanga Maori uses and values associated with the water body."		FFNZ notes that the Proposed Plan provides for a definition of Ki uta ki tai – <i>The movement of water from mountains to sea, through the landscape and the numerous interactions it may have on its journey. Ki uta ki tai acknowledges the connections between the atmosphere, surface water, groundwater, land use, water quality, water quantity, and the coast. It also acknowledges the connections between people and communities, people and the land, and people and water.</i>
180.74	Hort NZ	Oppose	Amend by just referring to 'reasonable' - <u>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 lesser amount applied for; or</u> <u>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.</u>	Support in part Oppose in part	FFNZ would support the flexibility to use the appropriate model to estimate irrigation demand and efficiency
180.75		Support	New definition added for 'baseline commercial vegetable growing area' - Insert definition as follows: <u>'Means the maximum total aggregated area of land used for a commercial vegetable growing operation, including the full sequence of crops and pasture used as part of a rotation, in any 12 month consecutive period within the period of 1 May 2015 to 1 May 2020 and under the control (owned or leased) of a single farm'</u> .		While FFNZ agrees that it may be helpful to define vegetable growing area and to recognise the rotational nature of crop growing, FFNZ has concerns about how this will be applied in the plan
180.76		Support	New definition added for 'baseline commercial vegetable growing rotation' - Insert definition as follows: ' is a sub-set of horticultural land use, and means a crop rotation where the predominate purpose is growing, for the purpose of commercial gain, vegetable crops for human consumption, on one or more parcels of land held in single or multiple ownership (whether or not held in common ownership) that constitutes a single operating unit but excludes vegetable crops grown under cover, and includes the full sequence of crops and pasture used as part of that rotation.		While FFNZ agrees that it may be helpful to define vegetable growing area and to recognise the rotational nature of crop growing, FFNZ has concerns about how this will be applied in the plan
180.77		Support	New definition added for 'farm' - Insert definition as follows: <u>'a landholding whose activities include agriculture'</u> .		FFNZ has concerns about how a change in terminology from "farm enterprise" to "farm" will affect the application of the provisions in PC9 and therefore opposes this amendment in part.
180.78		Oppose	Definition of 'Farming enterprise' - Delete and replace with term 'farm as defined in submission poin 180.77.		
180.79		Support	New definition added for 'land holding' - Insert definition as follows: <u>'one or more parcels of land (whether or not they are contiguous) that are managed as a single operation'</u> .		FFNZ agrees that there ought to be flexibility to manage landholdings irrespective of whether they are contiguous
180.80		Support	New definition added for 'nitrogen losses from production land' - Insert definition as follows: <u>'The modelled estimate of average annual nitrogen load, calculated for each farm. For a commercial vegetable growing rotation, the nitrogen loss estimate must include the full sequence of crops and pasture used as part of that rotation'</u> .		FFNZ supports clarification of how nitrogen losses are estimated but has concerns about the use of the words "calculated" and "load"

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
180.81		Support	New definition added for 'production land' - Insert definition as follows: 'A farm where all or part of the farm is (a) arable land use; or (b) horticultural land use; or (c) pastoral land use; or (d) other agricultural land use prescribed in regulations made under section 217M(1)(b); or (e) any combination of the above'.		FFNZ is concerned about the implications of the new definition for the application of the relevant provisions in PC9
180.82		Support	New definition added for 'production land use change' - Insert definition as follows: 'Any change from or to, arable, horticulture, pastoral or other agricultural land use, that is greater than 10ha, compared with the area of the farming activity at May 2020. Land use change does not include a change in the location of crop rotation where the baseline growing area is not exceeded within a Freshwater Quality Management Unit'		FFNZ would support a more appropriate definition of production land use change but has concerns that the proposed definition may be unduly restrictive
180.83		Amend	Definition of 'TANK Industry Programme or TANK Catchment Collective' - Amend by separating definitions and aligning with redrafted Schedule 30.		FFNZ can see merit in separately defining these matters given that they are different
210.149	Forest & Bird	Oppose	Clarification of allocation limits.		FFNZ supports an approach that focuses on maintaining within a NOF band and is concerned that the proposed changes will require maintenance to a numeric attribute state and not appropriately take into account factors outside anyone's control, for example
210.150			Applicable stream flow maintenance scheme : Delete		
210.151			Farm Environment Plan : Amend to address submission concerns on Schedule 30 above.		
210.152			Indigenous vegetation : Delete and replace with: " <u>Indigenous vegetation means vegetation containing plant species that are indigenous or endemic to the area/site</u> "		
210.153					
210.154					
SCHEDULES					
120.15	Nga Kahungunu	Amend	Include schedules of FMUs and freshwater values and clearly define where they apply	Oppose	FFNZ does not consider the amendments proposed are necessary or helpful in supporting the scope/intent of the Proposed Plan. Rather, FFNZ considers the Plan Schedules should be amended as set out in the relief sought in FFNZ submission to the Plan Change. (
120.16			Include the Ahuriri and Waitangi Estuaries in separate and distinct FMU's		
120.18			Include a schedule of outstanding waterbodies and wetlands and their significant values for protection		
120.175			Add new schedule to Change 9: Irrigation Season - minimum flow limits and targets. Table provided.		
120.180					
120.181			Include overlays of Schedules Va, VI, VIa and VIb in proposed maps Add new Tangata Whenua Monitoring Schedule. Table headings provided.		
210.4	Forest & Bird	Amend	Combine Schedules 26 and 27 so that all of the attributes have a regulatory function (making it an appropriate schedule to refer to in the objectives above), and redesign the schedule so that it is divided by FMU, rather than by attribute.	Oppose	FFNZ seeks to have Schedule 27 (and accompanying OBJ TANK 6) deleted as it does not add anything practical to the plan change (long term goals should be set as part of implementing the NPSFM2020.
Schedule 26: Freshwater Quality Objectives					
10.12	David	Renouf	Add to Schedule 26: Freshwater Quality Objectives – Amendments proposed to Total Phosphorus and Total Suspended Solids.	Support in part	FFNZ also seeks amendment to the Freshwater Quality Objectives to ensure they are aligned with National Bands in the NPSFM
54.66	Apatu Farms Ltd	Oppose	Amend Plan Change 9 to provide a definition of what a change to production land use is to clarify what the provisions actually relate to.	Support in part	FFNZ is also concerned about the Plan references to land use change, noting that the approach does not align with a staged adaptive management approach (as stated in the s32 report accompanying the notified plan change). FFNZ has therefore recommended that any threshold for triggering assessment should be related to long term
54.67		Oppose	Amend Plan Change 9 so that some land use change is enabled by requiring the management of nutrients to be done at the collective level.		

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
					intensification (as opposed to short-term changes) to manage intensification of land use that results in increased nutrient and pollutant contamination of freshwater users rather than on /'and use change' FFNZ also considers that collective plans (Industry Programmes or Farm Environment Plans) should only be required/encouraged in only in catchment(s) or sub-catchment(s) where there is a significant risk of degradation of water quality attributes or where water quality attributes are within the NOF D-Band (or where there is overallocation of water).
58.36	Hawkes Bay Fish and Game Council	Amend	Amend Schedule 26 based on the components of Schedule 27 that apply in the coastal environment currently, based on NPS-FM and NZCPS requirements.	Support in part/	FFNZ agrees that Schedule 26 should align with national direction (in particular the National Objective Framework in the NPSFM) however considers it more appropriate if Schedule 27 (and accompanying OBJ TANK 6) is deleted as it does not add anything practical to the plan change (long term goals should be set as part of implementing the NPSFM2020.
120.17, 120.19, 120.20, 120.21,	Ngati Kahungunui	Amend	Amend Change 9 so that water quality attributes listed in Schedule 27 that relate to estuarine health in the Ahuriri and Waitangi estuaries be listed in Schedule 26, and that objectives are met within the life of the plan. Include all water quality objectives in Schedule 26 and identify limits and targets to be achieved within the life of the plan where objectives are currently not met. Amend Schedule 26 to ensure it is correct, fit for purpose, and contains all water quality objectives and targets for the TANK area (including those in proposed Schedule 27). Specific amendments sought to attributes.	Oppose in part	
123.121 to 123.143	DoC	Amend	Include all water quality objectives in Schedule 26 and identify targets to be achieved by 2040 where objectives are currently not met. Delete the first paragraph following the heading Schedule 26: Freshwater Quality Objectives. Or if retained, amend as "Schedule 26 is a first step with objectives being targets will be attained by 2040" Specify within Schedule 26 where the numeric attribute states in the table column 'Water Quality Objective or/Target' are considered targets, based on assessment of the state of current water quality. E.g., " ≤ 1.6 m (target)", i.e. expressly identify which are targets and which are limits. Delete the 'Critical value' and 'Also relevant for' columns from Schedule 26 and identify these freshwater values in a separate Schedule within PC9, defining where they apply. OR Delete only the 'Also relevant for' column and amend the 'Critical value' column to reflect the freshwater values for which the most stringent attribute state is set Subsequent amendments to attributes in Schedule 26 and 27.		
123.144	DoC	Oppose	The TANK Plan provides for a Water User Collective to work collectively by or on behalf of permit holders to meet local water quality, quantity and environmental objectives for surface water bodies, springs and wetlands affected by groundwater abstraction Create a monitoring plan that addresses the number, location and depth of monitoring bores required to adequately assess whether the Nitrate-N target in groundwater is being met. Also sampling and lab analysis should be according to current standards	Oppose in part	While FFNZ would support initiatives to better understand surface and groundwater, and the connections between them, FFNZ is concerned that the proposed amendments may create an onerous obligation and unnecessary focus on nitrogen

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
180.67	Hort NZ	Amend	Add the location of the monitoring and information on the existing state.	Support	FFNZ considers this would be helpful information to better inform plan users and consent applicants and better understand water quality
210.122 210.123 210.124 210.125 210.126 210.127 210.128 210.129 210.130 210.132 210.133 210.134 210.135	Forest and Bird	Amend	<p>Insert a new attribute for physical habitat, '<u>Natural Character/Habitat Quality Index</u>', for all areas.</p> <p>It would be useful to include an associated value or narrative description: "<u>river form (including pool, run, and riffle sequences, and riparian margins) and function (including hydrological regime and fluvial processes) is suitable to support fish and macroinvertebrates through their life phases and protect, and where degraded restore, ecosystem health</u>" or (for consistency with the NPSFM (2020), "<u>Habitat – the physical form, structure, and extent of the water body, its bed, banks and margins; its riparian vegetation; and its connections to the floodplain</u>"</p> <p>Targets/limits for the NCI/HQI relate to a reference condition for the river being assessed (similar to that proposed in PC9 for temperature). Therefore, the associated target should generally be "<u>0.85) or 0.6)</u>". However, it would be best separated into several thresholds to reflect the type of river/stream being protected. Potential targets be "<u>0.7)</u>" for lowland rivers/streams, "<u>0.8)</u>" for mid gradient rivers/streams, and "<u>0.9)</u>" for steep, hard sedimentary, confined rivers/streams. Any other consequential amendments to ensure the protection of physical habitat quality is included in the plan. This may be through policies or methods.</p> <p>Water clarity and turbidity: Apply to all catchments (i.e. those in Schedule 27).</p> <p>Remove flows from the water clarity and turbidity targets/limits for all FMUs.</p> <p>15% threshold should apply to the Upper Ngaruroro and Upper Tutaekuri River year-round</p> <p>MCI: Retain as proposed but remove tautology.</p> <p>MCI: Apply to all catchments (i.e. those in Schedule 27)</p> <p>MCI: Amend Upper Ngaruroro target to 130</p> <p>DIN: Amend to state that critical value is 'ecosystem health'</p> <p>Apply to all catchments (i.e. those in Schedule 27)</p> <p>Nitrate and Ammonia: Change the critical value for nitrate and ammonia from Toxicity (NOF) to 'ecosystem health' Apply NPSFM A band for nitrate to all catchments (including those currently in schedule 27).</p> <p>E.Coli: Retain limits for upper rivers.</p> <p>E.coli: Apply limits to all catchments (i.e. those in Schedule 27)</p> <p>Matauranga Maori: Develop with iwi as soon as possible.</p>	Oppose	FFNZ agrees that Schedule 26 should align with national direction (in particular the National Objective Framework in the NPSFM) however considers it more appropriate if Schedule 27 (and accompanying OBJ TANK 6) is deleted as it does not add anything practical to the plan change (long term goals should be set as part of implementing the NPSFM2020).
Schedule 28: Priority Catchments					
120.22 120.92 120.109 120.118 120.127	Ngati Kahungunu	Amend	<p>Identify (delineate) priority catchments and define timeframes for improvement in Schedule 28.</p> <p>Amend Schedule 28 to delineate catchments with priority requirements to improve water quality</p> <p>Water quality issues and priority catchments must be listed and delineated in Schedule 28, followed by methods to achieve remaining Schedule 26 targets in all FM Us and waterbodies.</p> <p>Schedule 28 must identify and delineate the catchment with specific water quality issues and specific timeframes</p>	Oppose	<p>The catchment maps available on the Council website do not correspond with 2020 HBRC state and trend information about water quality attributes. FFNZ therefore considers that all reference to them should be removed from the proposed TANK plan</p> <p>FFNZ considers that catchment maps showing spatial extent and location of the priority areas should be made available, however should not be included as planning maps in the Plan. This is because while the</p>

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			All priority sub-catchments for erosion management must be identified in Schedule 28.		thresholds for priority will remain fixed, the status of catchments will change over time as work is completed within the catchment. With regard to implementation, FFNZ considers that Farm Environment and Catchment Collective Plans and Industry Programmes should be completed in the following priority order; High, Medium and Low Priority over the first 3, 6 and 9 years respectively following of the plan FFNZ seeks to have Schedule 38 amended as set out in FFNZ submission to the Plan Change
123.12 123.146	DoC	Amend	Regulate (require consent for) productive land used for farming in priority catchments to resolve water quality issues in Schedule 28 and in catchments required to meet water quality targets in Schedule 26 by 2040. Include the list of priority catchments which currently meet the criteria specified for water quality issues. Should reference 2040 as the timeframe for achieving objectives		
210.138	Forest & Bird	Amend	Amend for clarity. Identify what catchments are a priority. Include maps. Include timeframes.		
129.36	Hawke's Bay Regional Council	Amend	Amend last paragraph to state that Source Protection Zones are a high priority area for the preparation of Farm Environment, Catchment Collective or Industry Plans in addition to the mapped high, medium and low priority areas.	Support in part	FFNZ seeks to have Schedule 38 amended as set out in FFNZ submission to the Plan Change.
135.61	Ravensdown Limited	Amend	Amend Schedule 28 by replacing the current content of the schedule with a table or list that clearly identifies the priority catchments, including the timeframes that apply within each catchment.	Oppose in part	
180.68	Hort NZ	Amend	Amend by deleting '5. A source Protection Zone'. Amend catchment names to make clear the relationship of these catchments to other catchments identified in the plan. Amend catchment maps to ensure that contaminant loads discharged from upstream are not double counted, and the land that is captured by the risk categories represents the contribution of catchment to loads at the sub-catchment and whole of catchment scales.		
Schedule 29: Land Use Change					
58.37	HB Fish and Game	Amend	Remove Schedule 29 and replace with appropriate values, and relate to per ha loss rates	Oppose in part	FFNZ seeks relief to Schedule 29 consistent with the FFNZ submission to the Plan Change.
129.37	Hawke's Bay Regional Council	Amend	Either Amend Table 1 to insert a total nitrogen load for onions in the columns headed 'other soils' and 'Farndon/Omarunui/Te Awa' of 33 and 61 respectively Insert at the end of the fourth paragraph the following: For example for unirrigated land the maximum allowable change per property or farm enterprise is calculated as 32 kg/ha/year minus 3 kg/ha/year times 10 ha = 290 kg per year being the difference between the modelled N loss for dairy farming less the modelled loss for scrub or tree cover. More accurate model data or information specific for the property in question can be used where it is available. And insert the following note into Table 2; The threshold may be calculated using the formula described above with site specific or more accurate model data where this is available.	Support in part	FFNZ considers that the Plan Change ought to: <ul style="list-style-type: none"> • Focus on long term intensification - aligning with the s42 report staged adaptive management approach • Provide flexibility for farmers to make decisions in response to short term events (such as drought/destocking) • Recognise the low TN concentrations evident in HRBC's 2020 TANK State and Trend reporting. • Set limits that provide for a staged adaptive management approach can be evaluated in a way that gives farmers latitude to plan and adapt.

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
			Or Replace Tables 1 and 2 with an alternative framework that ranks land use systems according to relative risk of N loss and establishes consent requirement where the predominant land use (over 50% of the farm or enterprise area) changes from a lower N loss category to a higher N loss category as illustrated in Table 1 [see submission for Table 1].		<ul style="list-style-type: none"> Focus requirements for reducing TN concentration in surface water and/or groundwater FMUs, only in sub-catchments where TN concentration is at risk of overall degradation below current state (other than where TN is already with the NOF D-Band, where all such plans should be required anyway). <p>FFNZ agrees that any nitrogen risk threshold should be tailored on a catchment by catchment approach.</p>
180.69	Hort NZ	Amend	Amend by adding definition of 'production land use change' to plan. State single N loss load applicable to all land uses and locations, however if current approach is maintained, update kiwifruit and vegetable rotation numbers and other crops, in accordance with evidence HortNZ will submit at hearing.		
197.10	Beef + Lamb New Zealand Ltd	Amend	Amend existing and include as required new provisions to give effect to the following intent: B+LNZ seek that Table 1 in Schedule 29 is deleted and propose that a 'flat rate per hectare' permitted threshold is applied (e.g. 20 - 25kgN/ha/yr) irrespective of land use and land use change, or alternatively an approach based on natural capital (appendix 1). Any Nitrogen risk threshold should be tailored to the catchment and specific to working towards achieving freshwater values.		
Schedule 30: Landowner Collective, Industry Programme and Farm Environment Plan					
29.49	HB Winegrowers	Amend	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 those of the Resource Management Amendment Act 2020 and related S.360 regulations.	Support in part	FFNZ seeks amendments to Schedule 30 to address concerns raised by the submitter. FFNZ considers that catchment collective plans or Industry Programmes or Farm Environment Plans only in catchment(s) or sub-catchment(s) where: there is a significant risk of degradation of water quality attributes or where water quality attributes are within the NOF D-Band, or there is over-allocation FFNZ considers that FEPs and Catchment Collective Plans and Industry Programmes should not apply to pastoral farm properties under 50ha unless it is required by the Resource Management (National Environmental Standards for Freshwater) Regulations 2020.
50.11	Olig Limited	Oppose	Do not support the obligation for each collective catchment FEP or Individual FEP to be approved, annual reporting and subsequently audited (3.1). This adds an unnecessary layer of cost.	Support in part	FFNZ is also concerned about the potential compliance burden/cost from the FEP requirements as proposed. We consider that the presumption for these plans should be that unnecessary costs should be kept to a minimum, for everyone to have the resources they need to adapt.
123.147	DoC	Oppose	This devolves responsibility to a third party to manage environmental effects in a nonregulatory framework. This is uncertain and inappropriate.	Oppose	FFNZ does not support a heavy handed regulatory approach to small low risk farming operations. FFNZ seeks amendments to Schedule 30 to require catchment collective plans or Industry Programmes or Farm Environment Plans only in catchment(s) or sub-catchment(s) where: there is a significant risk of degradation of water quality attributes or where water quality attributes are within the NOF D-Band, or there is over-allocation
131.6	Ballance Agri-Nutrients Limited	Amend	Amend Change 9 to include requirements similar to Waikato Regional Plan Change 1 for Certified Farm Environment Planner	Oppose in part	FFNZ is concerned about the scope of Farm Environment Plans as proposed in that we do not consider it an appropriate requirement for all farms over 20ha without good reason. We therefore oppose the inclusion of specific qualifications for persons preparing and /or auditing FEPs, as

Sub Point	Submitter	Support/ Oppose	Submission Summary	Support/ Oppose	Rationale
					this has potential to be a further tier of compliance burden/ cost for many low risk farming operations.
210.140	Forest & Bird	Amend	<p>Remove all reference to stream 'maintenance' schemes.</p> <p>Amend entire management of land uses to be more consistent with NPSFM and NZCPS and give council scope for more control, and compliance, monitoring, and enforcement.</p> <p>Ensure farm plans are tied to enforceable conditions in rules and resource consents which set out measureable outcomes to be achieved by the farm environment plan. Where flexibility is provided for to finalise or amend farm plans ensure this is only for consented activities where an independent certification process can be applied to the conditions of consent.</p>	Oppose	<p>FFNZ does not support a heavy handed regulatory approach to small low risk farming operations. FFNZ seeks amendments to Schedule 30 to require catchment collective plans or Industry Programmes or Farm Environment Plans only in catchment(s) or sub-catchment(s) where: there is a significant risk of degradation of water quality attributes or where water quality attributes are within the NOF D-Band, or there is over-allocation</p>

Appendix C – the decision of the Independent Hearing Panel and Appendix 3 to that decision

DECISION OF THE INDEPENDENT HEARING PANEL

PROPOSED PLAN CHANGE 9

Tūtaekurī, Ahuriri, Ngaruroro, Karamū Catchments

Decision Report of the Independent Hearing Panel appointed by the Hawke's Bay
Regional Council pursuant to section 30 of the Resource Management Act 1991

August 2022

Commissioners:

Antoine Coffin (Chair)

Dr Brent Cowie

Rauru Kirikiri

Dr Roger Maaka

Dr Greg Ryder

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Summary

- 1.1 The Hawke’s Bay Regional Council appointed five independent commissioners (Antoine Coffin (Chair), Dr Brent Cowie, Rauru Kirikiri, Dr Roger Maaka and Dr Greg Ryder), with varying skill sets to hear and decide submissions on Proposed Plan Change 9 to the Regional Resource Management Plan. PPC9 covered what are known as the TANK catchments – Tūtaekurī, Ahuriri, Ngaruroro and Karamū (TANK) Rivers including the Heretaunga Plains aquifer.
- 1.2 PPC9 was notified on 2 May 2020 and received over 6,000 submission points from 240 parties. The initial hearing of submissions commenced 24 May 2021 and took nearly three weeks at three different venues until September 2021. The hearing panel received more than 2,000 pages of evidence. The Section 32 Evaluation Report (390 pages) and the Section 42A Report (305 pages) is supported by some 1,387 pages of information.
- 1.3 This is one of the most complex plan changes the respective panel members (the Panel) have considered. It contains some sophisticated, very complex and interrelated technical components on the management of surface water and groundwater quality and quantity. There are strong links between flows in rivers and streams, and water levels in the aquifer.
- 1.4 To illustrate this point the process to develop the plan change took 8 years. There have been robust conversations during that time with the establishment of a TANK Stakeholder Group, but often with no consensus on key matters. There are some very contentious areas where there are polarised views. Our decisions do not resolve all of these tensions; rather they reflect our collective best judgment about where the lines should be drawn.
- 1.5 In saying this the Panel could not have achieved any of this without the unflagging support of Regional Council officers, to whom we are extremely grateful. While we have certainly not accepted all their recommendations by any means, those recommendations greatly assisted in our improving and clarifying the Objectives, Policies, Rules and Schedules of PPC9.
- 1.6 The plan change proposed 23 new rules, plus substantive amendments to 23 rules in Chapter 6 of the RRMP. It encourages collaboration between water users and farm operators, such as through catchment collectives, industry programmes and freshwater farm plans. It proposed to reduce existing overallocation via an interim allocation limit and allocating water in the future based on previous records of maximum water use.
- 1.7 Iwi and hapū members sought a stronger regulatory regime to protect and enhance ecosystem health and incorporate Te Ao Māori values, principles and ways of doing things. Iwi and hapū submitters told us of their concerns for the degradation of the water bodies and their aspirations to restore and enhance the mauri of the rivers and streams and the aquifer. Environmental groups sought similar outcomes.
- 1.8 The industry’s, municipal water suppliers, wine growers, horticulturalists, and farmers that rely on water, and the sector groups that represent them, sought amendments to the plan change that seek certainty that they can provide for existing and possible future increased demand, and generally encouraged the use of non-regulatory methods.
- 1.9 In the interregnum between PPC9 being notified and the hearings commencing, a new National Policy Statement for Freshwater Management came into effect on 3 September 2020.
- 1.10 The Panel has taken on board the Regional Council’s statutory requirement to prepare a water plan for the entire region that will give effect to the NPS-FM 2020 by the end of December

2024. This will be known as the Kotahi Plan. It is not our role to give effect fully to the NPS-FM 2020, but we have endeavoured to incorporate the requirements of the NPS-FM 2020 to the extent that is consistent with submissions.

- 1.11 The Panel has provided long term water quality outcomes in Schedule 26, provided for minimum flows and limits on water allocation in Schedule 31, included an “interim allocation limit” for groundwater of 90 million cubic metres per annum, and decided that in the future water will be allocated on the basis of an actual and reasonable use test.
- 1.12 One of the difficulties we have faced is the nitrogen leaching loss model Overseer, the use of which was embedded in PPC9, was effectively taken out of use by the Government late in 2021. This has resulted in significant changes to PPC9, with much more focus on a “dual nutrient” management approach that considers both nitrogen and phosphorous leaching pathways.
- 1.13 The Panel is hopeful that the learnings from the collaborative process and the passion with which Iwi submissions were given at Mangaroa Marae and throughout the hearing process will inform the future partnership between tangata whenua and the Regional Council.
- 1.14 We have tried, to write our decision in language that will not be too daunting to most readers. In saying this PPC9 is very complex, and we must address all the very technical issues in the Plan Change. Our challenge of understanding and applying the science as professionals leads us to think that more work must be done on communicating sophisticated and technical science to the public, Iwi and resource users.
- 1.15 The Panel is confident that our decisions on PPC9 meet the Regional Council’s statutory obligations, have been through a thorough evaluative and hearing process, and provide a comprehensive policy framework for future decision making. We are also optimistic that much of what the Panel addressed via PPC9 can be carried forward to the Regional Council’s new NPS-FM 2020 compliant Kotahi Plan.

Abbreviation and Glossary of Terms Used in this Decision

Abbreviations as found in this decision	Meaning
the Act and the RMA	Resource Management Act 1991
ANZECC guidelines	Australian and New Zealand Environment and Conservation Council set of tools for assessing and managing ambient water quality in natural and semi-natural water resources
“CMA”	The coastal marine area of the region
DIN	Dissolved Inorganic Nitrogen
DOC	Department of Conservation
DRP	Dissolved Reactive Phosphorous
EDS	Environment Defence Society
EIC	Evidence in Chief
FRE3	A river flow statistic identifying the number of annual flow events for the river that are three times the median flow or greater
FW-FP	Freshwater Farm Plan
GAP	Good Agricultural Practice schemes
HDC	Hastings District Council
HBRC	Hawke’s Bay Regional Council
HFA	High Flow Allocation
HortNZ	Horticulture New Zealand
HPUDS	Heretaunga Plains Urban Development Strategy
Irricalc	This model calculates soil moisture, water use, and drainage for irrigation systems in New Zealand
JWS	Joint Witness Statement
LAWMS	The Hawke’s Bay Land and Water Management Strategy
LSR	Land Surface Recharge
m ³	Cubic metre(s)
Mm ³ /y	Million cubic metres per year
m ³ /d	Cubic meters per day
MfE	Ministry for the Environment
MTT	Maungaharuru Tangitū Trust
N	Nitrogen
NCC	Napier City Council
NES-DWS	Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007
NES-F	Resource Management (National Environmental Standards for Freshwater) Regulations 2020
NKII	Ngāti Kahungunu Iwi Incorporated
NOF	National Objectives Framework limits in the NPS-FM 2020
NPS	National Policy Statement
NPS-FM	National Policy Statement for Freshwater Management (with dates specified), for example NPS-FM 2020

Abbreviations as found in this decision	Meaning
NPS-UD	National Policy Statement for Urban Development
NZCPS	New Zealand Coastal Policy Statement 2010
NWCO	National Water Conservation Order
Overseer	A “tool” for estimating nitrogen losses from activities on the land
P	Phosphorus
Pink version of PPC9	The s42A Reporting Officers’ recommended updated version of PPC9 dated 30 July 2021
the plan change	Proposed Plan Change 9 to the RRMP
PPC7	Proposed Plan Change 7 to the Regional Resource Management Plan - Outstanding Water Bodies
PPC9 (Decision version)	Proposed Plan Change 9 to the Regional Resource Management Plan - Tūtaekurī, Ahuriri, Ngaruroro and Karamū (TANK) catchments incorporating the Decision of the Panel
PPC9 (Notified version)	Proposed Plan Change 9 as notified.
PSGE	Post Settlement Governance Entity
RCEP	The Regional Coastal Environment Plan
the region	The area administered by the Hawke’s Bay Regional Council
the Regional Council	Hawke’s Bay Regional Council
Reporting Officer(s)	S42A Reporting Officer(s)
RFBPS	Royal Forest and Bird Protection Society
RMA	Resource Management Act 1991
RPC	The Regional Planning Committee
RPS	The Regional Policy Statement component of the Regional Resource Management Plan
RRMP	The Regional Resource Management Plan
s[#]	Section number of the RMA, for example s32 means section 32 of the RMA
S42A Addendum Report	Section 42A Addendum Report dated 19 May 2021
S42A Report	The Section 42A Report, dated 15 April 2021, prepared by the s42A Reporting Officers who are staff of HBRC
SOE	State of the Environment
SPZ	Source Protection Zone
TANK	Tūtaekurī, Ahuriri, Ngaruroro, and Karamū
TLAs	Territorial Local Authorities including Napier City Council and Hastings District Council
TToH	Te Taiwhenua o Heretaunga
Water Year	A period of 12 months ending 30 June from which water takes have been measured

Glossary of Māori terms used in this decision	Meaning
Ngā kōrero o te hunga kainga	The voices of the home people
Te rohe	The region of Hawke's Bay
Tikanga	Traditions
Maunga	Mountains
Kaihautu	Māori leader within an institution
Pūrākau	Stories
Pakiwaitara	Folklore
Hau kainga	Locals - people of that place
Rongoa	Medicine
Ngā kōrero	Oral presentations
Mauri	Life force
Mahinga kai	Food gathering places
Tuna	Eels
Ngā tuhinga kōrero	Written submissions
Ngā kōrero katoa	Everything that is being said

Chapter 1 – Introduction to PPC9

- 1.16 Proposed Plan Change 9 (PPC9) proposes to add new rules to the Regional Resource Management Plan (RRMP) to manage water quality and quantity for the Tūtaekurī, Ahuriri, Ngaruroro and Karamū (TANK) catchments, which includes the Heretaunga Plains groundwater aquifer.

Appointment of Hearing Panel and Delegations

- 1.17 The Regional Planning Committee of Hawkes Bay Regional Council delegated authority to the Chief Executive or his nominee to undertake all the necessary operational and logistical arrangements to establish the Panel.¹
- 1.18 The Hawke’s Bay Regional Council appointed five independent commissioners to hear and decide submissions on PPC9. They are Mr Rauru Kirikiri, Dr Brent Cowie, Dr Roger Maaka, Dr Greg Ryder and Mr Antoine Coffin (Chair) (collectively referred to in this decision as the Panel or Hearings Panel).

Notification, Hearings and s42A Reporting Officers’ Reports

- 1.19 PPC9 was publicly notified on 2 May 2020. The period for lodging submissions closed on 14 August 2020.
- 1.20 The Reporting Officers’ Section 42A Report and extensive supporting technical information was filed on 15 April 2021.
- 1.21 The s42A Addendum Report dated 19 May 2021 responded to the submitter’s evidence prior to the hearing.
- 1.22 The s42A Reporting Officers’ recommended updated version of PPC9 was provided to the Panel on 30 July 2021 this was termed the “pink version” of PPC9, which further responded to discussions and tabled evidence at the hearing.
- 1.23 The first day of the hearings was notified by Minute 1 of the Panel on 23 March 2021 to commence on Monday 24 May 2021.

Site Visit

- 1.24 A site visit was undertaken by the Panel on 25 June 2021. This involved a helicopter flight and a vehicle tour. The helicopter tour allowed the hearing panel to view the interior of the four catchments difficult to access by vehicle as well as covering a large area in short period of time.
- 1.25 The aerial tour over the four catchments included in particular:
- Te Whanganui ā Orotū (The Ahuriri Estuary) and its contributing catchments;
 - The Tūtaekurī catchment, including the Dartmoor valley, nearby hill country and Patoka area;
 - The headwaters of the Ngaruroro and Taruarau Rivers;

¹ Meeting of the Regional Planning Committee. 19 August 2020.

- The middle reaches of the Ngaruroro River and its surrounds, including Whanawhana, Matapiro Road, Fernhill and the Gimblett Gravels grape growing area;
- Lake Poukawa and its surrounds;
- The Karamū catchment and the Clive River; and
- The Waitangi Estuary.

1.26 The vehicle tour visited the Waitangi Estuary, some of the smaller tributaries of the Karamū River, Bridge Pā “triangle”, Roys Hill, Fernhill, Omahu, Waiohiki, Puketapu, and Tamatea.

Hearing Appearances

1.27 The hearings were held in-person at venues in Hawke’s Bay. These were:

- Monday 24 May – Wednesday 26 May 2021 at Mangaroa Marae, Bridge Pā
- Tuesday 8 June – Friday 11 June 2021 at Toitoti Centre, Hastings
- Monday 21 June –Wednesday 23 June 2021 at East Pier, Napier
- Monday 27 September 2021 at Hawkes Bay Regional Council, Napier.

1.28 A list of appearances is provided in Appendix 1. This appendix identifies the speakers and support people where known, the relevant submitter as an individual or organisation/group and their corresponding submission number.

1.29 The hearings were recorded by video and made publicly available via the HBRC website. The links to the video recordings are included in Appendix 1.

1.30 There were no transcripts of the proceedings.

1.31 We would like to acknowledge the generous assistance we received from tangata whenua representatives at the hearing venues. This assistance included the provision of karakia tīmatanga and karakia whakamutunga each day, blessing of our food and mihi whakatau for submitters and visitors. We especially would like to thank Mr Cordry Huata at Mangaroa Marae, Mr Marei Apatu of Te Taiwhenua o Heretaunga (TToH) and Mr Chad Tareha of Ngāti Pārau.

Conflicts of Interests

1.32 Conflicts of interest were considered by Hawke’s Bay Regional Council in the appointment of hearing commissioners.

1.33 The Hearings Panel did not receive any formal requests or submissions raising conflicts of interests. During the hearing Antoine Coffin informed the panel and submitters present that he had previously worked as a commissioner with one of the experts for the Winegrowers, Mr Stephen Daysh. There were no objections.

Procedural Matters and Late Submissions

1.34 Leading up to the commencement of the hearings, the Panel issued four minutes to address the programme of hearings, administrative and logistical issues as well as substantive matters. These minutes and others issued during the course of deliberations are available on the Regional Council’s website and Regional Council file.

- 1.35 In summary, these four minutes addressed the following matters:
- a) Minute 1 (dated 23 March 2021): This minute set out the names of the hearings panel, the hearing dates, the timetable for the Section 42A Report and submissions and preferences for formats. The minute notified submitters that contingency plans were being prepared for disruptions from Covid 19 alert levels and that draft hearing timetables will be sent out by 17 May 2021.
 - b) Minute 2 (dated 8 April 2021): This minute set out expectations for the hearing process including expert witnesses, lay submitters, legal submissions, and questions of clarification. Expert caucusing and conferencing were identified as having some potential to be called during the hearing process. The minute invited submitters to identify places of interests that they would like the hearings panel to visit as part of its site visit, to be provided by 7 May 2021.
 - c) Minute 3 (dated 7 May 2021): This minute set out the timetable for an extension of the deadline for expert evidence from Friday 7 May to Tuesday 11 May 2021, in response to requests of some major parties. A corresponding extension was provided to the Regional Council in its provision of expert evidence in response from Monday 17 May to Wednesday 19 May 2021.
 - d) Minute 4 (dated 19 May 2021): This minute provided more detail and clarifications regarding the pōwhiri at Mangaroa Marae, receipt of legal submissions, access to Zoom facilities, expert caucusing/conferencing, and site visits. The minute also set out a decision not to accept a late submission from S. A. Gardiner, received 7 May 2021. The submission closing date was 14 August 2020. The minute informed submitters that late expert evidence, after 11 May 2021 would not be accepted.
- 1.36 A further 6 minutes were issued during the proceedings. These are summarised below.
- 1.37 Minute 5 addressed requests from submitters to be able to provide response in evidence to the s42A Addendum Report, approach to late expert evidence and presenting at the hearings. Submitters were provided an opportunity to provide written comments on the s42A Addendum Report by Friday 4 June 2021 and time to present these comments in hearings. In regard to late evidence provided by Ngāti Kahungunu Iwi Incorporated (NKII), the panel sought written views from the Regional Council and submitters on whether the evidence should be received or not, by 2 June 2021.
- 1.38 The Hearings Panel received a memo from Hawkes Bay Regional Council dated 9 June 2021 regarding Appendix 11 to the Section 42A Report. The memo informed the Panel that there were 'errors and factually inaccurate information' contained in Appendix 11. This Appendix summarised hydrological information relevant to proposed Plan Change 9. The amendments to the summary were substantial, however, no changes or amendments to the underlying reports that Appendix 11 summarises were required and no associated changes were to be made to the Section 42A Report or Addendum Report. Minute 6 (dated 11 May 2021) set out the issues and included the memo with track changes. The minute invited submitters (whether they had attended the hearings or not) to make submissions (with conditions set out in the memo) on the changes. The closing date for those submissions was Friday 2 July 2021.
- 1.39 Minute 7 (dated 18 June 2021) confirmed the Hearings Panel view that the expert evidence of Ngaio Tiuka and Shade Smith on behalf of NKII was late. The minute also noted that three submissions had been received regarding the s42A Addendum Report (as per Minute 5).

- 1.40 In Minute 8 (dated 20 July 2021) the Hearings Panel recorded its reconsideration of its earlier procedural direction not to receive late evidence of NKII. This was done in light of the principles of natural justice that in this case required acceptance of the evidence and recognition of tikanga Māori. The hearing panel considered potential issues of prejudice for other parties. In this case, while the evidence was filed late according to previous direction, it was still filed in advance of the hearing commencing. During week 3 of the hearing Royal Forest and Bird Protection Society Incorporated submitted to the Panel a request to review the decision on the late evidence, and further set out in their legal submissions the reasons it should be accepted. These included that the NKII evidence complied with the requirements of s41B of the RMA, was not inadmissible, and therefore should be given fair and proper consideration. The evidence was heard by the Panel and placed on the Regional Council website. A large majority of the parties that responded to the Panel's minute regarding the approach taken to the evidence were in favour of the evidence being accepted on the basis that there was limited prejudice to other parties. The Panel reconsidered its earlier procedural direction and came to the view that it would receive (and weigh accordingly) the evidence filed by NKII in its decision on PPC9.
- 1.41 In Minute 9 (dated 27 July 2021) the Hearings Panel confirmed the receipt of written comments and expert evidence from several submitters regarding amendments made to Appendix 11. We confirmed that further hearing time would be provided on Monday 27 September 2021.
- 1.42 In Minute 10 (dated 20 September 2021) the Hearings Panel addressed some logistical and administrative matters for the hearing on 27 September 2021 as well as requesting further science information regarding the management of the groundwater resource and interim allocation limit.
- 1.43 Minute 11 (dated 30 June 2022) noted that an application to the Minister for the Environment under the First Schedule, Clause 10A of the RMA for an extension of timeframes for the release of decisions on the Proposed Plan Change 9 was made by Hawkes Bay Regional Council.
- 1.44 The application was made at the request of the Panel for an extension period of 4 months to the final decision to the 31 August 2022. The extension was necessary to complete the decision-making, and to ensure appropriate time for deliberations and the release of decisions.
- 1.45 The Hearings Panel noted that PPC9 was very complicated with integrated parts to other sections of the operative Regional Resource Management Plan and other recent Plan Changes. Due to the scale and complexity of the PPC9 there are a large number of complex submission points. The Hearings Panel has received more than 2,000 pages of evidence along with extensive legal submissions, and the sheer weight of evidence and submissions requires time consuming and laborious consideration. The Hearings Panel has also suffered from absences due to Covid 19, both in contracting Covid 19 and in periods of isolation.
- 1.46 A public notice was issued on the 2 July 2022 by Hawkes Bay Regional Council of the application and granted extension. Minute 12 confirmed that the hearing was closed on 22 August 2022.

Key Dates in the Process

Date	Description
14 Aug 2018	Draft presented to Regional Planning Committee
18 Mar 2020	Approved for notification by HBRC
2 May 2020	Notified
14 Aug 2020	Submissions closed
11 Nov 2020	Summary of submissions
9 Dec 2020	Further submissions closed
19 April 2021	Section 42A Report and supporting technical information published
24 May 2021	Hearing commenced
25 & 26 May, 8-11 June, 21-23 June, 27 Sep 2021	Hearing continued
25 June 2021	Commissioner site visit
30 July 2021	Pink version of PPC9 (s42A Reporting Officers' Recommended Version) received
22 August 2022	Hearing closed
31 August 2022	Decision

Background to PPC9

- 1.47 The plan change area covers the four catchments, Tūtaekurī, Ahuriri, Ngaruroro and Karamū that have complex interactions including flow losses and gains from surface water bodies and the Heretaunga Aquifer which is a deep sedimentary basin underlying the Heretaunga Plains. The Heretaunga Aquifer system includes the main aquifer and several connected peripheral valley aquifers. The Heretaunga Aquifer system is hydraulically interconnected with the surface water in sections of the catchments.
- 1.48 PPC9 sought to ensure integrated management of land and water resources in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū (TANK) Catchments. PPC9 provides a catchment management approach to improve water quality and water quantity, and to manage values for the catchments.
- 1.49 PPC9 arose from the Hawke's Bay Land and Water Management Strategy (LAWMS) 2011 and Plan Change 5 to the RRMP which was made operative on 24 August 2019. Both provided policy direction for a catchment-based management approach.
- 1.50 LAWMS provided direction for the management of land and water in Hawke's Bay for improved economic and environmental outcomes. LAWMS has objectives and policies to meet sustainable land use and water use in the region. These policies include tailoring land and water use management to address pressures for each catchment and working with partner agencies and stakeholders on water and land management.
- 1.51 Plan Change 5 to the RRMP introduced Chapter 3.1A Integrated Land Use and Freshwater Management to the Regional Policy Statement (RPS) section of the RRMP (noting that the RRMP contains both the RPS and regional plan). Policies LW1 and LW2 in Chapter 3.1A state

that provisions need to be inserted into the regional plan relating to a catchment wide integrated management approach. A primary purpose of PPC9 was to give effect to policies LW1 and LW2 of the RPS as required by the s65(6) of the RMA. Chapter 3.1A states that the Greater Heretaunga and Ahuriri Catchment will be worked on as one catchment area so Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments formed PPC9.²

- 1.52 PPC9 does not propose to change the Regional Policy Statement or the Regional Coastal Environment Plan.³
- 1.53 PPC9 proposed to insert a new chapter, Chapter 5.10 Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments, into the RRMP. This chapter contains objectives and policies for the integrated management of land and water in the four catchments.
- 1.54 PPC9 proposed a new Section, 6.10: TANK Catchments, and specific rules in the Regional Rules Chapter of the RRMP. Section 6.10 proposes 23 rules that apply in the TANK Catchment that relate to the use of production land, take and use of water, and discharge of stormwater.
- 1.55 PPC9 also amends the remainder of the Regional Resource Management Plan by proposing to:
- a) Make consequential amendments to parts of Section 5 of the RRMP. These consequential amendments remove the TANK Catchment from the 5.4 Surface Water Quality, 5.5 Surface Water Quantity, 5.6 Groundwater Quality and 5.7 Groundwater Quantity provisions (in light of the specific management regime introduced in the TANK catchment through the TANK rules); and
 - b) Make consequential amendments to 23 existing rules in Chapter 6 of the RRMP. These amendments apply where the activity is carried out in the TANK Catchment. These 23 rules relate to bore drilling and bore sealing, feedlots and feedpads, vegetation clearance and soil disturbance activities, agricultural activities and other activities on production land – discharges to air/water/land and discharges to water.
- 1.56 PPC9 also adds three new RRMP rules to Chapter 6 of the RRMP that relate to drainage water (RRMP Rule 33A), and transfer of permits to take and use water (RRMP Rules 62a and 62b). Rule 33A applied only in the TANK Catchment. RRMP Rules 62a and 62b apply outside the TANK Catchment.
- 1.57 PPC9 proposed to insert 11 new schedules, Schedules 26 – 36, in the RRMP that support policy and rules. These schedules relate to:
- Schedules 26 and 27 were both titled Freshwater Quality Objectives
 - Schedule 28 - priority catchments
 - Schedule 29 – land use change
 - Schedule 30 - landowner collectives
 - Schedule 30 - industry programme and freshwater farm plan
 - Schedule 31 - flows, levels and allocation limits
 - Schedule 32 - high flow allocation
 - Schedule 33 - water permit expiry dates
 - Schedule 34 - urban site specific stormwater management plan
 - Schedule 35 - source protection for drinking water supplies

² Section 42A Report. paragraphs 26-30. pages 10-11

³ Section 42A Report. paragraphs 43 & 44. page 14

- Heretaunga Plains stream flow maintenance and habitat enhancement scheme.⁴

1.58 PPC9 proposed to add some 30 new terms or amend terms to Chapter 9 Glossary of the RRMP for:

- Actual and Reasonable
- Affected Stream
- Allocation limit for surface water
- Allocation limit for Groundwater
- Allocation limit for high flow takes
- Applicable stream flow maintenance scheme
- Aquifer testing
- Essential human health needs
- Farm Environment Plan
- Farming Enterprise
- Forestry Management Plan
- Fre³
- Hapū
- Heretaunga Plains Groundwater Model
- Indigenous vegetation
- Infrastructure Leakage Index
- Kaitiakitanga
- Ki uta ki tai
- Mahinga Kai
- Māori
- Marae
- Mātauranga Māori
- Mauri
- Papakāinga
- Pastoral land use
- Registered Drinking Water Supply (or Supplies)
- River
- Source Protection Zone (SPZ)
- Source Protection Extent
- Stream Depletion Calculator
- TANK Industry Programme or a TANK Catchment Collective
- Waka ama⁵

Engagement with Tangata Whenua and Community

1.59 The development of PPC9 was initiated in 2012 when the Regional Council formed the TANK Collaborative Stakeholder Group (the TANK Group) to represent tangata whenua and the wider community to look at the best way to manage the waterways of the TANK Catchments. PPC9 was developed using a community-based approach. More than 30 representatives of the community were in the TANK Group including tangata whenua and local representatives of interest and stakeholder groups, including environmental organisations, local councils and primary sector representatives.

⁴ Section 42A Report. paragraphs 45 & 46. page 14

⁵ Section 42A Report, Appendix 1 – Recommended Changes to Proposed Plan Change 9. 15 April 2021. Chapter 9. Pages 90-93

- 1.60 Five sub-groups of the main TANK Group were established in 2016 and 2017 to work on community engagement, stormwater, lakes and wetlands, economic assessment and water augmentation. This was to enable greater consideration of details in a timely manner which was not possible in the wider TANK forum. Each of the five working groups were formed with a brief which outlined the scope of the group, memberships and outputs expected from the groups. The working groups met a number of times, with some groups meeting more than 10 times. The groups did not have decision making duties, but they provided their findings and recommendations back to the wider TANK Group.
- 1.61 In 2018 the TANK Group agreed to provide the Joint Drinking Water Group with the mandate to look at the policies and rules in respect of source protection zones and drinking water safety.
- 1.62 Milestone reports and scientific papers were produced and shared with members during the collaborative process. These included but are not limited to:
- a) *Tangata Whenua Values to Attributes and Management Priorities for the Ngaruroro River*, Te Tira Wai Tuhi, October 2016
 - b) Hawke's Bay Regional Council, July 2016. *Ngaruroro, Tūtaekurī, Karamū and Ahuriri Estuary Catchments State and Trends of River Water Quality and Ecology Discussion Document for TANK Meeting 38 – Part 3 River Flow Management Regimes and Water Abstraction*, HBRC, 22 March 2018
 - c) Hawke's Bay Regional Council, August 2018. *Heretaunga Aquifer Groundwater Model Scenarios Report*
 - d) *Surface water quantity scenario modelling in the Tūtaekurī, Ngaruroro and Karamū catchments*, R Waldon, for Hawke's Bay Regional Council, August 2018
 - e) *TANK Social and Cultural Impact Assessment Report – Community Reference Group feedback on the draft TANK plan'*, Anthony Cole, Joella Brown and Rhonda Cole, August 2018
 - f) *Further Information on Non-Consensus Matters in TANK Plan Change – Managing Stream Depletion Effects by Groundwater Abstraction*, HBRC, 5 September 2018
 - g) HBRC Report to Regional Planning Committee 15 May 2019 meeting - Item 7 titled: *TANK Plan Change – Feedback and Recommendations following Pre-notification consultation'*.
- 1.63 Tangata whenua representatives also formed a separate group and met with Regional Council staff and advisors on a regular basis to consider issues and further discuss the available information in more detail.
- 1.64 Reports have been commissioned by the Regional Council for tangata whenua. These have helped inform PPC9. These reports included:
- Ngaruroro Values and Attributes August 2016
 - Tūtaekurī Awa, Values and Objectives Management Report
 - TANK Social and Cultural Impact Assessment Report
 - Mr Morry Black's three reports for Te Taiwhenua o Heretaunga on work undertaken over 10 meetings

- Ms Diana McDonald’s assessment for Mana Ahuriri on the values of Mana Ahuriri were reflected appropriately in PPC9
- Cultural Values alignment with the TANK draft plan report Ms Joella Brown.

- 1.65 The TANK Group met more than 40 times over the course of six years and it had its last meeting on 26 July 2018. Further information on the TANK Group can be found in Section 4 of the s32 Evaluation Report.⁶
- 1.66 The draft plan change was presented to the Regional Planning Committee (RPC) on 14 August 2018. The RPC comprises both elected councillors and tangata whenua representatives of the Post Settlement Governance Entities (PSGEs). The TANK Group was not able to reach consensus on all matters in the draft plan change. The matters the TANK Group did not reach consensus on were high flow allocation limits, flow enhancement of lowland streams, minimum flows and allocation limits for Ngaruroro and Tūtaekurī Rivers. Some issues were not considered fully by the TANK Group, including protection of source water for community supply, stormwater management and land use change provisions. The RPC reviewed and considered these matters at meetings over the following 18 months.⁷
- 1.67 Iwi authorities were consulted on the draft plan change in January 2019 prior to PPC9 being notified. PPC9 was recommended for notification by the RPC on 18 March 2020. The Regional Council subsequently approved PPC9 for notification on 25 March and PPC9 was notified on 2 May 2020 and submissions closed on 14 August 2020. The Regional Council received 240 submissions that contained approximately 6,000 submission points. Further submissions were notified on 11 November 2020 and submissions closed on 9 December 2020. Twenty-four further submissions were received, all but one of the further submitters were primary submitters on PPC9.⁸
- 1.68 PPC9 is one part of the Regional Council’s programme to progressively implement the National Policy Statement for Freshwater Management (NPS-FM) and sustainably manage the region’s land and water resources. The plan change process was commenced in 2012, following the first NPS-FM in June 2011 and was notified after the NPS-FM 2014 (amended 2017) was in force. The NPS-FM 2020 came into force on 3 September 2020, three months after PPC9 was notified.⁹
- 1.69 The Regional Council has recently had a plan change hearing on Proposed Plan Change 7 – Outstanding Water Bodies (30 November to 3 December 2020). As notified (31 August 2019) Proposed Plan Change 7 proposed changes to the RPS to protect 38 Outstanding Water Bodies in the region. The hearing was held in December 2020 and the Independent Hearing Panel’s decisions on submissions were publicly notified on 26 June 2021. The decision found that 15 of those water bodies proposed clearly and unambiguously met one of more the assessment criteria and qualified as outstanding water bodies. The decision for PPC7 identified the following outstanding water bodies in the TANK catchments, these were the Taruarau, Ngaruroro above Whanawhana, the Te Whanganui ā Orotū (Ahuriri) Estuary and the Tūtaekurī upstream of the SH50 bridge.

⁶ Section 42A Report. Paragraphs 31-36. Pages 11-12.

⁷ Section 42A Report. Paragraph 38. Page 13

⁸ Section 42A Report. Paragraph 39. Page 13

⁹ Section 42A Report. Paragraph 40. Page 13

Relevant Statutory Provisions and Plans Considered

RMA 1991

- 1.70 Section 32AA of the RMA requires a further evaluation for any changes that are proposed to the notified PPC9 since the s32 Evaluation Report was completed. We have accepted the s32 evaluation of the statutory provisions as they relate to Part 2 of the RMA.¹⁰
- 1.71 A s32AA further evaluation analysis is provided where we have substantially changed a provision notified in PPC9, otherwise we adopt the analysis in the s32 Evaluation Report.
- 1.72 Section 30 and ss63-70 of the RMA are relevant to plan changes to regional plans. This is discussed in some detail at Sections 3.2 and 3.3. of the s32 Evaluation Report and is not repeated here.
- 1.73 Proposed Plan Change 9 is specifically relevant to the following functions of regional councils set out under s30 for establishing objectives, policies and methods:
- a) Section 30(1)(a) - the establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the natural and physical resources of the region
 - b) Section 30(1)(b) - the preparation of objectives and policies in relation to any actual or potential effects of the use, development, or protection of land which are of regional significance
 - c) Section 30(1)(ba) - the establishment, implementation, and review of objectives, policies, and methods to ensure that there is sufficient development capacity in relation to housing and business land to meet the expected demands of the region
 - d) Section 30(1)(c) – the control of the use of land for the purpose of: soil conservation, the maintenance and enhancement of the quality of water in the waterbodies, the maintenance of the quantity of water in waterbodies, the maintenance and enhancement of ecosystems in waterbodies, and the avoidance or mitigation of natural hazards
 - e) Section 30(1)(e) - The control of the taking, use, damming and diversion of water, and the control of the quantity, level, and flow of water in any water body
 - f) Section 30(1)(f) - the control of the discharges of contaminants into or onto land or water and discharges of water into water
 - g) Section 30(1)(fa) - The establishment of rules in a regional plan to allocate the taking or use of water.
- 1.74 The relationship between these matters and the TANK catchments is set out in the s32 Evaluation Report, which is relied on by the Panel and not repeated here.¹¹

¹⁰ Section 32 Evaluation Report. pages 9-16

¹¹ Section 32 Evaluation Report. pages 9-16

Essential Freshwater Rules and Regulations 2020

1.75 On 5 August 2020, after PPC9 was notified, the Government introduced its Essential Freshwater package and gazetted four documents. These documents came into force on 3 September 2020.

- a) The National Policy Statement for Freshwater Management 2020.
- b) The Resource Management (National Environmental Standards for Freshwater) Regulations 2020.
- c) The Resource Management (Stock Exclusion) Regulations 2020.
- d) The Resource Management (Measurement and Reporting of Water Takes) Amendment Regulations 2020.

National Policy Statement for Freshwater Management (NPS-FM) 2014

1.76 PPC9 was prepared when the National Policy Statement for Freshwater Management (NPS-FM) 2014 (amended 2017) was in force. Since PPC9 was notified, the NPS-FM 2020 has been gazetted and it came into force on 3 September 2020.

1.77 We observe that while the three earlier iterations of the NPS-FM gazetted in 2011, 2014 and 2017 respectively, could be regarded as evolutionary, the NPS-FM 2020 takes an entirely fresh approach. This has made it difficult in places to give effect to the NPS-FM 2020 (to the extent the Panel is able to within the scope of submissions) when much of the content and context of the NPS-FM 2020 has been changed significantly.

National Policy Statement for Freshwater (NPS-FM) 2020

1.78 The NPS-FM sets out the objectives and policies for freshwater management under the RMA, which are required to be given effect to by regional policy statements, regional plans and where relevant district plans.

1.79 Clause 4.1 of the NPS-FM 2020 states that every local authority must give effect to the National Policy Statement as soon as reasonably practicable. PPC9 was notified before the NPS-FM 2020 was gazetted.

1.80 Case law establishes that the extent to which it is reasonably practicable for the provisions of PPC9 to give effect to the NPS-FM 2020 is confined by the scope within the submissions to make changes to PPC915. PPC9 does not need to (and cannot) give full effect to the NPS-FM 2020, as full effect cannot be given to the NPS-FM 2020 until the Regional Council has worked through the various implementation steps in Part 3 of the NPS-FM 2020. However, the Panel has attempted to give effect to the NPS-FM 2020 to the extent that it is able within the scope of submissions on PPC9, and based on the merits of the submissions themselves, recognising that remaining conflict between the NPS-FM 2020 and the RRMP will then fall to the Regional Council to resolve in other proceedings. Section 80A(4)(b) of the RMA states that where a freshwater planning instrument has the purpose of giving effect to the NPS-FM 2020, it has to be notified by 31 December 2024.¹² The Regional Council is presently working on this new plan, which is known as the “Kotahi Plan”.

1.81 One of the key changes between the NPS-FM 2014 (amended 2017) and the NPS-FM 2020 version is that Te Mana o te Wai has been further explained in the NPS-FM 2020. Section 1.3 of the NPS-FM 2020 states that Te Mana o te Wai is a concept that refers to the fundamental

¹² Section 42A Report. Paragraphs 54-61. Pages 15-16

importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. Te Mana o te Wai protects the mauri of the wai and is about restoring and preserving the balance between the water, the wider environment and the community. Te Mana o te Wai encompasses six principles:

- a) Mana whakahaere
- b) Kaitiakitanga
- c) Manaakitanga
- d) Governance
- e) Stewardship
- f) Care and respect.¹³

1.82 Clause 2.1 is the only Objective of the NPS-FM 2020, reflecting the hierarchy of obligations enshrined in Te Mana o te Wai. Te Mana o te Wai is further explained in Clause 1.3(5), which states that the hierarchy prioritises: first, the health and well-being of water bodies and freshwater ecosystems second, the health needs of people (such as drinking water) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.¹⁴

1.83 The Te Mana o te Wai Objective or hierarchy of obligations is supported by some 15 policies. Some of the key policies relevant to PPC9 are:

- a) NPS-FM Policy 1 - Freshwater is managed in a way that gives effect to Te Mana o te Wai.
- b) NPS-FM Policy 3 - Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.
- c) NPS-FM Policy 5 - Freshwater is managed through a National Objectives Framework to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.
- d) NPS-FM Policy 11 - Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.

1.84 Clause 3.2 of the NPS-FM 2020 requires the Regional Council to engage with communities and tangata whenua to determine how Te Mana o te Wai applies to water bodies and freshwater ecosystems in the region. The Regional Council has not yet undertaken this engagement.

1.85 Other changes between the NPS-FM 2014 (2017 amendment) and the NPS-FM 2020 include development of long-term vision statements, the addition of two compulsory values, threatened species and mahinga kai, new attributes that provide for ecosystem health,

¹³ Section 42A Report. Paragraph 57, page 16.

¹⁴ Section 42A Report. Paragraph 58, page 16.

avoiding any further loss or degradation of wetlands, and tougher “bottom lines” for ammonia and nitrate toxicity attributes.¹⁵

- 1.86 A table showing how PPC9 aligns with the NPS-FM 2020 is shown in Appendix 6 of the Section 42A Report.

National Environmental Standards for Freshwater 2020

- 1.87 The National Environmental Standard for Freshwater (NES-F) regulates activities that pose a risk to the health of freshwater and freshwater ecosystems. Anyone carrying out activities that pose risks will need to comply with the standards. The standards are designed to:

- a) protect existing inland and coastal wetlands
- b) protect urban and rural streams from in-filling
- c) ensure connectivity of fish habitat (fish passage)
- d) set minimum requirements for feedlots and other stockholding areas
- e) improve poor practice intensive winter grazing of forage crops
- f) restrict further agricultural intensification until the end of 2024
- g) limit the discharge of synthetic nitrogen fertiliser to land, and require reporting of fertiliser use.

In many cases, people will need to apply for a resource consent from their regional council to continue carrying out regulated activities.¹⁶

- 1.88 In accordance with s43B of the RMA, a district rule, regional rule, or resource consent may be more stringent than these regulations.

- 1.89 However, a district rule, regional rule, or resource consent may be more lenient than any of regulations 70 to 74 (culverts, weirs, and passive flap gates) if the rule is made, or the resource consent is granted, for the purpose of preventing the passage of fish in order to protect particular fish species, their life stages, or their habitats.

Resource Management (Stock Exclusion) Regulations 2020

- 1.90 The regulations state that stock must be prevented from grazing within a natural wetland, or within three metres of any lake or river. The regulations do not apply to sheep.

- 1.91 The Reporting Officers in the Section 42A Report recommend deleting POL TANK 22, Rule TANK 3 and Rule TANK 4 from PPC9 because these provisions are covered by the Stock Exclusion Regulations 2020.¹⁷ In accordance with s44A of the RMA, the Panel is required to remove any duplication or conflict with a national environmental standard without using the process in Schedule 1.

¹⁵ Section 42A Report. Paragraph 60, page 16.

¹⁶ Section 42A Report. Paragraphs 62-63, pages 16-17

¹⁷ Section 42A Report. Paragraphs 64-65, page 17

Resource Management (Measurements and Reporting of Water Takes) Regulations 2020

1.92 These regulations have been amended to require all permit holders who hold consents for taking water (five litres per second or more) to record water use every 15 minutes and supply the data directly to regional councils.¹⁸

Other Relevant National Instruments

NPS Renewable Electricity Generation 2011

1.93 The National Policy Statement for Renewable Electricity Generation (NPS-REG) is relevant to the region and to the RRMP. The RPS provides for renewable electricity generation and particular catchments have been identified as having appropriate attributes and values for hydro electricity generation. These catchments are not within the TANK Catchments. However, POL TANK 56 of PPC9 does provide for renewable electricity generation to be considered in regard to water storage and augmentation schemes as follows:

The Council will also recognise beneficial effects of water storage and augmentation schemes, including water reticulation in the TANK catchments and out-of-stream storage, and when considering applications for resource consent will take into account the nature and scale of the following criteria: ...

h) whether the proposal provides for renewable electricity generation.¹⁹

NZ Coastal Policy Statement 2010

1.94 The New Zealand Coastal Policy Statement (NZCPS) has relevance to PPC9 as each of the TANK Catchments flow into the coastal marine area through the Ahuriri and Waitangi Estuaries. OBJs TANK 7 and 10, and POLs TANK 18 and 19 of PPC9 seek to manage effects on the coastal environment in a manner that gives effect in part to the NZCPS Objectives 1, 3 and 6.²⁰ We note that the Hawkes Bay Coastal Environment Plan was notified in 2006, a decision issued in 2008, however was made operative in 2014. As such the HBRC does not have a coastal plan that gives effect to the NZCPS 2010.

NPS for Urban Development 2020

1.95 The National Policy Statement for Urban Development (NPS-UD) seeks to ensure that there are adequate opportunities for land to be developed to meet community, business and housing needs so cities are productive and well-functioning. HBRC, Napier City Council and Hastings District Council are jointly responsible for implementing the NPS-UD that was released in 2020.

1.96 Chapter 3.1: Managing the Built Environment of the RPS seeks to help to implement the NPS-UD. The Regional Council is looking to review that chapter to ensure it is compliant with the NPS-UD 2020. When looking at areas for development capacity, HBRC, Napier City Council and Hastings District Council will need to ensure they manage their natural and physical resources in an integrated way including encouraging the co-ordination and sequencing of regional or urban growth, and having objectives, policies and methods to promote positive effects and avoid, remedy, or mitigate adverse effects of urban development on the health and well-being of water bodies, freshwater ecosystems and receiving environments.

¹⁸ Section 42A Report. Paragraph 66, page 17

¹⁹ Section 42A Report. Paragraph 67, page 17

²⁰ Section 42A Report. Paragraph 69, page 17

National Environmental Standard for Sources of Human Drinking Water 2007

- 1.97 The National Environmental Standard for Sources of Human Drinking Water (NES-DWS) is relevant as the public reticulated drinking water supplies that service the greater Napier and Hastings urban areas are sourced from the Heretaunga Aquifer. The Panel understands that an updated NES is due later this year.
- 1.98 Source Protection Zones are identified in PPC9 to protect the source of Registered Drinking Water Supplies. PPC9 contains POLs TANK 6, 7, 8 and 9 and rules to protect drinking water from land use activities, water takes and discharges.²¹

National Environmental Standard for Plantation Forestry 2017

- 1.99 Regulation 6 of the Plantation Forestry NES sets out the circumstances when a rule in a plan may be more stringent than the regulations within the NES. This includes if a rule gives effect to an objective developed to give effect to the NPS-FM and if a rule manages any activity conducted within 1 kilometre upstream of an abstraction point of a drinking water supply for more than 25 people where the water take is from a water body.²²
- 1.100 To the extent to which PPC9 contains rules that are more stringent than the Plantation Forestry NES, these are rules which give effect to an objective developed to give effect to the NPS-FM or managing water within an abstraction point of drinking water supply as above.

National Water Conservation Orders

- 1.101 The Ngaruroro River has been considered for protection under a National Water Conservation Order (NWCO). The purpose of an NWCO is to recognise and protect the outstanding amenity or intrinsic values of water bodies. Regional policy statements, regional plans and district plans cannot be inconsistent with the provisions of a NWCO.²³
- 1.102 This process is being managed by the Environmental Protection Agency. A Special Tribunal has held a hearing and published its report on the 30 August 2019 which recommended that the NWCO be granted in part for the Ngaruroro River and its tributaries upstream of the Whanawhana cableway, and the NWCO application be declined for the Ngaruroro River and its tributaries downstream of the cableway. Several parties have made submissions to the Environment Court in relation to the Special Tribunal's report. The Environment Court started holding a hearing for this Order on 9 February 2020. The hearing was adjourned due to COVID-19 lockdowns and recommenced in June 2021, when the hearing was completed. The Environment Court has not yet issued its report, and the NWCO has not yet been made. As such, the obligation under s67(4) for PPC9 not to be inconsistent with the NWCO has not yet arisen.

Regional Policy Documents

The Hawke's Bay Regional Planning Committee Act 2015

- 1.103 The purpose of the Hawke's Bay Regional Planning Committee Act is to improve tangata whenua involvement in the development and review of documents prepared in accordance with the RMA for the Hawke's Bay region. The Act establishes the Hawke's Bay Regional Planning Committee (RPC) as a joint committee of the Hawke's Bay Regional Council.²⁴

²¹ Section 42A Report. Paragraphs 73-74, page 18

²² Section 42A Report. Paragraphs 76-77, page 18.

²³ RMA, ss 62(3), 67(4) and 75(4).

²⁴ Section 42A Report. Paragraphs 85, page 19

- 1.104 There are tangata whenua member representatives of Maungaharuru-Tangitū Hapū, Ngāti Pāhauwera, Tūhoe, Ngāti Tūwharetoa, Mana Ahuriri hapū, Ngāti Hineuru, hapū of Heretaunga and Tamatea, Wairoa iwi and hapū, and Ngāti Ruapani ki Waikaremoana.²⁵
- 1.105 The role of the RPC is to oversee the review and development of the Regional Policy Statement and regional plans for the Hawke’s Bay region, as required under the Resource Management Act 1991. The RPC has an equal number of Regional Councillors and Post Settlement Governance Entity representatives, and it is the co-governance group for the management of natural resources in Hawke’s Bay.²⁶

Hawke’s Bay Regional Policy Statement

- 1.106 The Hawke’s Bay Regional Resource Management Plan (RRMP) was made operative in August 2006 and it is a combined Regional Policy Statement (RPS) and regional plan.
- 1.107 As stated in Section 5 of this report, provisions in Chapter 3.1A: Integrated Land Use and Freshwater Management of the RPS state that provisions need to be inserted into the regional plan relating to a catchment wide integrated management approach. Chapter 3.1A includes objectives and policies that require catchment wide approaches for integrated management of land and freshwater amongst other things. Chapter 3.1A shows that the Greater Heretaunga/Ahuriri Catchment area is a catchment area. This catchment area is now known as TANK and it incorporates the Tūtaekurī River, Ngaruroro River and Karamū River Catchments, and the Ahuriri Estuary (Te Whanganui ā Orotū) and its catchment. PPC9 gives effect to policies LW1 and LW2 of the RPS as required by s65(6) of the RMA.
- 1.108 PPC9 sought to give effect to the RPS policies in Chapter 3.1A which acknowledge a range of values and uses including cultural values, uses and values associated with recreation, birds, stock and domestic water, and native fish. PPC9 has further incorporated Māori values for which all waterbodies in the TANK Catchment areas are to be managed.
- 1.109 PPC9 also sought to give effect to other objectives in the RPS including RRMP OBJs 21, 22, 25, 27 and 27A. These objectives relate to groundwater quality in the Heretaunga Plains aquifer systems, the quantity and quality of water in wetlands, rivers and lakes and riparian vegetation.²⁷

Iwi Planning documents

- 1.110 Section 66(2A) of the RMA states:

When a regional council is preparing or changing a regional plan, it must deal with the following documents, if they are lodged with the council, in the manner specified, to the extent that their content has a bearing on the resource management issues of the region:

- a) the council must take into account any relevant planning document recognised by an iwi authority;*

²⁵ Sections 4 and 11 of Hawke’s Bay Regional Planning Committee Act 2015.

²⁶ Section 42A Report. Paragraphs 86, page 19

²⁷ Section 42A Report. Paragraphs 78-81, pages 18-19. See also section 3.7 of the s32 Evaluation Report

1.111 The following iwi planning documents have been identified as relevant to PPC9.

- Tūtaekurī Awa Management and Enhancement Plan, prepared by Ngā Hapū o Tūtaekurī – H Hawaikirangi, TK Hawaikirangi, C Ormsby, 2014.
- Ngāti Hori Freshwater Resources Management Plan – Operation Patiki, Kohupatiki Marae, 2012.
- Mana Ake Ngā Hapū o Heretaunga – An Expression of Kaitiakitanga, Te Taiwhenua o Heretaunga, 2015 Edition.
- Kahungunu ki Uta, Kahungunu ki Tai – Marine & Freshwater Fisheries Strategic Plan – Mai Paritu, tai atu ki Turakirae, Coastal Hapū Collective, Kahungunu Asset Holding Company Limited and Ngāti Kahungunu Iwi Incorporated, 2008.
- Ngaruroro Values and Attributes report, August 2016. Note that this report was lodged with the Hawke’s Bay Regional Council by Ngāti Kahungunu Iwi Incorporated as an Iwi Hapu Management Plan on the 2 July 2019 under a different title – ‘Tangata whenua values to attributes and management priorities for the Ngaruroro River’, 28 October 2019.

1.112 These hapū and iwi management plan documents have been reviewed and taken into account in the preparation of PPC9. In addition to those documents other documents specifically relevant to iwi and hapū values within the TANK catchments have been considered in the preparation of PPC9. These documents include:

- a) *Ngaruroro Values and Attributes Report 2016* (which has also been lodged 2019 as an Iwi Management Plan with the Regional Council);
- b) *Tūtaekurī Awa Values* report 2017;
- c) *Te Whanganui-a-Orotu (the Napier Inner Harbour) Traditional Use and Environmental Change, Customary Usage* report 1994; and
- d) *Ngati Kahungunu Kaitiakitanga Mo Nga Taonga Tuku Iho 1992*.²⁸

SECTION 32AA

Further Evaluation Report

1.113 Clause 10 gives directions on the local authority giving decisions on the provisions and matters raised in submissions, with reasons for accepting or rejecting submission points. Sub-clause 10(2) provides for the local authority’s decision on submissions to make necessary consequential alterations arising from the submissions and any other relevant matter arising from them. Sub-clause 10(4) requires that the local authority’s decision is to include a further evaluation in accordance with s32AA; and is to have particular regard to the further evaluation when making its decision.

1.114 Section 32 of the RMA prescribes requirements for preparing and publishing evaluation reports, including on an ‘amending proposal’ that would amend a plan or change.

- 1.115 In particular, as applicable to the plan changes in question, s32 directs that an evaluation report is to examine whether the provisions are the most appropriate ways to achieve the relevant objectives by identifying other reasonably practicable options for doing so, assessing the efficiency and effectiveness of the provisions, and summarising the reasons for deciding on the provisions. The report is to contain a level of detail that corresponds to the scale and significance of the environmental, economic, social and cultural effects that are anticipated from the implementation of the proposals.
- 1.116 In assessing the efficiency and effectiveness of provisions, the assessment has to identify and assess the anticipated benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for economic growth and employment anticipated to be provided or reduced; the assessment has also, if practicable, to quantify the benefits and costs; and if there is uncertainty or insufficient information about the subject-matter of the provisions, has to assess the risk of acting or not acting.
- 1.117 By s32AA, a further evaluation is required for any change proposed since the original report was completed. Such a further evaluation does not have to be published as a separate report if it is referred to in the decision-making record in sufficient detail to demonstrate that it was undertaken in compliance with that section.
- 1.118 In changing its RRMP, the Regional Council is to have prepared, and to have particular regard to, an evaluation report in accordance with s32 of the RMA. In preparing PPC9 the Regional Council complied with that requirement as is recorded in the s32 Evaluation Report. As per s32AA of the RMA, in considering and making its decisions on the amendments requested by submitters, a further evaluation is required for changes made or proposed since the s32 Evaluation Report was completed. Therefore, in the process of considering submissions and making recommendations the subject of this report, the Panel have made examinations and assessments as required by s32(3) of the RMA.

Evaluation Duties

- 1.119 In considering the amendments to the plan change requested in the submissions, and in formulating our decisions on them (whether they are addressed in the main body of this report or in Appendix 4) the Panel have, to the extent practicable, examined and assessed the criteria itemised in s32 as applicable. In doing so, the Panel have:
- a) considered the extent to which the plan change is the most appropriate way to achieve the purpose of the Act;
 - b) identified and assessed the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from implementation of the provisions, including economic growth and employment, quantifying the benefits and costs where practicable, and where there is uncertain or insufficient information, assessed risks of acting or not acting;
 - c) had regard to the Regional Council's duty to have the plan change give effect to relevant national policy statements (including the NPSFM 2020) and to the RPS, and to be consistent with or have regard to other prescribed instruments as identified in Chapter 1 of this report; and

- d) had regard to the Regional Council's duty to have the plan change comply with directions in national environmental standards, and to only impose a level of restriction greater than that imposed by a national environmental standard where there is justification for doing so.

- 1.120 In evaluating the evidence, we recognise that the evaluation directed is not confined to assessing the benefits and costs. The evaluation has to include the duties prescribed by the RMA and higher order instruments (including the fundamentally important concept of Te Mana o te Wai), duties that require constraints on farming activities, which may extend beyond what farmers have already adopted, whether voluntarily or to conform with PPC9.
- 1.121 Further, we find that the evaluation on benefits and costs cannot be made on economic grounds alone. Some benefits and costs of constraints on land use activities and some consequential social wellbeing may (with some generality) be quantified in money's worth. But it is not practicable, on the evidence presented, for the Panel to quantify in that way benefits and costs to environmental, and cultural wellbeing. So in those respects the Panel have made assessments that are broad and conceptual, rather than analytical and calculated.
- 1.122 One of the ways in which the economic costs of implementing proposed measures can be mitigated is by postponing conformity with targets and limits until fixed future dates. In some cases, setting dates like that is not an open judgement, but is required to be both ambitious and reasonable.
- 1.123 Those limitations limit the detail with which the Panel express the findings on the further evaluation, as indicated in the combination of the relevant contents of the main body of this report and of Appendix 4. These provide sufficient detail to record the Panels undertaking of the further evaluation. Many of the submission points on the plan change relate to particular provisions that have been addressed by topics throughout the decision.

Reasonably Practicable Options

- 1.124 In examining whether amendments to the plan change are the most appropriate ways to achieve the objectives of PPC9, the Panel have sought to identify other reasonable and practicable options where they have been specifically expressed in evidence. In doing that the Panel have confined its consideration to options presented in submissions or in the s42A Report, and to combinations or refinements of them. The Panel have refrained from inventing options, as that could result in unfairness to submitters.

Structure of the Decision

- 1.125 The decision is divided into 5 sections. The first of these (Chapter 1) is the Introduction to PPC9. This includes a summary, abbreviations and glossary of terms used throughout the decision, a summary of the background to PPC9, the procedural matters including the issuing of minutes and hearing milestones, the relevant legislation and statutory plans and documents, and details the s32AA procedures and requirements. Chapter 1 includes a section titled 'Nga Kōrero o te Hunga Kāinga', this provides detail on Te Rohe and Tikanga and summarises the important kōrero expressed by tāngata whenua at Mangaroa marae and other hearings venues.
- 1.126 The next part is a preliminary issues section (Chapter 2) which identifies the alternatives which have been considered and looks to address a number of generic issues to avoid repetition throughout the decision. These include the use of consistent terminology, repetitive and pro-forma submissions, NES-F, the Panel's view on the establishment of Freshwater Management

Units, nitrogen leaching models such as Overseer, tangata whenua and community consultation undertaken for the development of PPC9.

- 1.127 The third part of the decision (Chapters 3-14) provide discussion, findings and analysis of the submissions. There are three substantial chapters on Surface Water Quality and Land Management (Chapter 4), Management of the Heretaunga Plains Aquifer (Chapter 5) and Surface Water Quantity (Chapter 6). These form the bulk of the decision report. These sections are supplemented by decisions on source protection zones, wetland management, stormwater and a section on other objectives, policies and rules which were not contentious. The last section of this part is the Glossary (chapter 14) which introduces a number of new amended terms some of which are required to be consistent with the provisions of the RMA and national directions.
- 1.128 The fourth part of the decision (Chapter 15-16) includes the statutory considerations and overall decision.
- 1.129 The fifth part of the decision is the Appendices. These contain:
- a) Appendix 1 has a record of the appearances to each of the hearings and links to the video recordings.
 - b) Appendix 2 is a track change decision version of PPC9.
 - c) Appendix 3 is a clean decision version of PPC9.
 - d) Appendix 4 are two tables setting out the decisions on submission points by topic and submitter.
 - e) Appendix 5 is a numbering guide for the notified version and the decisions version of PPC9.
 - f) Appendix 6 shows the Planning Maps.

Grammar and Numbering

- 1.130 It should be noted that in creating a 'clean copy' of the plan change (Appendix 3), we have identified minor and inconsequential errors in grammar, consistency and layout that we have corrected.
- 1.131 The numbering of objectives, policies, rules and schedules used within this Decision Report is based on the numbering within PPC9 as notified, or the "pink version" where specifically referenced. A guide is provided in Appendix 5 which provides a cross reference to the new numbering in Plan Change 9 black decisions version.

Ngā Kōrero o te Hunga Kāinga

Te Rohe

1.132 Ngāti Kahungunu, tangata whenua in the greater Hawke's Bay area, is the third largest iwi in the country - 26,000 at the time of the 2013 census. Their rohe - from Paritu in the north to Turakirae in the south - is the second largest in land area for any iwi, surpassed, unsurprisingly, only by Ngāi Tahu. These two facts alone signify the importance of Ngāti Kahungunu to the dialogue arising from consideration of this plan change.

Tikanga

1.133 Proposed Plan Change 9 (PPC9) had long been anticipated by the many communities of the district including agricultural, and horticultural businesses, conservation and recreational groups, territorial authorities and the general public. However, for tangata whenua it has symbolic significance that is underscored by tradition that the RMA struggles to deal with adequately at times.

1.134 Ngāti Kahungunu have rangatiratanga in the rohe. This is not in dispute. Their whakapapa, their stories and waiata, their traditional practices, their values are paramount.

1.135 They have traditional obligations as kaitiaki to ensure the judicious management of natural resources, so that such resources are passed on to succeeding generations in as good, if not better, state than before. The four awa Tūtaekurī, Ahuriri, Ngaruroro and Karamū at issue here are prominent geographic features in the Ngāti Kahungunu rohe that come under this umbrella.

1.136 The obligations that tangata whenua have as kaitiaki of taonga like awa are binding. This is a fundamental principle on which tikanga is forged. To fail to live up to such responsibilities - or at the very least to attempt to live up to them - is tantamount to a serious dereliction of duty.

1.137 As we were reminded, the concept of kaitiakitanga is challenging in western resource management talk. On the one hand it is Māori lore that drives kaitiakitanga, while on the other, it is western law that determines RMA outcomes. Rarely do the two intersect harmoniously. Mr Ngaio Tiuka for NKII told us that kaitiakitanga was about supporting or 'nurturing' (Tiaki) the natural environment and that nowadays it was increasingly about 'saving and protecting' the environment through restoration and monitoring with less regard to the physical 'ka' benefits that the waterways use to provide.

1.138 And then there is whakapapa and spirituality. As Mr Mārei Apatu (Kaihautu of Te Taiwhenua o Heretaunga) put it:

“Ko au te awa, ko te awa ko au”

I am the river and the river is me. The river is a place of spiritual healing for us, we are in the veins of Tangaroa, we breathe, we smell the different parts of the river, we observe and we listen to everything that goes on there, he manu he rākau he hau. We live the river.

1.139 The Māori world view is encapsulated in this simple statement. Geographic features like awa have their own personality and should be treated as such, just as *maunga* and trees are, for example, in story telling and waiata. And there is legal precedence - in 2014 New Zealand became the first country in the world to grant legal personality to a natural feature, Te Urewera. In 2017, legal personality was also granted to Whanganui River. Later in 2017 the

Crown and Taranaki iwi signed a Record of Understanding to grant legal personality to Taranaki Maunga - which is expected to be introduced to Parliament next year.

Mangaroa Marae

- 1.140 From a tangata whenua perspective, launching the hearing at Mangaroa marae was significant. It signalled that the Regional Council acknowledged the key role that tangata whenua play in the rohe, and that the partnership obligations that each party had for the other were to be on public display throughout the hearing.
- 1.141 We acknowledge the attendance of the Chair, Chief Executive and senior executives and staff of the Regional Council at the pōwhiri at Mangaroa Marae; and the ongoing participation of staff throughout the hearing. We were also impressed at the regular attendance and participation of tangata whenua representatives at all the hearing venues.
- 1.142 This highlighted the importance of the unique relationship that tangata whenua have with the four awa, spanning many generations. The stories tangata whenua were to tell of their traditional associations with these awa resonated.
- 1.143 Launching the hearing on Mangaroa marae also afforded tangata whenua a pre-emptive platform to front foot their views on the plan change. While this is not unusual, in this case the ability of tangata whenua to have their say early in the hearing process was especially welcome. They were very passionate in their submissions on the marae, and in a manner best expressed through means of whaikōrero, pūrākau, pakiwaitara, waiata and suchlike. Marae oratory at its best can be very powerful, as we witnessed on Mangaroa marae.
- 1.144 In his opening comments kaumātua Cordry Huata identified water shortage as a major problem that has led to the drying up of river beds in and around Bridge Pā. He questions whether PPC9 will solve this problem. His faith in the Regional Council in this regard had waned, reflecting the views of others. He added that problems with domestic water supply had been long standing in the Bridge Pā vicinity, so kicking off the PPC9 hearing at Mangaroa Marae was timely.
- 1.145 Mr Mārei Apatu reinforced this by saying that he would not want his mokopuna to think that it was normal for there to be no water in some creeks; or that lots of weeds in rivers is normal. Like other tangata whenua submitters he urged the Regional Council to be more responsible in its duty of care to sustainably manage these taonga.
- 1.146 As we have mentioned elsewhere the Panel is grateful for the generosity of the hau kāinga in hosting us on their marae, and we acknowledge the clarity and passion of their presentations during the hearing.

Ngā Kōrero

- 1.147 From the outset, and in recognition of Ngāti Kahungunu's rangatiratanga leverage, the Panel recognised the need to faithfully reflect what was being said by tangata whenua throughout the hearing. It was imperative for the Panel to listen attentively to what tangata whenua experts and submitters had to say, and to hear and record these accurately- and keeping technical and other matters in perspective. Whilst it might not have been feasible to respond to many of the matters that were raised it was nonetheless important to highlight them, if only for the record and for future reference.
- 1.148 Generally, tangata whenua were ambivalent about PPC9. There were those who opposed the plan change entirely. Most opposed it but sought modifications. Few supported it.

- 1.149 For the most part tangata whenua participants in the hearing, that is, those who provided expert evidence or submitted on the day, had a common refrain: the awa were taonga, they had their own personalities, they were essential mahinga kai as well as key landmarks on iwi maps and they were inextricably entwined in local whakapapa, but they had come under strain through over allocation and misuse. They had served Māori communities well over the years, and could do so again if they were better managed, preferably with greater hapū involvement.
- 1.150 A significant number of tangata whenua submissions highlighted food gathering and water quality, that is the mauri of the water, as key concerns.
- 1.151 We were told that the awa were not just mahinga kai for species like inanga, smelt, flounder, kahawai, mullet and tuna, but they were also key traditional playgrounds (swimming and bathing) and sources of rongoa (medicines). Nowadays very little of this holds true in ways they once did. No longer are they the bountiful kai resource they were in bygone years. No longer are tangata whenua able to enjoy recreational pursuits in and on the four awa in quite the same way their forebears did. The significance of all this is that through decreased traditional use of the awa, a treasure trove of mātauranga Māori is lost - forever. Intergenerational knowledge transfer is crucial for the successful survival of tikanga, and this lies at the heart of tangata whenua views on the plan change.
- 1.152 Ngāti Hinemanu and Ngāi Te Upokoiri insisted that the mauri of the wai must be protected now and into the future, and that the way to achieve this is for the Regional Council to forge partnerships with relevant hapū accordingly. Their particular concern is naturally for their awa, Ngaruroro, for which they sought support to build capability and capacity at the hapū level to empower them to actively participate in the effort to restore the mauri of the waters of Ngaruroro. Like other tangata whenua submitters they advocate for repatriation of native flora and fauna as a necessary step in that direction.
- 1.153 Te Taiwhenua o Te Whanganui ā Orotū also seeks durable recognition of hapū as an integral participant in dealing with the issues that PPC9 highlights. Their position reflects general opposition to the plan change because, in their view, it is inconsistent with the RMA.
- 1.154 In summary, tangata whenua presenters' concerns could primarily be characterised in terms of the adverse effects on the four waterways that have negatively impacted iwi, hapū and whānau values and cultural relationships.
- 1.155 Hira Huata, in her comments at Mangaroa marae opined that the rohe was not traditionally wine country - but that is what it has become. The altered landscape in itself was a major challenge.
- 1.156 Those with commercial interests, mainly horticultural, understandably gave partial support to the plan change but challenged water storage and allocation provisions being proposed. As local horticulturalist Wī Huata argued, not being able to access water because of the constraints the present system, and the plan change imposed on individuals like himself, was unacceptable, and that it opened up yet again the debate over Māori ownership of water as a way through this. In his view guaranteed continued and ready access to water could only come about through such means.
- 1.157 Nevertheless, it was generally conceded that we cannot wind back the clock. Change was inevitable and the essential task now was to find ways to address the adversities that have led to the need for a plan change. We are hopeful that the learnings from the collaborative process and the passion with which tangata whenua submissions were delivered at Mangaroa

marae, and throughout the hearing, will inform a more prosperous future relationship between iwi and the Regional Council.

Ngā Tuhinga Kōrero

- 1.158 We received a substantial amount of evidence from Ngāti Kahungunu Iwi Incorporated and Te Taiwhenua o Heretaunga - and other individual submitters - on a number of issues both wide and profound. We comment on some of these in more detail, in other parts of our report.
- 1.159 Te Taiwhenua o Te Whanganui ā Orotū, for example, generally opposed the plan change saying that it was inconsistent with the RMA, but that if it was to go ahead argued that greater recognition of hapū needed to be taken into account in the future management of the awa. Other submitters supported this view.
- 1.160 We were struck by the investment of time and resources tangata whenua committed to preparing and attending, the hearings at Mangaroa Marae, and other venues, as participants and observers. The overriding importance of the health of the four awa and, and the relationship Ngāti Kahungunu hapū and whānau have with these taonga demands it, they would argue.
- 1.161 We have carefully considered the matters raised in submissions and evidence alongside the views of many other submitters.
- 1.162 We are humbled in our task to consider the weight and importance of 'ngā kōrero katoa'.

Chapter 2 – Preliminary Issues

Introduction

- 2.1 This section of our report identifies the alternatives which have been considered and looks to discuss a number of generic issues that would otherwise come up repeatedly in our later, issue based chapters. These issues are:
- a) Consideration of Alternatives
 - b) Consistent amendments of terminology to align PPC9 with subsequent changes to the NPS-FM 2020 and the RMA
 - c) Repetitive or pro-forma submissions
 - d) Consultation undertaken to develop PPC9
 - e) The National Environmental Standards (NES-F) 2020
 - f) Submissions on giving effect to the NPS-FM 2020
 - g) Freshwater Management Units (FMU's)
 - h) Nitrogen Leaching Models.

Consideration of Alternatives

- 2.2 Under the provisions of s32AA of the RMA we are obliged to consider alternatives to making decisions on PPC9.
- 2.3 The s32 evaluation of PPC9 provided a number of alternatives to discrete and specific provisions, however, did not anticipate a 'do nothing' scenario for the whole plan change. During the course of the hearings some submitters who had submitted that the Regional Council should 'throw out' the plan change did not provide evidence to support this course of action, rather where evidence was provided amendments to the plan change.
- 2.4 We consider that the only alternative is to do nothing, or status quo. This would involve not proceeding with PPC9 in the TANK catchments. We have rejected this option for numerous reasons, including:
- a) It would undermine many years of work by the Regional Council, including extensive consultation, preparing and notifying PPC9, summarising submissions, preparing a s42A Report and a s42A Addendum Report, appointing independent commissioners, holding hearings, and having a comprehensive decision prepared on PPC9.
 - b) It would not meet many of the Regional Council's functions set out in s30 of the RMA.
 - c) It would not meet the Regional Council's statutory duties under the NPS-FM 2020, including particularly implementation of NPS-FM Policies 5 and 11, and nor would it give effect to the National Objectives Framework in the TANK catchments.

- d) No interim limit would be placed on the total volume able to be taken from the Heretaunga Plains Aquifer, without which existing over-allocation could not be phased out.
- e) The Regional Council would not be able to meet its Drinking Water NES requirements and not have rules for source protection.
- f) There would be no basis to decide how much water should be allocated to existing users, leaving these to be argued on a case-to-case basis, rather than through the “actual and reasonable use test”.
- g) As a result of this, many hundreds of resource consent applications presently “on hold” would take many years to process. We have been told that there are 461 water take consents which have expired and being exercised under s124 of the RMA in the TANK catchments, at the time of writing this decision. A further 450 water take consents are due to expire on 31 May 2023. The total number of consents on hold will place an unnecessary burden on both the environment and the TANK community. This will lead to continued uncertainty around actual and reasonable consented volumes, and in effect put environmental improvements on hold as a consequence of water takes being able to be used at consented total allocated volumes.
- h) Finally, and most importantly, it would not provide for the integrated management of land, surface water and groundwater in the TANK catchments.

Consistent Amendments of Terminology to Align PPC9 with Subsequent changes to NPS-FM and RMA

2.5 There are several consistent amendments made throughout PPC9 to terminology that was included in PPC9. These amendments are necessary because of changes in the NPS-FM 2020, that are different to the previous iteration of the NPS-FM, and because of changes to the RMA.

2.6 These amendments include:

- a) “Water Quality Objectives” in PPC9 is replaced by “Target Attribute States” (in Schedule 26) in PPC9 (or similar changes), is the terminology being consistent with Sections 3.11-3.13 of the NPS-FM 2020.
- b) “Farm Environment Plans” in PPC9 is replaced by certified “Freshwater Farm Plans” (FW-FPs) in PPC9. This change is consistent with Part 9A of the RMA whereby FW-FPs are tools to better control the adverse effects of farming on freshwater and freshwater ecosystems.¹ FW-FPs are also referred to in the NES-F, a requirement for stockholdings areas for larger and older cattle as well as intensive winter grazing. We note that FW-FPs referred to in s217G have not yet been published. A process will need to be undertaken to review or update FW-FPs if the provisions are amended. Similarly, “landowner collectives” is replaced with “catchment collectives” in PPC9.

¹ Part 9A, s217B Interpretation - Certified freshwater plan means a freshwater farm plan certified under s217G, as amended from time to time in accordance with s217E(2) or (3)

- c) Words such as “property or enterprise owner or manager of the property” in PPC9 are replaced with the words “farm operator” in PPC9, which is defined in Part 9A of the RMA and included in the glossary of PPC9.
- d) The “Heretaunga Plains Water Management Unit” in PPC9 is replaced by “Heretaunga Plains Groundwater Quantity Area” in PPC9. This avoids the implication that the groundwater aquifer is a “freshwater management unit”.
- e) We have replaced the term ‘mana whenua’ with ‘tangata whenua’ to be consistent with the RMA, NPS-FM and the common use of this term by Ngāti Kahungunu submitters.

2.7 We do not discuss these generic amendments to many of the Objectives, Policies, Rules and Schedules of PPC9 any further in this report. This is because we are satisfied that these amendments are all necessary in light of the definitions provided in Part 9A of the RMA and/or used in the NPS-FM 2020, and that these amendments are within the scope of submissions seeking further alignment with these documents.

Repetitive or Pro-forma Submissions

2.8 PPC9 received a very large number of pro-forma and repetitive submissions. Some of these submissions sought the same outcome across a number of different provisions.

2.9 These proforma or repetitive submissions points include:

- a) Winegrower submissions to OBJ TANK 7 in regard to reducing contaminant loss.
- b) Winegrowers and other submissions to OBJ TANK 16 in regard to ‘primary production on versatile and viticultural soils’.
- c) Winegrowers and others submission to Protection of Source Water seeking amendments to POLs TANK 6, 7 and 8.
- d) Assorted submissions to Riparian Land Management seeking non-regulatory methods in preference to regulation.
- e) Water users seeking amendments to the adaptive approach to nutrient and contaminant management provisions to align with industry schemes and GAP schemes.
- f) Orchardists and water users’ submissions to the topic of land use change and nutrient loss sought two amendments; one requiring management of nutrients at a collective level and the second, the addition of a definition for ‘change to production land use’. 38 submitters sought the same amendments to the rules for land use change. The same amendments were also sought for Schedule 28: Priority Catchments.
- g) Winegrowers’ submissions on POL TANK 21 promoting catchment collectives and industry programmes; and either deleting or amending POL TANK 21 (d).

- h) Orchardists, nurseries and other water user submissions on POL TANK 23 and 24 seeking amendments to provisions to align with industry schemes and GAP schemes. Some 35 submitters have also sought the same amendments to the rules for farm plans and 37 submitters sought the same amendments to Schedule 26 Freshwater Quality Objectives, and Schedule 28 Priority Catchments and Schedule 29: Land Use Change and Schedule 30.
- i) Winegrowers and other submissions seeking specific amendments to POL TANK 36 (f).
- j) A large number of submissions seeking deletion of 'actual and' from actual and reasonable in POLs TANK 36, 46, 52, the rules for water take and use and Chapter 9 - the Glossary of Terms Used and Schedule 31: Flows, Levels and Allocation Limits.
- k) Winegrowers' and other submissions on POL TANK 37 seeking specific amendments to the date for the ten-year period of assessment for actual and reasonable use from August 2017 to 30 June 2020.
- l) A very large number of repetitive submissions on POLs TANK 37 and 38 regarding circumstances in which any available water within the interim allocation could be re-allocated before a review of the relevant allocation limits is undertaken.
- m) Nursery and orchard submissions on flow maintenance seeking flow maintenance requirements and Schedule 36, only applying to lowland streams where it is feasible.
- n) Orchardists and other submitters seeking a requirement for the Regional Council to develop flow maintenance schemes rather than consent applicants.
- o) Winegrowers' and other submissions on POL TANK 39 supporting an alternative approach to the requirements in POL TANK 39 including a jointly funded collective stream flow maintenance schemes on suitable lowland streams, facilitated by HBRC.
- p) Over 30 submissions have sought POLs TANK 48 and 52 provide for transfers of all water permits exercised should be enabled. Thirty-six submitters including a number of orchardists sought the same amendments to the rules of the RRMP, specifically RRMP Rules 61, 62, 62a and 62b.
- q) Some 30 submissions from orchardists, nurseries and others on POL TANK 51 sought very specific amendments to add their particular group to the membership of the emergency water management group.
- r) Over 30 submitters have sought a specific exemption in POLs TANK 51 and 52 to allow up to 20m³ to continue to be taken per day to assist the survival of permanent horticultural crops. 39 submitters sought the same amendments to the rules for water take and use.
- s) Over 38 submitters, including nurseries, orchardists and farmers have sought in POLs TANK 54, 55, 56 and 57; a revisiting of the allocation limit and that high flow allocations are specified for Karamū and Ahuriri Catchments. Many of the same submitters have made the same submission points multiple times in relation to the rules for Damming and Storage and Schedule 32: High Flow Allocation.

- t) Some 29 submissions seeking that POL TANK 59 be re-written 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 by the TANK Group 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.
- u) A large number of submissions regarding Rules TANK 5 and 6, in particular 6.10.1 - Use of production land. These submissions sought two things, one more clarity on how the Regional Council will control land-use change in a water quality control unit and two, adjusting the grape kg/ha/yr for all soils to recognise winter sheep grazing rotation.
- v) Some 38 submitters have sought two changes to land-use change rules, namely nutrient management at a catchment level and a definition of changes to production land.
- w) A large number of submitters sought similar changes to Schedule 30: Landowner Collective, Industry Programme and Farm Environment Plan. These were requests to better align its requirements to work with Industry Programmes, and to be less prescriptive.

2.10 Many of these submission points are accepted or accepted in part, but are commented on in our report only for the provision for which they are most relevant. For instance, Schedule 30 has been substantially amended to provide specifically for Industry Programme such as GAP Schemes, so that is where any such amendments are accepted if appropriate. While we might list where some of these pro forma submissions are made, we note they will be dealt with elsewhere in our report (in relation to the submission point to which they are most relevant).

2.11 There are a significant number of submissions that are general in nature and do not specify any particular relief. These include:

- a) Submissions in support of the staged approach of PPC9.
- b) Submissions in support of PPC9 based on 6 years of collaboration.
- c) Submissions in support of the HortNZ, NZ Apples and Pears, and/or Hawke's Bay wine Growers' submissions.
- d) Submissions in support of collectives of landowners managing environmental issues.
- e) Submissions seeking the reduction in the level of detail and specificity in the plan.
- f) Submissions that seek alignment with the NPS-FM 2020.

Again, these submission points are dealt with in our report where they are most relevant, and not repeatedly in our decisions on PPC9.

Consultation Undertaken to Develop PPC9

- 2.12 In this section we respond to the issues raised about consultation.
- 2.13 The s42A Report and s32 Evaluation Report ² set out the background of the development of PPC9. As we understand the engagement using the collaborative process involving the TANK Group was undertaken over a 6-year period and involved some 42 meetings. The TANK Group was made up of tangata whenua, environmental organisations, local councils, Department of Conservation, primary sector representatives and the DHB.³
- 2.14 PPC9 contains at least eight references to consultation which relates to consultation being undertaken by the Regional Council to better understand an issue or risk and the consultation undertaken by consent applicants/holders, in particular the views of these they have consulted.⁴

Tangata Whenua and Community Consultation

- 2.15 The submissions on consultation covered three areas: specifically, that consultation undertaken by the Regional Council with tangata whenua was inadequate, a range of water users wanted the Regional Council to lead consultation with them in the implementation of PPC9, and similarly submitters were seeking consultation on how provisions applied to specific locations.
- 2.16 Pene Charmaine raised concerns regarding lack of consultation with tangata whenua generally but sought no relief.⁵ Rangi Morell of Mangaroa Marae raised concerns relating to lack of consultation with Ngāti Ruhanga i te Rangi, dismissal of the Karewarewa Water Plan, water quality, water quantity, and allocation⁶; and Derek Huata of Takitimu Māori District Council listed concerns relating to allocation of water, recognition of tangata whenua and proprietary rights, economic wellbeing, and the TANK development/consultation process.⁷
- 2.17 Hira Huata of Mangaroa Marae Committee and Ngā Marae o Heretaunga implied that PPC9 should acknowledge and be inclusive of the rangatiratanga of the hapū and marae communities in Heretaunga. Hira Huata also raised concerns relating to the plan making/consultation processes and water allocation.⁸ Des Ratima for Takitimu District Māori Council submits that PPC9 does not meet the terms of consultation and frame working the resource management processes and does not provide any clear indication where Māori were provided the role and authority to contribute to a solution of water management.⁹
- 2.18 Mark Kenneth raised concerns relating to the timing of consultation.¹⁰ Mark Laurenson for the Oil Companies, Peter Matich for Federated Farmers sought a specific amendment for consultation with landowners and occupiers¹¹ and existing water permit holders and discharge consent holders in the Source Protection Zone.¹² Keith Marshall for Napier City Council sought

² s32 Evaluation Report. Pages 45-64

³ HBRC Closing Statement. Para 4-6

⁴ POLs TANK 7, 8, 9, 41, 57, 59 and 60

⁵ sub point 139.2

⁶ sub point 174.2

⁷ Sub point 181.1

⁸ Sub point 182.4

⁹ sub point 4.3

¹⁰ sub point 236.1

¹¹ sub point 203.9

¹² Sub point 195.35

further refinements to the risk matrix for industrial and trade premises in consultation with TLA officers to appropriately define low, medium and high risk sites.¹³

- 2.19 Trevor Robinson, counsel for Lowe Corporation, sought a 'Council commitment to assess and develop stream augmentation options in consultation with all sectors of the community including iwi that are efficient, cost effective, and which ensure satisfactory ecosystem outcomes in the surface water bodies affected by groundwater takes from the Heretaunga Aquifer during summer low flow periods'.¹⁴
- 2.20 Tom Kay for Forest and Bird sought a provision for tangata whenua consultation when considering transferring use and takes for POL TANK 48.¹⁵
- 2.21 Philipa McVeagh for NZ Apples and Pears suggested exploring the development of Landowner Collective, Industry Programme and Farm Environment Plan schemes in a progressive manner by HBRC, in consultation with affected growers.¹⁶
- 2.22 Alexander Macphee has submitted that there had been no consultation on Maraekakaho River flows levels and allocation limits and no reason given. Mr Macphee sought they should be restored to the original level.¹⁷
- 2.23 Te Tumu Paeroa submitted that they 'strongly encourage more consistent engagement with the Māori Trustee to ensure appropriate consultation with our landowners, who by inheritance are Tangata Whenua and intrinsic members of Hapū and Iwi within the TANK catchment area strongly encourages the Hawkes Bay Regional Council to understand these values from our landowners perspective and ensure these values and attributes (described by Iwi) and reflected in the criteria and the outcomes sought by Proposed PC9- TANK.'¹⁸

What we heard or did not hear at the hearings

- 2.24 Marei Apatu for TToH briefly raised the issue of consultation in his evidence.¹⁹ In February 2017 the concerns of tangata whenua regarding the engagement process were shared with HBRC. According to Mr Apatu, tangata whenua are seeking to be active partners in their role as kaitiaki, alongside HBRC.²⁰
- 2.25 Mr Maurice Black for TToH was involved in the engagement process early on having been contracted by Ngāti Kahungunu to review PCC9 and provide recommendations. Mr Black was also part of the TANK Stakeholder Group for some three and a half years. He thought the hui of the Stakeholder Group were useful for discussing issues, recommendations and representation of the tangata whenua interests to achieve their aspirations. Mr Black cited frustration with the decision-making processes and not having enough time to discuss the important issues of tangata whenua. Mr Black ultimately resigned but kept in touch with progress.²¹

¹³ sub point 63.60

¹⁴ sub point 82.13

¹⁵ sub point 210.69

¹⁶ sub point 216.22

¹⁷ sub point 116.9

¹⁸ Submission point 113.3

¹⁹ Marei Apatu EIC. Page 13.

²⁰ Marei Apatu EIC. Page 14.

²¹ Maurice Black EIC. Paragraphs 30, 33, 35, pages 7-8.

2.26 Mr Ngaio Tiuka for NKII stated that tangata whenua are under pressure to support water users and more allocations.²² Mr Tiuka felt that tangata whenua carried a heavy burden to respond to Regional Council initiatives but these would only mitigate adverse effects for the benefit of a few.²³ He also thought that engagement in of itself does not protect Māori values and engagement can't be relied on to meet Te Tiriti and RMA obligations.²⁴ At page 73 of Mr Tiuka's evidence he sets out a useful list of 'how' tangata whenua should be engaged, and perhaps is a guide for future engagements for implementation of the plan change and development of future programmes.

2.27 We also heard from a range of industry groups and water users. Their experience of the engagement was mostly positive and although there were differences of opinion on the text detail, they felt they had been heard and the Regional Council was trying their best to address their issues.

Discussion and Findings

2.28 As we understand it the Regional Council has undertaken consultation in the following ways:

- a) Plan development included a community-based approach with input from more than 30 community representatives. The TANK Group was formed in 2012 and included various stakeholders and tangata whenua. Its goal was to provide consensus stakeholder and treaty partner recommendations regarding objectives and policies for the Plan Change.
- b) The tangata whenua representatives of the TANK Group, formed a tangata whenua working group supported by the Regional Council to provide a collective voice to ensure tangata whenua values and interests were understood and appropriately reflected in the development of the TANK plan change.
- c) An Iwi and Hapū Engagement Plan started in 2015 with tangata whenua, was not completed. It was intended to amalgamate and bolster tangata whenua collective voice to ensure that tangata whenua values and interests were understood and appropriately reflected in the Plan Change.²⁵
- d) Te Taiwhenua o Heretaunga was included in the Community Reference Group that was established in 2018 that would inform one of the strands of the Social and Cultural Impact Assessment to provide an assessment of community perceptions, questions and feedback about the then draft PPC9.²⁶
- e) Tangata whenua were involved in the preparation of both the Plan Change and the supporting materials.²⁷

²² Ngaio Tiuka EIC. Para 126. Page 44.

²³ Ngaio Tiuka. Para 151. Page 49.

²⁴ Ngaio Tiuka. Para 97. Page 51.

²⁵ Section 42A Report. Para 337

²⁶ Section 42A Report. Para 338

²⁷ Section 42A Report. Para 323

- f) A separate round of pre-notification consultation was undertaken on Version 8 of PPC9 with iwi authorities and other organisations.²⁸
- g) Follow up meetings were regularly held after TANK meetings to revisit issues that were discussed and to provide an opportunity for more in-depth consideration of policy direction to the Treaty Partners Working Group.²⁹
- h) The Regional Council has developed a draft implementation plan that includes consultation with consent holders.³⁰

2.29 The Regional Council acknowledged that the consultation that did occur is unlikely to have been undertaken at such a fine grain as to capture the views of all individual members of the various iwi groups and note that this more formal step in the RMA Schedule 1 plan-making process provides that opportunity.³¹ We confirm that the consultation process did meet the requirements of Clause 3 of Schedule 1 of the RMA.

2.30 A Draft Implementation Plan has also been prepared with the TANK Group and released at the same time PPC9 was notified in accordance with proposed POL TANK 27. The Draft Implementation Plan includes a number of actions for tangata whenua, both as a lead agency, or in a partnership role. This approach enables tangata whenua to be involved in the non-regulatory approaches that arise as a result of PPC9, and also provides the opportunity to address some concerns raised during pre-notification consultation and engagement in an alternative manner.³²

2.31 The s42A Report responds to the consultation process, consultation undertaken and consultation requirements moving forward. No specific changes or amendments were recommended as the submissions often did not seek any specific relief however they informed the context of the PPC9 development and notification.

2.32 We make the following observations regarding PPC9 in relation to consultation:

- a) The collaborative process with stakeholders and tangata whenua was undertaken over a 6-year period and was widely attended by representatives of industry, sector groups and tangata whenua.
- b) There was no consensus reached on the final PPC9.
- c) There appears to be an apparent tension between giving effect to the interests, rights and values of tangata whenua and the framework of water allocation, use and discharge.
- d) The expectations of what can be agreed to in collaborative and consultative processes needs to be clear at the start and during the process.

²⁸ Section 42A Report. Para 320

²⁹ Section 42A Report. Para 319

³⁰ Appendix 5 to s42A Report

³¹ Section 42A Report. Para 321

³² Section 42A Report. Para 342

- e) In PPC9 there are a number of activities that will have the Regional Council working with landowners and consent holders. We anticipate that the implementation will involve consultation with tangata whenua, water users and landowners as required.
- f) Future consultation and engagement processes will need to consider or be supplemented by a range of technical inputs during the process of plan development.
- g) There are learnings from the PPC9 engagement and collaborative approach that can inform the development of the Kotahi Plan and wider programme of work to give full effect to the NPS-FM 2020.

The National Environmental Standards (NES-F) 2020

- 2.33 The National Environmental Standards for Freshwater (NES-F) regulations came into effect on 3 September 2020, which is the same date as did the NPS-FM 2020 and the stock exclusion regulations.³³
- 2.34 These regulations establish categories of consent, which vary from permitted through to a single prohibited activity, for a wide range of activities. Most of the activities listed include a permitted activity alongside a restricted or fully discretionary activity. There are no controlled activities.
- 2.35 The farming activities that are regulated by the NES-F include:
- a) Feedlots.
 - b) Stock holding areas other than feedlots.
 - c) Conversions of plantation forestry to pastoral land use.
 - d) Conversions of farm land to dairying.
 - e) Irrigation of dairy farm land.
 - f) Use of land for dairy support.
 - g) Application of synthetic nitrogen fertiliser to pastoral land.
- 2.36 Other activities that are regulated by the NES-F include:
- a) Works around the margins of natural wetlands, including some maintenance activities such as vegetation clearance.
 - b) Harvesting of sphagnum moss within natural wetlands.

³³ Intensive winter grazing (subpart 3 of Part 2) came into force 1 May 2022 and stockholding areas other than feedlots) came into force 1 July 2021

- c) Restrictions (and in all but one instance a prohibition) on the drainage of natural wetlands.
 - d) River reclamation works.
 - e) Structures that may affect fish passage, such as culverts, weirs and flood flaps.
- 2.37 The NES-F regulations are complex and highly prescriptive, and not easy to follow. They have been the subject of considerable criticism, with at least one set of regulations being modified since they came into effect.³⁴
- 2.38 None of the activities listed in the NES-F (as detailed above) are regulated by the changes introduced directly into the RRMP in PPC9. However, PPC9 also introduced proposed amendments to 17 land use control rules in Chapter 6 of the RRMP, as well as introducing two new rules. Three of the proposed amended rules overlap with the controls introduced in the NES-F regulations.
- 2.39 Cattle feedlots (and feedpads) are presently regulated by RRMP Rules 5 and 6, and PPC9 introduced proposed changes to update these rules by reference to Source Protection Zones. Similarly, RRMP Rule 7 refers to both vegetation clearance and soil cultivation, and it is updated to refer specifically to the TANK catchments.
- 2.40 RRMP Rules 5 and 7 are permitted activities, and RRMP Rule 6 is a restricted discretionary activity.
- 2.41 Our reading of the NES-F regulations is that they are generally more stringent than RRMP Rules 5 and 6. For instance, RRMP Rule 5 describes general permitted activity standards for feedlots and feedpads, including for instance not allowing seepage into groundwater, and not being located within set distances of watercourses, residential building, roads and the like. The only permitted activity condition in the NES-F is that 90% more of the cattle in a feedlot are less than 4 months old, or weigh less than 120kg. RRMP Rule 5 defaults to restricted discretionary RRMP Rule 6, whereas the NES-F defaults are to discretionary and then non-complying rules.
- 2.42 The NES-F has more liberal standards for other stockholding areas, including feedpads. These rules are complex, and in some instances require certified freshwater farm plans for these other areas to meet permitted activity standards.
- 2.43 The NES-F regulations prevail over rules in the RRMP, including the references to the TANK catchments, unless the RRMP/TANK rules have more rigorous requirements. It is difficult to make direct comparisons because the RRMP rules and the NES-F regulations are drafted in very different ways, but generally the regulations appear more stringent, and so would prevail.
- 2.44 RRMP Rule 7 is a permitted activity rule for vegetation clearance near watercourses. PPC9 introduced much more restrictive permitted activity standards in the TANK catchments. These relate to both:
- a) vegetation clearance, where the permitted activity standards appear generally less stringent than in the NES-F regulations, and;

³⁴ These are the regulations that control winter grazing of dairy cattle.

- b) soil cultivation, where very prescriptive standards are proposed if a land holder is to meet the permitted activity standards. These relate to underlying land slope, the extent of the area cultivated and proximity to watercourses, with the greatest restrictions being on the steepest land.

- 2.45 Soil cultivation is not regulated by the NES-F regulations so there is no overlap with these provisions.
- 2.46 If permitted activity standards in RRMP Rule 7 cannot be met, the default in the RRMP is to a restricted discretionary activity, but this is not proposed to be changed as part of PPC9.

Discussion and Findings

- 2.47 It is difficult to align the NES-F regulations and the proposed amendments to rules in Chapter 6 of the RRMP introduced as part of PPC9. This is primarily because the approach taken to RRMP rules is very different to what is included in the NES-F regulations.
- 2.48 We have no delegated authority to change any of the rules in Chapter 6 of the RRMP except where they were proposed to be amended by PPC9. We have largely accepted the amendments to those rules proposed in the s42A Report. The reasons for this are given in our detailed decisions on submissions.
- 2.49 Both the proposed amendments to rules in Chapter 6 of the RRMP and the NES-F regulations are now “in effect”, with the amendments in Chapter 6 coming into effect when PPC9 was notified on 2 May 2020, and the NES-F regulations coming into effect on 3 September 2020.
- 2.50 We note that the RMA requires that duplication or conflict with the NES (where conflict also includes being more lenient than a provision in the NES where the NES does not expressly provide it can be more lenient) is removed without using the process in Schedule 1 of the RMA, as soon as practicable after the standard comes into force.³⁵ We have attempted to reconcile these provisions where possible within the scope of submissions, but as this extends beyond our delegations in respect of PPC9, it will be for the Regional Council to determine how these provisions are ultimately reconciled.

Submissions on Giving Effect to the NPS-FM 2020

- 2.51 A large number of submissions have sought that PPC9 should give effect to the NPS-FM 2020.
- 2.52 The Regional Council (and the Panel by delegation³⁶), is required to give effect to the NPS-FM 2020 as soon as reasonably practicable.³⁷ Part 4 of the NPS-FM 2020 contains timing and transitional provisions. Relevantly, Clause 4.1(1) provides:

Every local authority must give effect to this National Policy Statement as soon as reasonably practicable.

- 2.53 PPC9 does not therefore need to immediately give full effect to the NPS-FM 2020. Rather, the Regional Council must give effect to the NPS-FM 2020 as soon as is reasonably practicable.
- 2.54 To the extent that there is scope within submissions on PPC9 to make changes that give effect to the provisions of the NPS-FM 2020, it may be reasonably practicable to do so. We do not

³⁵ RMA, ss 44A(5) and 44A(2)(b).

³⁶ Minutes of Regional Planning Committee meeting dated 19 August 2020, Resolutions RPC22/20.

³⁷ RMA, ss 55(2D)(b) and 67(3)(a)

however, have jurisdiction to decide on changes that might be said to give effect to the NPS-FM 2020, if those changes are beyond the scope of submissions.

- 2.55 Despite the language in a more recent Environment Court decision requiring the Court to “have regard to” the provisions of the NPS-FM 2020,³⁸ we consider the High Court’s approach in *Hawke’s Bay and Eastern Fish and Game Council v Hawke’s Bay Regional Council*³⁹ is more consistent with the legal test being to “give effect to” the NPS-FM 2020. We consider the outcome is largely the same between the two cases, but prefer the language that is consistent with what the RMA requires of a regional plan (being to give effect to the NPS-FM 2020).
- 2.56 While we will be able to take some direction from the objective and policies of the NPS-FM 2020, and give effect to them to the extent practicable within the scope of PPC9, a number of provisions of the NPS-FM 2020 require further action to be taken by the Regional Council before they can be fully given effect to. One of these is the establishment of FMU’s which is addressed in the following section of this decision.
- 2.57 In giving effect to Te Mana o te Wai, every regional council is required to engage with communities and tangata whenua to determine how Te Mana o te Wai applies in each particular region. This includes the identification of long-term visions, environmental outcomes and elements of the National Objectives Framework. The NPS-FM 2020 cannot be fully given effect to until these tasks are complete, and this is not something that we or the Regional Council is able to achieve through decisions on a plan change alone. Rather the Regional Council is preparing a new region wide plan, known as the Kotahi Plan, to meet in full the requirements of the NPS-FM 2020.
- 2.58 We have sought to:
- a) give effect to the provisions of the NPS-FM 2020, to the extent we are able to within the scope of submissions; and
 - b) if there is a difference in outcome from the application of the NPS-FM 2020 rather than the NPS-FM 2014 (as amended in 2017), consider whether it is more appropriate to achieve that outcome than that under the NPS-FM 2014 (if there is scope within submissions to do so); and
 - c) thirdly, wherever possible try and ensure that there are practicable and workable outcomes that will not conflict with or be immediately overcome by the adoption of the new provisions.
- 2.59 In addition, such submissions are also required to be “on” PPC9 in order to provide scope to make amendments to the provisions of PPC9.
- 2.60 The Courts have endorsed a bipartite approach when considering whether a submission is “on” a plan change. First, the submission must reasonably fall within the ambit of the plan change by addressing a change to the status quo advanced by the proposed plan change. Secondly, the Panel should consider whether there is a real risk that persons potentially affected by the

³⁸ *Federated Farmers of New Zealand v Northland Regional Council* [2022] NZEnvC 016.

³⁹ [2014] NZHC 3191.

changes sought in a submission have been denied an effective opportunity to participate in the plan change process.⁴⁰

- 2.61 If a management regime in a plan for a particular resource is unaltered by the plan change, a submission seeking a new or different management regime for that resource is unlikely to be “on” the plan change (unless the change is incidental or consequential).
- 2.62 If the effect of regarding a submission as being “on” a plan change would be to permit a planning instrument to be appreciably amended without real opportunity for participation by those potentially affected, that will be a “powerful consideration” against finding that the submission was truly “on” the plan change.⁴¹
- 2.63 We have considered whether the submissions are within the scope of PPC9 (that is, whether they are “on” the Plan Change) when making decisions on whether to accept the submissions.

Freshwater Management Units (FMUs)

- 2.64 FMUs were first introduced into the NPS-FM in 2014. In this, and the 2017 update of the NPS, a FMU was defined as:

“Freshwater management unit” is the water body, multiple water bodies or any part of a water body determined by the regional council as the appropriate spatial scale for setting freshwater objectives and limits and for freshwater accounting and management purposes.

- 2.65 This definition has changed in the current NPS-FM 2020, and now reads:

Freshwater management unit, or FMU, means all or any part of a water body or water bodies, and their related catchments, that a regional council determines under Clause 3.8 is an appropriate unit for freshwater management and accounting purposes; and part of an FMU means any part of an FMU including, but not limited to, a specific site, river reach, water body, or part of a water body

- 2.66 A key component of this definition is that each FMU forms the basis for freshwater management and accounting purposes. This is an exhaustive process. Sections 3.9 to 3.11 of the NPS-FM 2020 directs that the regional council must for each FMU (*inter alia*):
- a) Consider the compulsory values in Appendix 1A, together with requirements to address the values that apply to each of the five biophysical components of the value “ecosystem health”;⁴²
 - b) Consider any other values, including at the least those included in Appendix 1B;⁴³
 - c) Set an environmental outcome for every value that applies to an FMU or part of an FMU, and include these as an objective, or objectives, in its regional plan(s):

⁴⁰ *Palmerston North City Council v Motor Machinists Ltd* [2013] NZHC 1290 at [90], endorsing the approach of William Young J in *Clearwater Resort Ltd v Christchurch City Council* HC Christchurch AP34/02, 14 March 2003. See also *Mackenzie v Tasman District Council* [2018] NZHC 2304 for a more recent application of the test.

⁴¹ *Clearwater Resort Ltd v Christchurch City Council* HC Christchurch AP34/02, 14 March 2003 at [66].

⁴² Appendix 1A lists four compulsory values, with “ecosystem health” listing five biophysical components.

⁴³ Appendix 1B lists nine “other values” that must be considered.

- d) For each value that applies to a FMU, or part of an FMU, use all the relevant compulsory attributes in Appendix 2A and 2B, identify other attributes for any compulsory values, and if practical, identify attributes for all other applicable values;⁴⁴
- e) Specify baseline states for each attribute, in numeric terms if possible; and
- f) Set target attribute states for every attribute so as to achieve the specified environmental outcomes. and identify the sites where an attribute state will apply, together with a timeline for achieving that target attribute state, along with interim targets.

2.67 Clause 3.8 of the NPS-FM 2020 sets out the process for “identifying FMUs and special sites and features”. It reads:

- (1) *Every regional council must identify FMUs for its region.*
- (2) *Every water body in the region must be located within at least one FMU.*
- (3) *Every regional council must also identify the following (if present) within each FMU:*
 - (a) *sites to be used for monitoring*
 - (b) *primary contact sites*
 - (c) *the location of habitats of threatened species*
 - (d) *outstanding water bodies*
 - (e) *natural inland wetlands.*
- (4) *Monitoring sites for an FMU must be located at sites that are either or both of the following:*
 - (a) *representative of the FMU or relevant part of the FMU*
 - (b) *representative of one or more primary contact sites in the FMU.*
- (5) *Monitoring sites relating to Māori freshwater values:*
 - (a) *need not comply with subclause (4), but may instead reflect one or more Māori freshwater values; and*
 - (b) *must be determined in collaboration with tangata whenua.*

2.68 At the time of finalising this decision the HBRC had yet to establish how many FMUs would be established for the region, or what their boundaries would be.

2.69 Every FMU which is set results in a significant amount of work for the Regional Council. Other councils of similar size have set variable numbers of FMUs (each of Southland and Wellington have five, Northland are considering 13). The Panel experience in such matters is that determining FMUs, undertaking consultation with both tangata whenua and the community is complex, sophisticated and takes time.

⁴⁴ Appendix 2A lists 10 attributes that require limits on resource use; Appendix 2B lists 12 attributes that require “action plans”. These attributes all relate to water quality, but all are specific to particular types of water body, for example lakes or rivers.

2.70 PPC9 did not include any FMUs for the part of the region covered by TANK catchments (noting that at the time the proposed plan was notified the operative NPS-FM was the 2017 update of the 2014 NPS-FM).

Submissions on FMUs

2.71 A number of submitters sought specific references to FMUs in PPC9. They included:

- a) RFBPS sought that the freshwater objectives be clarified in respect of all FMUs, and that the wording used to refer to FMUs in Schedule 26 and elsewhere be clarified.
- b) EDS and Te Taiwhenua o Te Whanganui-ā-Orotū both submitted that schedules of FMUs and their freshwater values be included in PPC9.
- c) NKII and DOC both sought clarification if Schedule 26 FMUs are the same as FMUs used in the NPS-FM 2020.
- d) TToH sought a number of specific water quality outcomes within FMUs.
- e) MTT sought that the spatial extent of the FMUs for PPC9 be clearly identified and mapped, and that an additional Schedule 26AA should include 2030 attribute targets for Te Whanganui-ā-Orotū (the Ahuriri Estuary).

Legal Submissions and Evidence

2.72 In the course of the hearing, we heard from Counsel and expert witnesses about what they saw as the place of FMUs in PPC9. These included NKII, TToH, Beef and Lamb NZ, EDS and RFBPS, which we discuss in turn.

2.73 Mr Tiuka first addressed FMUs in his Evidence in Chief on behalf of NKII. He said that in the July 2018 TANK Tangata Whenua Review report 12 FMUs were identified, which he listed, and said one more should be added bringing the total to 13.⁴⁵ This involved for instance dividing each of Ngaruroro and Tūtaekurī catchments into three FMUs each, together with a combined coastal zone (which included the Waitangi Estuary, which is immediately upstream of where these rivers flow to the sea).

2.74 Mr Black said that in a report TToH prepared for the Regional Council “the mana whenua group came up with 11 FMUs”.⁴⁶ We are not clear if this was the same report referenced by Mr Tiuka.

2.75 In NKII’s reappearance on 22 June Mr Enright also advocated for the inclusion of FMUs in PPC9. He asserted their inclusion was within the scope of submissions, and that “a catchment approach is not in conflict with a regional approach”. He also submitted that “establishment of FMUs within the plan change catchments before conducting a region wide review is practicable, given the years of engagement on FMUs”.

2.76 Mr Enright also asserted that Dr Haidekker’s statement at Paragraph 5.19 of her addendum evidence, which said “I have recommended a representative monitoring site for each of the four major catchments in TANK, which I think would make logical FMUs from a biophysical

⁴⁵ EIC of Ngaio Tiuka at Paragraphs 143 and 144

⁴⁶ Supplementary Evidence of Maurice Black at Paragraph 4

perspective” gave leeway for submitters to respond to her “specific recommendation of four FMUs”.⁴⁷

- 2.77 Mr Thomsen for Beef and Lamb NZ considered the terms Freshwater Quality Management Unit and TANK areas to be “unnecessary and confusing” and that PPC9 should, where possible, adopt the language in the NPS-FM 2020 and that reclassifying the Freshwater Quality Management Unit and TANK areas as FMUs in PPC9 “has merit”. He also observed however that if the Regional Council wishes to take a different approach, that could be tested as part of the Kotahi review.⁴⁸
- 2.78 EDS did not appear at the hearing; rather their legal submissions from Ms Cordelia Woodhouse were tabled and presented by Mr Enright. Ms Woodhouse submitted that “it is not clear whether PPC9’s Freshwater Quality Management Units (and other various terms) are included for the purpose of the NPS-FM 2020”.
- 2.79 Ms Woodhouse also submitted that “the NPS-FM does not mandate a single correct approach to identifying FMUs” and that “Councils are able to identify FMUs as a distinct process separate to identifying freshwater values” or alternatively this process could be done in parallel. From this she concluded that “there is no impediment to identifying FMUs through the PPC9 process” and that “there is scope within PPC9” (and the EDS submission) to comprehensively identify all FMUs within the Hawke’s Bay region to give effect to the NPS-FM 2020.” As a backstop she said that if FMUs cannot be incorporated into PPC9 it should be withdrawn or declined, and Council should start over with a process that leads to a compliant plan.”⁴⁹
- 2.80 For RFBPS Mr Anderson agreed with Ms Woodhouse that the Regional Council could identify FMUs through the PPC9 process.⁵⁰ It is not clear from his submissions why he took this position.

Discussion and Findings

- 2.81 Turning first to the matter of scope, we agree that the submissions summarised at Paragraph 2.71 above give us the scope to include FMUs for the TANK catchments if we choose to do so. We disagree however with Ms Woodhouse’s assertion that there is scope within PPC9 (and the EDS submission) to comprehensively identify all FMUs within the Hawke’s Bay region to give effect to the NPS-FM 2020.
- 2.82 In relation to the evidence and submissions on behalf of NKII, we do not consider that Dr Haidekker’s comment that she “thinks” the four catchments in TANK would make logical FMUs from a biophysical perspective gives any leeway for submitters to respond to the recommended numbers of FMUs. Dr Haidekker certainly did not specifically recommend that there be four FMUs.⁵¹
- 2.83 Mr Enright also criticised Dr Haidekker’s thoughts about four FMUs as being “overly reductionist”, while advocating for NKII’s proposed 13 FMUs in the TANK catchments. We find NKII’s position to be too reductionist, particularly given the extensive planning process that the Regional Council must go through in each FMU.

⁴⁷ At Paragraph 6 of his submissions dated 21 June 2021

⁴⁸ At his Paragraph 43

⁴⁹ At her Paragraphs 30 and 31

⁵⁰ At his Paragraph 48

⁵¹ As was asserted by Mr Enright in his Paragraph 6

- 2.84 In relation to the legal submissions of EDS and RFBPS, it is clear that the Freshwater Quality Management Areas included in PPC9 were not included for the purpose of the NPS-FM 2020, as PPC9 was notified prior to the NPS-FM 2020 coming into effect. Our understanding is that Schedule 26 was formulated in a way that would enable it to be re-configured into the upcoming Kotahi Plan, together with specified water quality outcomes for other Hawke's Bay water bodies.
- 2.85 Contrary to what Ms Woodhouse submitted we have no mandate to comprehensively identify all FMUs within the Hawke's Bay region to give effect to the NPS-FM 2020. Our role is to hear and decide submissions on PPC9, and we have no mandate beyond that. We cannot decide for instance if the Tukituki, Mohaka and Wairoa catchments should be individual or multiple FMUs, and how smaller catchments such as the Pōrangahau should be treated. We heard no evidence on these matters, as they are not relevant to PPC9.
- 2.86 It is also very clear from Clause 3.8(1) of the NPS-FM 2020 that it is the role of the Regional Council to identify FMUs for its region. We do not have any delegated authority to pre-empt that process. This position was reinforced through legal advice received by the Regional Council from Mr Matt Conway, Simpson Grierson.
- 2.87 The Regional Council in its reply acknowledged the work that is being undertaken to notify the freshwater plan that includes FMUs for the region by December 2024, including the work that has started on the Kotahi Plan that brings all the regional plans together.⁵²
- 2.88 For these reasons we have decided not to establish FMUs within the TANK catchments. They were not included in PPC9, and any decision we make would potentially set a precedent for how many FMUs will be established in the region as a whole. If for instance we accepted NKII's position that there be 13 FMUs established in the TANK catchments, that would set precedents that catchments such as the Tukituki, Mohaka and Wairoa would all have multiple FMUs, as could the Ruataniwha aquifer and the Pōrangahau catchment. Given the extensive planning process that the Regional Council has to work through for each FMU, that would impose another onerous burden on Regional Council resources to notify an NPS-FM 2020 compliant plan by the end of 2024.

Nitrogen Leaching Models

- 2.89 Part of the nutrient management "toolbox" referred to extensively in PPC9 is a complex computer-based model known as Overseer, which is a nutrient management model that calculated nitrogen losses from intensively farmed land to below the root zone of plants. This nitrogen can then enter groundwater and/or surface water.
- 2.90 The Government had for over a decade promoted the use of Overseer as a regulatory tool for nitrogen management on intensively farmed properties. They also fostered the ongoing development of the Overseer model, which was jointly owned by the Ministry of Primary Industry, Regional Councils and AgResearch (who had the overall management control of the model). Most Regional Councils have used Overseer both as an overall catchment management tool (for instance by requiring farmers in a catchment to meet particular water quality outcomes), and an individual property management tool (such as in conditions on resource consents).

⁵² HBRC Closing Statement. para 14 and 29

- 2.91 Overseer was in its sixth version at the time PPC9 was notified. Version changes had often led to significant modifications to the model; for instance, the change from Version 5 to Version 6 in 2016 led to nominal N leaching rates from many dairy farms being increased by about 30-40%, which led to difficulties for both Regional Councils and farmers. This is because although nothing may have changed in farm practices on a particular property, their “nominal” nitrogen leaching losses had often increased substantially due to the Overseer version change. If for instance a regional plan specified that to meet permitted activity standards a farm must average less than 30kg/N/ha/y leaching losses, and suddenly large numbers of farmers can no longer meet this permitted activity standard because their nominal farm leaching loss has increased by 30-40%, it becomes a regulatory road block for both farmers and Regional Councils to decide how to handle such changes.⁵³
- 2.92 Both at the time PPC9 was notified, and when the hearing of submissions and evidence took place, Overseer was considered a credible nitrogen loss leaching model, and was referenced frequently in PPC9. At that time Overseer was considered to work reasonably well for dairying and other more extensive farming practices but was considered to have significant limitations for other activities, such as intensive vegetable growing with different crops in different rotations, and for off-site winter grazing of dairy cattle.
- 2.93 More recently however all use of Overseer has been called into serious question. A review released by the Parliamentary Commissioner for the Environment (Simon Upton) in 2018 said it was seriously flawed, opaque and open to “gaming” by farmers.
- 2.94 The Commissioner’s report was then peer reviewed by an independent scientific panel, who concluded that:
- “We do not have confidence that Overseer’s modelled outputs tell us whether changes in farm management reduce or increase the losses of nutrients, or what the magnitude or error of these losses may be.” And that “Overseer could only provide a coarse understanding of nutrient loss”.*
- 2.95 Ministers Parker and O’Connor⁵⁴ then put out a press release on 11 August 2021 committing to developing “other tools” to more accurately measure nitrogen losses and support a “next generation” of Overseer. In doing so they signalled that the current version of Overseer is not sufficiently robust or accurate to continue using as a nutrient management model. While other models exist, none are presently considered reliable enough to use in any regulatory framework.
- 2.96 We observe that a great deal of work has gone into the development of Overseer. Much of this was field based using what are known as “lysimeters”, which are placed beneath soils to measure actual nitrogen leaching losses. These studies are expensive and given the heterogeneity of soil types across the country, and indeed often within an individual property, Overseer could only provide an “estimate” at best of actual leaching losses.
- 2.97 For these reasons we believe it may be up to a decade before a new credible nitrogen leaching model can be developed and verified as sufficiently accurate to use for any regulatory purposes.

⁵³ This is exactly what happened in the Otago Region following the replacement of Version 5 of Overseer with Version 6.

⁵⁴ Who were at the time the Ministers for the Environment and Primary Industry respectively.

- 2.98 Overseer is referred to frequently in PPC9 as recommended to us for consideration by the s42A Reporting Officers. Examples include:
- a) In the recommended definitions of “nitrogen loss rate” and “nitrogen loss target”, which are in turn referred to some policies (for example, POL TANK 17).⁵⁵
 - b) In Rules TANK 5 and 6.
 - c) In some of the Schedules, for example Schedules 29 and 30.
- 2.99 More generally PPC9 as recommended to us often refers to “Overseer or a similar nitrogen loss model approved by the Council”. Until recently this implied strongly that Overseer would be used in most instances to assess nitrogen leaching losses.⁵⁶
- 2.100 The primary purpose of on farm nutrient management in PPC9 is to attain the water quality target attribute states listed for TANK surface water bodies in Schedule 26 by 2040. These attribute states are challenging long term targets.
- 2.101 Given that there is no confidence that the present version of Overseer can accurately assess nutrient losses from farms, we have decided to take out all direct references to Overseer in PPC9, and instead use the words “a nitrogen loss model approved by the Council”. This allows flexibility in the future for the Regional Council to determine the most appropriate nitrogen loss models to use for particular purposes. This is done alongside what we have called a “dual nutrient focus”, targeting sources of both N and P loss, rather than the focus on N alone characteristic of PPC9.

⁵⁵ Note that we have not agreed to include these definitions in PPC9.

⁵⁶ Alternative models do exist, such as SPASMO, but all have significant limitations and none of the reasonably widespread acceptance that Overseer previously had.

Chapter 3 - General Objectives and Policies

Introduction

- 3.1 In PPC9 the first two objectives – OBJ TANK 1 and 2 - were listed under this heading. The s42A Reporting Officers recommended that these two objectives be retained in PPC9, albeit with some amendments to add or delete specific provisions to them.
- 3.2 Ms Wilson, the expert planner for NKII, made a number of critical comments about OBJ TANK 1 in her evidence. She opined that the objective is more of a policy or a method as it sets out how the Council will collaborate with other parties to carry out some activities, and that the objective of a Regional Plan “should not be that people work together”, but rather relate to a future environmental state that the Council seeks to achieve. Her solution to this was to move OBJ TANK 1 into the policy framework as Policy 1.
- 3.3 We agree with Ms Wilson that this is not an objective, but rather is a policy, and that it logically sits as the first policy in that section. While we discuss the submissions on OBJ TANK 1 below, this is in the context that it is a policy rather than an objective.
- 3.4 Ms Wilson also sought a new objective, which she called OBJ TANK 2B be added to PPC9 that would specifically recognise and provide for the aspirations and values of Ngāti Kahungunu in the TANK catchments in PPC9. It would have read (in a slightly paraphrased form):
- a) *to restore and revitalise the mauri and Te Mana o Te Wai of all waters within the TANK catchments, and particularly the Heretaunga Plains aquifer*
 - b) *to recognise and provide for Ngāti Kahungunu’s relationships, tikanga and beliefs with their ancestral waters, including rangatiratanga and kaitiakitanga; and*
 - c) *to repatriate and protect tangata whenua values, customs, culture and relationships with these waters.*
- 3.5 We did contemplate having a separate objective to set out the aspirations of tangata whenua, using the framework that Ms Wilson suggested but using quite different words, but we have decided not to do so for the following reasons:
- a) The wording of OBJ TANK 2 now includes the following words:
 - e. *the kaitiaki responsibilities of tangata whenua to land and freshwater are recognised and provided for; and*
 - f. *tangata whenua are supported in carrying out cultural practices with respect to water management in their rohe*
 - b) There are references to “mauri” throughout PC9. Examples include the stem clauses of OBJ TANK 11-15, and in POL TANK 13, 30 and 40.
- 3.6 In reviewing OBJ TANK 2 we looked afresh at the words used there, and we also re-examined OBJ TANK 5, which infers that Te Mana o Te Wai and the kaitiakitanga role of tangata whenua, mauri and ecosystem health will be met solely by managing water quality (as it sits below that heading). It became apparent to us that to meet these outcomes, water quantity in surface water bodies, and to a significant extent groundwater, have to also be managed sustainably. For this reason we have rewritten OBJ TANK 5 (which becomes OBJ TANK 2) as follows:

OBJ TANK 5

Mauri and ecosystem health outcomes are achieved through:

- g. Collectively managing all of the specified attributes described in Schedule 26*
- h. Establishing and implementing minimum flows and allocation limits in rivers and streams*
- i. Establishing an interim allocation limit of 90 million cubic metres per year for takes of groundwater*
- j. Allocating water based on Actual and Reasonable use, and*
- k. Flow enhancement schemes.*

3.7 As a consequential amendment OBJ TANK 5 is deleted from PPC9.

3.8 Having said this we now discuss General objectives OBJ TANK 1 and 2 in more detail.

OBJ TANK 1

3.9 In PPC9 OBJ TANK 1 described how the Council would work with tangata whenua, and urban and rural communities would work together, and lists four ways in which this would take place. As discussed above, we have decided this is a policy rather than an objective.

Submissions and Evidence

3.10 There were a wide range of submissions on OBJ TANK 1. Many of these were pro-forma submissions that were not relevant to this particular objective. Some submissions sought greater recognition of the values of tangata whenua; others sought changes relevant to a particular sector group.

3.11 As OBJ TANK 1 has been removed and placed among the policies, submissions that sought it be an outcome statement are now not relevant.

3.12 The s42A Reporting Officers recommended that the stem of the objective be made more focussed on the TANK catchments, and that additional words be added to Clause a) which are based on principles embodied in Te Mana o Te Wai, as specified within the NPSFM 2020.

Finding

3.13 We support the s42a Reporting Officers recommended amendments to OBJ TANK 1 in the context of it now being a policy.

OBJ TANK 2

3.14 As notified in PPC9 OBJ TANK 2 was what we might call something of a “omnibus” objective that covered a wide range of matters that reflected the stem clause, which spoke of the TANK catchments being sustainably managed as integrated natural resources so that six “outcomes” would be achieved. We observe that at least one of these “outcomes”– that listed in Clause b), appeared to us to include both a process (“a continuous improvement approach”) and outcomes.

3.15 The s42a Reporting Officers recommended a number of amendments to OBJ TANK 2. The main ones were to specifically recognise the habitat of salmon and trout, in response to a

submission from the Hawke's Bay Fish and Game Council and MTT's submission to add words referring to safeguarding life supporting capacity and ecosystem processes.

Submissions and Evidence

- 3.16 A wide range of submissions were made on OBJ TANK 2. Many sought specific changes, including rationalising some of the language in the objective. Ravensdown sought to cut out some words in Clause c).
- 3.17 In her evidence Ms Wilson considered that OBJ TANK 2 as notified in PPC9 "mixes an objective statement with policies and methods", and she suggested it be reduced to just three clauses.¹ This was partly based a new Objective 2B being added to PPC9, which for reasons outlined earlier in this report section, we have not agreed to.

Discussion and Findings

- 3.18 We do not support adding words to refer to the habitat of salmon and trout. Policy 9 of the NPSFM 2020 requires that the "habitats of indigenous freshwater species are protected, whereas Policy 10 says that "the habitat of trout and salmon is protected, insofar as this is consistent with Policy 9."
- 3.19 The Environment Court found that in the Lindis River, a medium sized gravel bed river in Otago, that "the presence of trout debases the integrity of ecosystems of indigenous flora and fauna", that from "an ecological viewpoint trout are an introduced pest" and that the "presence of trout "degrades indigenous ecosystems".² This decision was supported in full by the High Court. Clearly protecting the habitat of trout is inconsistent with protecting the habitats of indigenous species.
- 3.20 We agree with submitters such as Ravensdown that there is a good deal of superfluous wording in OBJ TANK 2, and with MTT and Ms Wilson that it could much more focussed. At Ms Wilson's suggestion we have also added words to recognise the interconnected nature of land, surface water and groundwater in the TANK catchments, and so it now reads:

OBJ TANK 2

Land and freshwater in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments are sustainably managed as integrated natural resources so that:

- a. Te Mana o te Wai and, ki uta ki tai (mountains to the sea) are upheld and recognised*
- b. The interconnectedness between land and water and between surface water and groundwater are recognized*
- c. Indigenous biodiversity is protected and life-supporting capacity and the aquatic ecosystem processes are safeguarded*
- d. outstanding water bodies in Schedule 25 and the values in the plan objectives are appropriately protected and provided for*

and that:

- e. the kaitiaki responsibilities of tangata whenua to land and freshwater are recognised and provided for*

¹ EIC of Grey Wilson at her Paragraph 28.

² Lindis Catchment Inc v Otago Regional Council (2019) NZEnvC 166 at Paragraphs 172, 205 and 212.

- f. *tangata whenua* are supported in carrying out cultural practices with respect to water management in their rohe.

POL TANK 1-5

- 3.21 POL TANK 1-5 were listed in PPC9 under the heading “Priority Management Approach”. They describe the Council’s general approach to land use activities in POL TANK 1, whereas POL TANK 2, 4 and 5 set out what the Council sees as priorities in the TANK catchments. We have dealt with POL TANK 3 in the section of our report headed “Wetland Management”.
- 3.22 The s42A Reporting Officers recommend that all of POL TANK 1-5 be retained in PPC9. Only POL TANK 1 has any substantive changes recommended, particularly to its stem clause. Only very minor changes were recommended to the other four policies, and these are in part to update language and cross references.

Submissions on the Priority Management Approach

- 3.23 There were eight submission points on this topic, which covered all of POL TANK 1-5. Several of them were more relevant to other matters in PPC9. Most submissions sought either that a more regulatory approach be included in PPC9 (such as those from NKII), or that a more liberal approach be adopted. We address these matters elsewhere in our report.

POL TANK 1

- 3.24 As now recommended to us POL TANK 1 says that the Council will regulate land use activities and work with stakeholders to manage land use activities so that water quality is either maintained, or improved if necessary to meet Schedule 26 Target Attribute States by focussing on six matters, which in summary were:
- a) Improving water quality by focussing on priority catchments as described in Schedule 28.
 - b) Management of sediment.
 - c) The management of the “environmental stressors”, particularly sediment and nutrients, in the catchments of the Ahuriri and Waitangi estuaries.
 - d) Management of riparian margins.
 - e) Management of urban stormwater networks, including reducing contaminants.
 - f) Protecting the quality of water in sources of human supply.

Submissions and Evidence

- 3.25 There were 16 submissions on POL TANK 1. Some sought comprehensive changes to the policy (for example those from DOC, MTT, Federated Farmers and Ravensdown), while several submissions sought other matters be added to Clause f), such as protecting water quality for irrigation or food and fibre supply.
- 3.26 In her planning evidence on behalf of NKII, Ms Wilson said all of POL TANK 1 - 5 were problematic as they imposed requirements on third parties, such as mana whenua, the district councils and landowners. She attached a redraft of POL TANK 1 to her evidence, with the changes made there being based on the submission of DOC. She considered this did not change the intent of the policy but rather it brought “a layer of clarity and certainty as to

aspects of land use will be regulated by the Regional Council and the role of collaboration as a non-regulatory method to support the regulatory provisions of PPC9”.³

Discussion and Findings

- 3.27 We do not support Ms Wilson’s redraft of POL TANK 1. Her wording focussed on adding words such as “managing and regulating” various activities. These are provided for in other policies in PPC9, and do need to be repeated here. For instance “managing and regulating stormwater networks” is covered in POL TANK 28 - 32 and Rules TANK 19 - 23, and for point source discharges in POL TANK 10. Similarly POL TANK 18 and 21 both say “the Council will regulate land use change”, and this is supported via Rules TANK 1, 2, X, 5 and 6 and Schedule 29.
- 3.28 Nor do we support protecting water quality for uses such as irrigation. Rather we support the focus on protecting source water for domestic, municipal and registered drinking water supplies, as required by the NZ Drinking Water Standards 2007 and Objective 2 of the NPSFM 2020.
- 3.29 In reading the s42A Reporting Officers proposed amendments to the stem clause of POL TANK 1, we considered this could be much improved as it became cumbersome with various changes being accepted. We have redrafted the second part of it as follows:

so that “existing water quality is maintained in its current state, or improved to meet the target attribute states shown in Schedule 26”.

- 3.30 This apart, we support the Reporting Officers recommended amendments to POL TANK 1.

POL TANK 2, 4 and 5

- 3.31 The way PPC9 was structured is that OBJ TANK 10 - 13 inclusive describe the outcomes sought for the management of each of the TANK catchments. We discuss these in detail in Chapter 4 of our report titled “Surface Water Quality and Land Management”. To put it another way these four objectives describe “what” the Council aims to achieve in these catchments.
- 3.32 POL TANK 2, 4 and 5 list the Council’s management priorities in these catchments, with the lower Ngaruroro and Tūtaekurī rivers being included in a single policy, POL TANK 4. In broad terms these three policies describe the Council’s work programme priorities for meeting the outcomes listed in OBJ TANK 10-13. They describe “how” the Council intends to work with other parties to meet the objectives.
- 3.33 The s42A Reporting Officers recommended only very minor amendments to POL TANK 2, 4 and 5, such as correcting cross references.

Submissions and Evidence

- 3.34 Most submissions on POL TANK 2, 4 and 5 either supported the policies, sought minor changes (such as their reordering) or wanted additional matters added (which in some cases would not have been appropriate in these particular policies). Mr Tom Kay for RFBPS sought these policies be moved to a “methods” section of PPC9, but “methods” per se are not part of the statutory framework of a regional plan. Rather as we have said objectives describe outcomes, and policies how they will be met, so policies could often be thought of as a surrogate for “methods” in any case.

³ EIC of Grey Wilson at her Paragraph 55.

- 3.35 The only substantive comment in the expert evidence about these policies was from Ms Wilson, who was concerned that the Council was “imposing requirements” on third parties (see paragraph 3.26 above). In our view that is clearly incorrect – what the policies say is that the Council will work with other parties, not that those parties are somehow compelled to do so.

Findings

- 3.36 We largely support the recommendations of the s42A Reporting Officers that only minor amendments be made to POL TANK 2, 4 and 5.
- 3.37 In our view however one change is necessary to POL TANK 5. While OBJ TANK 10 describes what environmental outcomes are being sought in the Ahuriri freshwater catchments, and POL TANK 5 lists the work priorities to achieve these outcomes, POL TANK 32 says the Council will support the development of an Integrated Catchment Plan for the Ahuriri catchment, and carry out investigations to better understand processes and functions in the estuary and its connected water bodies.
- 3.38 There is considerable overlap between POL TANK 5 and 32, and it seems quite strange to us that two separate policies describe “how” OBJ TANK 10 is to be implemented, particularly with respect to carrying out investigations, where two separate clauses apply. We consider the investigations listed in POL TANK 5e) cover this appropriately.
- 3.39 Accordingly, we have deleted POL TANK 32, and added new words to the stem clause of POL TANK 5, which now reads:

POL TANK 5

*In the tributaries of **Te Whanganui ā Orotu (Ahuriri Estuary)**, in addition to POL TANK 2 the Council will support the development of an integrated Catchment Management Plan, and will work with tangata whenua, landowners and the Napier City Council to:*

- a. improve water clarity and reduce deposited sediment by reducing the amount of sediment being lost from land and river banks*
- b. reduce risk of proliferation of algae by reducing nutrient losses from land, including through management of phosphorous loss associated with sediment*
- c. improve stormwater and drainage water quality and the ecosystem health of urban waterways and reduce contamination of stormwater associated with poor site management practices, spills and accident in urban areas*
- d. carry out further investigations to understand the estuary hydrology, functioning and environmental stressors.*

Chapter 4 – Surface Water Quality Management & Land Management

Introduction

- 4.1 This section of our report deals with the objectives, policies and schedules that collectively set long term targets or outcomes for surface water quality in the TANK catchments. It covers:
- a) OBJ TANK 4 and 5, which set the framework for Schedule 26, and which are discussed in Paragraphs 4.15 -4.23. Note that this is in the context of our deciding elsewhere under the General Objectives and Policies heading that OBJ TANK 5 should be comprehensively rewritten (see Chapter 3 of our report).
 - b) A series of catchment based objectives for each of the major TANK catchments and wetlands and lakes; these are OBJ TANK 10-15 inclusive, and which are complemented by POL TANK 1-5 which are discussed in the Chapter 3 headed “General Objectives and Policies”, apart from POL TANK 3 which is discussed in the Chapter 12 headed “Wetland Management”.
 - c) Schedule 26 of PPC9, which comprises a series of very complex tables that show baseline (water quality) attribute states, the target attribute state for 2040, and the long term target attribute state for water quality at a wide range of sites within the TANK catchments. These are colour coded, with blue showing low risk and/or existing high water quality; green or light green showing a little or some risk, and/or existing satisfactory water quality, orange showing moderate risk and/or somewhat degraded water quality, and red showing high risk and/or much degraded water quality. In some cases, no information is available, so no colour code is provided. Schedule 26 is discussed in more detail in paragraphs 1.43 – 1.104.
- 4.2 We could describe this as the “what quality is being sought” for surface water bodies in the TANK catchments. The “how” this is to be achieved is also covered in this Chapter of our report, which in PPC9 covers POL TANK 17-27, Rule TANK 1-6 and Schedules 26 – 30 inclusive.
- 4.3 This is not by any means the full suite of objectives, policies and rules that establish the overall framework for the management of surface water quality in the TANK catchments. Elsewhere in this report we have discussed:
- a) Whether it is appropriate (or not) to establish Freshwater Management Units in the TANK catchments at this time. We concluded that we do not have any authority to do so, and if we had, it would be premature given the Kotahi Plan framework already being worked on (see Chapter 2 of our report).
 - b) OBJ TANK 1 and 2, which are called General Objectives, are discussed under the heading of General Objectives and Policies in Chapter 3 of our report.
 - c) The management of point source discharges under POL TANK 10, alongside POL TANK 28-30, which deal specifically with stormwater discharges. Included with this are Rules TANK 20-23, which cover stormwater discharges, along with Schedule 34B. These are discussed in Chapters 11 and 13 of our report.
 - d) The management of riparian margins (POL TANK 11-13) and separately the management of wetland and lake margins (POL TANK 3, 14 and 15) are all discussed in Chapter 12 of our report.

Existing Water Quality in the TANK Catchments

- 4.4 Information on water quality in the TANK catchments for the period 2012-2018 has been summarised in a report prepared by two officers of the Regional Council.¹ We describe their findings very briefly here.
- 4.5 Existing water quality in the TANK catchments is highly variable. Not surprisingly, in headwater catchments where land use is extensive, and/or where large areas of forested land are present, water quality is generally high. In lowland streams, particularly where land use is more intensive, existing water quality is generally degraded.
- 4.6 The upper Ngaruroro and Taruarau catchments presently have high water quality, as do the headwaters of the Tūtaekurī. Macroinvertebrate communities are also in very good or excellent “health”. There are however eroding banks alongside the upper Ngaruroro in particular, and it has been estimated that 85% of the sediment yield within the Ngaruroro River “corridor” is from streambank erosion alongside the main river channel.²
- 4.7 Each of the Ngaruroro and Tūtaekurī rivers have only moderately good water quality in their middle and lower reaches. This is because the water quality of many lowland tributary streams is often significantly lower than the mainstems, which in turn reduces water quality in the main rivers.
- 4.8 The Ahuriri and Karamū catchments, including their tributaries, generally have degraded water quality, often for instance having elevated levels of nitrogen (N) and/or phosphorous (P), bacterial contaminants (as measured via the indicator species *E. Coli*) and high sediment loadings. The “health” of the macroinvertebrate community is poor to moderate using the Macroinvertebrate Community Index (MCI)³. Similarly, both Te Whanganui ā Orotū (Ahuriri) and Waitangi estuaries have degraded water quality and show evidence of eutrophication.
- 4.9 This indicates that significant efforts are necessary to both maintain existing water quality where it is presently high and (particularly) to improve water quality where it is degraded.

Joint Witness Statement

- 4.10 Although there were some diverging opinions from water quality experts on the water quality provisions of PPC9 and in particular the attribute states proposed in Schedule 26 of the plan as notified, there was surprisingly little expert evidence that specifically addressed water quality. The greatest disagreement was between Dr Haidekker of the Regional Council, Ms Catherine Sturgeon, an expert witness for HortNZ, and Dr Michael Greer, an expert witness for Beef and Lamb NZ.
- 4.11 Given the level of disagreement between these witnesses, we requested that they conference on the matters of dispute and report back to us by way of a Joint Witness Statement (JWS). This however indicated that there was not much agreement reached on the substantive matters in dispute; where agreements were reached we make some comments below.

Major Changes Recommended

- 4.12 The s42A Report dated 15 April 2021 made detailed recommendations about many of the objectives, policies, schedules and rules as they relate to water quality. In particular it was

¹ Haidekker S and Madarasz-Smith A 2020. Ngaruroro, Tūtaekurī, Karamu River and Ahuriri Estuary Catchments: State and Trends of River Water Quality and Ecology. HBRC Report 5422

² EIC of Catherine Sturgeon at Paragraph 51, citing HBRC Open Portal Data.

³ MCI is an indicator of stream macroinvertebrate community health and is used widely throughout New Zealand.

recommended that OBJ TANK 6 and 7, and Schedule 27 of PPC9 be deleted. Schedule 27 had no regulatory function, but did focus particularly on the Ahuriri and Waitangi estuaries. OBJ TANK 6 referred to Schedule 27, and OBJ TANK 7 referred to future plan changes, but is now obsolete given the Council's drive to prepare the NPSFM 2020 compliant "Kotahi Plan". Accordingly, we agree that neither of these objectives are necessary, and neither is Schedule 27, so in our decisions they have been deleted.

- 4.13 We also note at this stage that Schedule 29 was quite divisive, being widely criticised in some submissions and evidence but supported in others. In response the Reporting Officers, in their report back of 21 June 2021, gave us an option to delete Schedule 29, cover some of its contents in information put out by the Council, and integrate the balance of the schedule into Schedule 30. We have not accepted this suggestion. Instead, we have retained Schedule 29, albeit in a much modified form than what was notified in PPC9. With the "Overseer" nitrogen leaching model no longer able to be used as a regulatory tool, such guidance is essential to inform Rules TANK 5 and 6.
- 4.14 There were also a large number of other changes recommended to relevant objectives, policies and schedules. We discuss these below.

Water Quality Target Attribute States in the TANK Catchments

OBJ TANK 4 and 5

- 4.15 PPC9 established long term surface water quality targets in the TANK catchments. Consistent with the NPSFM 2020, these are referred to as "target attribute states".
- 4.16 OBJ TANK 4 sets out the overall approach to surface water quality management in the TANK catchments. The target attribute states are set out in Schedule 26 of PPC9. Where existing water quality is higher than the target attribute state it is to be maintained. Where existing water quality is lower than the target attribute state, improvement is sought to be achieved over the life of PPC9 via a mix of regulatory and non-regulatory provisions, with the long-term intention that target attribute states for all sites will be met either by 2040, or at some future date to be set in the Kotahi Plan. This approach is consistent with Policy 5 of the NPSFM 2020.
- 4.17 OBJ TANK 5 states that outcomes such as Te Mana o Te Wai, the kaitiaki role of tangata whenua, and needs and values for matters such as mauri and ecosystem health are achieved through collectively managing all of the specified attributes. Elsewhere in this report we have decided that this Objective should be comprehensively rewritten, and so do not refer to it again here (see Chapter 3).

Submissions and Evidence

- 4.18 There were a variety of submissions on OBJ TANK 4 and 5. Not atypically they varied from strong support for the objectives as notified, deleting OBJ TANK 5 and seeking various amendments to the objectives.
- 4.19 Ms Wilson, the planning expert for NKII sought that Objective 4(b) be deleted because "it is contradictory to the primary objective of meeting the attribute states by a specified time" and because the "collective management approach" is already covered in TANK Objective 5.⁴

Discussion and Findings

- 4.20 We find Ms Wilson's requests to be puzzling. The "collective management approach" is not mentioned in OBJ TANK 4(b); rather what it says is that a mix of regulatory and non-regulatory

⁴ EIC of Grey Wilson at Paragraphs 32 and 33.

methods will be used to meet the target attribute states in Schedule 26. As we discuss in more detail in paragraphs 4.130 – 4.139 of this decision, we support that approach.

- 4.21 We support the retention of OBJ TANK 4 and 5. Each of them have recommended amendments to clarify and improve their wording. An example is the reference to “target attribute states” in OBJ TANK 4, which is consistent with the NPSFM 2020.⁵
- 4.22 We agree with the changes recommended. No further analysis is necessary because the recommended changes do not modify the overall context or directions of the two objectives.
- 4.23 The details of how the target attribute states are to be achieved are set out in POL TANK 17 - 27 inclusive, and associated Schedules.

Catchment Based Objectives

- 4.24 OBJ TANK 10-13 inclusive set out in general terms the desired environmental outcomes (or more accurately, what is to be “enabled in combination with Schedule 26) for respectively:
 - a) The Ahuriri freshwater catchments (OBJ TANK 10).
 - b) The Ngaruroro River catchment (OBJ TANK 11).
 - c) The Tūtaekurī River catchment (OBJ TANK 12).
 - d) The Karamū catchment (OBJ TANK 13).
- 4.25 The two sequentially following objectives are discussed elsewhere in our report:
 - a) OBJ TANK 14, which describes the outcomes sought in managing the groundwater resources of the Heretaunga Plains, including its connection with surface water bodies, which is discussed in Chapter 5 of our report.
 - b) OBJ TANK 15, which describes the outcomes sought in managing wetland and lake waahi taonga in the TANK catchments is discussed in Chapter 12 of our report.
- 4.26 While these objectives refer to both water quality and flows/groundwater levels, it is only the water quality and ecological outcomes that we discuss here. Flows in surface water bodies in the TANK catchments are discussed in Chapter 6 of our report.
- 4.27 Some of these environmental outcomes are quite similar for the Ngaruroro and Tūtaekurī catchments, and we did contemplate if they could be combined. Each however has sufficient clauses unique to those catchments, so we have decided to retain them separately.

Submissions on the Catchment Objectives

- 4.28 There were over 50 general submission points on the catchment objectives. Some were in support of the objectives as drafted, some sought specific amendments to these amendments, and others were not particularly relevant to these specific objectives but were to other provisions in PPC9.
- 4.29 We do not see any reason to discuss these further here; those more relevant to other provisions of PPC9 are discussed elsewhere in our report.

Submissions and Evidence on OBJ TANK 10-13

- 4.30 Many of the submissions on OBJ TANK 10-13 were broadly in support of how they were set out in PPC9. We received little evidence directly on the provisions of these objectives.
- 4.31 The s42A Reporting Officers have recommended that we change the stem clause of all these objectives; we support that recommendation as it reduces redundant wording.
- 4.32 The main changes sought by submitters to OBJ TANK 10 – Te Whanganui-ā-Orotū (the Ahuriri Estuary) – were to specify more ecological values and ensure that sediment loadings were reduced.
- 4.33 Since PPC9 was notified, decisions have been made on Plan Change 7 to the RRMP, which specifies the outstanding water bodies in the Hawke’s Bay region. These are now listed in Schedule 25 of the RRMP. One of the water bodies listed as outstanding is Te Whanganui-ā-Orotū, which was found to have “outstanding cultural and spiritual values to tāngata whenua and provides diverse habitats that support the best aquatic bird habitat, and the best estuarine fish habitat and nursery in the region”. Changes introduced to the RRMP through PC7 provide strong policy support for protecting these outstanding values of the estuary.
- 4.34 This, when combined with the water outcomes specified in Schedule 26.2 for the Ahuriri catchment, and Schedule 26.5 for the Ahuriri estuary, mean that a significant level of protection is already afforded to Te Whanganui-ā-Orotū, and in our view it is not necessary to provide for more than this in PPC9
- 4.35 While there are quite a number of submissions on OBJ TANK 11, which in combination with Schedule 26.3 sets long term outcomes for the Ngaruroro River, few are directly relevant to water quality. Some deal with flows, others advocate for a single interest⁶, and some others focus on river control and gravel extraction, both of which are beyond the scope of PPC9. Based on the submissions we see no reason to change OBJ TANK 11, apart from the modification of the stem of the clause recommended by the s42A Reporting Officers.
- 4.36 As for Te Whanganui-ā-Orotū, the upper reaches of the Ngaruroro River (above the Whanawhana cableway) and a major tributary, the Taruarau River, are listed in Schedule 25 of the RRMP as regionally outstanding water bodies, and consequently given a high level of protection.
- 4.37 Much the same suite of requested changes sought to OBJ TANK 11 also apply to OBJ TANK12, which provides an overarching policy framework for the Tūtaekurī River. Accordingly, much the same reasoning applied to the Ngaruroro River submissions also applies to OBJ TANK 12 for the Tūtaekurī River. Long term water quality targets are set for the Tūtaekurī River in Schedule 26.1.
- 4.38 Long term water quality target attribute states for the Waitangi estuary, which is (nowadays) the outlet for each of the Tūtaekurī, Ngaruroro and Clive/Karamu Rivers are set in Schedule 26.5.
- 4.39 Most of the submissions that did not fully support OBJ TANK 13, which covers the Karamū River catchment, sought more water in the river and its tributaries, and better water quality. Those that deal with surface flows are considered in Chapter 6 of our report, while improved water quality outcomes in the catchment are specified in Schedule 26.4. It is readily apparent

⁶ Including for instance specifically mentioning water supplies for commercial users, and for rural residential land and farm parks.

from the (extensive) red colour coding in Schedule 26.4 that existing water quality in the catchment is significantly degraded⁷ and much work will be required to improve to it to the target attribute states we have agreed be set out in that Schedule.

- 4.40 There were some significant differences in the views of the experts on these policies. For instance, Ms Sturgeon supported (among others) OBJ TANK 10-13, as they set out the values to be protected in the TANK catchments,⁸ whereas Dr Greer asserted that in combination with Schedule 26, from a technical perspective their wording was ambiguous.⁹ In particular he said that it is unclear how one would assess whether the ecosystem health values are provided for, and whether some of Schedule 26 objectives actually provide for those values.

Findings on OBJ TANK 10 -13

- 4.41 With the amendments recommended by the s42A Reporting Officers, we consider OBJ TANK 10-13 to be clear and consistent. We understand Dr Greer's point that in relation to ecosystem "health" they could be more explicit¹⁰, but that would be cumbersome and repetitive as it is provided for in Schedule 26. Indeed, all these four objectives are now recommended to state that "in combination with meeting the target attribute states in Schedule 26" before going on to specify other desired outcomes. Objectives are general outcome statements and do not need to be highly specific. The Schedule itself has no "objectives" in its own right, so we are unclear what Dr Greer was referring to as objectives in the Schedule.

OBJ TANK 14

- 4.42 This objective describes the outcomes sought for management of water quality in the Heretaunga Plains aquifer. These outcomes are essentially that water can be provided that is safe for community water supplies, and suitable for primary production, industrial and commercial needs. This objective is discussed in Chapter 5 of our report, where we support its intent.¹¹

⁷ For instance invertebrate community "health" is presently poor, and there are much elevated levels of microbial contaminants as measured by *E. coli* concentrations, and both nitrate and DRP concentrations are excessively high in some waterways.

⁸ EIC of Catherine Sturgeon at Paragraph 29

⁹ EIC of Michael Greer at Paragraph 17, expanded on his Paragraph 30

¹⁰ See for instance Paragraph 34 of his EIC.

¹¹ Include cross reference

Schedule 26

- 4.43 The key component in surface water quality management in the TANK catchments is Schedule 26, which is by far the most complex and multi-dimensional component of PPC9. It sets out very detailed information on existing water quality, and many of the desired 2040 and long term target attribute states¹² for the main water quality monitoring sites in each of the four TANK catchments. By our count this includes five sites in the Tūtaekurī catchment, two in the Ahuriri catchment, 11 in the Ngaruroro catchment, nine in the Karamū catchment and sites in each of the Te Whanganui ā Orotū (Ahuriri) and Waitangi estuaries (plus “defaults” in the same sections of catchments in most cases). There is a greater emphasis on lowland sites, as this is where water quality is generally most degraded at present, and so where the most significant improvements are sought.
- 4.44 The schedule sets long term targets consistent with the “bands” set in the NPSFM 2020. These go from Band A (best) to Band D or sometimes E (worst), and in some instances a “bottom line” set somewhere along this continuum. In simple terms the schedule lists the baseline attribute state (where sufficient data is available), in some places the target attribute state in 2040 and the long-term attribute state. Where a 2040 target attribute state is not defined, it usually requires an “improving trend” of a particular water quality attribute. Where insufficient data presently exists, the intention is that this be rectified in the Kotahi Plan.
- 4.45 Schedule 26 is very helpfully colour coded. For instance, where the baseline attribute state has been monitored sufficiently and is far from the long-term target attribute state it is coloured red. Where this is the case, the desired 2040 attribute state may just be an improving trend, whereas the long-term target is to meet (for example) the NPSFM target attribute state. This is where the greatest interventions are necessary to improve water quality in the TANK catchments. At the other end of the scale if existing water quality is high and only needs to be maintained to continue to meet the target attribute states, it is colour coded blue (best) or dark green (very good).
- 4.46 In many cases either no data, or insufficient data exists on what the existing state is in many of the smaller rivers and streams in the TANK catchments. Existing water quality could vary from quite poor to moderately high. A “default” pathway is provided for attributes where there is such a dearth of information. While we accept this is sometimes inevitable, we are unable in such instances to assess how much intervention is necessary to reach the 2040 and/or long term target attribute states, and whether or not the targets set are appropriate. Rather we have to make somewhat generic judgments based on available information for comparable rivers and streams.
- 4.47 Not all the target attributes listed in Schedule 26 for rivers and streams are included in the NOF in the NPSFM 2020. Those included are:
- a) In Appendix 2A periphyton biomass per unit area, ammonia (in its deionised state as a toxin only), nitrate (as a toxin only), suspended fine sediment (which is measured via the visual clarity of the water) and *E. coli*.¹³

¹² Or to put it another way, the future water quality sought.

¹³ Note that dissolved oxygen is also included, but that relates specifically to point source discharges.

- b) In Appendix 2B the “fish index of biological integrity”, the three measures of macroinvertebrate community health (which are MCI, QMCI and ASPM), deposited fine sediment, dissolved oxygen, Dissolved Reactive Phosphorous (DRP) and “ecosystem metabolism”.

- 4.48 Many of these attributes for rivers and streams were not in the NOF in the 2017 iteration of the NPSFM. Those that were present there are: periphyton biomass, ammonia and nitrate as toxins and *E. coli*. Both the potential fish toxins have more conservative “national bottom lines” in the 2020 NPSFM¹⁴, but those for periphyton biomass and *E. coli* remain unchanged.
- 4.49 The target attributes listed in Schedule 26 but which are not in the NOF are Dissolved Inorganic Nitrogen (DIN) and periphyton cover, both of which commonly have target attributes set in Regional Plans, and which are monitored in freshwater rivers and streams. Some lowland streams also have macrophyte cover listed as an attribute¹⁵, while water bodies commonly used for recreation have cyanobacteria listed¹⁶, neither of which are included in the NOF for rivers and streams.
- 4.50 This means that there is more scope for argument about what the target attribute states for these parameters should be, as no specific national direction exists.
- 4.51 A number of other attribute targets are listed in Schedule 26 but not populated as they are to be determined through the Kotahi Plan review. These were: deposited fine sediment, the fish index of biotic integrity, ecosystem metabolism, temperature, pH and other contaminants such as heavy metals and pesticides.
- 4.52 As is appropriate, a somewhat different set of target attributes are listed for the Ahuriri and Waitangi estuaries. We do not need to detail these here.
- 4.53 However, one of the tributaries of the Ahuriri Estuary is the Taipo Stream, which is heavily contaminated and features more in red in Schedule 26 than any other water body listed there. DRP concentrations are particularly high, and macroinvertebrate community health is low. Current levels of contamination will be difficult to remedy, as the stream rises in parts of Napier, where numerous sources of potential contaminants are present. The S42A Reporting Officers consider that as the stream is a tributary of Te Whanganui ā Orotū (Ahuriri) estuary, it is very important that its quality be much improved and we support that approach.
- 4.54 Some matters are not detailed in Schedule 26 at all. Specifically, outcomes for threatened species, mahinga kai, mātauranga Māori and wetlands and lakes are to be set during the Kotahi Plan process. We support this approach, as outcomes for each of these are best set at the regional level rather than in PPC9, which covers only part of the Hawke’s Bay region, albeit a very important part. For this reason, any submissions that sought one or more of these matters be included in Schedule 26 are rejected.
- 4.55 Similarly, detailed groundwater attributes are left to the Kotahi Review. To be fit for human consumption water needs to meet NZ drinking water standards (NZDWS), and these are presently under review. For this reason we are satisfied that groundwater quality outcomes are best detailed for the region as a whole in the Kotahi Plan.

¹⁴ These are now set at the bottom of Band B, versus Band C in the 2017 iteration.

¹⁵ Macrophytes are rooted plants that are usually only found in lowland streams.

¹⁶ Cyanobacteria, notably *Phormidium*, can be particularly toxic to dogs.

- 4.56 It was agreed in discussions between Dr's Haidekker and Greer in the Water Quality JWS that a number of matters relevant to Schedule 26, which were recommended to be changed in the s42A addendum report, were appropriate. In particular, it was agreed that each of temperature, turbidity and pH could be deleted as possible attributes in Schedule 26, as should the removal of the deposited sediment target.¹⁷ Similarly, it was agreed that the *E. coli* targets should be updated to be consistent with the NOF in the 2020 iteration of the NPSFM.
- 4.57 We support these changes to Schedule 26 as agreed in the JWS. They make eminent sense to us.
- 4.58 Dr Greer also sought that some of other attributes listed within Schedule 26, but not yet populated, should be deleted.¹⁸ In most part he agreed with what the Council had proposed be deleted, but with the notable exception of cyanobacteria and rooted macrophytes which he considered should also be removed as they are "largely untested provisional guidelines". While we agree with him that such guidelines are provisional, we see no issue with leaving these columns in Schedule 26 so they can be populated at a later date.
- 4.59 Many other detailed changes are recommended to Schedule 26. We agree with some of them, but certainly not all of them. We elaborate on this later in this decision.

Compliance with the NPSFM 2020

- 4.60 Schedule 26, as notified in PPC9 in May 2020, potentially had to be modified significantly after the NPSFM 2020 came into effect on 3 September 2020.¹⁹ This is because some of water quality attributes listed in the National Objectives Framework (NOF) in the 2017 iteration of the NPSFM, were amended in the NPSFM 2020 and/or new attributes were introduced (including for instance sediment related attributes, nitrate and ammonia as toxins and three measures of stream community "health"). Additionally, attributes were separated into two appendices as follows:

NPSFM2020 attribute requirements	Identify Limits on resource use and include as rules in regional plan	Action Plan prepared	Conditions imposed on resource consents
Appendix 2A	Must be	May be	May be
Appendix 2B	May be	Must be	May be

- 4.61 Quite why the Government felt it essential to make these changes puzzles us. They potentially impose significant additional costs for regional authorities – as is the case here – and communities, which in some instances are "forced" to meet higher standards. In the TANK catchments, six attributes in Schedule 26 have had to be re-assessed in at least some catchments as a result of the changes in the NOF.
- 4.62 Additionally, there is confusion about how some of these attributes are to be measured and why some are necessary. For instance, some attributes, such as ammonia and nitrate toxicity, and DRP, have two sets of thresholds with different sample statistics.²⁰ Another example is

¹⁷ Which was a seasonal objective of 15% for salmonid spawning.

¹⁸ EIC of Michael Greer in his Table 1

¹⁹ Noting that a number of submissions, including for example 58, 120 and 210, sought this specific change.

²⁰ These are for instance the median and 95th percentile. Technical Appendix 9 at pp4.

that alongside the long recognised MCI and QMCI²¹ measures of “stream invertebrate health”, another measure known as ASPM²² has been added to the NOF, and should be “assessed separately”.²³ Quite why this is considered essential, and so included in the NOF, also puzzles us.

- 4.63 In response to these NPSFM 2020 changes in some attributes in the NOF, a Council senior scientist reviewed what consequential changes were essential to Schedule 26. This was presented in a Technical Memo from Dr Haidekker, the council’s water quality expert, dated 15 March 2021.²⁴
- 4.64 We are very grateful to Dr Haidekker for undertaking this work, and making some accompanying recommended changes to Schedule 26. It would have taken us much work to do so. Additionally, we would not have had the detailed knowledge of water quality in the different catchments that Dr Haidekker does.
- 4.65 We accept some of the conclusions and recommendations that Dr Haidekker makes, along with some of the associated recommended changes to Schedule 26. These changes were also supported “overall” and “in majority” by Ms Sturgeon, an expert witness for Beef and Lamb²⁵, and as already noted some were supported by Dr Greer. For these reasons, when we refer to Schedule 26 from this point on it is the version included with the Reporting Officers s42A Report dated 19 May 2021, in so far as it is consistent with the NOF in the 2020 iteration of the NPSFM.
- 4.66 We have read carefully the discussion on the detail of Schedules 26 and 27 (as they were in PPC9) in the Reporting Officers’ s42A report. In some cases, we adopt their discussion and subsequent recommendations, as we agree fully with those points.
- 4.67 Two examples of this are the discussions on ammonia and nitrate as potential fish toxins. No changes were necessary to comply with the NOF in the 2020 iteration of the NPSFM, nor are any changes recommended from what was notified in PPC9. We are entirely satisfied that the target attribute states set in PPC9 for all TANK surface water catchments were for these potential toxins are appropriate. Accordingly, we adopt Paragraphs 1078 -1080 in the s42A Officers’ Report.
- 4.68 In other instances, insufficient data exists for us to make any changes from what was recommended in PPC9. General examples include suspended fine sediment (to be measured via the visual clarity of the water), deposited fine sediment, periphyton trophic state and the “fish index of biotic integrity” (which is a new requirement from the 2020 iteration of the NOF). Much of the “filling in of the data gaps” is left to the Kotahi Plan review.
- 4.69 We largely support this approach. We did consider whether less conservative visual clarity targets should be set for sites in the lower reaches of the Tūtaekurī and Ngaruroro rivers, as few sites meet those targets there. We believe however that the land use interventions provided for in PPC9 should significantly reduce sediment losses in many catchments, these target attribute states are not unrealistic.

²¹ These are the Macroinvertebrate Community Index, which is based on presence/absence of species in a set sample size, and the Quantitative MCI, which takes numbers of different species into account.

²² This stands for “average score per metric”, with MCI being one of its components.

²³ Technical Appendix 9 at pp4

²⁴ This was included as Technical Appendix 9 to the s42A report

²⁵ EIC of Catherine Sturgeon at Paragraph 27

Submissions on Schedule 26

- 4.70 A large number of submission points were made on Schedule 26.
- 4.71 Many submitters asked that PPC9 be amended to provide “a definition of what a change to production land use is to clarify what the provisions actually relate to” and “so that some land use change is enabled by requiring the management of nutrients to be done at the collective level”.
- 4.72 These submissions do not relate directly to Schedule 26 and are evaluated later in this chapter of our report when we discuss Schedules 29 and 30.
- 4.73 David Renouf sought that suspended solids and total P information should be taken from the RRMP and interpolated into Schedule 26, for instance in the Ngaruroro and Tūtaekurī Rivers. He did not seem to realise that visual clarity is another, equally accurate measure of suspended solid concentrations. Additionally, DRP is the measure of P (and not TP) for the different bands now included in the 2020 iteration of the NOF.
- 4.74 Each of NKII, TToH, MTT, the Department of Conservation, Federated Farmers and RFBPS made detailed submissions, each seeking specific changes or amendments to Schedule 26 as notified in PPC9. Some sought more conservative attribute targets in at least some settings; others less conservative attribute targets. There was also some significant support for what was included in Schedule 26 as notified in PPC9.
- 4.75 An example of more conservative attribute states being sought is NKII and DOC, who considered that the lowland tributaries of the Karamū catchment should be put in the A band for nitrate. Federated Farmers, considered that P concentrations in most of the TANK catchments should be less conservative than those specified in the NOF, while at the same time saying that “otherwise Schedule 26 should be aligned with the NPSFM 2020”. As there were many submissions requesting that we do comply with the NPSFM, within the scope of submissions, those seeking less conservative target attributes from those specified in the NOF must be rejected.
- 4.76 Our detailed decisions on each of these submission points are attached as Appendix 4 to our report. In some cases our decisions are based on the target attributes in the 2020 iteration of the NOF, which is what the Council is legally required to provide for. It cannot set targets below the “national bottom lines” specified in the NOF.
- 4.77 In relation to submissions on water quality parameters not included in the NOF, most notably DIN and periphyton cover, we are satisfied that the target values for these attributes listed in Schedule 26 are appropriate.
- 4.78 Similarly, we are satisfied that the attribute limits specified for the two estuaries are appropriate for those complex and dynamic environments.
- 4.79 Mr Tom Kay of RFBPS gave evidence on his Society’s submission. However, both the submission and his evidence dealt with the effects of river control works by the Council, and are beyond the scope of PPC9. We cannot legally consider submissions or evidence outside the scope of the proposed plan change. Likewise, some submissions and evidence covered activities such as gravel extraction and the effects of river control works, these too are out of scope.

Evidence on Schedule 26

- 4.80 Two witnesses provided expert evidence on Schedule 26 and its associated policies: Dr Michael Greer for Beef and Lamb and Ms Catherine Sturgeon for HortNZ. The latter focussed primarily on links between mapping and land use, and we discuss this in detail in our discussion on Schedule 28 below.
- 4.81 Dr Greer recommended that in Schedule 26 the word “maintain” in relation to sites with high water quality should always be changed to “no deteriorating trend”. We do not accept his recommendation, as Policy 5 of the NPSFM 2020 refers to water bodies with high water quality either being maintained, or if communities choose to do so, improved.
- 4.82 In Table 2 of his EIC Dr Greer helpfully pointed the links between MCI as an indicator of ecosystem “health”, and land use cover in some of the TANK catchments. As is the case throughout the country, catchments with high proportions of forest cover, along with extensive sheep and beef farming, almost invariably have significantly higher MCI scores than do smaller lowland catchments with more intensive land use, such as cropping or horticulture.
- 4.83 In some lowland streams in the TANK catchments relatively low MCI scores may be exacerbated by the presence of aquatic macrophytes in some water bodies, which may in turn be due to the removal of riparian vegetation and an accompanying lack of shading. We agree with Dr Greer that improved riparian management could contribute significantly to improving habitat quality in some lowland water bodies.²⁶ We similarly note that many of these lowland streams have been channelised, which produces more uniform habitat as (for instance) riffle and pool habitat is replaced by “run” habitat, and this in turn can also significantly impact habitat diversity, with flow on effects for MCI.²⁷
- 4.84 In their review of Schedule 26 following submissions being received, the s42A Reporting Officers recommended that the long-term target attribute state for “invertebrate community health” in a number of lowland streams should be Band B rather than Band C in the NPSFM. This is via a proposed significant increase in the target attribute states for indicators of macroinvertebrate community “health”. MCI for instance is recommended to be increased from 90 to 110, which is a very significant change.
- 4.85 There was not much explanation for these recommended changes in either Dr Haidekker’s report, any of the evidence, or in the s42A Officers Report. While there have been changes upward by (for instance) 10 MCI points in Table 14 of the NOF in the NPSFM 2020 from the long accepted “norms”, the national bottom line is that MCI be equal to or greater than 90, which is consistent for what was included in PPC9 in lowland streams.

²⁶ EIC of Michael Greer at Paragraphs 42-44.

²⁷ At some of the lowland stream sampling sites the “soft-bottomed” version of MCI is applied, but only where sediment accumulations in the bed of the watercourse are “natural” rather than being caused by land use in a catchment. These sites are Awanui Stream at Flume, Clive River U/S Whakatu Rail Bridge, Irongate Stream at Riverslea Road, Raupare Stream at Ormond Road, Taipo Stream at Church Road and Tūtaekurī Waimate Stm at Chesterhope. Importantly the MCI scores for such sites use the same scale and numbers as does MCI for all other sites.

Discussion and Findings – Macroinvertebrate Community “Health”

4.86 We consider that some of the target attribute states in lowland streams, as recommended to be modified from what was in PPC9 by the s42A Reporting Officers, are unrealistic and so are very unlikely to be achieved. As Dr Greer said in his evidence:²⁸

Nevertheless (degraded macroinvertebrate community health) is not unexpected given that lowland streams are often the most degraded due to increasing agricultural and urban intensity, both of which can lead to habitat modification, increased contaminant concentrations and greater sediment input.

4.87 For example, five lowland tributaries of the Karamū Stream have existing MCI scores of between 52 and 62.7²⁹. PPC9 sought to increase this to 90 or more, which is in Band C of the NOF, and which we would describe as highly aspirational in these small, intensively used catchments. However, some submitters sought that in lowland catchments such as these the long-term target attribute state should be Band B of the NOF. The s42A Reporting Officers supported this recommendation, one of the consequences of which would be to raise the long term MCI target in a number of lowland streams to 110 or more, which is in Band B of the NOF.

4.88 Two of the Hearings Panel well know what a stream with an MCI of about 110 looks like – which is an upland gravel stream with sequences of riffles and runs, and with low periphyton biomass in a catchment little modified by intensive agriculture. None of this describes the lowland streams in the TANK catchments, which are largely in catchments much modified by agriculture, in places realigned and straightened, and often without extensive gravel substrates or riparian vegetation. In our view a long-term target MCI of 110 is an impossible target that sets up the Council and the communities in such catchments to fail. Accordingly, the target for MCI in these lowland streams remains 90, consistent with what was notified in PPC9.

4.89 Exactly the same rationale applies to QMCI and APSM. Attaining Band C bottom lines for these other two measures of macroinvertebrate community health in many TANK lowland streams is highly aspirational; putting the long-term targets as Band B is setting an impossible threshold. Accordingly, we have retained Band C target attribute states for all three measures of macroinvertebrate community “health” in lowland streams. We use this term in the same sense as Dr Greer did (very helpfully) in Table 2 of his EIC, so in this context the 14 lowland streams (or more accurately the 14 lowland monitoring sites) we are referring to are:³⁰

- a) In the Ahuriri Catchment the Taipo Stream and the Wharerangi Stream.
- b) In the Ngaruroro Catchment the Waitio Stream, Ohiwia Stream and the Tūtaekurī-Waimate Stream.
- c) In the Karamū Catchment the Raupare Stream, Ruahapia Stream, Irongate Stream, Karewarewa Stream, Awanui Stream, Poukawa Stream, Herehere Stream, Mangarau Stream (Te Aute) and the Clive River.

4.90 It is not just lowland streams where we consider the long-term target attribute state sought for macroinvertebrate community “health” might be unrealistic. For instance, in the upper Ngaruroro catchment sites at Kuripapango and Whanawhana presently have MCI’s of 117. In PPC9 this was proposed to be increased to 130, and the s42A Reporting Officers’

²⁸ EIC of Michael Greer at Paragraph 40, slightly paraphrased.

²⁹ Such as the Karewarewa, Awanui and Poukawa Streams.

³⁰ There are no lowland stream monitoring sites in the Tūtaekurī Catchment.

recommended this be retained in PPC9. Our understanding of these two sites is that their upstream catchments are not much modified from their “natural state”, so it seems improbable that any significant interventions are possible to meet the MCI target (nor indeed any of the macroinvertebrate community “health” indices) at these two sites. However, we do not think there is any scope in submissions to change these values at such sites.

Recommended Target Attribute States for Other Parameters

- 4.91 For reasons we discuss below we have similarly decided to set Band C targets for some other parameters in these lowland catchments. These include DRP and *E. coli*, for which Band C targets are set in the NOF. DIN is not included in the NOF, so we discuss the two nutrients first, and then *E. coli*.

Discussion and Findings - Nutrients

- 4.92 Dr Greer opined that the non-compliance with the DIN and DRP Schedule 26 Objectives do not appear to be affecting ecosystem health in any meaningful way, as they are not linked to periphyton or macrophyte growth.³¹
- 4.93 We agree with him. Elevated levels of DIN and DRP in rivers and streams can accelerate periphyton growth, but the other main factors affecting periphyton abundance in rivers and streams are freshes and floods, photoperiod (i.e., day length) and temperature. High flows scour out periphyton; long sunlight hours, higher water temperatures and elevated nutrient concentrations reduce what is known as the accrual period, which is the time from the last significant fresh or flood that it takes periphyton to reach nuisance levels in rivers and streams. High periphyton biomass can in turn reduce habitat quality, affect macroinvertebrate community health (as measured by indices such as MCI), and make rivers and streams unattractive for contact recreation or activities such as angling.
- 4.94 Existing Schedule 26 DIN and DRP targets are not met in many of the TANK catchments. This raises the question of how appropriate they are, given that there is no strong link between nutrient concentrations and periphyton or macrophyte biomass in rivers and streams.
- 4.95 For DIN, we can determine the appropriate Target Attribute States in Schedule 26 as these are not specified in the NOF. In PPC9 these were set as <0.05 mg/l in headwater streams, < 0.15 mg/l in the mainstems of the Tūtaekurī and Ngaruroro Rivers, < 0.3mg/l in hill country tributaries and < 0.444 mg/l in lowland streams. We understand these to be based on ANZECC guidelines. No changes to these values were recommended by the s42A Reporting Officers.
- 4.96 Where sufficient data existed, which for many monitoring sites it did not, most TANK water bodies met these proposed targets, albeit with some notable exceptions.
- 4.97 In the water quality JWS Dr Greer sought these targets be set higher in all instances, specifically from <0.05 mg/l to <0.1 mg/l in headwater streams, from < 0.15 mg/l to < 0.63mg/l in the mainstems of the Tūtaekurī and Ngaruroro Rivers, and similarly from < 0.3mg/l to < 0.63 mg/l in hill country tributaries and to current state from < 0.444 mg/l in lowland streams.
- 4.98 Dr Haidekker said in the JWS that her recommendations were the “best available” to meet the objectives defined by the TANK Group through the consultative process. These are key metrics, and we believe it necessary to set realistic targets for DIN in Schedule 26, particularly given that Overseer, the main N loss model formerly used extensively to manage N losses from

³¹ EIC of Michael Greer at Paragraph 56

farming activities, can no longer be used. This, and given there is no determinative link between N concentrations in rivers and streams and periphyton growth, mean that we consider Dr Haidekker's recommendations to be too conservative.

- 4.99 Nor however do we agree entirely with Dr Greer. Having looked at the existing data, and having decided to set a Band C target for the lowland streams for other values in Schedule 26, it is more consistent with our other decisions to set the target attribute states at <0.1 mg/l in headwater streams, and <0.444 mg/l in each of the mainstem, hill country and lowland stream sites. Certainly, we can see no good reason why the mainstem and hill country sites should have more generous targets than do the lowland streams.³²
- 4.100 Exceptions to these general DIN target attribute states are provided for in catchments where existing water quality is already better than those targets. Examples include the mainstems of both the Ngaruroro and Tutaekuri Rivers.
- 4.101 We do not have a great deal of choice with DRP concentrations as the values listed in Schedule 26 have been updated to reflect the NOF attributes in the NPSFM 2020.³³ In PPC9 the Council chose to include the target attribute state for DRP in the A Band for the upper Ngaruroro and Tūtaekurī catchments, and in the B Band for all other areas. The catchments currently coded "red" for existing DRP concentrations are given longer than 2040 to reach Band B concentrations. The Council's water quality expert argued that this is because it is necessary to meet the outcomes set by the TANK Group.³⁴
- 4.102 We do not agree with this approach. Ten of the lowland catchments are presently in Band D or E (nine for both the median and the 95th percentile) for DRP, and so are in all instances a very long way from Band B.³⁵ Not surprisingly, they are much the same water bodies in which MCI is presently between about 52 and 65, and are predominantly in the Karamū Catchment. We have decided to be consistent and so we have also set a Band C target for DRP in the 14 lowland catchments.
- 4.103 In a similar context where sufficient data exists, the lowland streams are presently largely in Bands D or E for *E. coli*. Where this is the case, or where data is insufficient, we have applied the same rationale as we have for stream health indicators and DRP, and set the long-term target attribute state in Band C.
- 4.104 For all other matters relating to Schedule 26 we accept the s42A Reporting Officers' recommendations, which were not to change any other values in the Schedule.

³² EIC of Michael Greer Page 26

³³ Despite Dr Greer's apparent view to the contrary in his EIC at Paragraph 92

³⁴ See the comments of Dr Haidekker in the JWS under the heading of "DRP"

³⁵ In the other four lowland streams "insufficient data" exists to make an assessment, but it seems very likely that these would presently be in Band E for DRP.

Processes to achieve the target attribute states

4.105 It is all well and good setting target attribute states for many of the TANK water bodies in Schedule 26, but doing so is futile unless robust policies, rules and methods are in place to achieve these outcomes. In PPC9 these include:

- a) OBJ TANK 8 and POL TANK 11 - 13, which set out the framework as to how the Council will encourage and promote riparian management along the TANK rivers and streams, with a particular focus on lowland streams.
- b) POL TANK 16, which covers the management of *Phormidium*, which is a representative of a primitive group known as cyanobacteria.³⁶
- c) POL TANK 17 to 19 set out the Council's overall approach to achieving Schedule 26 target attribute states by what it called "an adaptive approach to nutrient and contaminant management". In PPC9 this was proposed to be put in place via Rule TANK 1, 2, 5 and 6 that sought to control some existing land use, and more particularly land use change, along with Schedules 28 (which lists priority catchments for where Freshwater Farm Plans would be required), Schedule 29 (which set out proposed nitrogen loss thresholds per property or farm enterprise) and Schedule 30 (which described how industry groups and catchment collectives were proposed to be organised and mandated). A large number of submissions, and a large volume of expert evidence, was dedicated to this topic area.
- d) POL TANK 20, which deals with sediment management.
- e) POL TANK 21 and 22 set out how the Council would regulate production land use change to reduce nitrogen losses to freshwater, and regulate to exclude cattle, pigs and deer from watercourses. TANK Policy 22 was supported by proposed Rules 3 and 4.
- f) POL TANK 23-25 set out how the Council proposed to facilitate industry programmes and establish catchment collectives, and, via POL TANK 26, how it would enforce compliance with these policies.
- g) POL TANK 27, which set out how the Council would measure and report on actions under the relevant policies that seek to improve water quality.

4.106 Nowhere else in the s42A Report are so many changes recommended to a large topic area. While many of these were in the original s42A Report, possible significant further changes to the rules and schedules were recommended for consideration in the Officers' "report back" on 21 June 2021, and subsequently included in the "pink" version of PPC9 dated 30 July 2021.

4.107 Part of the reason for this is that in evidence to, and during the hearing, Schedule 29 was strongly criticised by many parties. We detail this later in this decision. Suffice to say at this time that we are very grateful to the s42A Reporting Officers' for providing us with a possible pathway to delete Schedule 29, and integrate some of its requirements into Schedule 30. The reasons we have decided not to do this are detailed later in this chapter of our report.

³⁶ *Phormidium* has now been renamed *Microcelus*, but we will continue to refer to it largely under its old name, as that is the common nomenclature.

4.108 We now deal with the main topic areas in turn.

Riparian Management

4.109 OBJ TANK 8 is an outcome statement that sets out the Council’s overall approach to riparian management. The key outcome is improved riparian margins. Submitters sought to delete the objective, improve the way it is worded/add extra words, or supported the objective.

4.110 Grammatical amendments that improve the wording of the stem of the objective are recommended in the Reporting Officers’ s42A report. No other changes are recommended.

4.111 POL TANK 11 - 13 set out a framework for how the Council will “promote and support the establishment of riparian vegetation”³⁷, in conjunction with stock exclusion and setback regulations, along with some regulation of cultivation and indigenous vegetation clearance where this has significant adverse effects on watercourses.

4.112 The focus is primarily on lowland water bodies. Policy 11 specifically refers to benefits in the lowland tributaries of the Karamū River. Where appropriate, native species will be planted to “contribute to improving the region’s indigenous biodiversity”, and that “funding assistance”³⁸ will be provided.

4.113 Most submissions on POL TANK 11 - 13 were broadly in support of the provisions in PPC9. Some sought specific amendments to the policies which generally reflected the perspectives submitters had on PPC9. The s42A Officers’ report made several recommendations for changes to these policies in response to submissions. These generally improve the way the policies are worded, and now include a cross reference to POL TANK 27, which sets out milestones for achieving particular outcomes or activities, including riparian management.

4.114 No substantive evidence was led on OBJ TANK 8 or POL TANK 11 - 13.

Finding

4.115 We are satisfied that with the s42A Reporting Officers’ recommended changes, OBJ TANK 8 and POL TANK 11 - 13 should be retained in PPC9. No further analysis is necessary as the overall direction and context of these policy instruments has not changed from PPC9 as notified.

Management of Phormidium

4.116 POL TANK 16 sets out the Council’s approach to managing cyanobacteria outbreaks in rivers and streams in the TANK catchments. These cyanobacteria, which are very primitive organisms that are not readily evident to the untrained eye³⁹, can have adverse effects on human health and can be toxic to dogs.

4.117 Most of the cyanobacteria in TANK rivers and streams are likely to belong to the genus *Phormidium* (now called *Microcoleus*). There has been an increasing awareness in recent years of how prevalent *Phormidium* often is in rivers and streams. Elevated concentrations of nitrogen and phosphorous, in combination with stable or low flow conditions, are known to accelerate the growth of infestations of cyanobacteria.

³⁷ POL TANK 11

³⁸ POL TANK 12

³⁹ But which have a distinctive “musty” smell.

- 4.118 Four submissions were made on POL TANK 16, which sought a variety of changes to the policy. DOC for instance sought references to *Phormidium* should be replaced by the words ‘potentially toxic benthic cyanobacteria’, which may be more accurate but is very cumbersome.
- 4.119 Some minor changes are recommended to the policy; we agree with those. However, given that *Phormidium* is now called *Microcoleus*, we have changed the title of POL TANK 16 to read “Management of *Microcoleus* (formerly *Phormidium*)”.
- 4.120 No other analysis is necessary as the substance of the policy has not changed from what was notified in PPC9.

Managing Adverse Effects on Land Use on Water Quality

- 4.121 In PPC9 POL TANK 17 - 27, together with Schedules 28 - 30, set out the Council’s overall approach to managing the effects of land use in the TANK catchments on surface water quality. This embodied some very complex interactions between policies, rules and schedules. We will try to keep the following discussion as straightforward as possible rather than diving too deeply into complexities.
- 4.122 These policies come under a number of headings:
- a) POL TANK 17 - 19 are headed “Adaptive Approach to Nutrient and Contaminant Management”; they also refer to Schedule 28, which we discuss alongside them. In this section we also discuss POL TANK 21, which is headed up “Land Use Change and Nutrient Losses”, as this provides the proposed regulatory support for POL TANK 17-19.
 - b) POL TANK 20, which is headed “Sediment Management”.
 - c) POL TANK 22, which is headed “Stock Exclusion”, and in PPC9 was given effect by Rules TANK 3 and 4. For reasons we detail below, these provisions have all been deleted from PPC9.
 - d) POL TANK 23 - 25 are headed “Industry Programmes and Catchment Collectives”, which cross reference Schedule 30, which we discuss later in our report.
 - e) POL TANK 26 is headed “Management and Compliance”, and POL TANK 27 is headed “Timeframes, Water and Ecosystem Quality”. We discuss each of these in turn.

Background

- 4.123 Elevated concentrations of nutrients can accelerate the growth of periphyton and cyanobacteria in rivers and streams. They do this very largely via their biologically active forms, Dissolved Inorganic Nitrogen (DIN)⁴⁰ and Dissolved Reactive Phosphorous (DRP).⁴¹ Discharges of sediment can smother stream beds, which is difficult to remedy as silt is one of the most immobile particle grains in nature.
- 4.124 Nitrogen (N) and phosphorous (P) generally enter rivers and streams in different ways. N is very soluble and typically leaches to groundwater and from there can enter rivers and streams.

⁴⁰ This is often referred to as Soluble Inorganic Nitrogen (SIN), but we refer to DIN in this decision as that is what the Council have done.

⁴¹ Occasionally known as Soluble Reactive Phosphorous.

P is generally less soluble, and typically enters rivers and streams via overland flow, and is commonly associated with sediment running off into watercourses.

- 4.125 Faecal contaminants (as measured by the indicator species *E. coli*) also typically enter surface water bodies via overland flow. They can include pathogenic organisms that make water unsafe for contact recreation, and particularly swimming, as these “bugs” can cause diseases such as gastroenteritis in people. Excluding stock such as deer and cattle from watercourses can help limit direct faecal contamination of water. However, in some water bodies water fowl, such as ducks and geese, can contribute significant faecal loadings to watercourses.
- 4.126 Another important concept often referred to in PPC9 is that of “critical source areas” (CSA’s), which can be key sources of losses of sediment and P to watercourses. Typically, these are small areas, often with ephemeral flow, such as in gullies and laneways where contaminants can be concentrated, and when mobilised by water run-off into larger watercourses. For these reasons CSA’s need to be carefully managed so their potential effects can be avoided or mitigated.
- 4.127 As we have already said there is no direct causal link between elevated concentrations of DIN and DRP in rivers and streams and periphyton biomass, but these nutrients accelerate periphyton growth and higher concentrations will lead to more frequent “nuisance” accumulations of periphyton.
- 4.128 The approach in PPC9 to the management of nutrient run-off from farming activities in the TANK catchments were a mix of non-regulatory and regulatory approaches. The former were detailed in POL TANK 17-19 in PPC9; the latter in POL TANK 21 and Rules TANK 1,2, 5 and 6.
- 4.129 POL TANK 21 states that the Council will regulate production land use change, with a focus on managing diffuse discharges of nitrogen. The policy then sets out three decision making criteria. It says that land use change that that will result in increased N loss contributing to DIN target attribute states not being met, as per Schedule 26, is to be avoided.

Submissions and Evidence

- 4.130 Those who submitted on the whole policy framework for managing the adverse effects of land use on water quality fell into two main camps. First, a number of landowners, or umbrella organisations representing collectives of landowners, supported the overall policy framework; second, a number of submitters, many representing iwi authorities, sought a more regulatory approach to land use and land use change.
- 4.131 This dichotomy was reflected in evidence and legal submissions, where the overall approach to nutrient and catchment management in PPC9, as amended in the s42A addendum report, attracted both criticism and praise. The criticism is perhaps best summed up in the evidence of Ms Grey Wilson for NKII who said⁴²:

As currently drafted, the policies relating to the effects of land use on water quality are heavily dependent on non-regulatory measures and an adaptive management approach over time to nutrient management within the TANK Catchments. NKII is opposed to this approach because it does not provide a clear and certain pathway by which the water quality objectives of PPC9 and the targets in Schedule 26 will be met. I agree that a strengthening of the relevant provisions is required in this regard, given the extent of the

⁴² EIC of Grey Wilson at Paragraphs 62-64.

adverse effects of productive land uses being experienced in the catchments and the sensitivities of these catchments.

PPC9 states that a priority management approach is being implemented, and identifies high, medium, low and long-term priorities in Schedule 28 (now supported by maps to be included in the plan as per officer recommendations, which I support). However, the effect of the current wording of POL TANK 17 combined with the current structuring of Rules TANK 1, 2, 5 and 6 is that the fact that sub-catchments have been labelled as 'high priority' simply means that nutrient loss information and nutrient loss targets must be provided and identified by those undertaking activities encompassed by these rules. Combined with the current wording of POL TANK 18, the proposed priority management approach essentially defers any nutrient budgeting exercise until some future plan change.

This is similar to the fundamental basis of the water quantity provisions – that the focus for PPC9 for the next 10 years is to gather information, and then a new management regime/approach will be considered. This does not accord with a precautionary principle and I consider it is out of step with national direction which includes a certified Freshwater Farm Plans system as part of the Essential Freshwater packaged introduced in 2020.

4.132 Ms Wilson also agreed with NKII's position that "farm environment plans within the catchments must be mandatory to ... establish a framework through which land use activities can be managed with certainty and regulations are able to be enforced."⁴³

4.133 Other organisations took similar stances: examples include RFBPS and DOC.

4.134 The praise is best summed up in the legal submissions of Chris Thomsen, counsel for Beef and Lamb NZ⁴⁴:

PC9 is a courageous plan change. It is promoting an approach that is novel in New Zealand's RMA environment. As such, many parties have treated it with suspicion and are uneasy about its ability to achieve the outcomes contemplated by the NPSFM and other instruments. It is criticised as non-regulatory and enabling the status quo to continue. That is unjustified criticism.

B+LNZ submit the empowerment of communities and land users to make decisions on the management of freshwater resources when undertaking pastoral farming land uses can achieve the maintenance and, where necessary, improvement of the health and well-being of water to provide for the values of the TANK catchments. The key to this approach is enabling flexibility, innovation, and adaptation. B+LNZ seek an outcome that improves certainty and empowers the community at the sub-catchment level to manage and take responsibility for the health and well-being of water. It says any regulatory burden should be commensurate to the relative environmental impact or risk from an activity.

What makes PC9 so courageous is that it is a change from the traditional 'command and control' approach that has been the cornerstone of the regulatory environment. It is a step-change that links people to water bodies to improve their understanding of what works and what does not and gives them the power and flexibility to manage freshwater through a permitted activity regime using freshwater farm plans (FFP), industry programmes and catchment collectives.

⁴³ EIC of Grey Wilson at Paragraph 66.

⁴⁴ Legal submissions of Chris Thomsen for Beef and Lamb NZ at his Paragraphs 6-11.

B+LNZ say that the permitted activity regime can achieve freshwater outcomes if communities are empowered to make decisions on local and catchment levels because this leads to ownership of the problem and the solutions. The approach must be accompanied by a clear planning framework, so that people can understand what they need to do and, importantly, where they need to get to. This requires clarity in Schedule 30 and precision in Schedule 26.

B+LNZ is comfortable with both catchment collectives and FFPs. It does not have an industry programme. I am told that in many cases if a catchment collective is in place farmers will use farm plans as a way to order their thinking and contribute to the agreed outcomes. I am also mindful of the Part 9A farm environment plans that are contemplated by the RMA. Although it is important to note that the requirement for those plans is subject to the making of regulations and as best I understand it from the s42A report we do not know what will happen in this region.

B+LNZ is also comfortable with the catchment priority approach that is proposed. It agrees sediment is a contaminant of concern for the sheep and beef sector and is content with nitrogen use as a proxy for risk.

Discussion and Findings

- 4.135 One of the functions of Regional Authorities listed in s30 of the RMA is “the control of the use of land” for a number of purposes, including “the maintenance and enhancement of the quality of water in waterbodies and coastal water”, and for “the maintenance and enhancement of ecosystems in waterbodies and coastal water”.⁴⁵
- 4.136 How exactly a Council chooses to control the use of land for these purposes is an issue that has long vexed many regional authorities. But to our knowledge no Council has chosen to attempt to regulate directly non-point source discharges of nutrients from farmland. Rather what they have chosen to do is impose some controls on land use, or more particularly, land use change. For instance, there are many examples of Council’s using the (now discredited) Overseer model as a regulatory instrument to control applications of nitrogenous fertiliser to land in an endeavour to control N leaching to groundwater, and from there to rivers and streams. Such regulation was usually associated with initiatives to encourage communities to work collectively to improve water and habitat quality.
- 4.137 The structure of PPC9 is that Schedule 26 sets the 2040 (or longer) target attribute states for a range of contaminants, and instream biotic community “health” in each of the TANK catchments. In PPC9 as recommended to us, POL TANK 17, 18 and 21 set out the overall “adaptive” approach to managing adverse effects on water quality, and rules are established to complement this. These are Rules TANK 1, 2, 5, 6 and X⁴⁶.
- 4.138 In her evidence Ms Wilson criticised the Council for what she said was a policy approach heavily dependent on non-regulatory measures and an adaptive approach to nutrient management. We largely disagree with what she said; the proposed rules are regulatory instruments that enable the relevant clauses of the policies to be enforced. Rather we are broadly (but certainly not fully) in agreement with what Mr Thomsen submitted.

⁴⁵ Section 30(1)(c) of the RMA.

⁴⁶ Rule X was a new proposed land use change permitted activity rule in the “pink version” of PPC9. It is necessary because the rules are made under s9(2) of the RMA.

4.139 Accordingly, we are supportive of the overall approach in PPC9 to managing the adverse effects from land use on water quality in the TANK catchments, and that forms much of the basis for the discussion of POL TANK 17 - 27 below.

“Adaptive Approach” to Nutrient and Contaminant Management

4.140 In PPC9 POL TANK 17 - 19 and 21, together with Schedule 28, set out the policy framework proposed by the Council to manage the nutrients nitrogen (N) and phosphorous (P) in TANK rivers and streams. For POL TANK 17 - 19 Council called this an “adaptive approach”, and although we think this heading is somewhat misleading, we will use it here.

Submissions and Evidence

4.141 A large number of submitters opposed the “adaptive approach” because they claimed that in PPC9 these particular provisions in so far as they related to industry schemes were not well aligned with existing and established industry programmes such as GAP (Good Agricultural Practice) schemes.

4.142 These same submitters made identical submissions on POL TANK 23 and 24 and Schedule 30. It is the Schedule, which details how Industry Programmes and Catchment Collectives will be established and organised where these submissions are most relevant. We do not discuss them any further in relation to the TANK policy framework.

4.143 Other submitters, most notably those representing Iwi Authorities, sought a more regulatory (and in one instance punitive⁴⁷) approach to land use management. We have previously outlined the reasons why we do not support a stricter regulatory regime for land use management.

4.144 Mr Andrew Dooney, the planning expert for HortNZ, supported the adaptive approach to nutrient management and sediment in POL TANK 17 - 20. He also supported the Reporting Officers’ recommended amendment to Clause e) in POL TANK 18, and sought that these policies refer to all contaminants rather than focussing largely on N.⁴⁸

4.145 We have already briefly described what is in these policies in paragraph 4.140 above. We now discuss them in turn.

POL TANK 17

4.146 In summary POL TANK 17 says that the Council will meet Schedule 26 Target Attribute States by 2040 by using establishing programmes and processes via Freshwater Farm Plans⁴⁹, Catchment Collectives and Industry Programmes to ensure land managers adopt good practice, identify critical source areas of contaminants, adopt effective measures to reduce contaminant loss and prepare nutrient management plans for dissolved nitrogen in priority catchments, as shown in Schedule 28. In doing so Policy 17, as now recommended to us, indicates that N management will be used as a surrogate for nutrient management as a whole.

Submissions and Evidence

4.147 Most of the submitters on POL TANK 17 either sought minor amendments, more detail, or major rewrites of Policy 17. Some of the major rewrites sought were opposed by Federated

⁴⁷ Submission point 132.115

⁴⁸ EIC of Andrew Dooney at Paragraphs 47 and 49.

⁴⁹ Which are now encouraged by Part 9A of the RMA.

Farmers and others in their further submissions, and we find ourselves in general agreement with those further submitters on this particular matter. Our decisions on those submissions and further submissions are provided in Appendix 4 to this decision.

- 4.148 Most of the evidence on POL TANK 17 focussed either on improving the wording of the policy and/or on the lack of specificity and detail in the Policy, and associated Schedule 28.
- 4.149 The s42A Reporting Officers recommended a number of amendments to POL TANK 17. We would describe all those, apart from the final clause a)(iv), as making the language in the policy more consistent with the other relevant provisions in PPC9.
- 4.150 The final clause is a little more contentious. It includes what was POL TANK 19, and we support this change and the consequent recommendation that Policy 19 be deleted. However, the words that “the Freshwater Farm Plan required for the property shall include the “nitrogen loss rate and the nitrogen loss target” were recommended to be added by the Reporting Officers. This is broadly consistent with what was sought by Ravensdown (among others) in their submissions and evidence.

Discussion and Findings

- 4.151 The priority order specified in Schedule 28 comprises primarily of a table, which as now recommended to us by the s42A Reporting Officers sets out four different water quality-related parameters that were used to categorise catchments as being either high priority, medium priority or low priority catchments for the preparation of Farm Environment and Catchment Collective Plans and Industry Programmes. The stated intention is that such plans will be prepared within 3 years for the high priority catchments, 6 years for the medium priority catchments and 9 years for the low priority catchments.
- 4.152 In PPC9 as recommended to us the four parameters listed in Schedule 28 are: Sediment yield, Total Nitrogen (TN) yield, Dissolved Oxygen (DO) levels and Total Phosphorous (TP) yield. All of these except DO are modelled yields. These would be used collectively to determine the high, medium and low priority catchments. The priority areas for each of these four parameters are shown on associated Planning Maps 1-4 attached to Schedule 28, and Planning Maps 1 and 2 in Schedule 35. Originally the Council had not intended to include these maps in PPC9, but rather make them available as information. However, submitters sought more certainty, so now the Reporting Officers recommend they be incorporated into PPC9.
- 4.153 We support this “multi-contaminant” approach to setting priorities for future community led initiatives to reduce contaminant loadings in the water bodies that drain the areas they will be established in.
- 4.154 The other key component of this clause, as recommended to be amended, are the terms nitrogen loss rate, and nitrogen loss target, both of which are now recommended to be defined in the glossary of PPC9.⁵⁰
- 4.155 However, if these changes are made there is a significant inconsistency between the parameters listed in Schedule 28, and portrayed in Planning Maps 1-4, and the sole focus on nitrogen in Policy 17(a)(iv) in the recommended changes to PPC9.

⁵⁰ As neither of these terms were included in PPC9, the definitions are entirely new.

- 4.156 For this reason we have used some of the words originally in POL TANK 19, and have written the clause as follows to reflect the multi contaminant approach now included in Schedule 28 and the maps:

Include contaminant management provisions in Freshwater Farm Plans, Catchment Collective Plans or Industry Programmes according to the priority order for specific contaminants listed in Schedule 28 and portrayed by Planning Maps 1-4.

- 4.157 As a result of this change the recommended inclusion of the terms “nitrogen loss rate” and “nitrogen loss target” is no longer necessary, and these are no longer included in the glossary.

POL TANK 18

- 4.158 POL TANK 18 says the Council will collect information on nutrient loads, develop limits if the regime in POL TANK 17 is not working by the time the Plan is reviewed, regulate land use where significant risk of increased N loss exists, and working with stakeholders to undertake research and investigations. We read the potential for further land use regulation as being a “fall back” position – if collective non-regulatory measures described in POL TANK 17 are failing to meet Schedule 26 targets, then a more regulatory approach may be taken.

- 4.159 The amendments recommended to us by the s42A Reporting Officers do not change the intent of POL TANK 18; rather they tidy up the language and make it more consistent with that in all the water quality provisions in PPC9.

Submissions and Evidence

- 4.160 Submitters sought a variety of changes to POL TANK 18, including very specific submissions that would add considerable detail to the policy.⁵¹

Findings

- 4.161 We do not consider that adding more specific detail to the wording of POL TANK 18 is either necessary or helpful. The policy commits the Council to a range of actions, including research and investigations, working alongside industry groups. and actions if target attribute states for contaminants are not tracked towards what is specified in Schedule 26.

- 4.162 In terms of the requirements of s32AA of the RMA, the amendments made to POL TANK 17 - 19, along with those to Schedule 28, make PPC9 much more focussed on a dual contaminant approach. With Overseer no longer able to be used, the previous focus on N can no longer be justified, or indeed implemented. Incorporating the four planning maps attached to Schedule 28 into PPC9 adds certainty and clarity about what is required. Given this, we are satisfied that the amendments made are efficient and effective, and much improve over what was notified in PPC9.

Sediment Management

- 4.163 This was a heading that covered only POL TANK 20 which lists the Council’s priorities for the management of sediment run-off to surface water bodies, together with the P often associated with sediment.

⁵¹ Such as those from DOC, MTT and HortNZ

- 4.164 Four submission points were received, three from NKII. All sought a more regulatory approach to the management of sediment.
- 4.165 In our view it is not practical to regulate sediment run-off from diffuse sources on hill country. Rather we prefer the policy approach which focuses particularly on management of critical source areas, providing information and promoting, and in some circumstances supporting tree planting. This can now be achieved in a more targeted fashion, as the Planning Maps that now form part of Schedule 28 show areas of high, moderate and low risk of accelerated run-off of sediment, and these will be used to inform farm operators where priorities for collective management will be established.

POL TANK 20

- 4.166 POL TANK 20, as recommended to us, is almost unchanged from what was notified in PPC9. The only change recommended is to delete the reference to stock access, which we support because as discussed in paragraphs 4.210 – 4.217 below, we have deleted references to stock access restrictions throughout PPC9 (given the promulgation of the Resource Management (Stock Exclusion) Regulations in 2020). For this reason we support this change.

Submissions and Evidence

- 4.167 All the submissions on POL TANK 20 were from landowners, who sought that PPC9 be amended either:
- a) so that some land use change is enabled by requiring the management of nutrients to be done at a collective level; or
 - b) to provide a definition to what a change in production land use is to clarify what the provisions actually relate to.
- 4.168 Neither of these submission points are relevant to POL TANK 20. We deal with them elsewhere in this decision.
- 4.169 The only evidence on POL TANK 20 was from Ms Wilson for NKII. The nub of her criticism was that the policy is “largely non-regulatory and does not appear to take account of the priority management approach.”⁵² In particular she sought that land use in priority catchments vulnerable to erosion be regulated.

Discussion and Finding

- 4.170 As we have already discussed, and discuss further immediately below, we do not support a more strictly regulatory regime to land use in the TANK catchments.
- 4.171 Having said that, as we have discussed in relation to POL TANK 17 and 18 above, we do support a “multi contaminant” approach to determining priority catchments in which Catchment Collectives and the like must reduce contaminant loadings to meet Schedule 26 target attribute states. One of those contaminants is sediment; the other three are modelled DO, TP (which commonly enters watercourses via overland flow in association with sediment) and TN.

⁵² EIC of Grey Wilson at Paragraph 74

POL TANK 21

- 4.172 The policy sets out the Council’s approach to regulating land use change and sets out four decision making criteria to help make decisions on applications to change production land use. It focuses particularly on the management of diffuse sources of run-off of nitrogen from production land, and its effects on surface water quality. In broad terms the four criteria are:
- a) Whether target attribute states, as detailed in Schedule 26, are being met in the catchment where the activity is proposed to take place.
 - b) If an Industry Programme or Catchment Collective is in place, the extent to which the proposed land change is consistent with the outcomes, mitigation measures and timeframes listed in the relevant instrument.
 - c) The types of mitigation measures proposed, including for instance good management practice, efficient use of nutrients and minimising nutrient loss.
 - d) Finally the policy says that land use change that will result in increased N loss that in turn contributes to Schedule 26 target states not being met is to be **avoided**.⁵³

Submissions and Evidence

- 4.173 There were a wide range of submissions on POL TANK 21. Many of those sought that Catchment Collectives and Industry Programmes manage land use change in accordance with the 2040 timeline for meeting (what are now) target attribute states.
- 4.174 Some of these submitters sought that Policy 21(d) be amended to make it subject to the previous three limbs of the policy, or be deleted altogether.
- 4.175 Industry groups, most notably Federated Farmers and HortNZ sought amendments primarily specific to the particular activities that they represent in the TANK catchments. On the other hand, organisations such as DOC sought specific changes to make the approach more regulatory, and RFBPS asked that the policy be amended to provide more direction and clarity. For instance, HortNZ asked that the limb of the policy be amended to take account of crop rotations, which the reporting officers recommended we accept.
- 4.176 In his evidence on behalf of HortNZ Mr Dooney⁵⁴ sought an addition to Policy d) that would qualify the word “avoid” with a cumbersome proposed addition, which sought that land use change could occur in a catchment which already met Schedule 26 attribute state targets, and that the change will result in an improvement in those target attribute states.
- 4.177 We struggle to envisage a situation where such an exception could apply. It would have to be from an intensive land use to a less intensive land use, which we believe runs contrary to what Mr Dooney sought on behalf of HortNZ. For these reasons we do not support his proposed amendment.

Discussion and Findings

- 4.178 As we have already discussed under the heading POL TANK 17, we do not support the focus on nitrogen management in PPC9 as recommended to be modified in the Reporting Officers’

⁵³ Emphasis added.

⁵⁴ EIC of Andrew Dooney at Paragraph 111.

s42A reports. For this reason we have re-written POL TANK 21 by returning in large part to what was notified in PPC9 and focussing on both N and P. It now reads as follows:

The Council will regulate production land use change to manage the potential impact of increases of diffuse discharges of nutrients on freshwater quality objectives and in making decisions on resource consent applications the Council will take into account:

- a) whether target attribute states are being met in the catchment where the activity is to be undertaken;*
- b) where a relevant TANK industry programme or catchment collective is in place the extent to which the changed production land use activity is consistent with the Industry Programme or collective outcomes, mitigation measures and timeframes; and*
- c) any mitigation measures required and timeframes by which they are to be implemented that are necessary to ensure that nutrient losses occurring from the property, in combination with other nutrient losses in the catchment, will be consistent with meeting 2040 target attribute states in Schedule 26, including;*
 - (i) performance in relation to good management practice,*
 - (ii) efficient use of nutrients, and*
 - (iii) minimisation of nutrient losses.*

And will;

- d) avoid land use change that will result in increased nutrient losses that contribute to target attribute states in Schedule 26 for DIN and DRP not being met.*

4.179 The amendments we have made to POL TANK 21 are analogous to those made to POL TANK 17 - 19 and Schedule 28. In terms of the requirements of s32AA of the RMA, the amendments made to POL TANK 21 make PPC9 much more focussed on a dual contaminant approach. With Overseer no longer able to be used, the previous focus on N can no longer be justified, or indeed implemented. Given this, we are satisfied that the amendments made are efficient and effective, and much improve over what was notified in PPC9.

Land Use Rules in PPC9

4.180 In PPC9 POL TANK 21 was proposed to be implemented in large part by:

- a) Rules TANK 1 and 2, which were respectively permitted and controlled activity rules relating to existing land use; and
- b) Rules TANK 5 and 6, which were respectively controlled and restricted discretionary activity rules relating to land use change.

4.181 In the “pink version” of PPC9 dated 30 July 2021 an additional permitted activity rule was recommended to us for land use change. It was labelled Rule X.

4.182 To qualify as a permitted activity under Rule TANK 1, a farm operator must be part of a TANK industry programme or catchment collective, must have prepared a Freshwater Farm Plan, and if in a high priority catchment for N loss (as per the planning maps attached to Schedule 28) must be actively managing N loss from the property. Failing to meet any of these requirements means the farm property requires a consent as a controlled activity under Rule TANK 2.

- 4.183 Broadly speaking in PPC9 Rules TANK 5 and 6, which seek to manage land use change, were structured in a similar way to Rules TANK 1 and 2, but the activity classifications were (appropriately) more restrictive as controlled and restricted discretionary activities. More specifically, Rule TANK 5 applies to land use change within a Catchment Collective Plan, whereas Rule TANK 6 applies to land use change outside such programmes or collectives.
- 4.184 In the “pink version” of PPC9 the Reporting Officers also recommended that a new permitted activity Rule X be added to PPC9. This is necessary because otherwise all significant land use change would require a resource consent under either of Rules TANK 5 or 6.
- 4.185 Before discussing these rules it is important to provide some more context. On 3 July 2020, which was after PPC9 was notified, the Government introduced a new Part 9A to the RMA, with associated amendments to s217 of the Act.⁵⁵
- 4.186 Among other things these provisions set out requirements for farm plans, the size of farm the section applies to and the duties and functions of farm operators and Councils, and regulations that might be introduced for the content, certification processes and auditing of Farm Plans. It also introduced a number of definitions, which consistent with a number of submissions, are all now included in the glossary of PPC9.⁵⁶
- 4.187 In relation to the rules the Reporting Officers recommend that these be amended to reflect the farm size and activity thresholds set out in the NES-FM and s217D of the RMA. These are intended to provide consistency across Councils and industry around the country.
- 4.188 Accordingly, in PPC9, as recommended with amendments, in all the land use rules the description of the activity follow Part 9A of the RMA, and the descriptions of farm areas and farm types to which the rules apply follow the criteria in Regulation 8 of the NES-F. We consider these changes accurately reflect the intention of these national instruments. For this reason, we support these changes, as recommended to us and set out in Paragraph 923 of the s42A report. An example of this is that the activity descriptions in the land use rules now follow what is prescribed in s217D.
- 4.189 These same amendments are also highly relevant to the way Schedule 30 is now recommended to be worded in PPC9, and we discuss them further under that subject heading.
- 4.190 As have discussed in several places elsewhere Overseer cannot presently be used in any regulatory context, so we have removed all reference to it in the land use rules.
- 4.191 One other significant change recommended by the s42A Reporting Officers’ to Rule TANK 5 is that the non-notification provisions be tied back to the 2040 target attribute states in the catchment being met, rather than the more general non-notification provision set out in PPC9, so it is unlikely that this provision would apply to many land use change applications under Rule TANK 5.

Submissions

- 4.192 There were over 20 submissions on the proposed TANK rules in general. Many opposed Rule TANK 3 (which as discussed earlier in our report will be deleted from PPC9) and Rule TANK 7,

⁵⁵ A much more thorough explanation of this, and how it relates to the provisions notified in PPC9, is given in Paragraphs 864 – 923 of the Officers’ s42A Report.

⁵⁶ See the Officers’ report at Paragraph 868.

which is permitted activity allowing small takes of water. This rule is discussed in Chapter 9 of our report.

- 4.193 Three parties sought reference to Source Protection Zones be deleted from Rules TANK 4, 5, 6, 9 and 10. These submissions have not been accepted; the reason Source Protection Zones exist is to ensure municipal water supplies are safe for drinking, and so are protected from contamination from activities on the land.
- 4.194 There were over 150 submission points on Rules TANK 1, 2, 5 and 6 as listed in PPC9. A few of these submissions supported one or more of these rules, but most sought specific amendments, particularly to Rules TANK 5 and 6. Among the main changes requested were that more liberal rule thresholds together with a more liberal consenting framework should be applied, whereas several parties, including DOC, NKII and MTT, submitted that a more conservative approach to land use change should be embodied in these rules.
- 4.195 Some of the submission points have been overtaken by the provisions of Section 9A, and specifically s217 of the RMA, which sets thresholds for when a particular land use can be considered to have “changed”. As discussed above, we have followed the provisions of the RMA in this regard.

Evidence

- 4.196 Mr Dooney, an expert witness for HortNZ, made some substantive comments about Rules TANK 5 and 6, as recommended to be amended by the Officers in their s42A Report. He considered that there were inconsistencies in the way these rules were drafted, and who or what could apply for consent under the rules and made a number of suggestions for how they could be improved⁵⁷. Most of his suggestions were recommended to be accepted by the Officers in their s42A Addendum Report.
- 4.197 Ms Wilson, an expert witness for NKII, proposed that for each of the four land use rules in PPC9 (i.e., Rules TANK 1, 2, 5 and 6) the activity status would each become one step more restrictive; specifically permitted Rule TANK 1 would become controlled, controlled Rules TANK 2 and 5 would become restricted discretionary and restricted discretionary Rule TANK 6 would be fully discretionary.
- 4.198 On a similar theme Ms Taylor, an expert witness for Ravensdown, suggested that Rule TANK 5 be deleted, and Rule TANK 6 be made a fully discretionary activity.

Discussion and Findings – Rule Framework

- 4.199 We do not see all the changes sought by Ms Wilson as being either effective or efficient. If her proposed rule hierarchy were to be in place, any farm land in the TANK catchments that exceeded the size thresholds from s217 of the RMA would have to seek a resource consent, with all the associated costs to the property owner, as well as an extra drain on Council resources. In our view it is much better to incentivise farmers on existing properties who do not seek to change land use, to be able to comply with what we see as quite strict permitted activity standards. Or to put it more colloquially, in these circumstances we see the “carrot” as being much appropriate than the “stick”. Using the same analogy, if farm operators do not take the “carrot”, a resource consent application will have to be pursued.
- 4.200 Similarly, we do not see any good reason why Rule TANK 5 should not remain as a controlled activity, as it would incentivise catchment collectives to seek resource consents for land use

⁵⁷ EIC of Andrew Dooney at his Paragraphs 86 -97.

change within catchments. While this consenting pathway may not be used for some years, we believe it is worthwhile as it will encourage the formation of and collaboration by catchment collectives. For the same reasons we do not support Ms Taylor's proposition that Rule TANK 5 should be deleted and all significant land use change dealt with as a discretionary activity.

- 4.201 However, we do not accept the Reporting Officers' recommendation that non-notification of controlled activity applications for land use change by Catchment Collectives should be tied back to meeting 2040 target attribute states set out in Schedule 26. If this provision were to remain it is likely any applications made under Rule TANK 5 would have to be notified for many years to come. In our experience few controlled activity applications need to be notified, and if they are to be incentivised by PPC9, a general non-notification provision is entirely appropriate.
- 4.202 Ms Wilson also suggested the use of nutrient budgets and a "nitrogen cap" in the rules, noting that the use of this has (now) come into effect in the NES-F, where it is set at 190 kg/N/ha/y. In our view nutrient budgeting would be highly problematic in the TANK catchments.
- 4.203 There is a thorough discussion on the difficulties associated with any regulatory centred form of nutrient budgeting in the s42A Report. We accept the rationale expressed in Paragraphs 677 to 693 of that report, as we believe this accurately sets out the manifest difficulties associated with nutrient budgeting. For these reasons we do not support such a "tool" within PPC9.

The Land Use Rules

- 4.204 A consenting approach to land use change is however quite different to consenting existing land uses. In response to submissions and evidence Reporting Officers recommended to us a new Rule X in the "pink version" of PPC9, which would allow some minor land use change as a permitted activity, subject to a number of performance standards.
- 4.205 We are generally satisfied that Rules TANK 1, 2, 5 and 6, with most of the amendments recommended to us by the Reporting Officers, with some additional clarification to and simplification of the latter two rules, appropriate to manage production land use, and land use change, in the TANK catchments. Examples in Rules TANK 5 and 6 include cross-references to Rule X, referring to s9(2) of the RMA in the "activity" column, referring to POL TANK 61, which addresses climate change as an assessment criterion and more clearly specifying what is covered by Rule TANK 5 versus Rule 6. Working in Catchment Collectives, and/or preparing Freshwater Farm Plans, with associated N loss modelling in sensitive catchments is incentivised, and we support that approach.
- 4.206 As we subsequently discuss below, we have decided to redraft Schedule 29 in a way that primarily informs when Rules TANK 5 and 6 will be applied in a situation where a land use change potentially results in an increase in N leaching from a property.
- 4.207 We initially had reservations however about proposed Rule TANK X as drafted in the "pink version" of PPC9. There were two reasons for this. First, the thresholds for land use change remained the same size and scope as they are for other land use change rules TANK 5 and 6. Second, a key requirement for larger land use change was that the change in nitrogen loss using Overseer or a similar nitrogen loss model was to be less than 10%⁵⁸. As discussed in paragraphs 2.89 - 2.101 of our report, nitrogen loss modelling, and particularly the use of

⁵⁸ Noting that if Overseer was still a viable nutrient loss model, we would have made Clauses a) and b) of the recommended Rule X conjunctive.

Overseer, has been strongly discredited since the hearing of submissions and evidence on PPC9.

- 4.208 So while we did not support the recommended wording of Rule TANK X in the “pink version” of PPC9, we did accept that this permitted activity rule was an essential component of the land use change rule hierarchy, as without it there would be uncertainty about what land use change activities did not require consent under Rules TANK 5 and 6. Accordingly we asked the Reporting Officers’ how this rule could be amended, particularly in light of the major amendments recommended to Schedule 29 (which for reasons discussed under that heading below we have accepted).
- 4.209 There is one instance where the Reporting Officers now recommend land use change needs consent under Rule TANK X. This is where any increases in the amount of land used for winter grazing on a property is more than 10ha, and/or that potential for N loss leaching is increased under the (now amended) provisions of Schedule 29. The permitted activity threshold for changes that could increase N leaching are either 10 or 20ha, depending on the potential effects of the change. We support these proposed amendments.

POL TANK 22 and the NES-F Stock Exclusion Regulations

- 4.210 In PPC9, POL TANK22 and Rules TANK 3 and 4 addressed stock exclusion provisions. Rule TANK 3 was a permitted activity and Rule TANK 4 a restricted discretionary activity.
- 4.211 The need this policy and associated rules was brought into doubt by the introduction of new stock exclusion regulations in the NES-F 2020. The regulations came into effect immediately for what are defined in the regulations as new pastoral systems⁵⁹, but for existing deer, pigs and cattle properties, the commencement dates are either 1 July 2023 or 1 July 2025, depending on the category of stock, the underlying land and the specific feature that the stock are to be excluded from.
- 4.212 The regulations apply to deer, pigs and cattle; the latter include beef cattle, dairy cows and dairy support properties. They do not apply to sheep.
- 4.213 In the NES-F there is a general requirement that stock be kept at least 3 metres from the edge of lakes and “wide” rivers (which are defined as having a bed more than 1 metre wide on any part of a land parcel). This is known as the 3-metre setback rule. Exceptions exist: stock are allowed to enter the setback to enter or exit a dedicated bridge or culvert, or to cross a wide river or lake, but not more than twice a month.⁶⁰
- 4.214 Stock are also required to be kept out of natural wetlands that are identified in a regional or district plan, or a regional policy statement on the commencement date, or a natural wetland that supports a threatened species, or a natural wetland of more than 50 square metres on low slope land. Natural wetlands are defined in the NES-F regulations.
- 4.215 A more stringent rule in a regional plan would prevail over these regulations. However, the provisions in the PPC9 are considerably less stringent than those set out in the Stock Exclusion regulations, and the regulations would prevail over the plan provisions. For this reason, the s42A Reporting Officers recommended that this policy and the two associated rules be deleted from PPC9.

⁵⁹ i.e. on 3 September 2020

⁶⁰ Quite how this could be enforced bemuses us.

Finding

4.216 We agree with the Reporting Officers' recommendation, and so POL TANK 22, and Rule TANK 3 and Rule TANK 4 have been deleted from PPC9.

S32AA Analysis

4.217 The only reservation we have about this is that it is possible that in future iterations of the NES-F regulations stock exclusion provisions could be made more lenient, and so the PPC9 stock exclusion provisions could possibly be more stringent than the regulations. We believe however that retaining the existing provisions in PPC9 "just in case" would be unduly confusing for farm operators.

Industry Programmes and Catchment Collectives

4.218 POL TANK 23 -25 come under this heading, which has been changed slightly in PPC9 to make the language more consistent with s217 of the RMA (i.e., the change from catchment management to catchment collectives). We support this change.

Submissions and Evidence

4.219 Submitters on this topic sought various changes, including deleting these policies,⁶¹ and strong support for the policies. Many of the other submission points, such as those from NKII, restated what they had said elsewhere, and we have dealt with many of those elsewhere in this decision. As stated there, we certainly agree with their submission that management of land use and land use change must be aligned with (what are now) the achievement of the Target Attribute States set out in Schedule 26.

POL TANK 23 and 24

4.220 In broad terms POL TANK 23 and 24 put the onus on the Council to support and monitor the establishment of Industry Programmes and Catchment Collectives. POL TANK 23 sets out how the Council will support such programmes: examples include supporting the development of good practice, local investigations and models to assist identifying critical source areas. POL TANK 24 focuses particularly on timeframes, auditing and reporting of the performance of industry groups, collectives (including individual performance) ensuring that Catchment Collectives and Industry Programmes are consistent with Schedule 30 requirements and are making progress towards the target attribute states in Schedule 26.

4.221 While a significant number of changes to these policies have been recommended to us by the s42A Reporting Officers', many use the same improved/more precise language as other policies relating to water quality. Examples include replacing the term "landowner" with "farm operators" and replacing the general term "objectives" with the more precise "2040 target attribute states". The majority of changes recommended to us for these policies are for consistency and clarity, and we will not discuss those further here.

Submissions and Evidence

4.222 As we have already noted a large number of submitters opposed POL TANK 23 and 24 because they claimed that in PPC9 these particular provisions in so far as they related to industry schemes were not well aligned with existing and established industry programmes such as GAP schemes.

⁶¹ Submission Point 123.58 from DOC

- 4.223 These same submitters made identical submissions on the adaptive approach to catchment management and Schedule 30. It is the schedule, which details how Industry Programmes and Catchment Collectives will be established and organised where these submissions are most relevant. They are not relevant to POL TANK 23 and 24
- 4.224 On behalf of Ravensdown Ms Taylor supported the recommended changes to these two policies, saying that they provide for the consistent use of terminology and are more aligned with Part 9A of the RMA.⁶²
- 4.225 In the Appendix to his evidence Mr Dooney set out HortNZ's recommended changes to POL TANK 24. We note that many of the changes he sought have been recommended to be included in POL TANK 24 by the Reporting Officers.

Finding

- 4.226 We support the provisions set out in POL TANK23 and 24, and consider that with the incorporation of the amendments recommended to us by the s42A Reporting Officers', they should be retained.

POL TANK 25 and 26

- 4.227 These two policies set out what will be required of farmers who either do not join Industry Programmes or Catchment Collectives, or do not comply with their requirements. Both these policies were notified in PPC9; amendments are recommended in both cases, but these are entirely to update terminology and language consistent with s9A of the RMA and the (now much amended) Schedule 30 of PPC9.
- 4.228 POL TANK 25 states that if a farm operator is not part of an Industry Programme or Catchment Collective, they must develop and implement a Freshwater Farm Plan.
- 4.229 A variety of submissions were made on POL TANK 25, varying from supporting it to deleting it. No significant evidence was led on this policy.
- 4.230 We support the policy as recommended to be updated by the Reporting Officers. Deleting the policy would leave a vacuum in PPC9 by not specifying what can happen when a farm operator does not join or comply with a Catchment Collective or Industry Programme.
- 4.231 POL TANK 26 specifies what actions may occur if a farm operator is part of a Catchment Collective or Industry Programme but does not carry out their activity or otherwise act in a manner that is not consistent with the provisions agreed by the wider group. These actions vary from conflict resolution through to requiring a separate Farm Freshwater Plan be prepared and possible enforcement action.
- 4.232 Again, a variety of submissions were made: some in support, while DOC sought a more directive approach to enforcement action and Federated Farmers sought that more effort should be made to encourage compliance with the requirements of the Industry Programme or Catchment Collective. No substantive evidence was led on this policy.
- 4.233 We support the policy as recommended to be updated by the Reporting Officers. To us it strikes the right balance between endeavouring to resolve any conflicts, through to preparing

⁶² EIC of Carmen Taylor at her 3.10(a).

a “compulsory” Farm Freshwater Plan within a specified timeframe, and to enforcement action if this is deemed essential.

POL TANK 27

- 4.234 This policy focusses on the timeframes and “milestones” that the Council says it will meet to implement various actions it has committed to within PPC9. These actions are: riparian planting and riparian management (as specified in POL TANK 13 - 15), sediment mitigation (in accordance with sections of POL TANK 20), wetland management and improvement (in accordance with sections of POL TANK 15) and nutrient management plans (in accordance with Schedule 28).
- 4.235 The Reporting Officers have recommended a number of amendments be made to the table in POL TANK 27; these reflect for instance that a stock exclusion policy and rules have been deleted from PPC9 as the NES-F regulations are more stringent.
- 4.236 Ten submissions were received; two opposed the policy while seven others sought that it either be deleted or made specific points about its content.
- 4.237 We strongly support the retention of POL TANK 27. If the Council itself commits to specific actions, particularly those that will improve environmental outcomes such as for riparian management and wetlands, there must be a means by which it can be held to account. We also support the Reporting Officers’ recommended amendments.

Schedules 29 and 30

- 4.238 This section of our report deals with TANK Schedules 29 and 30. Schedule 29 outlines how the Regional Council intends to inform Rules TANK X, 5 and 6 of PPC9, which regulate land use change in the TANK catchments, in terms of the risk of nitrogen leaching loss. Schedule 30 prescribes how landowner Catchment Collectives, Industry Programmes and Freshwater Farm Plans (FW-FPs) shall be achieved to implement various policies and rules of PPC9.

Schedule 29: Land Use Change

- 4.239 One of the difficulties now facing the Regional Council, and indeed regional authorities throughout New Zealand, is that Overseer, which was formerly used to regulate nitrogen leaching losses from production land, has been found to be fatally flawed. Government no longer advocates that it be used as regulatory tool, so we have taken out all references to Overseer in PPC9. Preliminary issues – Nitrogen Leaching Models are discussed in more detail in paragraphs 2.89 – 2.101 of our report.
- 4.240 This is important because Schedule 29, as detailed in PPC9, included references to Overseer, SPASMO⁶³ or an alternative model approved by HBRC. SPASMO is only considered a useful alternative to Overseer for horticultural crops, and no other credible alternative models exist at the present time. Overseer was very much the main N leaching model “in the tool box”

⁶³ This is a model owned by Plant and Food Research which, unlike Overseer, is not available for public use.

when PPC9 was notified (and indeed when submissions on PPC9 were heard in 2021), but it currently has no credibility.⁶⁴

- 4.241 During the hearing process we questioned the utility of Schedule 29, particularly as a large number of submitters questioned its place in PPC9 in their evidence. At their report back on 22 June 2021, the Reporting Officers provided a possible alternative that would take out Schedule 29 from PPC9, include parts of it in Schedule 30, and include the balance in advice provisions.
- 4.242 Initially we were attracted to that possible option. However, this was before Overseer lost its credibility as a regulatory tool, and so can longer be used in (for instance) rules or schedules in PPC9.
- 4.243 In light of this we now consider that Schedule 29 needs to be retained in PPC9 to give guidance as to how the land use change rules will be applied when N leaching losses can potentially (but not necessarily) increase, as a result of such change. In saying that we acknowledge that much of what was in Schedule 29 in PPC9, most notably the two tables that referred respectively to nitrogen and nitrogen loss thresholds, no longer have any place in PPC9.
- 4.244 The Officers' s42A Report also recommended that these two tables from PPC9 be deleted and replaced by a table that listed land use types and their relative N leaching rate or risk of N leaching. The same approach was used in the Officers' s42A Addendum Report, albeit with some further changes to their new Table 1.
- 4.245 We still considered the amended Table 1, and particularly the text above it, was cumbersome and unnecessarily confusing. For this reason, we asked the Reporting Officers for an updated version of Schedule 29, based around the amended Table 1 and a brief description of how it would be used. The version finally proposed by the Reporting Officers, together with a proposed amended definition of land use change is shown in Appendices 2 and 3 attached to our decisions on PPC9.
- 4.246 We consider this version of Schedule 29 to be a great improvement on what was in PPC9, and in previous iterations of this Schedule put forward by the Officers in their original s42A Report, the addendum report and the "pink version" of PPC9. In saying this all those previous recommended versions of Schedule 29 were provided before Overseer was abandoned as a regulatory tool by the Government, and so were outdated by the time we came to finalise our decisions on PPC9.
- 4.247 It is this new Schedule, and particularly Table 1 and the amended definition of land use change, that we now focus on in the following discussion.

Submissions on Schedule 29

- 4.248 Over 100 submissions were received on Schedule 29. The majority were pro-forma submissions that sought PPC9 be amended to either "provide a definition of what land use change actually is to clarify what the provisions actually relate to"⁶⁵, or that "some land use

⁶⁴ Work is underway on developing a new and more reliable version of Overseer, but this is unlikely to be available for several years.

⁶⁵ As we have included a definition of "land use change" in PPC9, these submissions are accepted (in part)

change is enabled to by requiring the management of nutrients to be done at the collective level.”⁶⁶

- 4.249 Other submissions sought a “flat rate” per hectare permitted activity threshold for land use change, that greater areas be allowed to change as of right, or provided other (generally somewhat liberal) suggestions as to how land use change could be managed.

Evidence on Schedule 29

- 4.250 In discussing this evidence, it is important to note that it was all prepared at a time when Overseer was seen as a robust model for determining N loss from production land activities. This means much of what was said, including criticism of the new Table 1 recommended by the Reporting Officers in the s42A Report dated 15 April 2022. Dr Davoren said that the Reporting Officers’ newly recommended Table 1 is “not an improvement and is not a sensible or robust alternative” and that it is “highly subjective”.⁶⁷ He also asserted that “each level assumes every farming enterprise in the land use type will have the same or fall into a range of unspecified nutrient loss”.⁶⁸
- 4.251 Dr Davoren said that the schedule must “directly address nutrient limits and targets”, and that a multi-nutrient approach was necessary.⁶⁹
- 4.252 In his evidence prepared for HortNZ Mr Ford was also critical of Schedule 29, and particularly (the new) Table 1. He said this could produce “some quite perverse results” as it is “impossible to rank land use types according to their N leaching risk categories with any degree of certainty or accuracy because of the massive variability in N leaching losses both within and between land use types”.⁷⁰
- 4.253 Mr Ford opined that limiting land use change that had the potential to increase the amount of N leached from land uses could be “much more effectively managed by making a rule which deals with the issue of N leaching loss in a far more direct way than the current method which deals with it in a quasi and inappropriate manner” and that he preferred the notified Schedule.⁷¹

Discussion and Findings

- 4.254 We consider the criticisms put forward by Dr Davoren and Mr Ford both misunderstand the purpose of Schedule 29. It is not meant to provide any definitive assessment of leaching losses from different activities in different locations; rather its purpose is to inform the land use change Rules TANK X, 5 and 6 about the circumstances in which consent might be necessary for a particular land use change. In many cases consent will not be necessary – if for instance one horticultural land use is changed to another, despite possibly higher N leaching loss rates from the new land use as modelled by Overseer. If (for instance) however pastoral land use is to be changed to dairying or arable farming use, consent may be required under one of the rules.

66 These submissions are also accepted in part, as Rule TANK 5 is a controlled activity that will (eventually) allow consents to be granted via the work of a catchment collective or the like.

67 EIC of Dr Tony Davoren for Atapu Farms Ltd at his Paragraphs 37 and 38.

68 EIC of Dr Tony Davoren for Atapu Farms Ltd at his Paragraph 40.

69 EIC of Dr Tony Davoren for Atapu Farms Ltd at his Paragraph 48.

70 EIC of Stuart Ford for HortNZ at his Paragraph 98.

71 EIC of Stuart Ford for HortNZ at his Paragraphs 99 and 100.

4.255 In the absence of any credible N loss leaching model, Schedule 29 remains a key part of PPC9. This is because it forms part of the basis for the land use change rules in PPC9, which are Rules TANK X, 5 and 6. In simple terms, if a proposed land use change results in a potentially higher rate of nitrogen leaching into groundwater, and from there to surface water bodies, a stricter regulatory regime is applied via these three rules. If Schedule 29 was not in PPC9, a stricter regime would have to apply to a much wider range of potential land use changes.

S32AA Analysis

4.256 We find that the version of Schedule 29 in PPC9 is now very much outdated due to its primary reliance on Overseer. The updated and much simplified Schedule 29, together with a new definition of land use change, is both efficient and effective by enabling rules to be made that are more certain and more liberal than they would be if the amended Schedule 29 was not included in PPC9. For these reasons this option has significant benefits over what was notified in PPC9, along with lower costs by providing more certainty about consenting processes.

Schedule 30: Landowner Collective, Industry Programme and Freshwater Farm Plans

4.257 Schedule 30 prescribes in detail how the Regional Council intends to facilitate the establishment of Catchment Collectives and Industry Programmes, and the associated preparation of FW-FPs, provide management oversight of their work, and ultimately approve and then audit the outputs of their work programmes. All this means that Schedule 30 is complex, and both very process-oriented and very detailed. It is also a critical component of PPC9, because there is a significant reliance on these programmes helping to achieve the target attribute states for the TANK surface bodies included in Schedule 26.

4.258 Compliance with the requirements of Schedule 30 is incentivised in Rules TANK 1 and 2, which relate to existing land use, and Rules TANK X, 5 and 6, which address changes in land use. This is because if an approved FW-FP is in place, consenting requirements are less onerous, than is, permitted for existing land use (Rule TANK 1) and controlled for land use change (Rule TANK 5) versus controlled (Rule TANK 2) and restricted discretionary (Rule TANK 6) if an approved FW-FP is not in place.

4.259 FW-FPs can be prepared by a Catchment Collective or an Industry Programme, and the requirements for these from either of these groupings are detailed in Schedule 30. Similarly, an individual property could prepare their own FW-FP, although considering the detailed and prescriptive process necessary to prepare such a plan, we doubt that many individual property managers will choose to follow this option.

4.260 Schedule 30 was included in PPC9, and since then the s42A Reporting Officers have recommended a substantial number of amendments to Schedule 30 in response to submissions and evidence. We would describe most of these changes as evolutionary, as they have been recommended incrementally to respond particularly to evidence provided prior to the hearing, and evidence provided at the hearing in response to the Reporting Officers' updated recommendations to us in the s42A Addendum Report.

4.261 One of those recommended incremental changes was to add a Section 2.4 in the "pink version" of PPC9. However, this section relied on assessing nitrogen loss rates using Overseer or a comparable model. For reasons we have discussed elsewhere, neither the use of Overseer, or calculation of a "nitrogen loss rate" will be included in PPC9, so recommended Section 2.4 is no longer considered as part of Schedule 30.

- 4.262 Similarly, a Section 2.3 was included in PPC9, and the s42A Reporting Officers recommended it be retained in Schedule 30, albeit with some substantial amendments. As that section also relies largely on Overseer modelling, we have decided that it should be deleted from the Schedule.
- 4.263 These sections aside, Schedule 30 as now recommended to us remains largely intact from what was notified in PPC9, but with many dozens of recommended amendments, including those to take out text, add text (in one case add an entire new section headed Industry Programmes) and amend text.
- 4.264 We do not intend to detail those recommended amendments on an exhaustive line by line basis. Our final decisions on the exact wording of Schedule 30 can be found in Appendices 2 and 3 to this report. Rather we will focus primarily on the matters raised in submissions and evidence, and the responses that we have made to each of those.
- 4.265 In doing so our starting point is the “pink version” of PPC9 as finally recommended to us by the s42A Reporting Officers’ on 30 July 2020.
- 4.266 Schedule 30 contains an introductory overview and as now recommended to us, four distinct sections: Catchment Collectives Governance and Management, FW-FPs, Industry Programmes, and Regional Council Auditing and Reporting. This structure is a major change from what was notified in PPC9, as in that Catchment Collectives and Industry Programmes were dealt with together. The main party who sought a separate section on Industry Programmes was HortNZ, and this was supported by Dr Farrelly in his evidence (albeit with some further minor amendments sought). We support this recommended change, as by separating out how Catchment Collectives and Industry Programmes will operate their respective requirements are much more clearly set out. This makes a great deal of sense to us, so we do not discuss it further.

Submissions on Schedule 30

- 4.267 There were over 100 submission points on Schedule 30. The great majority of them were pro-forma submissions that sought either that:⁷²
- a) PPC9 be amended so that all provisions that relate to industry schemes be better aligned with existing and established industry programmes such as GAP schemes. This submission point was generally made by horticulturalists and was made repeatedly under many different topics.
 - b) Schedule 30 should be less prescriptive, more facilitative, and for industry programmes should be more specifically based on industry risk. Section B of the Schedule that relate to industry programmes should be cast as more of a guideline, with an acknowledgement that detailed requirements can vary depending on a particular industry. This submission point was made by winegrowers and associated umbrella groups.
- 4.268 Other submitters sought more specific changes, including that the Schedule be made more liberal and much less prescriptive. Two submitters asserted either that the Schedule was unenforceable, or that devolving responsibility to manage environmental effects to a third party was uncertain and inappropriate.

⁷² These two points are both slightly paraphrased.

Legal Submissions and Evidence on Schedule 30

4.269 In his legal submissions dated 9 June 2021 Mr Chris Thomsen said:

Schedule 30 is comprehensive and expressed with sufficient detail to remove any chance of there being a subjective discretion in the approval by Council. The schedule is not prescriptive per se, but it clearly identifies the matters the FW-FP or the catchment collective must address. This is the best way to approach it because it empowers farmers to assess risk and think about what plans should contain in order to achieve the outcomes that are pursued either at a property, catchment or sub-catchment scale.... It will be for the catchment collective or farmer to show that the plan addresses the matters Schedule 30 identifies as requiring management responses to maintaining or improving the outcomes in Schedule 26...⁷³

4.270 The most comprehensive evidence on Schedule 30 was from HortNZ, including from their planner, Mr Andrew Dooney, and more particularly their manager of the Good Agricultural Practise (GAP) programmes, Dr Damien Farrelly. The other main party to comment in detail on Schedule 30 were Beef and Lamb NZ, particularly through their Environmental Capability Manager Mr Tom Orchiston, although he discussed some general matters rather than more specific concerns

4.271 In general terms Dr Farrelly was supportive of the amendments recommended to us by the Reporting Officers in the original s42A Report. He did make additional comments in his EIC, and the s42A Reporting Officers' have responded further to some of these in the "pink version" of PPC9. They have also responded to some of the specific matters raised by Beef and Lamb NZ.

4.272 Some other changes recommended to us are to make the schedule consistent with the provisions of Section 9A of the RMA.

4.273 One of us has worked laboriously through all the recommended amendments to Schedule 30. Other than the deletion of Sections 2.3 and 2.4, along with the further changes recommended by the Reporting Officers, we have made a number of other changes to the Schedule to improve its clarity and the way in which some matters are expressed.

4.274 As it was difficult to follow Schedule 30 with all the recommended changes, along with our further amendments, we have also carefully worked through Schedule 30 with all the recommended changes accepted.

Finding

4.275 We support the (now) much amended version of Schedule 30 in Appendices 2 and 3 of our report.

S32AA Analysis

4.276 Schedule 30 is a prescriptive, process oriented and yet an essential component of PPC9. Without it, there would be no basis for how Catchment Collective and Industry Programmes would operate, be managed and be organised, and the requirements for FW-FPs would not be explicitly listed.

4.277 Many submitters sought changes to Schedule 30, and it has been greatly revised as a result. We consider these changes collectively make the Schedule clearer, more effective and more efficient. In particular, setting out separate provisions for Catchment Collectives and Industry

⁷³ Legal submissions of Mr Chris Thomsen for Beef and Lamb NZ at his Paragraph 27.

Programmes overcomes a cumbersome “dual purpose” approach in PPC9, and provides for a much more effective and better targeted approach within Schedule 30.

Chapter 5 - Management of the Heretaunga Plains Groundwater Aquifer

Introduction

- 5.1 In this section of our report we discuss the management of the quantity of water in the Heretaunga Plains aquifer. More specifically we discuss OBJ TANK 14, POL TANK 36 - 38, 52 and 42, along with several definitions in the glossary, most notably that of “actual and reasonable” groundwater use.
- 5.2 We discuss RULES TANK 7 - 12 in Chapter 9 of our report, as they cover both takes and use of water from surface and underground sources. In that section of our report we have added a new non-complying activity Rule 11A, which is restricted to water potentially taken for essential human health needs and for any such consent to be granted, must pass high policy thresholds.
- 5.3 It is common knowledge that the aquifer is over-allocated (or to put in another way, the consented take volumes that presently exist far exceed the likely sustainable use of the aquifer), but whether it is over-abstracted is much less clear.

Appendix 11

- 5.4 Before we discuss groundwater management in the broader sense, we need first to address Appendix 11, which was a report titled “Summary of Key Elements Pertaining to Water Quantity in Proposed Plan Change 9 – TANK’. It was written by two (then) HBRC staff, Dr Mona Wells and Ms Rosa Kirkham. The title of the Appendix does not really reflect its content, which was primarily a summary of what was known about groundwater quantity in the Heretaunga Plains aquifer.
- 5.5 During the second week of the hearing we received a memorandum from Dr Jeff Smith and Ms Ellen Robotham of the Council’s staff. It said that Appendix 11 had not received a “full technical review” and was “inadvertently lodged with the Section 42A Report with errors and factually inaccurate information.” It also said that one of the authors (Dr Wells) had since left the Council.
- 5.6 Dr Smith and Ms Robotham provided an updated version of Appendix 11 with over 100 changes from the original version. Most of the changes were strike outs. The main reasons given for this was that the technical expert had provided planning evidence that was beyond the principal author’s expertise, and that there was extensive reference to an overly simplistic “water budget” analysis. Additionally, they noted that irrigation water use between 2015 and 2019 was overestimated because of an inappropriate “adjustment factor” used by the authors.¹
- 5.7 Initially we were bemused why these changes were considered essential, but upon a full review we largely understood the rationale for them.
- 5.8 The Council staff provided a list of expert witnesses who had referenced Appendix 11 in their evidence in chief. They were: Dr Andrew Dark for Hawke’s Bay winegrowers, Mr Gerard Willis

¹ This was the only significant technical change in Appendix 11, with the average annual water use by irrigators during this period reduced from 50 Mm³/y to 35 Mm³/y, which is the correct figure.

for Lowe Corporation, Ms Gillian Holmes for HortNZ, Mr Morry Black for Te Taiwhenua o Heretaunga and Mr Ngaio Tiuka and Mr Shade Smith for Ngāti Kahungunu Iwi Incorporated (NKII).

- 5.9 In our Minute 6 dated 11 May 2021 we gave all submitters an opportunity to make further submissions on the amended Appendix 11. Mr Black, Mr Tiuka and Mr Smith took this opportunity, with NKII also providing legal submissions from Mr Enright.
- 5.10 The hearing was reconvened in the Council offices on Monday 27 September 2021 to hear this evidence (along with some questions the Panel had on groundwater management, which are discussed elsewhere in this chapter of our report). Much of the evidence received, particularly from Mr Black, was not directly relevant to the Appendix 11 amendments, and so was beyond the scope given in our Minute 6.
- 5.11 Among the points made directly on the amended Appendix 11 were:
- a) Whether it is ethical to change someone else’s memorandum (Mr Enright and Mr Black).
 - b) Council has distanced itself from independent expert advice and that arguably draws attention to some of that advice, particularly “use of regulatory hard lines to manage over allocation and over-abstraction through a sinking lid approach” (Mr Enright at Paragraph 9).
 - c) That references associated with the 1987 Brundtland report were appropriate for a technical expert to make (Mr Black).
 - d) The crossing out of the word “degraded” in relation to surface water bodies, and its replacement with “adverse effects” (Mr Black and Mr Tiuka, with the latter referring particularly to the Paritua Stream).
 - e) Deletion of the water budget model does not mean that groundwater is not being “mined” from the Heretaunga aquifer (Mr Black).
 - f) “Amendments made to Appendix 11 appear to enable, not avoid, further over-allocation within the TANK catchment; enable temporal degradation of aquifer storage and downplay uncertainties in estimates” (Mr Smith at his Paragraph 7).
 - g) Assertions that the average irrigation take in the years 2006 to 2014 was 39.4 ± 4.4 Mm³/y with a 95% confidence limit (Mr Smith).
 - h) The Heretaunga aquifer model does not include cultural input, and so cannot fully cater for cultural values. *“Assessment of cultural effects needs to holistically consider physical, spiritual, metaphysical, tangible and intangible effects together at place. The changes to Appendix 11 ignore this holistic consideration and diminish mātauranga Māori, local knowledge and experience and the obligations of tangata whenua to exercise kaitiakitanga in a way that is consistent with their tikanga”* (Mr Tiuka at his Paragraph 13).

Discussion and Findings on Appendix 11

- 5.12 We agree in part with Mr Black and Mr Enright that there are some ethical questions about Council staff revising a technical report prepared by other staff members. In saying that however, we find that much of what was deleted was either not directly relevant, and/or

clearly beyond the principal author Dr Well's technical expertise. She is not a planner, nor a freshwater ecologist, and much of what was struck from the report was not within her expertise.

- 5.13 We disagree with Mr Enright that the changes to Appendix 11 meant the Council was moving away from regulatory bottom lines to manage over abstraction and over allocation. Rather the opposite is the case – Council staff were “staunch” about the need for a strong regulatory approach to both these matters throughout their reports and evidence.
- 5.14 We consider that a general reference to surface water bodies in the TANK catchments being “degraded” is beyond Dr Wells' technical expertise, and we consider in most (but not all) instances “adverse effects” is more appropriate wording. While we agree with Mr Black that removal of the water budget does not mean groundwater is being “mined” from the aquifer, nor does it mean it is being “mined” either. We discuss this in much more detail under the heading of “the quantum of the interim allocation limit” later in this Chapter of our report.
- 5.15 We cannot understand the rationale for Mr Smith's paragraph 7, nor did we understand how he assessed average annual groundwater abstraction for irrigation from 2006 to 2014, given that few records of annual takes for irrigation existed during much of that period. Nor can we understand how the changes to Appendix 11 diminished “mātauranga Māori, local knowledge and experience and the obligations of tangata whenua to exercise kaitiakitanga in a way that is consistent with their tikanga”, as was asserted by Mr Tiuka.
- 5.16 In conclusion, we find that the retrospective changes made to Appendix 11 by Dr Smith and Ms Robotham improved the report, particularly by taking out statements that were often well beyond the authors' expertise. Quite why the extent of the changes made was considered essential is not very clear to us. Apart from one significant numerical correction, the substance of the report remained largely intact. As discussed above, the additional evidence provided on the changes to Appendix 11 did not corroborate that they were relevant to our overall decision making on PPC9.
- 5.17 For these reasons, when we further discuss material on Appendix 11 we are referring to the amended version.

The Aquifer

- 5.18 The Heretaunga Plains aquifer covers about 300 square kilometres (km²) and is approximately bounded by Napier (south of Napier Hill) in the north-east, Maraekakaho, Roy's Hill and Taradale in the west, and Bridge Pa, Pakipaki and Pukahu in the south. It consists of some 5-7 primary aquifers that formed in the last 250,000 years. The groundwater flow is predominantly from west to east.²
- 5.19 The aquifer provides water that sustains the intensively settled and farmed Heretaunga Plains. Groundwater is taken for uses including municipal supplies, such as those to Napier, Hastings and Havelock North, wet industry, such as food processing, and for intensive viticulture, horticulture and vegetable growing.

² See Figure 2.3 in the Executive Summary of the development of the Aquifer Groundwater Model.

- 5.20 The aquifer is primarily formed from river gravel deposits interlayered with silt and clay sediments. The more western parts of the aquifer to about Hastings are predominantly “unconfined”, whereas towards the coast the aquifer becomes progressively more confined. This is shown by the below Figure 2.2 taken from the 2018 groundwater summary report.

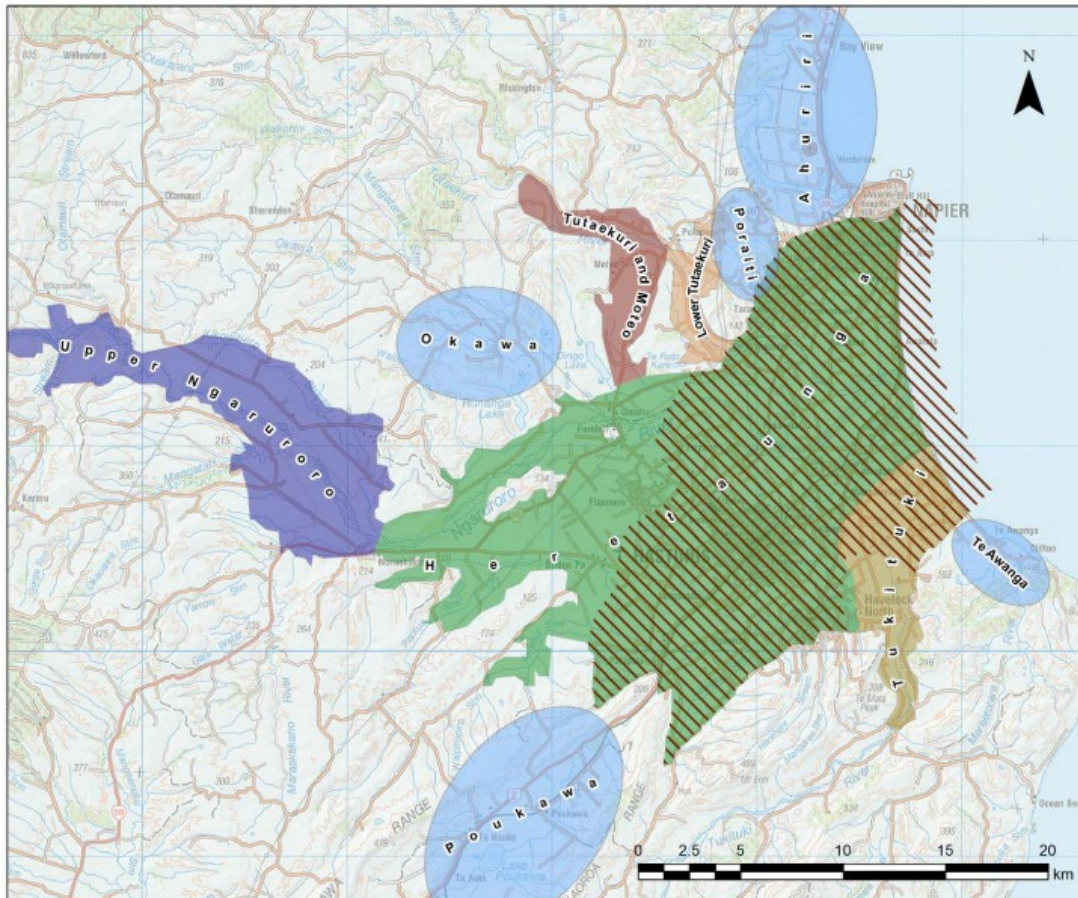


Figure 2-2: Heretaunga Aquifer System Confined area of the aquifer is shown with brown hatched lines. Aquifers that are not considered part of the Heretaunga Aquifer System are shown as blue ovals to indicate their approximate location and size.

- 5.21 In simple terms, an unconfined aquifer has no impermeable layers between the surface of the land and the water beneath it, whereas a confined aquifer has impermeable layers, typically horizontal “lenses” of silts and clays, between the land surface and the underlying groundwater. Of the approximately 300 km² area of the aquifer, an estimated 239 km², or about 80%, is totally or largely unconfined.
- 5.22 Unconfined aquifers can be recharged from either local rivers and streams, or excess rainfall and/or drainage water that permeates down to the groundwater. Water in unconfined aquifers needs to be pumped to the surface. Unconfined aquifers are susceptible to contamination from surface activities, such as nitrogenous fertilisers applied to the land and not taken up by plants, which can then leach down into groundwater (principally as nitrate).
- 5.23 Confined aquifers can only be recharged by losses to groundwater from surface streams, or upgradient unconfined groundwater. Typically, there are discrete confined aquifers at different depths, with impermeable layers between them. The water supply may be artesian, and if so does not need to be pumped. However, groundwater takes from confined aquifers can “interfere” with nearby takes because a cone of depression can form around the source

of the take. Activities on the surface of the land usually have little effect on water quality in confined aquifers.³

- 5.24 Another important concept in managing a complex aquifer system is what is known as transmissivity, which describes how rapidly water moves downgradient in an aquifer or sequence of aquifers. In an aquifer with high transmissivity, the water moves downgradient quite rapidly within gravel lenses in the aquifer. Much of Heretaunga Plains aquifer has relatively high transmissivity.
- 5.25 Compared with surface water, management of groundwater is very difficult. While surface water flows can be gauged and monitored continuously using relationships between flow and water level (rating curves), the volume of groundwater in an aquifer cannot be seen or “measured”. Groundwater levels⁴ can be monitored in bores, but this only provides information on the level of the groundwater in the immediate vicinity of the bore and tells us nothing about the levels in the wider area or indeed the volume of groundwater present. Reduced to its essence, groundwater management starts with “suck it and see”.
- 5.26 Fortuitously, on the Heretaunga Plains the thousands of bores that have been drilled collectively provide a very good composite picture of the aquifer, and how it has changed over time. It is now known for instance that there has been a gradual decline in water levels in some parts of aquifer, such as near Fernhill, over recent decades. How significant this is, and what it means for future management, is a matter of much debate, which we discuss particularly at paragraphs 5.195 – 5.213 below.
- 5.27 Early in the hearing we questioned whether the aquifer should be managed as an entire entity, as we considered it possible that different management regimes could be justified in different geographic parts of the Heretaunga Plains aquifer.
- 5.28 In response to this we received a memorandum from a former staff member, Mr P Radowski, who had been the Council’s principal groundwater scientist from March 2015 to February 2019⁵.

The Heretaunga Aquifer System consists of highly transmissive sand and gravel deposits. High hydraulic transmissivity means that the pumping impact can be transmitted many kilometres away from the pumping point.

Groundwater pumping (in particular irrigation takes) is distributed across the aquifer, making it difficult to delineate a boundary of any management zone based on pumping activity.

There is no evidence of hydraulic boundaries within the aquifer that can justify delineation of zones (with the possible exception of peripheral aquifers, e.g. on Ngaruroro River terraces upstream of Maraekakaho).

Hydrological data (surveyed river losses and spring gains, well surveys and water quality data) confirm that water is transported and mixed throughout the aquifer.

³ Contaminants can however enter confined groundwater via poorly designed or maintained bore heads – witness the contamination of Havelock North’s water supply leading to about 5,000 cases of gastroenteritis in the town.

⁴ Which are recorded as below ground level, or bgl for short.

⁵ At his Paragraphs 4.1 – 4.4

Based on this advice we accepted that the aquifer has to be managed as an entire entity.

Hydrology of the Aquifer

5.29 The management of the Heretaunga Plains aquifer is inextricably linked with the rivers and streams that either lose water to groundwater or which are fed from groundwater sourced springs. Such interrelationships are always complex; for instance, the volume of water lost to surface streams can be in part dependent on water levels in the aquifer. As part of the work programme for PPC9 the Regional Council undertook a systematic review of where rivers and streams lost or gained water from the aquifer, from which the following discussion is largely derived.⁶

5.30 This is summarised in the following Tables and portrayed by Figure 2.7 below from the 2018 groundwater summary.

Table 2-1: Main river losses to the Heretaunga Aquifer System.

	Estimated typical loss to aquifer (L/s)
Ngaruroro	4,400
Tukituki	800
Tutaekuri	780
Total	5,980

⁶ Heretaunga Aquifer Groundwater Model: Executive Summary of Development Report. HBRC Report RM18-16, May 2018

Table 2-2: Summer spring discharges in Heretaunga Plains.

Stream	Typical summer spring discharge (L/s)
Tutaekuri-Waimate	1831
Karamu	575
Waitio	566
Raupare	402
Irongate	168
Mangateretere	46
Karewarewa	25
Paritua	-100 (losing section)
Other streams	15
Total	3528

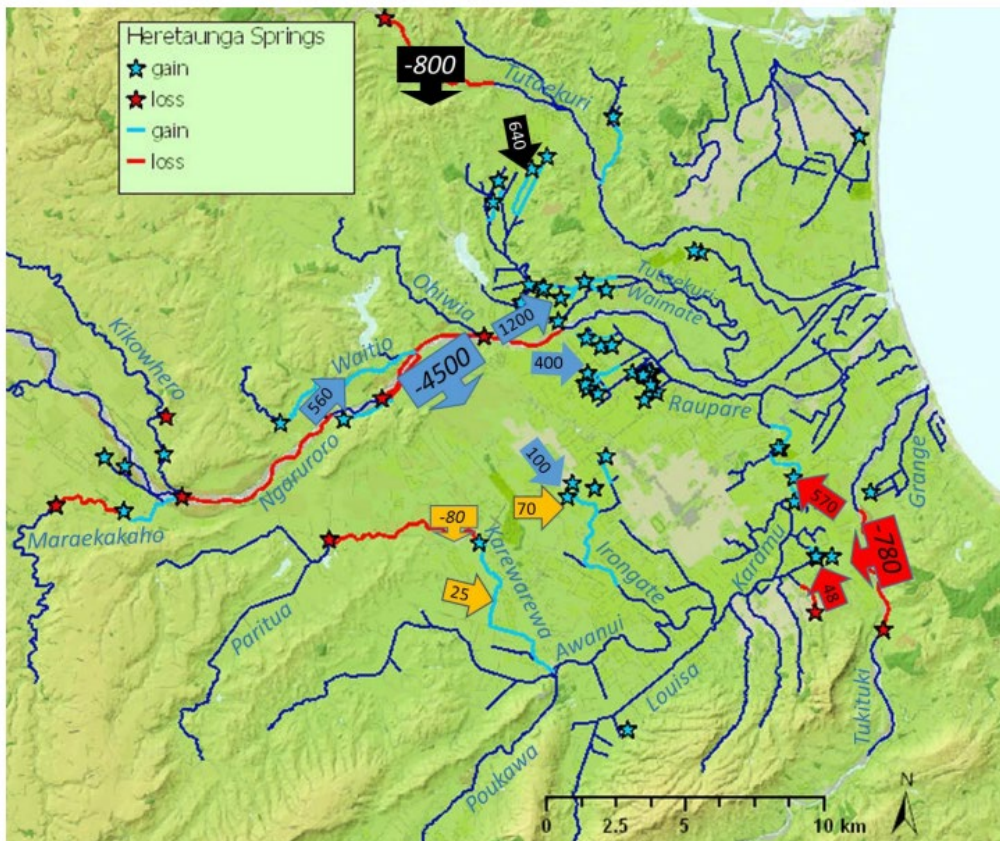


Figure 2-7: Heretaunga Plains hydrology and flows in L/s Red sections of waterways indicate losing reaches, while bright blue sections are gaining reaches.

- 5.31 By far the most significant surface source of water to the aquifer is the Ngaruroro River upstream of Fernhill, with an estimated average loss of 4,500 l/s to the aquifer. There are also minor losses from the Tūtaekurī River.
- 5.32 The other main source of water to the aquifer is what is known as land surface recharge (LSR), which occurs only over the unconfined aquifer. It varies seasonally, with most LSR occurring

during winter months, and annually, depending on how wet the year is. As part of the work carried out on the development of the groundwater model, Aqualinc estimated LSR to average 330mm per year for the period 2005 to 2015, which is equivalent to an average of 78.9 Mm³/y across the Heretaunga Plains. This means that on average losses from surface water bodies provide an estimated 71% of the water entering the aquifer, with LSR making up the other 29%.

- 5.33 In his evidence Mr Black, a witness for TToH, asserts that the “irrigation recharge” component of LSR is overestimated, and that the aquifer is being “mined”, but provided no substantive evidence to support these assertions.⁷
- 5.34 The proportion of aquifer recharge from surface flow losses and LSR will vary significantly from year to year, depending how wet the water year is. A wet water year (such as 2021/22) will result in proportionately more LSR, while a dry water year (e.g.2019/20) will result in less LSR.
- 5.35 Many watercourses on the Heretaunga Plains are fed by “springs” that discharge water from the aquifer to lowland surface water bodies. The management of flows in these lowland water bodies is discussed in Chapter 6 of our report.
- 5.36 This work enabled an overall groundwater budget to be developed (see Table 2.3 below from the Executive Summary Report):

Table 2-3: Groundwater budget for the Heretaunga Aquifer System.

	Type	Description	Mm ³ /year	L/s	
INFLOWS	River Recharge (to groundwater)	Total river recharge to groundwater (based on observed major river losses by HBRC) including:	188.6	5,980	71%
		Ngaruroro loss	138.8	4,400	
		Tukituki losing	24.6	780	
		Tutaekuri losing	25.2	800	
	Land Surface Recharge from rainfall	LSR calculated by Aqualinc for the unconfined area	78.5	2,489	29%
	TOTAL INFLOWS		267.1	8,469	
OUTFLOWS	Spring discharges	Measured summer discharges	111.0	3,520	42%
	Groundwater pumping	Some data, and estimated from demand modelling	78.1	2,475	29%
	Sea discharge	No observations	78.0	2,474	29%
	TOTAL OUTFLOW		267.1	8,469	

- 5.37 Note that this “water budget” suggests that the numbers therein are quite precise. They are not; most are estimates. For instance, it is not known whether an ocean discharge actually takes place, and if it does, what losses occur out to sea. As the Appendix 11 report in Paragraph 2.11 says “whether or not the aquifer is hydraulically connected to the sea is uncertain”. It goes on to say that gravel formations may extend far offshore, suggesting such a connection is possible, and that although navigational charts suggest the presence of submarine springs perhaps 30km offshore, recent investigations have not confirmed their presence, and it is not certain how they were identified originally. This indicates to us that the “sea discharge” in the water budget is not verified, and certainly not measured, and appears to be little more than a “budget balancing” figure.

⁷ EIC of Mr Maurice Black at his Paragraphs 271 -276.

Long Term Trends in Groundwater Levels

- 5.38 As previously noted, there is good evidence that in some parts of the aquifer, most notably around Fernhill, groundwater levels have been slowly declining. As Appendix 11 said:⁸

Long-term changes in groundwater levels may be difficult to detect as they may be masked by the natural variability in groundwater levels between seasons. Monitoring of groundwater levels in the Heretaunga Plains groundwater system shows that declines have occurred slowly over time. Persistent declines are mainly located in the area northwest of Hastings, notably in groundwater levels between Roy's Hill and Fernhill. Overall, Heretaunga Plains groundwater levels during summer have declined by an average of 5 centimetres per year between 1989 and 2018. While climatic influences may have played a part in the groundwater declines, abstraction from the aquifer system has increased substantially over this period.

- 5.39 It is important to note however that most of these long-term changes in groundwater levels are not statistically significant at present. This is not to say they will not be significant in the future. Average annual water use has increased in recent years (see the below table), and climate change could well result in lower average annual LSR in upcoming years. Perhaps one signal of significance is that the amplitude of the seasonal variation in groundwater levels has increased by about 0.3 – 0.7m over about the last 20 years.

Current Allocations of Groundwater

- 5.40 The current total allocations of groundwater from the Heretaunga Plains aquifer far exceed the proposed “interim allocation limit” of 90 million cubic metres per year. In response to our Minute 10 Council staff provided information on current allocations, which in summary said.

At the time writing the s32 report, total groundwater allocation was estimated to be between 140 and 180 Mm³/y. Council consent staff had re-run the calculation as of September 2021, but estimates vary due to differences in methods and accounting for double ups where water is shared between consents, and where there are multiple points of take.

- 5.41 The below summary table was also provided:

Use	Estimated Water Allocation (Mm ³ /y)	Comments
Public Water Supplies	40.3	Includes domestic supply, potable water, recreation and recreation facilities.
Industrial Uses	40.2	Includes industry, shingle washing, cooling water, vehicle washes and water bottling.
Irrigators	82.7	Includes water for irrigation, agriculture, filling stock water dams, and stockyards

⁸ On pp5.

Frost Protection	0.6	This use is not included in the proposed “interim allocation limit”
Environmental Uses	1.9	Includes augmentation/recharge of a stream and a wetland, and water for a trout hatchery
Total	165⁹	

5.42 It is clear from this table that presently the aquifer is very much overallocated. Policy 11 of the NPSFM 2020 requires that:

“Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided”.

5.43 This policy is a rewording of comparable “objectives” in the 2014 NPSFM and its 2017 “update”. In those iterations of the NPSFM Objective B3 was “to avoid any further over-allocation of fresh water and phase out existing over-allocation”, and Objective B4 was “to improve and maximise the efficient allocation and efficient use of water”. In our view the new wording restates what has been in place in the NPSFM since 2014, albeit in a more concise way.

Current Uses of Groundwater

5.44 Regardless of the fact that the Heretaunga Plains aquifer is over-allocated, much of that “paper allocation” is not used. The “actual and reasonable use” test is based on actual use, and its intention is to phase out current over-allocation.

5.45 Earlier estimates of annual current water use are given on page 7 of Appendix 11, which says that:

- a) As of 2015 about 22.5 Mm³/y are abstracted for public water supplies, and that this has stayed reasonably stable since 1980.¹⁰
- b) Industrial use has been about 13 Mm³/y since about 2000.

5.46 The information on irrigation abstraction was less certain. Part of the reason for this is that regulations requiring that water takes of over 100m³/day be metered and recorded (with those data provided to the Council) only date back to 2010, and it took some years before this was consistently enforced in the region.¹¹

⁹ In addition to this about 1.526 Mm³/y was estimated to be allocated to permitted activities in the TANK catchments, including domestic water supplies, stock water and dairy shed washdown water. This would be included in the “counting of the total volume allocated” (check).

¹⁰ Note however that this increased to about 30 Mm³/y from about 2016/17 onwards.

¹¹ Or indeed most other regions with large numbers of takes, particularly for irrigation. The main reason for this was the sheer logistics of providing calibrated data loggers and associated telemetry to very large numbers of water users throughout the country. For instance, the Canterbury region alone has over 8,000 consented water takes that the 2010 regulations required to be metered.

5.47 On pp7 Appendix 11 says:

A major review of metered pumping data for irrigation was undertaken in preparation for groundwater modelling efforts, from which numerous problems were encountered. Metered data is likely to underestimate the total abstraction for irrigation use due to metering requirements being relatively recently introduced.

Though there is large year-to-year variability in groundwater abstraction due to climate and other factors, in summer periods up to 50% of all groundwater abstraction from the Heretaunga Plains is estimated to be for irrigation. On average, approximately 35 Mm³/year was estimated to be abstracted for irrigation between the years 2006 and 2014.

5.48 More specific and updated information on was given in Mr Waldron’s EIC dated 19 May 2021. Total water use was estimated to be about 91.1 Mm³ in 2012/13 and 82.5 Mm³ in 2019/20. Total use was also estimated to have exceed 80 Mm³ in each of 2013/14 and 2014/15. This is portrayed in the below figure taken from Mr Waldron’s report¹².

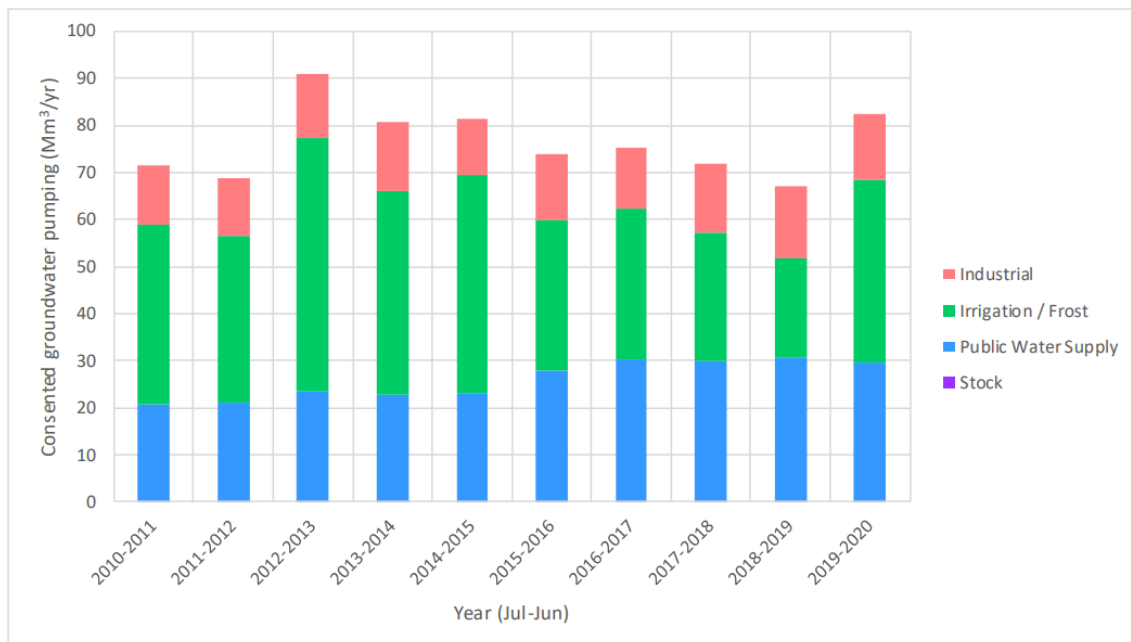


Figure 1. Estimated consented groundwater pumping from the Heretaunga Plains Aquifer, grouped by primary use.

5.49 There is a discrepancy between these data and Figure 12 in the Appendix 11 report for the 2019/20 water year. The latter shows water use in that year to be approaching 105 Mm³, with apparently all the difference being in the annual volume of water taken for irrigation.¹³

5.50 We asked the Council staff about this discrepancy and what is the “correct” annual volume of water taken in the 2019/20 water year. Their response was that Mr Waldron’s estimate of

¹² Statement of Reply RJ Waldron Appendix 10 HBRC

¹³ This discrepancy was picked up by several expert witnesses; for example Dr Dark at his Paragraph 85.

82.5 Mm³/y is the correct volume, and that Figure 12 in the Appendix 11 report shows an incorrect annual volume for the 2019/20 water year.¹⁴.

- 5.51 Included in these data are an estimated 1,526 Mm³/y used for permitted activities, including domestic water supplies, stock drinking water and dairy shed wash down. The officers noted that this represented less than 2% of the estimated 91 Mm³ of abstraction that is estimated occurred in 2012/13, with the main components of this being irrigation (52.32 Mm³), public water supply (23.51 Mm³) and industry (13.66 Mm³).
- 5.52 The greatest variability is the annual volume taken for irrigation. The volume taken for public water supplies has increased substantially in the last four years of record, and now averages about 30 Mm³/y. We asked the s42A Reporting Officers for some further information on this and they provided us with detailed information about the HDC municipal supply water takes. This showed that the main reasons for the increased take volumes: included growth and expansion of the community, providing reticulated water to communities such as Bridge Pa and Paki Paki, and operational changes to the Havelock North water supply in response to the 2016 contamination event. In combination these factors had led to an increase in the water taken by about 10% over three years, although it always remained under their total consented take volume of 15.25 Mm³/y.
- 5.53 One of the main accusations made at the hearings was that municipal suppliers were profligate users who were “wasting water” through inefficient and leaking distribution networks.
- 5.54 While there is an element of truth in these arguments, we do not consider it particularly useful to go down this track. We note for instance that Mr Chapman, the “three waters” manager for the HDC, acknowledged that about 20% of the water taken by the HDC was “non deliverable”, which is a euphemism for saying about 20% of the water taken leaks from pipes between the source of take and the point of supply.
- 5.55 It is far from simple however to remedy such losses. It can only be achieved by re-sleeving the network, digging up streets and replacing old or poorly performing water supply pipes, which is a very expensive and highly disruptive process. Within Hastings itself the main water supply bores are to the south-east of the central city, and presumably significant water supply infrastructure runs through the CBD, where works would be very disruptive. More recent developments will undoubtedly have much more modern and robust water supply networks, but the main water supply pipes through the CBD, and indeed to Havelock North, will likely follow main roads.
- 5.56 This is not to say that high levels of leakage from municipal networks are acceptable. They are not. Water not delivered is water wasted, and water is a scarce resource on the Heretaunga Plains. Our expectation is that the Regional Council will keep strong pressure on the TLA’s to improve the integrity and resilience of their water supply networks, as is required by POL TANK 50b.
- 5.57 In their response to our Minute 10 the s42A Reporting Officers pointed out that there is “very high confidence” in water use estimates from 2017 onwards as over 95% of takes were metered. They said there was also high confidence in groundwater take assessments for public water supplies and industrial uses in 2021/13, as these takes were metered, but that the

¹⁴ This was discussed in Section 3 of Mr Waldron’s statement of reply evidence dated 19 May 2021.

groundwater take volumes for irrigation were based on demand modelling, which was then confirmed by using the 60-70% of such takes that were metered.¹⁵

- 5.58 The Reporting Officers believed that the abstraction estimated for 2012-13 is approximately 10% greater than that estimated (more accurately, due to more takes being metered) during 2019-20. This meant that in their opinion, the abstraction calculated for 2012-13 might be overestimated by up to 10%, but that it is unlikely to be an underestimate. In other words, the actual abstraction in 2012/13 may have been between about 82 and 91.1 Mm³, whereas in 2019/20 it is more accurately calculated (based on more reliable data) at about 82 Mm³.¹⁶

Principal Issues to be Resolved

- 5.59 In this section of our report we take a somewhat different approach to what we have in other sections. This is because in order to set an overall framework for the discussion of objectives, policies and rules that provide direction for groundwater management in the TANK catchments, there are two generic issues that we discuss first. This is because those issues are so broadly intertwined into the overall management framework for groundwater management, resolving them early on enables a focus on the other important components of groundwater management in the TANK catchments.
- 5.60 The matters we discuss at this stage are the “interim allocation limit”, about which we draw no conclusions at this stage, and the definition of “actual and reasonable”¹⁷ which is included in the Glossary of PPC9, where we accept fully the S42A Reporting Officers recommended amendments in the “pink version” of PPC9 dated 30 July 2021.

The “interim allocation limit”

- 5.61 One of the most contentious provisions within PPC9 is what is known as the “interim allocation limit”. This refers to the annual maximum take of groundwater from the Heretaunga Plains aquifer. The Council’s Regional Planning Committee had decided, on advice from staff, that this should be set as 90 million cubic metres per annum (Mm³/y), and this “limit” was included in PPC9 via a reference in Policy 37(a).
- 5.62 In PPC9 the “interim allocation limit” was proposed to be put into force in two main ways:
- a) Over allocation is be phased out by what is known as “the actual and reasonable” use test
 - b) In PPC9 Rule 12 prohibited the take and use of groundwater in excess of the 90 Mm³/y “interim allocation limit”. This prohibition reflected some sections of TNAK POL 36 and 37, which set the “interim allocation limit” and sought to avoid “further adverse effects”¹⁸ and “prevent any new allocations of groundwater”¹⁹.
- 5.63 The “interim allocation limit” of 90 Mm³/y is what the S42A Reporting Officers’ referred to as “essentially our best estimate of consented actual and reasonable use across the Heretaunga

¹⁵ Staff Response to Panel’s groundwater questions dated 24 September 2021 at pp 4&5.

¹⁶ Staff Response to Panel’s groundwater questions dated 24 September 2021 at pp5.

¹⁷ While the glossary definition is of “actual and reasonable”, we will refer to this as the actual and reasonable use test from now.

¹⁸ Policy 36 (f)

¹⁹ Policy 37 (c)

Plains, including consented and permitted takes.”²⁰ It goes on to say that the rationale for this is given in Appendix 11.

- 5.64 Similarly, the s42A Officers’ Report stated that “Setting an interim limit at the estimated actual and potential use helps achieve OBJ 16, 17 and 18, and aids in implementing a “sinking lid” approach by providing a point of reference for the POL 42 review.”²¹ We note that OBJ TANK 16 to 18 talk broadly about outcomes from implementing this regime, including avoiding future over-allocation and phasing out existing over-allocation (which is consistent with NPSFM Policy 11).
- 5.65 POL TANK 37 says the Council “will adopt” an “interim allocation limit” of 90 million m³/y based on the actual and reasonable use test, and “*manage the groundwater resource as an overallocated management unit and prevent any new allocations of groundwater*”. As discussed in paragraphs 5.41 – 5.43 above, the aquifer is clearly overallocated, but whether it is over-abstracted is much less certain.
- 5.66 POL TANK 42 says that after water has been re-allocated and consents reviewed the Council will commence a review of these provisions within 10 years. By this we understood that the “interim limit” is proposed to stay in place for up to 10 years, and, on the basis of PPC9, during that time no new uses of groundwater will be allowed for via the proposed prohibited activity in Rule 12.²²
- 5.67 In summary POL TANK 42 says that the Council will, *inter alia*, review the “interim allocation limit” within 10 years after water has been re-allocated and consents have been reviewed.
- 5.68 We discuss all this in much more detail in the remaining paragraphs of this chapter of our report.

The Definition of the Actual and Reasonable Use Test

- 5.69 The actual and reasonable use test was based on a complex definition of “actual and reasonable” in the glossary of PPC9. In PPC9 this definition comprised three elements, which were in summary:
- a) No more than the quantity in the current permit, or any less amount applied for, and the least of either:
 - b) The maximum annual amount as measured by accurate water meter data in the ten years preceding 1 August 2017 for groundwater takes from the Heretaunga Plains aquifer; or
 - c) For irrigation takes, the quantity required to meet the modelled crop water demand for the irrigated area with an application efficiency of 80% as specified by the IrriCalc water demand model²³ and with a 95% reliability of supply (again based on the 10 years preceding 1 August 2017).

²⁰ S42A report at Paragraph 1332

²¹ S42A Report at Paragraph 1333

²² Note that the advice to us changed in the latest iteration of PPC9 dated 30 July 2021, with some Policy exemptions suggested via Policies 37 and 52.

²³ This is a model developed by the groundwater consultancy Aqualinc.

- 5.70 Limb b), and to a lesser extent limb c) of this definition, caused a great deal of angst among submitters who take water for irrigation of fruit orchards, and/or vineyards and/or vegetable crops, and commercial and municipal uses of water. Their criticism was also expounded upon at length by several lawyers for submitters, and many expert and lay submitters for water users.
- 5.71 This extensive criticism largely focussed on two matters: in the original s42A Report dated 15 April 2021, the **average annual take** was proposed to be used to define “actual and reasonable”²⁴, and the definition originally referred to “the “10 years preceding 1 August 2017” clause, which many submitters asserted was flawed. This is because while it took account of the very dry 2012/13 water year, it did not provide for the even more dry 2019/2020 water year.²⁵ Many submitters inferred that their maximum annual water use was in the 2019/2020 water year.
- 5.72 In response to this the Council Reporting Officers recommended in their s42A Addendum Report (dated 19 May 2021) that the definition of “actual and reasonable” in clause b) would refer to the **maximum water use in the 10 years preceding 2 May 2020** (which was the date PPC9 was notified). A similar change was proposed in clause c). This definition includes both the 2012/13 and 2019/20 very dry water years, and this amended definition was widely supported by most expert witnesses representing a wide range of water users at the hearing.²⁶
- 5.73 In saying this it is important to recognise that Clause a) refers to the “least” of actual and reasonable as described in Clauses b) and c).
- 5.74 There was some criticism of the use of the default “IrriCalc” means of determining how much water should be available to an individual consent holder if previous water use has not been accurately measured.
- 5.75 The s42A Report asserted that IrriCalc tends to overestimate water use for irrigation.²⁷ We asked an independent irrigation expert, Dr Davoren, whether he considered this to be generally the case, and he believed it was. However Dr Dark, an expert witness for the Winegrowers, said that while this may be true in some instances he was confident that for free draining soils with a deeper water table, such as those typically used for viticulture, IrriCalc provides a “robust assessment of reasonable use”.²⁸ To overcome this he considered that site-specific information should be able to be used in any such assessment, and any existing water meter data should be able to be used. Similar wording was recommended to be included by the s42A Reporting Officers in the “pink version” of PPC9 dated 30 July 2021. We have reviewed that, and consider that their wording could be improved as follows:

²⁴ Despite PPC9 as notified referring to the “maximum annual take” during the 10 year period up to 1 August 2017.

²⁵ In her statement of reply evidence dated 19 May 2021 Dr Kozyniak said both these water years were in the driest 5% on record, that in both summers adverse events were declared by the Ministry for Primary Industries. Rainfall station data indicated that 2019/20 was a little drier than 2012/13.

²⁶ See for instance the evidence of Gillian Holmes for HortNZ at her Paragraphs 96 -105 and Mark St Clair for the Winegrowers at his Paragraphs 101 and 102.

²⁷ S42A Officers’ Report at Paragraph 2065.

²⁸ Summary evidence of Dr Andrew Dark at Paragraph 6. Much more detail was presented in his evidence. Although he works for Aqualinc, who developed Irricalc, we consider his overall assessment is fulsome and without apparent bias.

In applying the Irricalc model the Council will take into account any water meter data that is applicable and any site specific soil type or rainfall data not adequately addressed by Irricalc.

- 5.76 We believe that the amended definition of “actual and reasonable” proposed by the Reporting Officers in their addendum report of 19 May 2021, together with the added words in the “pink version” is a major improvement over the definition in their original s42A Report. Apart from the change shown above we have accepted their recommendations to amend this definition.
- 5.77 In saying this we observe that there were large numbers of submissions who sought that the words “actual and reasonable” should be replaced with just “reasonable”. That would be misleading as the definition is based partly on actual use, so all those submissions have been rejected.

Objectives and Policies

- 5.78 In this section of our report we discuss OBJ TANK 14, POL TANK 36 - 38 and 52, which are most directly relevant to the management of water quantity in the Heretaunga Plains aquifer. We also briefly discuss POL TANK 42.
- 5.79 Elsewhere we have discussed:
- a) OBJ TANK 16 and POL TANK 50 and 51, which in combination set out the priority in which water resources, including rivers, streams and the aquifer, will be managed at times when water supplies are constrained.
 - b) OBJ TANK 17 and 18, which cover the allocation and use of water, and providing for the health of the water and future generations (cross reference to Chapter 7 High Flow Allocation).

OBJ TANK 14

- 5.80 This sets out the Council’s overall approach to managing groundwater in the Heretaunga Plains aquifer, and the rivers and streams which lose water to and gain water from the aquifer. In summary as set out in PPC9 as recommended to us the objective says that the Council will maintain mauri, water quality, water quantity and groundwater levels in the groundwater connected to the Ngaruroro, Tūtaekurī and Karamū Rivers to:
- a) Enable people and communities to meet their domestic needs and provide safe and secure supplies for municipal needs.
 - b) Enable primary production, industrial and commercial water needs and water required for associated processing and urban activities to provide for social and economic well-being.
 - c) Provide for the maintenance of groundwater levels at an equilibrium that accounts for annual climate variations and prevents long term declines or saltwater intrusion; and the contribution to water flows and quality in connected surface water bodies.

Submissions and Evidence

- 5.81 There were a variety of submissions on OBJ TANK 14; some were in support, some were not relevant to this objective and others sought specific amendments of various kinds.
- 5.82 Ravensdown sought a specific amendment to sub clause b) that sought recognition of the water needs of “industrial and commercial users and water required for associated processing”. In response to this the s42A Reporting Officers recommended that the words “industrial and commercial users” be added there, as they similarly recommended in OBJ TANK 11-13 in response to similar submissions from Ravensdown.
- 5.83 In her evidence for Ravensdown Ms Taylor expressed dissatisfaction at the inclusion of only part of this phrase²⁹. We are not clear why exactly; common sense suggests to us that water used for food processing is an “industrial or commercial use”.
- 5.84 For these reasons we support OBJ TANK 14 with the amendments recommended to us by the Reporting Officers.

Heretaunga Plains Aquifer Management

- 5.85 In both PPC9, and in PPC9 with amendments recommended to us by the Reporting Officers, this heading along with POL TANK 36 to 38, and 42, set out the framework for managing the water resources of the Heretaunga Plains aquifer.
- 5.86 The policy framework was supported by Rules TANK 7-12 in PPC9. The six main rules, which cover the spectrum from a recommended permitted activity in Rule TANK 8 to a recommended prohibited activity in Rule 12, remain with the same numbers in PPC9 as recommended to us as in PPC9.
- 5.87 There were a wide range of submissions on the general topic of Heretaunga Plains aquifer management. They varied from supporting a ban on further allocation of new groundwater from the aquifer to seeking new water be provided, that municipal takes be excluded from these provisions to limiting takes to particular months, and reducing the total annual allocation limit from the aquifer to 70 Mm³.
- 5.88 No substantive evidence was led on this particular topic; rather the focus was on the subsequent policies and rules which cover almost all the submissions raised on the general topic of aquifer management.

POL TANK 36

- 5.89 The two key policies that cover the detail of how the Council proposes to manage the groundwater resources of the Heretaunga Plains aquifer are POL TANK 36 and 37. In simple terms POL TANK 36 sets out what the adverse effects of groundwater abstraction are, and then presents a “staged approach” to groundwater management. POL TANK 37 details how the over-allocation, and subsequent re-allocation of groundwater will be managed. More detail is also provided in POL TANK 38, 42 and 52.
- 5.90 It goes without saying that these are both highly contentious policies, not least because they embody a potential ban on granting new consents in both POL TANK 36 and 37, and set an

²⁹ EIC of Carmen Taylor at her Paragraphs 4.10 to 4.13.

“interim allocation limit” of 90 Mm³ per year in POL TANK 37, along with how the “actual and reasonable use test” will be applied.

- 5.91 POL TANK 36 says the Council recognises the actual and potential adverse effects of groundwater abstraction on the aquifer on five matters: groundwater levels, flows in connected surface water bodies, flows in the Ngaruroro River, groundwater quality via risks from sea water intrusion and tikanga and mātauranga Māori. It goes on to describe a staged approach to groundwater management which includes: not granting new consents to take and use groundwater, reducing existing levels of use, mitigating adverse effects of abstraction on flows in connected water bodies, gathering information about actual use and effects on stream depletion, monitoring the effectiveness of stream flow maintenance and enhancement schemes, and including review provisions to assess the effectiveness of these methods.
- 5.92 The s42A Reporting Officers recommended some amendments be made to POL TANK 36, but these largely tidy up the way the policy is expressed rather than make substantial changes. The most significant recommended amendment was to Clause f), which originally set out that adverse effects would be avoided by not allowing new water use; as recommended to us it now specifies that new consents to take and use groundwater will not be granted.
- 5.93 However as detailed in paragraph 5.2 above, we have decided to include a non-complying activity Rule 11A, a consequential amendment is necessary to Clause f).

Submissions and Evidence

- 5.94 There were over 50 submissions on POL TANK 36. Matters included in these submissions included:
- a) Many submitters requested that the use of “actual and reasonable” should read just “reasonable”.
 - b) A large number of submitters considered Policy 36(f) should read something like “avoiding further adverse effects by controlling net groundwater use within the “interim allocation limit” set out in POL TANK 37, and many of these submitters also sought that POL TANK 36(g) should read “encouraging water use efficiency” or similar words.
 - c) DOC, Ravensdown, NCC and Twyford water all sought specific amendments. Apart from NCC, aspects of their submissions have all been recommended to be accepted or accepted in part by the s42A Reporting Officers.
- 5.95 Mr Dooney, an expert witness for HortNZ, supported POL TANK 36, albeit with some minor changes suggested. Most of his suggested amendments have been recommended to be accepted by the s42A Reporting Officers, and we accept those recommendations.

POL TANK 37

- 5.96 This policy contains the critical detail about how the Council intends to manage the Heretaunga Plains aquifer. In summary, its five original clauses as notified in PPC9 said that in managing the allocation and use of the aquifer the Council will:
- a) Adopt an “interim allocation limit” of 90 Mm³/y based on the actual and reasonable use test.

- b) Avoid reallocation of any water if it becomes available with the “interim allocation limit” or within the limit of any connected water body until there has been a review of these limits.
- c) Manage the aquifer as an over-allocated management unit and prevent any new allocations of groundwater.
- d) When considering applications for existing consents due for expiry, or when reviewing consents:
 - i. allocate groundwater on an annual volume basis; and
 - ii. apply an assessment of the actual and reasonable use test (unless considering applications under Policy 50, which gives priority to domestic and municipal supplies).
 - iii. Mitigate stream depletion effects on lowland streams by providing for stream flow maintenance and habitat enhancement schemes.

5.97 In the “pink version” of PPC9 additional words were recommended to be added to Clause d)ii. These were based (somewhat loosely) on the evidence of Mr Drury, an expert witness for the two TLA’s, who argued that for consents currently “on hold” under (for instance) s124 of the Act, the consent authority is obliged to take account of the value of existing investment under s104(2A) of the Act when making decisions on such consents.³⁰

5.98 In essence these recommended additional words say that in addition to applying the actual and reasonable use test the Council will take into account any of water use as part of a programmed or staged development specified in the current resource consent if:

- a) the consent holder can demonstrate that existing investment is dependent on water use greater than the actual and reasonable use test; and
- b) any part of the activity or development has not lapsed in the duration of the existing consent; and
- c) the activity or development is integral to the ongoing operation for which the consent was granted; and
- d) water demand for rootstock is available only where there is evidence that a contract to supply that rootstock existed as at 20 May 2020.

Submissions and Evidence

5.99 There were over 300 submissions on POL TANK 37, which is more than for any other single part of PPC9. Almost all opposed the policy, or more accurately parts of the policy, in some way. The main points made by submitters opposing POL TANK 37 included amending the definition of, or references to, “actual and reasonable”, amending or deleting the “interim limit”, and enabling allocation of water that may become available within the “interim limit”.

5.100 In what follows we discuss the evidence of a selected number of parties, including commercial users of water for activities such as food processing, umbrella organisations such as HortNZ and the winegrowers, and other individual companies. While we make some brief comment

³⁰ EIC of Cameron Drury at Paragraphs 16-23.

after the evidence of selected examples of each of these groups, our overall discussion and findings regarding all the relevant matters is at paragraphs 5.168 – 5.179 below.

Commercial Users

- 5.101 We heard legal submissions and evidence from a number of commercial users. They included Heinz Watties and Lowe Corporation Limited.
- 5.102 **Heinz Watties** were represented by Counsel, Ms Lara Blomfield, Mr Bruce Mackay, who is their Agricultural Manager, and Dr Anthony Davoren, a consultant whose evidence is not relevant to this discussion as it related solely to a data blimp from the Tūtaekurī flow recorder site on the Puketapu Bridge).
- 5.103 The company has two major food processing plants located on the outskirts of Hastings. It is one of the larger employers in the region, paying about \$52 million in salaries and wages annually, and they contribute up to 20% of regional GDP, which amounts to about \$1.25 billion annually. It buys about \$20 million of local fruit and vegetables annually.³¹
- 5.104 Heinz Watties is the single largest private water user in the region. It has its own water supply bores with a total consented volume of 8,908,652 m³/y, and a maximum use over the relevant 10 year period up to 2019/20 of 4,587,376 m³/y in 2019. It is the latter volume that would be granted under an assessment just using the actual and reasonable use test. Average annual use over that 10 years was 3,908,652 m³/y.³²
- 5.105 Mr Mackay expressed concern that the maximum annual use over those 10 years will not be sufficient if there are greater volumes of fruit and vegetables to be processed in future years.
- 5.106 The other main concern expressed by Mr Mackay was that under PPC9 no consents could be granted for horticultural use on versatile land that has previously been used for other activities, notably pastoral farming. He said he was aware of “thousands of hectares of prime horticultural land” that currently under PPC9 has no prospect of getting a water take consent except via a water transfer, or seeking a high flow take for water storage. For this reason he supported the change to POL TANK 37(b) put forward by Mr Dooney, the planning expert for HortNZ. He also supported the proposed changes put forward by Mr Drury for the TLA’s to Policy 37(d)(ii).
- 5.107 Ms Bloomfield, counsel for Heinz Watties, said that if current trends for increased production for process crops continue, the company is likely to require more water than would be allocated under the actual and reasonable use test. She noted that while such consent could theoretically be granted under Rule TANK 11 as a discretionary activity, the policy direction in PPC9 would make that “difficult”. She also supported the amendment put forward in the evidence of Mr Drury to Policy 37(d)(ii).
- 5.108 **Lowe Corporation Limited** (LCL) were represented by counsel, Mr Trevor Robinson, the business’s owner, Mr Andrew (Graeme) Lowe, and Mr Gerrard Willis, an expert in planning.
- 5.109 LCL is a meat by-products business based in Hawke’s Bay that processes hides, skins and rendering material at plants throughout New Zealand. About 95% of its production is exported. In August 2020 the company employed 190 people and had an annual turnover of over \$100

³¹ Information sourced from the EIC of Bruce Mackay, Agriculture Manager at Heinz Watties

³² Ibid

million, but Mr Lowe said the workforce had reduced in response to challenging trading conditions brought about the Covid-19 pandemic.

- 5.110 LCL now operates two plants, one in Tomoana (the GHL plant) on the outskirts of Hastings, and one plant (that is jointly owned) at Whakatu (the TPP site). It also has a minority share in a meat rendering plant at Awatoto, and in 2019 “mothballed” another tannery at Pandora in Napier and moved that production to the GHL plant. The Awatoto site draws water from the Napier City Council supply and is not further discussed here.
- 5.111 Mr Lowe, who said process water was vital to LCL’s operations, described the resource consents to take and use water held by LCL. Consents exist to take up to 725,000 m³/y from two bores at the GHL site (which expire in May 2023), up to 978,000 m³/y for a well at the TPP site (which expires in May 2025) and up to 1,225,750 m³/y for “development land” at Whakatu (which also expires in May 2025).
- 5.112 The maximum annual takes for these three consents in the 10 years leading up to 2 May 2020 were 404,687, 514,812 and 201, 414 m³/y respectively. In other words, the actual and reasonable use test would reduce the total volume taken from these bores from 2,806,130 m³/y to 1,120,953 m³/y, which is a 61% reduction overall.
- 5.113 Mr Willis supported the phasing out of over-allocation of the Heretaunga Plains aquifer consistent with the NPSFM, but did not consider this was inconsistent with LCL being able to take and use water in quantities that exceed current use. He said that the NPSFM’s obligation to phase out over-allocation is at the water body scale, not to stop any existing user increasing their water take.
- 5.114 Mr Willis also asserted that industry supplied with water from municipal supply may be able to grow their water use, whereas industry supplied from its own bores cannot, is not justified in resource management terms. He also noted that under Clause 3.3 of the NPSUD the Council is required to provide development capacity to meet industrial demand.

Comment on Commercial Users

- 5.115 We think it is fair to characterise that many of the submissions on PPC9 from almost all categories of water users recognise that over-allocation of the aquifer needs to be phased out, but that they are a “special case” that should be (at least partly) exempt from such provisions.
- 5.116 LCL is a good example of this approach. In the relevant ten year period LCL has only used, as a maximum, about 40% of the water currently allocated to them in annual volumes on their resource consents. Similarly, Heinz Watties has used a maximum of just over 50% of the annual volumes water currently allocated to them. Both companies seek additional water over and above “actual and reasonable use” to provide for future growth.
- 5.117 Mr Willis told us that the NPSFM’s obligation to phase out over-allocation is at the water body scale, not to stop any existing user increasing their water take. This is contradictory – the only way over-allocation can be phased out is by overall reductions in consented water volumes where they are not presently being utilised. LCL is an example of its allocation being much greater than what they use.
- 5.118 Providing substantial exemptions from the “actual and reasonable” use test to many users would undermine the implementation of the NPSFM directive to phase out over-allocation. If one large user, or one group of users, are made exempt, the integrity of the Council’s proposed process to phase out over-allocation would be significantly eroded. A precedent would be set

that other users, or groups of users, should also get more water than justified through the actual and reasonable use test.

- 5.119 Having said this we believe that the proposed amendments to POL TANK 37(d)(ii) in the “pink version” of PPC9 should be accepted. It remains to be seen how much water and to whom these provisions will apply.

Large Commercial Growers

- 5.120 Under this heading we discuss the evidence from T&G Global Limited³³, Mr Apple NZ Limited, Johnny Appleseed and Delegat Limited.
- 5.121 T&G Global Limited (T&G) were represented by legal counsel, Ms Lara Blomfield, and their Operations Director, Mr Craig Betty.
- 5.122 Mr Betty outlined T&G’s operations in Hawke’s Bay. He said the company is NZ’s largest pipfruit business accounting for about 30% of the country’s exports. In Hawke’s Bay a wholly owned subsidiary³⁴ owns or leases over 740 ha of land for apple orchards, and owns two pack houses at Whakatu, with a value of \$90 million. It also employs about 200 permanent staff and 900 seasonal employees in the region.
- 5.123 T&G Global holds over 80 resource consents, all but one of which take groundwater and all but “a very small number” which use trickle irrigation. Mr Betty acknowledged that “historically T&G had been able to get consent to take a greater volume of water than was actually needed to water its orchards” but it no longer does that (and the Council does not allow it). However T&G sought specific amendments to the definition of “actual and reasonable” that would allow extra land to be irrigated from the water previously (over) allocated to a specific land block³⁵, and supported the proposed amendment to POL TANK 37(b) put forward by Mr Dooney (HortNZ) that would allow any water below the “interim allocation limit” that had not been allocated to specific users to be allocated to (inter alia) “essential municipal users or primary production purposes on versatile land”.³⁶
- 5.124 The company also invests in land development; according to Mr Betty this amounts to about 60ha of new apple orchards annually, at a cost of about \$12 million. It only buys or leases land that has existing consents associated with it, but it also sought changes that could allow water transfers between properties owned and leased by T&G, and in doing so (at least implicitly) continue to take water over and above “actual and reasonable”.
- 5.125 These points were further addressed by Ms Blomfield in her legal submissions. In particular, she sought changes to the definition of “actual and reasonable” use to allow water that has been allocated for a specific future activity, but not yet fully utilised, to be renewed³⁷. She also supported the proposed amendment to POL TANK 37(b) put forward by Mr Dooney representing HortNZ to allow some limited reallocation of water that becomes available within the “interim allocation limit”.
- 5.126 Mr Apple NZ Limited (Mr Apple) was represented by legal counsel James Gardner-Hopkins and Mr Richard Hill, their Chief Operating Officer. Mr Gardner-Hopkins said Mr Apple is a member

³³ T&G is better known as Turners and Growers

³⁴ Known as ENZAFruit NZ International Limited (ENZIL)

³⁵ Legal submissions of Lara Blomfield at Paragraph 19, quoting the EIC of Craig Betty at Paragraph 61

³⁶ EIC of Craig Betty at Paragraph 40

³⁷ Noting that the RMA does not provide for resource consents to be “renewed”; rather they are replaced.

of HortNZ, and supports their case, but that their focus would be on specific concerns of Mr Apple.

- 5.127 Mr Hill said that Mr Apple is Hawke’s Bay’s largest vertically integrated apple company and that it employs over 2,200 people during peak harvest and packing. It has over 50 separate orchard locations in what he called 15 sectors, with about 1,200 net planted hectares on the Heretaunga and Ruataniwha Plains. Each of the sectors vary in size from 60 hectares to over 120 hectares. The business is run as “one orchard”, by which Mr Hill meant that they make efficiency decisions (e.g. use of labour, water use) in the company as a whole.
- 5.128 Mr Hill said that Mr Apple “is generally in agreement with the big picture recommendations that have come out of the TANK process that have evolved into PPC9” but having said that he observed that “the devil is in the detail”.³⁸
- 5.129 Expanding upon this Mr Hill said that Mr Apple are gradually replacing existing apple orchards with smaller, more closely planted higher yielding trees. However, as these have a smaller, more shallow root ball the trees more easily drought stressed, and irrigation water needs to be applied more often. Some consents have been amalgamated to provide more flexible and efficient water use. Mr Hill made a particular plea that when irrigation volumes are restricted during a season this needs to be documented in advance, and restrictions should be imposed in stages, with “a base amount available to keep trees alive”.
- 5.130 Mr Gardner-Hopkins submitted that Policy 11 of the NPSFM 2020, which reads “Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided”, is “not as directive as others might suggest”. In support of this he particularly submitted that “there is no time-frame given for the phasing out of over-allocation” and that it does not need to be “solved” by 2024, and the “avoid directive” only take effect once over-allocation is phased out, with no immediate requirement to avoid over-allocation.³⁹ We discuss this further in paragraphs 5.224 and 5.225 below.
- 5.131 Mr Gardner-Hopkins supported the S42A Reporting Officer’s recommendation to change the basis for the actual and reasonable use test to the maximum over the 10y period specified, but that if a model is used instead, context specific factors need to be taken account of. Additionally, his client wishes to seek “global consents” for some sectors or groups of orchards, but he was not sure how this would fit within the individual consents definition of “actual and reasonable”, or if it was within the “transfer provisions” of PPC9. One way of providing clarity around this would be for worked examples to be provided, or alternatively, for joint or global consent applications that may not meet Rule TANK 11, he sought that Rule TANK 12 be a non-complying activity.
- 5.132 Johnny Appleseed was represented at the hearing by Paul Paynter, who provided a Power Point summary of their submission. The company holds about 70 titles covering 700ha of mostly apples, pears and stonefruit, and employs about 360FTE’s. Mr Paynter asserted that the Council’s understanding of the horticultural growers was “naïve” and that they had a limited understanding of the needs of the industry. He said that there was immense opportunity for improvement, and that must be industry led.

³⁸ EIC of Richard Hill at Paragraph 13.

³⁹ At his Paragraphs 20 and 21.

- 5.133 The company's submission points were the same as those from HortNZ, which we addressed comprehensively when discussing their evidence and submissions. We do not need to repeat that here.
- 5.134 Delekat Limited were represented at the hearing by Ms Blomfield. They had circulated expert evidence from Dr Balasubramaniam, the company's Grower Business Development Manager, but he had taken ill and no other company representative was available at short notice.
- 5.135 In Hawke's Bay Delekat has 677ha of vineyard planted in the region, and in total owns about 1000ha of land, with over 800ha in two blocks at Matapiro Road on the Crownthorpe Terraces⁴⁰, with the balance in the Gimblett Gravels. The company also owns a winery north of Hastings. Dr Balasubramaniam said that the current value of these assets is about \$230 million.
- 5.136 Delekat employs about 30 permanent staff and up to 300 contractors on a seasonal basis. The company holds consents for the separate vineyards, and another for the winery (along with some other land uses).
- 5.137 Ms Blomfield discussed proposed amendments put forward by the S42A Reporting Officers', and she supported many of these.
- 5.138 Delekat's main concerns were similar to other horticultural uses – and particularly the wine growers and orchardists – that the definition of "actual and reasonable" combined with POL TANK 36(f) potentially preclude the use of water presently consented for planned future development.

Discussion

- 5.139 As we support the proposed changes in the "pink version" of PPC9 to POL TANK 37(d)(ii) some of the criticisms made above will be overcome. This is because water takes presently consented, but not yet used, for planned future development may be able to be consented under this policy.
- 5.140 We do not support the proposed amendments put forward by Mr Dooney to POL TANK 37(b) for reasons we discuss in paragraphs 5.172 and 5.173 below.

Horticulture New Zealand (HortNZ)

- 5.141 Hort NZ represent growers of all kinds on the Heretaunga Plains, including vineyards, fruit growers and vegetable growers. We note that the winegrowers provided separate legal submissions and evidence, and we discuss this separately below.
- 5.142 Hort NZ were represented at the hearing by legal counsel, Ms Helen Atkins⁴¹, and six expert witnesses: Andrew Dooney (planning), Stuart Ford (economics and Overseer), Gillian Holmes (hydrology), Catherine Sturgeon (water quality), Damien Farelly (NZGAP) and Michelle Sands (corporate and grower statements). We deal with the legal submissions and evidence providing an overview of horticulture on the Heretaunga Plains, and those matters directly relevant to groundwater management here.
- 5.143 The importance of Hawke's Bay to fruit and vegetable production in New Zealand was outlined by Ms Sands in her EIC. There is an estimated 20,600ha of horticultural land in the region,

⁴⁰ One of these blocks is now part irrigated from up to 700,000 cubic metres of water that can be taken from the Ngaruroro River during winter high flows.

⁴¹ Who was supported by Ms Nicole Buxeda

which is 15% of the total such land in the country. Of this, 16,800ha is in the TANK catchments, and by area is made up of about 40% in vegetable growing, 35% in pipfruit and 25% in grapes.⁴²

- 5.144 The region accounts for about two-thirds of the country's apple and pear production, and it has the second largest crop of summer fruit (after Central Otago). It also produces over 30% of the country's process vegetables and is the region with the largest squash production. Two major food processing companies – Heinz Watties and McCain Foods - have fruit and vegetable processing plants in Hawke's Bay.
- 5.145 Ms Sands said that about \$761 million per annum was generated by the sector in 2017, which is just over 10% of the regional economy, and that in 2020 the industry employed about 6,700 people, albeit many of whom are seasonal workers. Additionally, Heinz Watties and McCains employed about 1,800 people in their food processing plants.
- 5.146 Earnings from horticulture are sensitive to irrigation restrictions. This was shown by Mr Ford in his Table 2, where although the scenarios presented are far more restrictive than proposed in PPC9, does show that in a very dry water year (2012/13), horticultural earnings on the Heretaunga Plains could suffer significantly.
- 5.147 Ms Sands summarised the overall position of HortNZ in her EIC as follows:⁴³ In most parts HortNZ supports PPC9. The staged approach within PPC9 is ambitious but achievable, and it is largely consistent with the process outlined in the NPSFM 2020 and with sustainable management as set out in Part 2 of the RMA.
- 5.148 The exception expressed in the words "in most parts" was outlined by Ms Atkins⁴⁴ as being that PPC9 (as then drafted via the Addendum Report) "does not make adequate provision for, nor give appropriate recognition to, the realities of water requirements for food supply needed to support a growing population".
- 5.149 Both Ms Atkins and Ms Sands opined that the growing of fruit and vegetables for domestic consumption enable the health needs of people, and so in their view, fit into Tier 2 of Objective 1 of the NPSFM⁴⁵. Ms Sands then further argued that this meant a provisional additional allowance should be made for extra water for growers. On the same basis Mr Dooney argued OBJ TANK 10-14 and 16 are "required" to be altered to include a reference to food production.⁴⁶
- 5.150 In their addendum report the Reporting Officers had opined that "some horticulture may fit inside Tier 2 of (Objective 1)" and that they were "not sure how the Council could determine how much water we could allocate to grow fruit and vegetables for domestic supply".⁴⁷

Discussion

- 5.151 We do not agree that the growing of fruit and vegetables for domestic supply clearly fits into Tier 2 of Objective 1.
- 5.152 Separately one of the Panel has had argued before him that wastewater treatment and disposal, and the generation of hydro-electric power also fit into Tier 2. The problem that all

⁴² Or perhaps more accurately 16,851ha. EIC of Stuart Ford at his Table 1.

⁴³ EIC of Michelle Sands at Paragraph 67, paraphrased.

⁴⁴ Legal submissions of Helen Atkins at Paragraph 4.

⁴⁵ See for instance the legal submissions of Helen Atkins at her Paragraphs 18 -34.

⁴⁶ EIC of Andrew Dooney at Paragraphs 32 and 33

⁴⁷ s42A addendum report at pp 15.

these assertions about Tier 2 have is that the Objective of the NPSFM 2020 is very ambiguous, referring only to the “health needs of people (such as drinking water)”. Quite what else fits into Tier 2 is unable to be determined from such a vague description. Given this, we find it more likely that activities such as the growing of vegetable for domestic supply fits more logically into Tier 3, which is “the ability of people and communities to provide for their social, economic and cultural well-being, now and in the future. This view was supported by Mr Conway in his legal submissions on behalf of the Council.

- 5.153 As we have set out in our discussion on commercial users at paragraphs 5.115 – 5.119 above many parties broadly supported POL TANK 37 but argued they were a “special case” that warranted additional water being granted over and above “actual and reasonable”. HortNZ were no exception for this, and apart from the significant amendments to POL TANK 37 d)(ii), we do not accept their plea for greater exemptions from the “actual and reasonable” use test.

*The Winegrowers*⁴⁸

- 5.154 The winegrowers were represented at the hearing by Ms Shannon Johnston of Cooper Rapley Law, and five expert witnesses.
- 5.155 The national significance of vineyard production in the Hawke’s Bay region was detailed particularly by Mr Fabian Yukich, who among other roles is a Director and Deputy Chair of NZ Winegrowers, and Chair of their environment committee. His family have been involved in winegrowing since the 1930’s and were the founding family of Montana Wines.
- 5.156 Mr Yukich said that wine is New Zealand’s 6th largest export commodity, with exports totalling \$1.92 billion in the year ending 30 June 2020, during which the Hawke’s Bay region produced 43,000 tonnes of grapes. The industry employs about 1,000 people in the region. A very large proportion of NZ’s production of red wine varieties, including merlot and syrah, are produced in Hawke’s Bay.
- 5.157 There are 100 wineries in Hawke’s Bay, with about 57 grape growers and 4,721ha of land utilised for grape growing. About 75% of this land is in the TANK catchments, with the main exceptions being on the Ruataniwha Plains and the lower Esk catchment. The region is the second largest wine growing area in the country after Marlborough.
- 5.158 Of the total land in vineyards about 3,577ha are irrigated, including all those in the economically important Gimblett Gravels and Bridge Pa triangle subregions.⁴⁹
- 5.159 Dr Edwin Massey, who is General Manager Sustainability at NZ Winegrowers, said that nationally almost 45 million cubic metres of water was used nationally by vineyards in 2019/20, with 98% of this for irrigation. Of this Hawke’s Bay used an estimated 5.32M m³, which equates to an average of about 149mm per annum of irrigation water being applied per unit area of vineyard.
- 5.160 Mr Yukich, Dr Massey and another expert witness, Ms Emma Taylor, emphasised the critical importance of irrigation to different stages of vineyard production, particularly on the light

⁴⁸ This embraces Hawke’s Bay Winegrowers Association Limited, Gimblett Gravels Winegrowers Association, Villa Maria Estate Limited and Pernod Ricard Winemakers New Zealand Limited. We refer to them collectively, as the witnesses did, as “the winegrowers”.

⁴⁹ EIC of Emma Taylor at Paragraph 21

alluvial, free draining soils that hold little water, but which are of very high value for vineyard production.⁵⁰

- 5.161 Ms Taylor also observed that many existing vineyard plantings will have to be replaced within the lifetime of PPC9, and that recent industry trends are for higher planting densities, which she asserted are more efficient. She said however that under PPC9 “there would not be enough water for existing vineyards to continue, let alone any development of higher density, and therefore more efficient, plantings”.⁵¹
- 5.162 The overall position of the winegrowers was summarised by Ms Johnston. She submitted that winegrowers are responsible water users, and that in many respects the water quantity objectives of PPC9 align with viticulture industry best practice. While this meant that the winegrowers are generally supportive of the overall intent of PPC9, particularly in regard to over-allocation in the TANK catchments, they seek amendments to better reflect that intent or improve its workability for viticulture in the region.⁵²
- 5.163 In particular Ms Johnston asserted that PPC9 applies a “sinking lid” approach to water allocation, at least as far as individual growers are concerned.⁵³ In her view this meant that “a vineyard’s water allocation can go down but will never return to a previous level.”⁵⁴ She opined that this locks existing viticultural activities to already low water use, and that this would “significantly restrict intensification of existing operations”. In saying this Ms Johnston acknowledged that Rule TANK 11 is intended to preserve some flexibility by enabling individual applications that exceed the actual and reasonable use test to be assessed as discretionary activities. In her view however, any such application would face difficult s104 tests when assessed within directive objectives and policies which require over-allocation to be avoided and phased out over time.⁵⁵

Discussion

- 5.164 The assertion that PPC9 includes a “sinking lid” provision, which counsel for the winegrowers Ms Johnston asserted means a vineyard’s water allocation can go down under the actual and reasonable use test but will never return to a previous level. This will indeed be the case if the particular vineyard was previously allocated more water than necessary under the “actual and reasonable” use test.⁵⁶ It also applies to other water users, bar perhaps the TLA’s.
- 5.165 We accept that there is an associated issue that as winegrowing industry practice is changing to more intensive plantings, more water will actually be needed per unit area to support these plantings, and PPC9 makes no provision for this. The changes to POL TANK37 (d)(ii) in the “pink version” of PPC9 do not cover this situation; rather it is explicitly not allowed under earlier sections of POL TANK 37.
- 5.166 What is not stated in the Winegrower’s evidence is that the vineyards are often owned by larger companies that can transfer water from one site to another (within some significant location related constraints – see POL TANK 48). If for instance a crop is removed, there will

⁵⁰ Particular examples include the Gimblett Gravels and Bridge Pa Triangle growing areas.

⁵¹ EIC of Emma Taylor at Paragraph 50

⁵² Legal submissions of Shannon Johnston at Paragraphs 4 and 5.

⁵³ We make this distinction because the use of the terminology “sinking lid” is more commonly used to refer to staged reductions in an overall allocation limit, in this case the 90 Mm³ per annum. This is not the intention of PPC9.

⁵⁴ At her Paragraph 34

⁵⁵ At her Paragraph 37

⁵⁶ As supported for instance in the EIC of Andrew Dooney at his Paragraph 122

be a gap between that and new plantings. If those plantings are to be more intensive, some of the existing infrastructure will have to be replaced (such as fencing wires). Our suspicion is that there would be at least a year between the old stock being removed and the new stock being planted, in which case water could be transferred to another user.

5.167 While we think the winegrowers have a case, providing exceptions in their circumstances makes it difficult to maintain any sort of equity for all users. To put it another way, if one particular exemption is made to the overall allocation framework in PPC9 for commercial growers of any type, this potentially opens the door to many other exemptions. We are not prepared to let that happen.

Overall Discussion of the Summarised Evidence

5.168 All the submitter's evidence discussed above agrees that the aquifer is overallocated and that this must be phased out; all broadly support the amended "actual and reasonable" use test (but in some instances have reservations about the Irricalc alternative model), and most argue that they are a "special case" that should be treated preferentially under PPC9, and so given some extra water over and above the "actual and reasonable" use test.

5.169 This raises a number of fundamental issues.

5.170 The first issue is whether water presently consented for proposed development, but not yet used, should be able to have those existing consents replaced. This a major issue for many of the grower group and/or umbrella organisations. In response to this, the Reporting Officers recommended amendments to POL TANK 37d(ii)⁵⁷ in the "pink version" dated 30 July 2021. Note that these are conjunctive, and quite restrictive. They do, none the less, go part of the way to meeting the concerns expressed by much of the evidence summarised above that the previously recommended framework would mean no development planned in May 2020 could go ahead under the "actual and reasonable" definition framework alone. We support these changes, with the words "where applicable" added to the start of the clause referring to rootstock survival to improve the way the policy is expressed.

5.171 The second is whether POL TANK 37(b) should be redrafted to allow (rather than avoid) any reallocation of water within the groundwater allocation limit, or within the limit of any connected (surface) water body, rather than wait for a review of the relevant allocation limits. Accompanying changes are sought to POL TANK 38 to allow "new entrants" (rather than just existing consent holders) to apply for consents for re-allocated groundwater.

5.172 This amendment was put forward by Mr Dooney, an expert planning witness for HortNZ.⁵⁸ It was not supported by the Reporting Officers, but as outlined above, was supported by a number of other expert witnesses and counsel at the hearing. It would replace the words in POL TANK 37(b) as follows:

- a) The current words read *"avoid reallocation 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"*.
- b) Mr Dooney's suggested words would read *"restrict the reallocation of any water that might become available within the interim groundwater allocation limit or within the*

⁵⁷ Note the same changes are made in Policy 52(b)(i).

⁵⁸ EIC of Andrew Dooney at his Paragraph 129.

limit of any connected water body to essential municipal uses or primary production on versatile land, or for use in stream flow or enhancement schemes.

- 5.173 Although this suggestion has merit, it favours one sector – primary production – over others such as food processing. The removal of the words “or primary production on versatile land”, would effectively focus the policy on municipal uses – which are given priority allocation in any case, and stream enhancement schemes, which we consider should have similar priority.
- 5.174 A third issue – raised particularly by the Winegrowers – is the impact of Zone 1 restrictions on the viability of vineyards within this zone. In essence groundwater in Zone 1 is considered to have strong hydraulic connections to surface water, so any groundwater take in this zone is proposed to be treated as a surface water take, and so is subject to minimum flow restrictions, particularly in the Ngaruroro catchment.
- 5.175 In paragraph 6.5 of Chapter 6 of our report we say:

Under the “pink version” of PC9, the Zone 1 groundwater boundaries can be found in the Schedule 31 Maps A, C and E⁵⁹. They essentially cover a thin ribbon of land on either side of the lower Ngaruroro River (downstream of about Poporangi Stream), the lower Maraekakaho River and Tūtaekurī River downstream of the Mangaone River confluence. Groundwater takes in Zone 1 are to be managed as if they are direct surface water takes on the assumption that their close proximity to surface waters means that likely to be hydrologically connected to them. Land use in Zone 1 is primarily intensive (e.g., cropping, vineyards and orchards). In response to an information request from the panel, Mr Shannon Johnston, Counsel for the Wine Growers, providing information on the number of vineyards, the total vineyard area and the number of vineyard bores within Zone 1⁶⁰. That information indicated there was approximately 2,363 ha of vineyards in Zone 1 land (the majority in the Ngaruroro catchment) drawing water from 68 bores. There is a total of 219 bores in Zone 1 across all land uses.

- 5.176 Our understanding is that restrictions on surface water takes from the Ngaruroro are quite common, so these takes could face significantly more restrictions than they currently do.
- 5.177 Chapter 6 of our report discusses minimum flows in rivers and streams within the TANK catchments. The current minimum flow for the Ngaruroro River at Fernhill is 2,400 litres per second, and we have found no good reason to change that. This will be the flow where the bores in Zone 1 have to stop taking water, just as if they were surface water takes (which effectively they are).
- 5.178 We recognise that this is a significant change for growers who hold consents to take or use water in Zone 1. The s32 report evaluated the consequences of this change, including costs and benefits. We agree with that evaluation.
- 5.179 We also observe that the Objective of the NPSFM 2020 gives priority to the “health and well-being of water bodies and freshwater ecosystems” over all human use values. The minimum flow on the Ngaruroro River has been established to protect instream values, and it is not

⁵⁹ The Council’s own submission sought a correction to the planning maps so that Zone 1 groundwater areas that are connected to the Ngaruroro River are removed from Schedule 31E and inserted onto Schedule 31C. This change improves clarity and consistency.

⁶⁰ Wine Growers’ response to the panel’s request for further information, 2 July 2021.

acceptable that those be eroded downstream of the minimum flow setting point at Fernhill by takes of water that will affect surface water flows.

Overall Findings on POL TANK 37

- 5.180 We have already discussed the definition of “actual and reasonable” in paragraphs 5.69 - 5.77 above, where we outlined our reasons for agreeing with the Reporting Officers’ latest recommendations as to how this definition is worded. We do not need to repeat any of that here.
- 5.181 The first key component of POL TANK 37 is the proposed ““interim allocation limit””, which we now discuss in detail.
- 5.182 The ““interim allocation limit”” of 90 Mm³/y is the Council’s “best estimate of consented actual and reasonable use across the Heretaunga Plains, including consented and permitted takes.”⁶¹
- 5.183 There are three main issues with this estimate: first, will it reflect actual and reasonable use once this is determined fully, second, is it strictly a “limit”, and third, is it the “right number”.
- 5.184 We have already discussed whether it will reflect “actual and reasonable” use once this is determined in paragraphs 5.57 and 5.58 above, where we concluded that the likely answer to this is that it likely will.

Is it a Limit?

- 5.185 We do not believe the way the “interim allocation limit” has been established is necessarily consistent with the definition of a limit in the NPSFM 2020, which is:
- a) Limit means either a limit on resource use, or a take limit
 - b) Limit on resource use means the maximum amount of a resource use that is permissible while still achieving a relevant target attribute state.
- 5.186 As target attribute states all relate to water quality, and not water quantity, so the “interim allocation limit” is a take limit by definition. To be so, the Council would have to specify clearly that no more than 90 Mm³/y will be allocated during any one water year for the life of PPC9. The Council does this by defining the terms “allocation limit for surface water” and “allocation limit for groundwater” in the glossary. The latter says that this is “the maximum quantity that is able to be allocated in water permits”...“and is the sum of the of maximum water permit allocations for the groundwater zone”, which is a definition we support This is primarily given effect to in POL TANK 37(a) which refers to the 90 Mm³/y. Critically however that “interim limit” is based on and driven by the “actual and reasonable” use test, which is specified in POL TANK 37(d) (which was recommended to have significant amendments to provide for development in train in the “pink version” of PPC9 dated 30 July 2021.
- 5.187 The annual quantum of groundwater that will eventually be allocated via the “actual and reasonable” use test is not known at this time. As already noted, Ms Robotham had opined that in 2012/13 the actual annual volume of water used could be up to 10% less than 90 Mm³/y. Given that annual volumes used by many irrigators during that year were not recorded and so had to be estimated, such uncertainty is to be expected.
- 5.188 Additionally, given the furore that arose from the initial recommended exclusion of the 2019/20 water year from assessing the maximum annual volume used through the actual and

⁶¹ S42A Officers’ Report at Paragraph 1332

reasonable use test, our inkling is that many irrigators used more water in 2019/20 than they did in 2012/13. Alternatively, in some (or perhaps many) instances, it may well be that the volume of water taken in 2019/20 was much more accurately measured.

- 5.189 The key point here is that no one knows with certainty how much water will be allocated to irrigators via the “actual and reasonable” use test. It seems very likely that the total allocation will be less than 90 Mm³/y, but it could be slightly more.
- 5.190 Our understanding of the way the “interim allocation limit” would be imposed via PPC9 is that, regardless of whether the actual annual volume allocated via the actual and reasonable use test is (say) 87 Mm³/y or 90 Mm³/y Rule TANK 12 would prohibit the allocation of any more groundwater from the Heretaunga Plains aquifer. The proposed prohibition would also apply if the annual volume allocated eventually exceeds the 90 Mm³/y “interim allocation limit”.
- 5.191 Additionally, no policy settings change if the “actual and reasonable” use test, in conjunction with POL TANK 37, allocates either less or more than the 90 Mm³/y “interim allocation limit”.
- 5.192 In our view this means that the ““interim allocation limit”” is not strictly a limit at all. It is not for instance like setting a minimum flow for a river, below which no more water can be taken apart for essential uses such as domestic and municipal supply. This fits with the NPSFM definition of a take limit.
- 5.193 We have chosen however to use the phrase “interim allocation limit” in PPC9. We punctuate the phrase with parentheses because it is not strictly a limit as defined in the NPSFM 2020. As we have acknowledged previously however, it is very difficult to set a “limit” that can be defended strongly in a large and complex aquifer.
- 5.194 In his expert evidence for the TLA’s Mr Drury suggested it would be more appropriate to refer to the “limit” as a “target”.⁶² However we think that understates what the Council is trying to achieve. While it is not strictly a “limit” in the legal sense, we cannot think of a better word, so throughout the text of this decision, but not in PPC9 itself as modified by our decisions we have used the words “interim allocation limit” throughout.

The Quantum of the “interim allocation limit”

- 5.195 The ““interim allocation limit”” is not strictly based on any firm scientific assessment of how much water can be taken “sustainably” each year from the aquifer. Rather it is based on what the Reporting Officers referred to as “essentially our best estimate of consented actual and reasonable use across the Heretaunga Plains, including consented and permitted takes.”
- 5.196 To use the vernacular, this puts the cart before the horse. It essentially says that “the Council will grant the consents to existing consent holders using the criteria listed in POL TANK 37, which includes the “actual and reasonable” use test, and then figure out if the 90 Mm³/y is right or not”. In the meantime, the Council had proposed that no new groundwater would be allocated until the “interim allocation limit” is reviewed, which under POL TANK 42 would be within 10 years, as Rule TANK 12 would prohibit new takes of groundwater.
- 5.197 In an ideal world, how much water could be taken sustainably from the aquifer each water year would be determined first, and then water would be allocated up to, but not beyond, that limit.

⁶² EIC of Cameron Drury at his Paragraph 46

- 5.198 As already noted however, it is very difficult to assess how much groundwater can be taken sustainably each year from a large aquifer. Groundwater use is very seasonal, with the greatest volumes used over the summer months when irrigation demand peaks, and similarly municipal demand is highest (such as for watering of gardens), as are some commercial activities, such as food processing. For this reason, groundwater levels in bores on the Heretaunga Plains vary by about 1.5 – 3 metres each water year.
- 5.199 Groundwater recharge can also be highly variable year by year. In some years, such as the 2021/22 water year which was extremely wet, recharge via both rivers and streams and LSR would be well above average, whereas irrigation demand would be much below average. However in dry years the opposite applies – recharge will be below average, LSR will be much lower and irrigation demand will be well above average.
- 5.200 One of the ways that the Council attempted to determine how much water could be taken sustainably from the aquifer was to develop a model.
- 5.201 The groundwater model of the aquifer is both complex and multi-dimensional. It was calibrated using over 800 parameters, including aquifer properties, river bed conductances, land surface recharge and irrigation demand multipliers, coastal boundary conductances and drain bed conductances. In all, nearly 50,000 hours was spent running the model using a wide range of different inputs. Despite this, some uncertainties remain with the model (as they do with all groundwater models).
- 5.202 One main finding from the model is summarised in Appendix 11 as follows:
- A dry climate scenario was run to repeat conditions from the dry year 2012–2013 every year for the next 100 years. Results indicate that groundwater levels and river flows remain at low levels, but there is not a long term declining trend, provided the groundwater pumping continues at the rates applied in 2012–2013 (90 Mm³/year) across the Heretaunga Plains groundwater system, which is about 20% higher than average pumping between 2005–2015 (76 Mm³/year).*
- 5.203 Within the acknowledged limitations of the model, this suggests that the 90 Mm³/y “interim allocation limit” is quite conservative. If it is about the maximum volume of groundwater able to be taken in each water year, it will not be taken every year, as in some generally more wet water years water demand will be significantly less than this.
- 5.204 There was general support for the ““interim allocation limit”” being set at 90 Mm³/y, albeit alongside a modified definition of “actual and reasonable” as discussed at paragraphs 5.69 – 5.77 above.
- 5.205 The main party advocating for a lower “interim allocation limit” was NKII, who sought a total allocation limit of 70 Mm³/y from the Heretaunga Plains aquifer. This was apparently based on a very conservative approach to the water budget model (see paragraph 5.36 above) that assessed annual groundwater pumping at 78.1 Mm³/y. It was also based on Mr Tiuka’s assertion that “actual and reasonable” should be assessed on the basis of the lowest annual use of water during the 10 year period, which is a little under 70 Mm³/y.⁶³
- 5.206 The water budget information cited by Mr Tiuka is now outdated. Actual estimates of annual water use are available, and these are shown in the table extracted from Mr Waldron’s evidence at paragraph 5.48 above. It shows that actual water use exceeded 80 Mm³/y in four

⁶³ EIC of Ngaio Tuika at his Paragraphs 90-102

of the ten years of record. This is due primarily to annual water demand for irrigation being highly variable.

- 5.207 In relation to the lowest annual use recorded being the basis of an actual and reasonable use test, we agree with Ms Johnston, counsel for the Winegrowers, that no technical evidence or analysis was provided in support of this proposed reduction in the “interim allocation limit”.⁶⁴
- 5.208 We asked Ms Wilson, NKII’s planning expert witness, how she would envisage the proposed 70 Mm³/y being implemented given that it would most severely affect growers of horticultural, viticultural and vegetable crops. Her response was somewhat dismissive of these concerns, and she suggested this was an issue that the Council would just have to grapple with.
- 5.209 While we accept that an allocation limit of 70 Mm³/y would very likely improve spring flows in some groundwater fed streams on the Heretaunga Plains, we cannot accept that this could only be achieved through severe and arbitrary reductions in water volumes available for irrigation in dry water years. Looking for instance at the worst case water year of 2012/13, the total estimated water use for irrigation was over 52 Mm³/y, and to achieve a 70 Mm³/y allocation limit this would need to cut by over 20 Mm³/y, which represents a nearly 40% reduction in take on average to each irrigator who takes water from the aquifer.
- 5.210 Much evidence was provided that in dry years this would have disastrous consequences for many water users on the Heretaunga Plains, with widespread crop, orchard and viticultural failures, leading to major economic losses for growers and downstream processors.
- 5.211 We believe that irrigators need sufficient groundwater to be allocated to them to carry them through dry or very dry water years in an economically sustainable way. In saying this we note that collaborative approaches to water use – notably the Twyford Water group – can maximise the efficient use of water by a co-operative approach that is effectively “enforced” within the user group. Further, temporary water transfers and the like, particularly when crops are removed to be replaced, are an option available to many companies and grower groups.⁶⁵
- 5.212 Based just on the modelling, the “interim allocation limit” could be regarded as conservative. However, based on actual groundwater levels, which have been slowly declining in some parts of the aquifer, the interim limit could be regarded as a little generous. It seems to us to strike about the right balance.
- 5.213 For these reasons the submissions of parties seeking a reduction in the “interim allocation limit” to 70 Mm³/y have been rejected. We have decided that the “interim allocation limit” will be set in PPC9 as 90 Mm³/y, via POL TANK 37(a).

POL TANK 52

- 5.214 We have chosen to include POL TANK 52 in this chapter of our report because although it covers over-allocation of groundwater and surface water in the TANK catchments, most of the existing over-allocation is from the Heretaunga Plains aquifer. Additionally, the recommended amendments to Clause d(iii) of POL TANK 37 in the “pink version” of PPC9, that would enable developments in train to potentially be allocated water over and above the “actual and reasonable,” use test, have also been recommended to be included in POL TANK 52 as Clause

⁶⁴ Legal Submissions of Shannon Johnston at her Paragraph 54

⁶⁵ As provided for by TANK Policy 48.

b(iii) . We support the addition of this text in POL TANK 37, and for the reasons discussed there we also support their inclusion in POL TANK 52. We do not discuss this matter further here.

- 5.215 To give some context to this discussion we noted at paragraph 5.2 of this Chapter of our report that we have added a new non-complying activity Rule 11A, which is restricted to water potentially taken for essential human health needs and for any such consent to be granted, must pass high policy thresholds. A minor consequential change is necessary to POL TANK 52 to reflect our decision to provide an additional Rule TANK 11A as a non-complying activity.
- 5.216 POL TANK 52 in part implements OBJ TANK 18, which is discussed in Chapter 7 of our report on high flow allocation.
- 5.217 POL TANK 52 was included in PPC9. It set out how the Council would phase out over-allocation and listed eight ways in which this would occur. They included:
- a) preventing new allocation of water;
 - b) allocating water via the “actual and reasonable” use test;
 - c) imposing conditions on consents that required good management practice, and that water was used efficiently;
 - d) reducing the amount of water that could be taken without consent (apart from uses occurring before 2 May 2020);
 - e) encouraging site to site transfers of water, but not of allocated but unused water;
 - f) enabling flexible use of water such as through catchment collectives, water user groups or global water permits; and
 - g) supporting the rostering of water use or reducing rates of take to avoid water use restrictions at minimum or trigger flows.
- 5.218 The s42A Reporting Officers recommended a number of amendments to the policy, the most significant of which are those identical to which we have agreed to in POL TANK 37. That aside, only relatively minor changes are recommended by the Reporting Officers to POL TANK 52; we would describe these as improving the language and clarity of the policy rather than making any fundamental changes to what was notified in PPC9.

Submissions and Evidence

- 5.219 There were over 100 submission points on POL TANK 52. They included enabling takes at high flows for storage and release, changing the meaning of “actual and reasonable”, enabling allocation of surface water above “actual and reasonable”, and enabling the transfer of allocated but unused water.
- 5.220 In his expert evidence on behalf of Lowe Corporation, Mr Willis sought changes to POL TANK 52 b(ii).⁶⁶ The s42A Reporting Officers recommended that these changes, that refer to matters such as good management practice and good management standards, largely be accepted, and like Mr Willis, we support their recommendations.

⁶⁶ EIC of Gerrard Willis at his Paragraph 110.

- 5.221 In the Appendix to her expert evidence Ms Wilson sought that the clause that referred to the “actual and reasonable use” test in POL TANK 52 be deleted. No supporting evidence was presented to support this change. We consider that the “actual and reasonable” use test is fundamental to phasing out over-allocation, and we cannot understand why she sought to have this removed from POL TANK 52.
- 5.222 Mr Dooney, an expert witness for HortNZ supported the Reporting Officers recommended amendments to POL TANK 52 in response to his client’s submissions.

Discussion and Findings

- 5.223 POL TANK 52 gives effect in part to Policy 11 of the NPSFM 2020, which is “that freshwater is allocated and used efficiently, all existing over-allocation is phased out and future over-allocation is avoided”.
- 5.224 In his legal submissions on behalf of Mr Apple, Mr Gardner-Hopkins submitted that⁶⁷:

There is no time frame given for the phasing out of over-allocation. While the NPSFM is required to be given effect to by 2024, that does not mean that any over-allocation must be “solved” by 2024. The timing of any measures must be proportionate, taking into account all relevant considerations including economic well-being under s5 of the RMA, as well as efficiency under s7(b). (c) Importantly, the avoid directive only takes operative effect once any over-allocation is phased out. There is no immediate requirement to “avoid” over-allocation.

- 5.225 We do not agree. The direction to avoid any further over-allocation and phase out existing over-allocation has been in the NPSFM as Objective B2 since 2014. It is not a new requirement, and the Council is obliged to give effect to this provision for the last eight years. There is no justification for the Council not to give immediate effect to the requirement to avoid over-allocation.
- 5.226 In response to submissions the s42A Reporting Officers recommended that the words “or high flow allocations” be added to Clause (a) of POL TANK 52. As this is a necessary addition to provide consistency with the high flow allocation provisions in PPC9, we support their recommendation.
- 5.227 The Reporting Officers recommended that submissions that sought to change the meaning of “actual and reasonable”, enable allocation of surface water above “actual and reasonable”, and enable the transfer of allocated but unused water be rejected. We support their recommendations; accepting any of these submission points would be inconsistent with our other decisions on PPC9.

⁶⁷ At his Paragraph 20.9

POL TANK 38

5.228 This is a relatively short policy that states the Council will restrict the re-allocation of groundwater to holders of permits to take and use water from the aquifer as at 2 May 2020, and will review permits or allocate water according to PPC9 policies and rules either upon expiry of the consent, or by reviewing permits within 10 years of the operative date of PPC9.

Submissions and Evidence

5.229 There were 86 submissions on POL TANK 38. The great majority of them opposed the policy, and either sought that water can be re-allocated to any applicant, rather than just existing permit holders as of 2 May 2020, or that (in effect) Mr Dooney’s proposed amendment to POL TANK 37(b) be included in PPC9. We have already discussed our reasons for not accepting the full text of Mr Dooney’s recommended amendment to POL TANK 37(b) in paragraphs 5.171 – 5.173 above.

Discussion

5.230 The Reporting Officers have recommended some minor changes to POL TANK 38, and we support those recommendations

5.231 We were initially concerned that the Council envisages that the “interim” limit could stay in place for up to 10 years via POL TANK 42. However given the very large number of consents presently “on hold” under the provisions of s124 of the RMA, along with the large numbers expiring over the next five years or so, we support this provision in POL TANK 42. We discuss this in Chapter 2, paragraph 2.4 (g).

POL TANK 42

5.232 This policy commits the Council to review the “appropriateness” of the “interim allocation limit”, and to develop a plan change to ensure any over-allocation is phased out within 10 years of PPC9 becoming operative. This would occur after water has been allocated and consents reviewed in accordance with POL TANK 36-38 and will (in summary) determine:

- a) The amount of water allocated in relation to the “interim limit”.
- b) The annual volume of groundwater recorded to be used over each of those 10 years.
- c) Whether there are changes in the relationship between groundwater abstraction, river flows and groundwater levels.
- d) In relation to the adverse effects listed in POL TANK 36 determine the effects of groundwater takes on stream flows, and the effectiveness of any stream flow maintenance and habitat enhancement work.

Submissions and Evidence

5.233 There were 11 submissions on POL TANK 42 and another four on groundwater management review as a generic heading. No substantive evidence was led on POL TANK 42.

Finding

5.234 The Reporting Officers have recommended that two submissions from Pernod Ricard Winemakers be accepted, and we support these as they clarify the intention of the policy.

Chapter 6 – Surface Water Quantity

Introduction

- 6.1 This section of our report deals with the objectives, policies, rules and schedules that relate to surface water minimum flows in the TANK catchments and includes comments on:
- a) OBJ TANK 10, 11, 12, 13, 14 and 15 which sit under the heading ‘Catchment Objectives.
 - b) OBJ TANK 16, 17 and 18 which sit under the heading ‘Water Quantity’.
 - c) POL TANK 36 which acknowledges the potential adverse effects of groundwater abstraction (including effects on surface flows) and sets out mitigation measures.
 - d) POL TANK 39.
 - e) Policies which sit under the heading ‘Surface Water Low Flow Management’. These include policies TANK 43 (Flow Management Regimes: Tūtaekurī, Ahuriri, Ngaruroro and Karamū) and TANK 44 (Paritua and Karewarewa Streams).
 - f) POL TANK 45 (general water allocation).
 - g) POL TANK 48 and 49 (water use change/transfer and permit duration).
 - h) POL TANK 51 (water allocation – Priority).
 - i) Rules TANK 7, 8, 9, 10, 11 and 12 which relate to the taking of groundwater and surface water. These rules are addressed in more detail in our Chapter 9 “General Water Quality Management” on Rules for Taking and Using Surface and Ground Water.
 - j) Schedule 31, which comprises a table of minimum flows for rivers, streams and groundwater, trigger flows for flow maintenance and allocation limits for surface waters and Zone 1 groundwater.
- 6.2 POL TANK 53 (frost protection, temporary and non-consumptive water takes) is dealt with under a separate heading. Rules TANK 7, 8, 9, 10, 11 and 12 are also dealt with under a separate heading but are referred to in this section.
- 6.3 The crux of minimum flows under PPC9 is Schedule 31 (Flows, Levels and Allocation Limits). This is where the policies and rules lead us to after determining whether an existing or proposed water take is subject to a minimum flow (or trigger flow) and an allocation limit. Schedule 31 tables:
- i. what rivers are subject to specific minimum flows,
 - ii. what those minimum flows are (i.e., the hard numbers in litres per second or L/sec),
 - iii. the location of the minimum flow monitoring site (called the ‘Flow management site’),
 - iv. Flow maintenance triggers, and

v. the Allocation Limit for specific rivers and groundwater.

- 6.4 We note here that under Schedule 31, the minimum flow is the flow at which relevant surface water and Zone 1 groundwater takes must cease when, either, there is no appropriate stream flow maintenance scheme in place, or, when a water user does not participate in a stream flow maintenance scheme. Also, the flow maintenance trigger is the flow which stream flow maintenance schemes must maintain for participating water users to continue taking water.
- 6.5 Under the “pink version” of PPC9, the Zone 1 groundwater boundaries can be found in the Schedule 31 Maps A, C and E¹. They essentially cover a thin ribbon of land on either side of the lower Ngaruroro River (downstream of about Poporangi Stream), the lower Maraekakaho River and Tūtaekurī River downstream of the Mangaone River confluence. Groundwater takes in Zone 1 are to be managed as if they are direct surface water takes on the assumption that their close proximity to surface waters means that likely to be hydrologically connected to them. Land use in Zone 1 is primarily intensive (e.g., cropping, vineyards and orchards). In response to an information request from the panel, Mr Shannon Johnston, Counsel for the Wine Growers, providing information on the number of vineyards, the total vineyard area and the number of vineyard bores within Zone 1². That information indicated there was approximately 2,363 ha of vineyards in Zone 1 land (the majority in the Ngaruroro catchment) drawing water from 68 bores. There are 73 groundwater take consents in the Tūtaekurī Zone 1 area. Of those, 55 are already classed as stream depleting takes. There are 221 groundwater consents in the Ngaruroro and Heretaunga Plains Zone 1. Of these, 118 are already considered stream depleting, and 103 are not current considered stream depleting.
- 6.6 Schedule 31 lists minimum flows for the Karamū/Clive, Ngaruroro and Tūtaekurī catchments only. While the Ahuriri catchment is included in the schedule, there are no specified minimum flows or flow maintenance trigger flows. We understand that the rationale behind this is that an allocation limit (an instantaneous low flow) will be set as a part of the upcoming Kotahi plan review. In the meantime, the allocation limit is the existing use.

Objectives

- 6.7 Turning our attention back to the Objectives, OBJ TANK 10 through to 15 are specific to each of the four TANK catchments (10 to 13), groundwater (14) and wetlands and lake waahi taonga (15). As noted elsewhere (in Chapter 4 Surface Water Quality & Land Management), although there are no specific references in OBJ TANK 10 to 13 to minimum flows, they set out in general terms the desired environmental outcomes for each catchment and refer to both water quality, groundwater levels and surface flows, the latter which we address in this section. They state desired environmental outcomes, or more correctly, what outcomes are to be ‘enabled’, through meeting the objective. Many of the ‘outcomes’ listed under each of these objectives are probably affected, or influenced, in some way by allocation and minimum flow limits.
- 6.8 OBJ TANK 16 through to 18 address water allocation more directly, with OBJ TANK 16 specifically referring to priorities for water allocation subject to limits, targets and flow regimes which provide for the values of each water body. OBJ TANK 16 is discussed more thoroughly in Chapter 8 on Priority Allocation, and we make no further comment on it here.

¹ The Council’s own submission sought a correction to the planning maps so that Zone 1 groundwater areas that are connected to the Ngaruroro River are removed from Schedule 31E and inserted onto Schedule 31C. This change improves clarity and consistency.

² Wine Growers’ response to the panel’s request for further information, 2 July 2021.

- 6.9 OBJ TANK 17 is not specifically related to limits, targets or flow regimes, but describes the outcomes of allocation and water use. OBJ TANK 18 refers to securing the current and foreseeable water needs for mauri and ecosystem health and of future generations and for mauri and ecosystem health through, among other measures, aquifer recharge and flow enhancement. OBJ TANK 17 and 18 are discussed in more detail in Chapter 7 on High Flow Allocation and Schedule 32.

Policies

- 6.10 Policies relating to minimum flows are found under 5.10.6 (Policies: Heretaunga Plains Groundwater Levels and Allocation Limits) and under 5.10.7 (Policies: Surface water low flow management) and in particular POL TANK 43 and 44.

POL TANK 36

- 6.11 POL TANK 36 states that Council recognises the effects of groundwater abstraction on flows in connected surface waterbodies and flows in the Ngaruroro River, and signals that it will adopt a staged approach to groundwater management including monitoring the effectiveness of stream flow maintenance and habitat enhancement schemes. Although not specifically referring to minimum flows, this policy refers to monitoring the effectiveness of 'stream flow maintenance schemes'. The minimum flows in Schedule 31 apply when there is no appropriate stream flow maintenance scheme, or when a water user does not participate in a stream flow maintenance scheme. POL TANK 36 is a part of PPC9's sinking lid approach to reducing over-allocation. It is given effect to through Rules TANK 7 to 18.
- 6.12 Only minor changes are recommended by the Reporting Officers to this policy and none of the changes the substance of the policy as notified in PPC9.

POL TANK 37

- 6.13 POL TANK 37 states that Council will mitigate stream depletion effects on lowland streams by providing for stream flow maintenance and habitat enhancement schemes. We note that stream flow enhancement using groundwater is not supported by mana whenua as the preferred option for managing the adverse effects of stream depletion due to groundwater extraction³.

POL TANK 39

- 6.14 POL TANK 39 as notified in PPC9 requires that all takes either cease abstraction when an applicable minimum flow (trigger flow) is reached, or that consent holders must develop or contribute to flow maintenance scheme and habitat enhancement schemes. The policy also required Council to assess the relative the 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 also required Council to enable permit holders to progressively and collectively, through Water User Collectives, develop and implement flow maintenance and habitat enhancement schemes as water permits are replaced or reviewed, in the order consistent with water permit expiry dates.
- 6.15 Over 50 submission points were received about POL TANK 39. Submission points included deleting the policy altogether, seeking Council to have a larger leadership role in developing

³ Ngaio Tiuka EIC, for NKII, para 115, page 42, and Maurice Black EIC, for TToH, para 313, page 65.

Stream Flow Enhancement schemes, providing for a Water Conservation Strategy approach for municipal takes, clarifying whether the policy provisions apply to the Ngaruroro River and Zone 1, amendments for clarity and simplicity and clarifying the extent to which these provisions relate to domestic takes.

- 6.16 The Council's own submission sought that this policy be deleted and replaced, due to significant implementation challenges, including (but not limited to):
- a) Only one scheme currently exists, so the majority of users would be subject to potentially bans with no feasible opportunity to mitigate their effects until schemes were implemented.
 - b) Feasibility investigations have not yet been undertaken, so some users may never be feasibly able to offset their stream depletion effects.
 - c) Not all streams are suited to the same types of solutions.
 - d) A comprehensive solution is likely to be required at the Water Quantity Area scale, which would require centralised leadership and cost recovery.
 - e) The policy as notified does not provide a pathway for prioritising highly effective or beneficial schemes.
 - f) The policy as notified provide little guidance or support for individual and small scale permit holders to work collectively.
- 6.17 The amended POL TANK 39 recommended to us by the s42A Reporting Officers at the conclusion of the hearing was a complete re-write, and essentially a change in emphasis. The policy now seeks to mitigate the stream depletion effects due to groundwater takes in the Heretaunga Plains Groundwater Quantity Area through consultation, investigation and funding and implementation initiatives. Where stream flow maintenance and habitat enhancement schemes are operational, the revised policy requires either abstraction to cease when an applicable stream flow maintenance trigger is reached, or permit holders to contribute to and participate in the scheme.
- 6.18 A number of submitters had common themes around applying flow maintenance requirement only to suitable lowland streams, to remove the presumption that the mainstem of the Ngaruroro River should be augmented in whole or in part, and to require Council to take a central role in establishment of flow maintenance schemes in an equitable manner over a reasonable timeframe. There were 28 submission points that were identical and supported in principle jointly funded collective stream flow maintenance schemes on suitable lowland streams, facilitated by the Council.
- 6.19 Ms Lara Blomfield, Counsel for Limestone Properties, said that Limestone supported the new POL TANK 39 as it now says that HBRC will investigate options (including funding) for stream flow enhancement in consultation with stakeholders (including presumably Limestone) and look to implement the preferred options within 10 years⁴. The changes to the policy proposed by the Reporting Officers were also supported by Lowe Corporation⁵ and T&G Global Limited⁶ and others. Mr Gerard Willis, planning witness for Lowe Corporation, considered that the

⁴ Ms Lara Blomfield, paragraph 21, Legal Submissions of Counsel for Limestone Properties Limited.

⁵ Mr Trevor Robinson, paragraph 101, Legal Submissions for Lowe Corporation Limited.

⁶ Mt Craig Betty, EIC, paragraph 42.

changes to POL TANK 39 recommended by the Reporting Officers are likely to be both more efficient and more effective than the policy as notified⁷.

- 6.20 Ms Grey Wilson stated that NKII was opposed to the use of flow maintenance schemes as a mitigation measure to address over abstraction within the Heretaunga Plains aquifer and recharge areas and considered the deletion of POL TANK 39 as proposed, and the amended version proposed by Regional Council in its submission, was appropriate given NKII's position⁸.
- 6.21 Mr Mark Clews, the Principal Advisor, District Development, at the Hastings District Council, sought an amendment to POL TANK 39 to provide for a Water Conservation Strategy approach for municipal takes rather than a requirement to cease⁹.

Finding and s32AA Analysis

- 6.22 We accept the substantially revised POL TANK 39 as presented to us by the Reporting Officers at the conclusion of the hearing. The revised policy gained general approval from a wide range of submitters. The revisions provide a marked improvement to the notified version and we find the recommended changes make the rule more efficiently and effectively achieve the objectives of PPC9, and in doing so meets the requirements of s32AA of the RMA.

POL TANK 40

- 6.23 POL TANK 40 relates to what Council will have regard to when assessing applications for a stream flow maintenance and habitat enhancement scheme. It includes matters relating to maintaining and enhancing stream habitat and water quality (particularly dissolved oxygen), and involvement of mana whenua. POL TANK 40 is aimed at lowland streams where ecosystem health and water quality are important issues. The notified version of the policy included a Clause e) that read:

e) and will;

- (i) allow site to site transfer of water to enable the operation of a flow enhancement scheme;*
- (ii) enable water permit holders to work collectively to develop and operate stream flow maintenance and habitat enhancement schemes consistent with the requirements of Schedule 36;*
- (iii) impose consent durations of 15 years that are consistent with the term for groundwater takes affected by stream flow maintenance requirements, except where stream flow maintenance is being provided by significant water storage infrastructure in which case consent duration is consistent with the scale of the infrastructure.*

- 6.24 The Reporting Officers in the s42A addendum report recommended deleting POL TANK 40(e) and its sub-clauses as a consequential amendment to recommended changes to POL TANK 39. The Reporting Officers also noted that many of the matters covered by 40(e) were covered by the proposed amendments to POL TANK 39(a) and (b) or POL TANK 49.
- 6.25 Forest and Bird sought the POL TANK 40 be deleted in its entirety on the grounds that stream flow maintenance schemes are an inappropriate way to deal with over-allocation¹⁰. Similarly,

⁷ Gerard Willis, EIC for Lowe Corporation Ltd, paragraph 117.

⁸ Grey Wilson, EIC for NKII, paragraph 85.

⁹ Mark Clews, EIC for Hastings District Council and Napier City Council, paragraph 114(b).

¹⁰ Submitter 210, Royal Forest and Bird Protection Society of New Zealand (Forest & Bird).

the Department of Conservation's submission sought all references to stream flow maintenance be deleted from PPC9¹¹.

- 6.26 The Section 32 evaluation report notes that the stream flow enhancement option was endorsed by the majority of the TANK Group as the preferred option for managing the adverse effects of stream depletion from groundwater extraction but did not receive support from mana whenua¹².

Finding and s32AA Analysis

- 6.27 PPC9's use of stream flow maintenance and habitat enhancement schemes as a means for dealing with over-allocation attracted a reasonable level of criticism from a wide range of submitters. However, we have accepted that they remain in PPC9 as they form part of the toolbox for addressing over-allocation and improving the health of lowland streams in particular. We accept the Reporting Officers recommendation to remove clause 40(e) given the changes to POL TANK 39 and Clauses g) and h) of POL TANK 49.
- 6.28 We consider these recommended changes make the policy more efficient and effective, and improves the clarity of the plan, and in doing so meets the requirements of s32AA of the RMA.

POL TANK 41

- 6.29 POL TANK 41 as notified specifically seeks to 'remedy' the stream depletion effects of groundwater takes on the Ngaruroro River. The policy requires the Council to do this in consultation with mana whenua, land and water users, and the wider community. Clause a) of the policy relates to investigation of a water storage and release scheme to 'off-set' the cumulative stream depletion effect of groundwater takes, and, if feasible Clause b) relates to developing options of funding, construction and operation through rates. A key driver behind this policy is that stream flow maintenance schemes that rely on groundwater pumping are not feasible for the Ngaruroro River given the high level of pumping that would be required¹³.
- 6.30 Mr Andrew Dooney, planning witness for HortNZ, recommended that the phrase 'The Council will remedy...' be amended to read 'The Council will further consider the option of remedying...' on the grounds that the amendment does not unnecessarily commit the TANK community to a scheme that may not be, on balance, in the best interests of the community¹⁴.
- 6.31 The term 'remedy' was subsequently amended to 'mitigate' by the Reporting Officers in response to submissions pointing out that remedying the effects of stream depletion through this policy would be a huge undertaking¹⁵ and also because the term mitigate also aligns with its use in POL TANK 36 and 37.
- 6.32 Submissions from Forest and Bird and the Department of Conservation sought this policy be deleted for similar reasons identified above for POL TANK 40.
- 6.33 Federated Farmers sought that this policy be retained as worded¹⁶.

¹¹ Submitter 123, Department of Conservation.

¹² 32A report, page 59.

¹³ Section 32 Report, page 278.

¹⁴ Andrew Dooney, EIC for Horticulture New Zealand, page 30.

¹⁵ Submitter 99, Twyford Water.

¹⁶ Submitter 195, Federated Farmers of New Zealand.

Finding

- 6.34 Changes proposed to POL TANK 41 by the Reporting Officers are relatively minor and we accept them as they improve the clarity of the policy and its alignment with other policies. We agree that changing the intent of the policy from remedying to mitigating stream depletion effects is appropriate.

POL TANK 42

- 6.35 POL TANK 42 recognises the iterative process of plan making, contextualises the role of PPC9 in addressing over-allocation, and identifies the kind of information that will be required to make decisions for subsequent Regional Plan review.
- 6.36 We have addressed POL TANK 42 in Chapter 5 Management of the Heretaunga Plains Aquifer. We have accepted the Reporting Officers recommended changes and accepted, the two submissions from Pernod Ricard Winemakers, as they clarify the intention of the policy, but not any of the others.

POL TANK 43

- 6.37 POL TANK 43 sets out how the effects of surface and ground water abstraction in Zone 1 on river flows and levels will be managed through minimum flow, water levels and allocation limits. As stated in the s42A Report, this approach aligns with POL TANK 36 and 37, and effectively removes the ability to consent any new ground or surface water takes at low flows in catchments that are fully or over-allocated, with the aim of avoiding future over-allocation in accordance with the NPS-FM 2020. As such, it can be considered to be a corner-stone policy of PPC9.
- 6.38 As notified, POL TANK 43 included separate sub-section clauses for the four TANK catchments.
- 6.39 Council's own submission on POL TANK 43 recommended that reference to the allocation limit being for consumptive water use at times of low flow be included to provide clarity for when the allocation limit applies, that it only applies to consumptive water use, and does not include water take and discharge activities that are non-consumptive (e.g., as provided for in revised POL TANK 53 that includes non-consumptive uses).
- 6.40 There were a number of submissions that addressed this policy in relation to the proposed minimum flows for these surface waters and we address these in more detail below under our discussion about Schedule 31. Some submitters believed the adverse effects of the current allocation minimum flow had not been demonstrated and so did not warrant raising the minimum flow (e.g., Bostock¹⁷). Forest and Bird sought that the policy be amended such that flows will be managed to the minimum flows in Schedule 31.
- 6.41 The PPC9 "pink version" of POL TANK 43 recommended to us by the Reporting Officers at the end of the hearing was substantially simplified relative to the s42A Addendum Report version. The separate sub-section clauses for the four TANK catchments were removed and wording was added to make specific reference to Schedule 31, which was not referred to in the notified version. This amendment was sought by Forest and Bird¹⁸ and Ms Wilson in her evidence noted that NKII seek that minimum low flows are established for all water bodies to which POL TANK

¹⁷ Submitter 47, Bostock New Zealand Ltd.

¹⁸ Submitter 210, Royal Forest and Bird Protection Society, submission point 210.64.

43 applies and also require takes to cease at low flows¹⁹. Additional wording was added to the policy to clarify that aspects of POL TANK 45 and 53 (frost protection, and now, temporary and non-consumptive takes) were exempt from the requirements of Schedule 31. The amended policy still provides a link between low flow management and objectives for aquatic ecosystem health, mauri, tikanga Māori values and other instream values.

- 6.42 Te Taiwhenua o Heretaunga²⁰ submission sought to add a new POL 43A and include reference in it to reducing abstraction amounts and abstraction rates from the Ngaruroro River mainstem and from connected groundwaters in Zones 1 and 2, from the Tūtaekurī River mainstem and tributaries, and from the Karamū River mainstem and tributaries to achieve limits and targets. They also sought to increase minimum flows in the Ngaruroro River at Fernhill to ‘enhance the life-supporting capacity of freshwater and groundwater and increase instream habitat provision for torrentfish and trout’.

Finding and s32AA Analysis

- 6.43 We accept the Reporting Officer’s recommended changes to POL TANK 43 as presented to us at the end of hearing. The wording in the policy as notified was highly repetitive and could be more efficiently and effectively achieved by including a reference to Schedule 31. In accordance with that comment, the recommended amendments greatly simplify the policy and improve its clarity, particularly its linking to Schedule 31. These amendments meet the requirements of s32AA of the RMA. We do not see a new Policy 43A as being necessary. We comment on Schedule 31 separately below.

POL TANK 44

- 6.44 POL TANK 44 is specific to the Paritua and Karewarewa streams (and their tributaries) and acknowledges the contribution of flows from these streams to the flows in the Awanui Stream, Karamū River and the Heretaunga Plains Groundwater Quantity Area. These streams are subject to seasonal drying. The policy indicates that Council will work with water permit holders, landowners and tangata whenua to undertake a series of initiatives to better understand the Heretaunga Plains Aquifer and improve management of flow regimes and improve the health of these streams. The policy also provides for water to be diverted from the Ngaruroro for the enhancement of flows in the Paritua Stream.
- 6.45 No submitters sought that this policy be deleted, but several sought some changes to the wording. Some expressed concern about the potential economic effects of reducing allocation from the Paritua Stream and some wanted the flows in the Karewarewa Stream to be revisited, but did not seek specific relief. Federated Farmers’ submission sought the policy be retained as notified.
- 6.46 In their closing to the hearing, Reporting Officers’ considered that an appropriate change to POL TANK 44(d) would be to include consideration of storage options²¹.
- 6.47 Ngaio Tiuka, in evidence on behalf of NKII, considered POL TANK 44 had more to do with meetings to talk about the issues rather than actually regulating water use for the stream and the aquifers restoration of mauri, mana and well-being²². Ms Grey Wilson considered that the policy was not precautionary and effectively enabled the status quo to continue and provides

¹⁹ Grey Wilson, EIC, paragraph 88.

²⁰ Submitter 132, Te Taiwhenua o Heretaunga.

²¹ HBRC’s Closing statement 22 June 2021, paragraph 36.

²² EIC, Ngaio Tiuka on behalf of NKII, Paragraph 42.

little to no certainty that actual water use will be reduced²³.

- 6.48 The Council's groundwater scientist, Mr Pawel Rakowski, provided a supplementary brief of evidence at the end of the hearing in which he provide some information about the hydrogeology of the Paritua and Karewarewa streams and the effects of abstraction on surface flows. He stated at paragraph 4.6 of his evidence²⁴:

“As discussed in my previous supplementary evidence (4 June 2021), there is uncertainty with the conceptual setting of the groundwater models in the Paritua Stream area. Therefore it is not known whether continuous flow would be restored in the Paritua Stream at Bridge Pa following a 20% reduction of groundwater abstraction throughout the Heretaunga Plains. I understand that further work (i.e. as prescribed in Policy 44 of PPC9) is underway to resolve this modelling issue, ...”

- 6.49 The Reporting Officers recommended some relatively minor amendments to the policy at the conclusion of the hearing.

Finding

- 6.50 We accept the changes to POL TANK 44 provided by the Reporting Officers at the end of the hearing. They are relatively minor but improve the clarity of the policy and consistency with wording used in PPC9. We note that economic effects have been considered in the development of PPC9. We accept the supplementary evidence of Mr Rakowski relating to uncertainty with the relationships between surface flows, groundwater and groundwater abstraction in these streams, and see POL TANK 44 as having an important role in better understanding those relationships, as well as providing a pathway for improving surface water ecosystems.

POL TANK 45

- 6.51 POL TANK 45 requires Council, when assessing applications to take water, to ensure water allocation from tributaries is accounted for within the total allocation limit for the relevant zone and that the total abstraction from any tributary does not exceed 30% of the mean annual low flow (MALF²⁵) for that tributary unless otherwise specified in Schedule 31. The policy excludes stored water from Schedule 31 allocation limits. It requires water metering for all consented takes but telemetry only for those larger than 5 litres per second. The policy enables groundwater Zone 1 takes to participate in stream flow maintenance schemes instead of ceasing takes at low flows.
- 6.52 The notified version of POL TANK 45 allowed for an exception to telemetry where there are technical limitations to its installation. It was pointed out in the Department of Conservation's submission²⁶ that the Measurement and Reporting of Water Takes Regulations 2020 do not allow metering exceptions and this exception was removed in the amended version of the plan.
- 6.53 The Reporting Officers recommended an amendment to Clause 45d(i) relating to participation in stream flow maintenance schemes, clarifying that contributions to an applicable lowland

²³ EIC, Greg Wilson on behalf of paragraphs 87-90.

²⁴ Pawel Rakowski, supplementary statement of evidence for HBRC, paragraph 4.6.

²⁵ The mean annual low flow (MALF) of a river is defined in the Glossary of the RRMP as the average of the annual low flows occurring over 7 consecutive days for the years where river flow records are available for a river.

²⁶ Submitter 123, Department of Conservation.

stream enhancement scheme were required once such a scheme was operational.

- 6.54 Submissions seeking that POL TANK 45 be amended to be consistent with RRMP POL TT11²⁷ were opposed by the Reporting Officers on the grounds that stream depleting impacts of groundwater takes in the Heretaunga Plains are quite different in nature to those in the Tukituki Catchment, therefore a different management and mitigation regime is required²⁸.

Finding and s32AA Analysis

- 6.55 We accept the changes to POL TANK 45 provided by the Reporting Officers at the end of the hearing. They align with amendments made to Policy TANK 39 and meet the requirements of s32AA of the RMA.

POL TANK 48

- 6.56 POL TANK 48 outlines matters Council will take into account when considering applications to change a water use, or to transfer a point of take. These include specified minimum flows and levels or other water users' access to water. The s42A Report notes that the ability to change the use of a water take and/or transfer a point of take is important to enable stream flow enhancement schemes, flexible management regimes and efficient water use. The policy has a number of matters to be considered that relate to the plan objectives, particularly OBJ TANK 16, 17 and 18. The policy as notified also identified seven particular circumstances in which an application would be declined.
- 6.57 There were six submissions on the water use change/transfer policy. Most were from TToH which sought a restrictive approach to decision making on water use change or transfer, such as from surface water to groundwater and vice versa.
- 6.58 There were a large number of submissions with pro-forma type statements seeking that transfers of water permits that have been exercised are enabled. The Reporting Officers interpreted this to mean that the submitters seek that whole existing allocations should not be subject to the Actual and Reasonable assessment under PPC9 and that they should be transferable²⁹. The Reporting Officers considered that to allow transfers of water that is allocated but not used would not align with NPS-FM 2020 requirements to avoid and phase-out over-allocation. We agree and have accepted their amendments as they make the policy more efficient and effective, and so meet the requirements of s32AA of the RMA.
- 6.59 Other submissions, such as those from RFBPS and DOC sought a very conservative approach for declining applications by introducing a prohibitive regime for over-allocated catchments and prioritising human health and drinking water over irrigation and other uses³⁰. Other submissions sought criteria or circumstances in which transfers could occur where there may be more efficient use, a higher priority use (such as human health) or for water quality reasons.
- 6.60 In response to the submissions the s42A Reporting Officers recommended that POL TANK 48 be comprehensively redrafted into two parts. The first part included those matters which the Regional Council would take into account when considering a change in water use or transfer a point of take to another take. These included total water use, minimum flows and access for other water users, water body values in Schedule 25, water use patterns including seasonal

²⁷ E.g., Submitter 3, Limestone Properties Limited.

²⁸ S42A report, paragraph 1554.

²⁹ S42A report, paragraph 1593.

³⁰ Department of Conservation sub point 123.83 and Royal Forest and Bird sub point 210.69

variations, and water quality. The second part was a list of matters that the Regional Council would consider when assessing applications, and more particularly when they might decline applications. These included such things as transfers to other water management areas unless new information was provided and there are new beneficial effects, changes of water use from primary production except where the use is a flow enhancement or ecosystem improvements, a more efficient delivery of water services, and a change from frost protection to any other end use.

Discussion, Findings and s32AA Analysis

- 6.61 We support separating POL TANK 48 into two parts, firstly those matters to be taken into account and secondly those matters which inform the declining of applications. The recommended changes of staff assist the clarity and readability of this policy.
- 6.62 We have agreed with the Reporting Officers' recommendations in the s42A Report, and the amendments made to the text of POL TANK 48 with further refinements including grammatical changes, numbering and links to schedules.
- 6.63 We consider these amendments make the policy more efficient and effective, and so meet the requirements of s32AA of the RMA

POL TANK 51

- 6.64 POL TANK 51, as discussed more fully in the section on Priority Allocation, establishes the priority order for water uses at time where the Council considers there is a serious temporary shortage of water in its region or any part of its region under Section 329 of the RMA. This includes when rivers have fallen below minimum flows. The policy notes that takes not subject to any restrictions are firefighting uses and non-consumptive uses.

POL TANK 53

- 6.65 Finally, POL TANK 53 establishes consent considerations for applications to take and use water for frost protection, temporary and non-consumptive water takes, and effectively establishes the exceptions for activities not covered by POL TANK 43. The s42A Report notes that taking water for frost protection occurs infrequently, and generally on the fringes of the irrigation season (in spring or autumn) when flows are above the minimum flow, and for a limited time, although the instantaneous rate of take can be quite high. Applicable minimum flows during November to April are specifically identified in this policy.

Rules

- 6.66 Rules TANK 7 (surface water) and 8 (groundwater) are permitted take rules. They enable any permitted take existing as at 2 May 2020 to continue, subject to other consent conditions, or else limits the volume of water able to be taken. These permitted take rules are not subject to the minimum flows in Schedule 31.
- 6.67 Rules TANK 9 (groundwater takes from the Heretaunga Plains Groundwater Quantity Area) and 10 (surface and groundwater takes at low flows)) make takes of surface or groundwater that cannot meet the conditions of Rules TANK 7 and 8 Restricted Discretionary activities. Rule TANK 10 as notified had the following condition:

“Where the take 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.”.

6.68 This was modified in the “pink version” of PPC9 as follows:

“Where the take 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. For all other takes, the flows specified in Schedule 31 apply”.

6.69 Rule TANK 11 provides a consenting pathway for takes that do not meet the conditions of either Rules TANK 9 or TANK 10 (replacement for existing groundwater or surface water takes), or Rules TANK 7 or TANK 8 (new groundwater or surface water takes that will not cause over-allocation as set out in Schedule 31). These applications would be considered as Discretionary activities.

6.70 As noted at the beginning of this section, these rules are discussed in more detail in our Chapter 9 General Water Quantity Management on Rules for Taking and Using Surface and Ground Water.

Hydrology and Minimum Flows in the TANK Catchments

General

6.71 Flows in surface waters of the Heretaunga Plains are affected by a range of factors including rainfall patterns, seasonal climate, river morphology, natural losses into the ground, spring flow sourced from groundwater, and abstraction (both surface and groundwater abstractions).

6.72 The Tūtaekurī and Ngaruroro are large rivers draining large catchments with headwaters in the ranges. As they flow across the Heretaunga Plains, they are characterised by gravel beds over low gradient land, forming wide braided channels. The lower Ngaruroro is a losing reach, recharging the Heretaunga Plains groundwater system, which in turn feeds and sustains many of the springs in the surrounding area through summer. Downstream of Fernhill, the Ngaruroro flows predominantly in a single channel under low flow conditions.

6.73 Braiding in the Tūtaekurī River is greatest in the middle reaches, but downstream of the Mangaone River confluence, the river flows mostly in a single channel. The Tūtaekurī River has a losing reach between Hakowia and Silverford and, similar to the Ngaruroro River, the loss appears to be to an unconfined portion of groundwater. This Tūtaekurī River loss is a potential source of water to nearby springs and spring-fed streams, notably the nearby Tūtaekurī-Waimate Stream.

6.74 The Karamū Stream and Ahuriri Estuary catchments are smaller, both draining mainly lowland country, with stream beds often comprised of fine gravels or sandy/silty substrate. The Karamū Stream is thought to gain water from groundwater inflows, probably derived from losses from the Tukituki or Ngaruroro rivers. However, some tributaries of the Karamū Stream lose water and in the case of the Karewarewa Stream, the upper section can become dry at times. We heard that the sources of flow and causes of flow loss for the Paritua/Karewarewa Stream are not well understood, as we note in the section on groundwater and as described in the supplementary evidence of Mr Rakowski noted above.

6.75 Te Whanganui ā Orotū (the Ahuriri Estuary) is fed by a number of small streams. The freshwater inflows to the estuary are minimal compared to other estuaries in the Hawkes Bay region.

Key issue: Stream depletion

6.76 The major source of recharge to the Heretaunga Plains groundwater is through loss of water from rivers. Over 70% of the total recharge to groundwater in the Heretaunga Plains occurs through rivers losing water to groundwater, most of which is from the Ngaruroro River, with the remainder from the Tukituki and Tūtaekurī rivers. The other main source of water to the aquifer is land surface recharge (LSR), which occurs only over the unconfined aquifer. We discuss LSR in our section on groundwater.

6.77 A reduction in stream flow (due to lack of rainfall, surface water or groundwater abstractions) can have significant adverse effects on aquatic ecosystem health. Stream flow reductions can result from groundwater abstraction (stream depletion) when the groundwater is hydraulically connected to a stream or river. The s32A Report for PPC9 summarises the findings of a report³¹ on the Heretaunga Plains groundwater model, developed by the HBRC and others using groundwater software called MODFLOW-2005. The model showed that groundwater and surface water are highly connected across the Heretaunga Plains, with nearly all groundwater takes connected in varying degrees to surface water systems. The ss32A Report quoted from the report:

“Increases in groundwater pumping in the past, in particular irrigation pumping, have resulted in declines in groundwater levels and substantial reductions of flows in rivers and streams, especially during summer. Such declines are an expected response of the groundwater system to the additional pumping.

However, there are signs that the aquifer is reaching a new equilibrium and further substantial reductions in river flows will not continue, provided that the pumping abstractions do not increase further. Further increases in groundwater abstraction would result in further decline in groundwater levels and reduction in stream flows.”

6.78 The s32A Report noted that the stream depletion effect of groundwater takes on the Ngaruroro River is more challenging to address. This is because restrictions on groundwater use when river flows are low were predicted by the model to be ineffective in improving flows in time, and there would be a long delay before river flows would be affected by a restriction. This was similar to the finding for lowland streams and tributaries of the Karamū. It was determined that a very substantial reduction in the total allocation limit would be required to make a difference in the Ngaruroro River flow. Water storage and subsequent release were considered necessary to address this issue in the long term, and this approach is carried forward into POL TANK 41 with commitment to investigating a storage and release option.

Minimum Flow Setting and Schedule 31

6.79 The TANK Group identified a number of factors (critical values) that are affected by, or are sensitive to, low flows. For both the Ngaruroro and the Tūtaekurī, a range of instream values were identified;

- a) tikanga Māori values including those for cultural practices.
- b) habitat for native fish and birds.
- c) recreational activities including trout fishing, swimming and boating.
- d) trout habitat.

³¹ Heretaunga Aquifer Groundwater Model – Scenarios Report’ August 2018. Prepared by Pawl Rakowski.

- 6.80 Instream effects due to low flows can include potential reductions in habitat for species associated with flowing water, including fish, benthic invertebrates (an important food source for fish) and riverine birds. These flora and fauna associated with rivers can have differing flow requirements, that is, a flow that suits one species does not necessarily suit another. Therefore, typically, a compromise is required in adopting a minimum flow that may not protect all species with a degree of conservatism but provides a reasonable degree of protection to the most valued species. However, this concept does not necessarily provide an adequate level of protection for out-of-stream users, but we address this elsewhere.
- 6.81 Relationships between flow and available habitat can be determined through a combination of field surveys, an understanding of habitat preferences for various species, and modelling, to develop predictive relationships for showing how the amount of habitat changes with flow, for individual species or life stages. This approach was used extensively for informing the TANK Stakeholder Group, with the Council undertaking instream habitat modelling for the Tūtaekurī and Ngaruroro mainstems and previously for some tributaries. Various flow and allocation scenarios were explored by the TANK Stakeholder Group, as shown in tables 47 and 48 of the S32 report.
- 6.82 Minimum flow setting for instream habitat is often approached by assessing habitat retention relative to a reference low flow, such as the mean annual low flow (or MALF). MALF is commonly used as it is an important hydrological parameter for long-lived fish and other river species with annual reproduction cycles, and can act as a bottleneck on instream habitat, thus affecting the living space of fish and other instream fauna. The usefulness of this relationship for management purposes is described in the Council's 2012 report³² on the Tūtaekurī River instream flow assessment:

*"The mean annual low flow describes the magnitude of the expected low flow event for any given year, giving water resource managers a benchmark from which to make management decisions. This relationship between MALF and fish habitat is often recognised in flow management. It has become common practice to interpret WUA³³ curves in conjunction with the MALF. Where the optimum WUA for a given species is greater than the MALF, then it follows that MALF is a potential limiting factor for that species' habitat. Managers can attempt to mitigate the effect of water takes that constrain habitat by restricting the drawdown of rivers below MALF to maintain a percentage of WUA (habitat) available at the MALF."*³⁴

- 6.83 The PPC9 process assumed that the naturalised MALF³⁵ represents idealised habitat, i.e., naturalised MALF is 100% habitat protection³⁶.
- 6.84 For the Ngaruroro River, the highest flow requirement species determined through the habitat modelling approach described above is for the native torrentfish, which is a small fish that

³² TutaekuriRiver Instream Flow Assessment May 2012 ISSN 1179 8513 EMT11/03 HBRC plan No.4262 (P12)
³³ WUA is short for weighted usable area which is a dimensionless parameter that provides an indication of the relative quantity and quality of available habitat at a given flow.

³⁴ HBRC 2018e. Addendum to fish habitat modelling for the Ngaruroro and Tutaekuri rivers, Resource Management Group Technical Report, HBRC Report No. 4990 – RM 18-09, Hawke's Bay Regional Council, Napier, New Zealand.

³⁵ Flow naturalisation involves adding all the various water abstractions that might affect the flow in a river back to the flow actually recorded. This produces an estimate of what the flow regime would have been, particularly the low flows, had the various consents for abstraction not been granted or exercised. The naturalised MALF is the 7-day mean annual low flow calculated using the naturalised flow series.

³⁶ Appendix 11 - Technical memo on water quantity.

favours fast flowing riffle habitat. The rationale used was that if habitat for torrentfish is provided for, then other less flow-demanding species would also be protected to a high level.

- 6.85 Under the RRMP, and also proposed under PPC9 in Schedule 31, the minimum flow of 2,400 L/s provides an estimated 44% habitat protection level for torrentfish. Information provided by the Council at TANK Stakeholder Group meetings, and relayed to us at the hearing, indicated that even an increase in the existing minimum flow of 2,400 L/sec to 3,600 L/sec only resulted in an improvement in habitat protection from 44% to 70% for torrentfish. Clearly, this is lower than 100 % habitat protection, and a flow of 4,400 L/s was estimated to be required to provide a habitat protection level of 90%. Conversely, modelling indicated that progressively increasing the cease-take trigger flow (i.e., minimum flow) for abstractors above 2,400 L/sec resulted in progressively larger effects on restriction, thus reducing the reliability of supply for water users. Further, analysis of the flow regime under a naturalised flow regime indicated that the flow of the Ngaruroro River would fall below the cease-take trigger flow even with no surface water and groundwater takes.
- 6.86 We note that the advice given to the Council and TANK Stakeholder Group by the Cawthron Institute was that minimum flows need to be considered in association with the allocation limit, and that abstractions over 30% of MALF can be considered to have a high degree of flow alteration (on average across all rivers), while allocations of less than 30 % of MALF are increasingly considered more conservative in terms of impact on the river. This general guideline was used by the TANK Stakeholder Group in evaluating flow regimes in the TANK catchments, particularly the Ngaruroro and Tūtaekurī catchments, and explicitly captured in POL TANK 45.
- 6.87 Returning to the Ngaruroro River, the existing minimum flow (cease-take trigger flow) of 2,400 L/sec was retained in PPC9 (Schedule 31), but the allocation limit was reduced from 1,536 L/sec to 1,300 L/sec, which is about 27% of the naturalised MALF, and so in keeping with the advice provided by the Cawthron institute to the TANK Group.
- 6.88 A farmer, Mr Alexander Macphee, submitted that raising the minimum flow of the Maraekakaho River was not subject to consultation or that any reason was given, and that it should be restored to the original level (presumably that under the existing RRMP).
- 6.89 Schedule 31 has a proposed minimum flow for the Maraekakaho River (a small tributary of the Ngaruroro River), of 109 L/sec and an allocation limit of 36 L/sec. Investigations by the Council into minimum flows in this river concluded a minimum flow of 109 L/sec would not have significant effect on the river's ecological health. The recommended figure of 109 L/s is 90% of MALF³⁷.
- 6.90 We note that the Council report referenced in the previous paragraph (6.89) noted: "As a result of the 2009 consents renewal process for the Ngaruroro Catchment, the consent hearing panel granted the applications in the Maraekakaho SMZ subject to a low flow of 90% of MALF over the hydrological year (i.e. a minimum flow of 120 L/s) for the following reasons:
- a) this would provide a safer default minimum flow to protect the in-stream environment

³⁷ Christie, R. 2010. Maraekakaho Stream Minimum Flow Scientific Evidence. Resource Management Group Environmental Science Section, Hawkes Bay Regional Council.

b) changing from a weekly to monthly volume of take would also achieve a 7% reduction in volume which would address matters in Policy 39(c) of the RRMP.”

- 6.91 For the Tūtaekurī-Waimate Stream (another small tributary of the Ngaruroro River), PPC9 proposes to retain the existing RRMP minimum flow of 1,200 L/sec in Schedule 31 and an allocation limit of 607 L/sec.
- 6.92 For the Tūtaekurī River, the highest instream flow requirement was determined to be for adult trout. The existing RRMP minimum flow is 2,000 L/sec, which provides for 65 % habitat protection. A 90% habitat protection level corresponds to a flow of 3,300 L/sec. Modelling predicted that water restrictions would not occur until flows exceeded 2,500 L/sec. Under the notified PPC9, the Schedule 31 cease-take trigger flow proposed for the Tūtaekurī River was 2,500 L/sec, which remained unchanged in the pink version, and an allocation limit of 1,140 L/sec, which is just under 30 % of the naturalised MALF.
- 6.93 Some TANK Stakeholder Group members identified a need for more explicit direction for managing abstraction from the two largest tributaries of the Tūtaekurī; the Mangaone Stream and the Mangatutu River. These tributaries do not have minimum flows under the RRMP. Both of these rivers are proposed to be subject to a prohibition on damming because of their instream values for high natural character (Mangatutu) and their contribution to the wider trout fishery. The proposed minimum flows for these tributaries in Schedule 31 are tied to the flow at the main flow monitoring point, which is the Tūtaekurī River at Puketapu, that is, takes from these two tributaries have to cease when the flow in the Tūtaekurī at Puketapu falls below a particular flow. Proposed allocation limits for these tributaries are still low compared to the MALF (7.8% of MALF for Mangaone Stream and 13.4% of MALF for Mangatutu River)³⁸.
- 6.94 Flow thresholds to protect fish in lowland streams in the TANK catchments (specifically the Karamū catchment) centred around information on relationships between flow and effects on invertebrate community health, dissolved oxygen saturation and water velocity. Relationships were developed between these instream variables and flow for a range of tributaries (Raupare, Irongate, Karamū, Karewarewa, Mangateretere, Louisa, Awanui).

³⁸ TANK Meeting 42; 26 July 2018.

6.95 A comparison of RRMP and TANK Provisions relating to minimum flows and allocation limits was presented in Table 45 of the s32 Report and is reproduced below:

River	RRMP minimum flow (L/ sec)	RRMP allocation limit (L/ sec)	Actual Existing Allocation (L/ sec) ³⁹	Recommended TANK minimum flow (L/ sec)	Recommended TANK allocation limit (L/ sec)
Ahuriri catchment surface water	N/A	N/A	N/A	N/A	Existing use only
Awanui	35	0	78	120	Not to exceed a cumulative total of 30 for all of these Karamu catchment freshwater bodies.
Kaweawera/ Paritua	75	0	24	120	
Ongaru	5	0	18	120	
Irongate	100	0	0	100	
Louisa Stream	30	0	25	30	
Te Waikaha Stream	25	0	19	25	
Mangaterere Stream	100	0	0 ⁴⁰	100	
Karamū Stream	1,100	29.8	122	1,100	
Raupare Stream	300	138.6	172	300	70
Lake Poukawa surface water	NA	NA	36 (from Poukawa Stream)	NA	Existing Use only
Maraekakaho River	100	9	40	109	36
Tūtaekurī Waimate	1,200	607	720	1,200	607
Ngaruroro River	2,400	1,581	3,969 ⁴¹	2,400	1,300
Mangatutu Stream	N/A	N/A	NA	3,800	120
Mangaone River	N/A	N/A	NA	2,500	140
Tūtaekurī River	2000	1,536	720	2,500	1,140
Heretaunga plains Groundwater	N/A	N/A	Estimated to be 140 – 180 Mm ³ per year	N/A	Existing Use Only (estimated at up to 90 Mm ³ per year)

6.96 While many of the rivers and streams in the above have identical minimum flows under RRMP and PPC9, the allocation limits under PPC9 are generally lower and sometimes much lower than the actual existing allocation and reflects the sinking lid approach to allocation under PPC9.

6.97 We note here that the allocation limits in Schedule 31 do not apply to water abstraction that is enabled by the release of water from water taken at times of high flow and stored for later release. This clarification is specified in the PPC9 “pink version” of Schedule 31, and high flow allocation is addressed in Schedule 32. We discuss high flow allocation in the next section of

³⁹ Does not include connected groundwater takes.

⁴⁰ There is existing allocation of 200 L/sec to connected groundwater.

⁴¹ For the Ngaruroro the existing allocation figure includes connected ‘Zone 1’ groundwater takes as the proposed Schedule 6 allocation includes Zone 1 groundwater with the Ngaruroro allocation.

this decision.

Submissions and Evidence on Schedule 31

6.98 There were over 100 submission points about Schedule 31. Many of these sought to increase, maintain or decrease minimum flows for specific rivers, change allocation limits and change the definition of Actual and Reasonable. The majority of submissions focused on the definition of Actual and Reasonable, which is discussed in Chapters 9 and 13 of our decision.

6.99 The Council's own submission recommended amendments to clarify when the limits and triggers detailed in Schedule 31 apply. Council sought an amendment to the Glossary definitions of allocation limits (limit for surface water and limit for high flow takes), where allocation limit may apply to takes during low flow periods from October to April or apply to takes during high flows. The s42A Report noted that, for the Tūtaekurī and Ngaruroro surface water quantity areas, Schedule 31 limits are most relevant during the months November-April when flows are typically lower due to less rain fall, although the minimum flows apply all year round. We note that POL TANK 53 (Frost protection, temporary and non-consumptive water takes) states:

When considering applications to take water for frost protection, the Council will avoid, remedy or mitigate actual and potential effects of the take on its own or in combination with other water takes;

a) from groundwater in the Heretaunga Plains Water Management Unit on;

(i) neighbouring bores and existing water users;

(ii) connected surface water bodies;

(iii) water quality as a result of any associated application of the water onto the ground where it might enter water;

b) from surface water on;

(i) instantaneous flow in the surface water body;

(ii) fish spawning and existing water users;

(iii) applicable minimum flows during November to April;

(iv) water quality as a result of any associated application of the water onto the ground where it might enter water;

By;

c) taking into account any stream depletion effects of groundwater takes;

d) imposing limits in relation to minimum flows or groundwater levels;

e) requiring water metering, monitoring and reporting use of water for frost protection.

6.100 The only reference in PPC9 to the timing of when minimum flows apply is POL TANK 53. Clarification around when minimum flows and allocation limits apply were not included in the final "pink version" of Schedule 31, but we think that they should be in PPC9 and have included them accordingly.

6.101 A number of submitters⁴² sought minimum flows be applied to surface waters of the Ahuriri

⁴² e.g., Department of Conservation, Forest & Bird, Maungaharuru-Tangitū Trust.

catchment, however the Reporting Officers indicated little is known about actual use in that catchment⁴³ and so it was proposed in PPC9 that all water takes in this catchment are limited to existing “Actual and Reasonable” use⁴⁴. We agree with this approach given the lack of existing quantifiable information currently available for this catchment.

- 6.102 A number of submissions sought to increase the minimum flow in the Ngaruroro River to provide greater habitat protection for torrentfish, but provided no evidence to demonstrate that this species is adversely affected by the existing minimum flow. Council scientists at one TANK Stakeholder Group meeting indicated that the Ngaruroro River had relatively high densities of torrentfish under the existing flow regime⁴⁵. We also observe that providing for torrentfish habitat will also ensure ample habitat is available for other species, including mahinga kai such as tuna (eels).
- 6.103 In his statement of reply evidence for HBRC (Appendix 8 of the s42A addendum report), Mr Daniel Fake addressed matters relating to the adoption of minimum flows in Schedule 31 and also issues on this raised by submitters. In particular, he addressed concerns expressed by Mr Marei Apatu and Mr Maurice Black (on behalf of Te Taiwhenua O Heretaunga) around the proposed Ngaruroro River minimum flow, and its associated predicted habitat protection level of 44% for torrentfish. Mr Black had sought that the Ngaruroro River minimum flow is set at or amended in a staged manner to 4,200 L/sec to achieve 90% habitat provision for trout⁴⁶. Mr Apatu stated in his evidence that "*Torrentfish MALF recommends 4,700 L/s to provide 100% survival and protection*" and sought a minimum flow of 3,700 L/sec for the Ngaruroro River⁴⁷.
- 6.104 Mr Fake noted that increasing the minimum flow would not provide a significant increase in habitat protection for torrentfish⁴⁸. Mr Waldron, in his statement of reply evidence for HBRC (Appendix 10 of the s42A Addendum Report), discussed the effect of minimum flows on the MALF and Q95 low flow statistics, and demonstrated that raising the minimum flow would provide only small improvements to low flows, but increase the number of days on ban for irrigators⁴⁹.
- 6.105 The s42A Reporting Officers concluded that the benefits to habitat protection of higher minimum flow are minimal, but the costs could be significant and that increasing the Ngaruroro River minimum flow is not an efficient method of achieving the objectives of PPC9. We agree with this conclusion.
- 6.106 Two submissions⁵⁰ sought that the allocation limit for the Ngaruroro River should remain at 1,581 L/sec and not be lowered to 1,300 L/sec as a part of the plan’s strategy to deal with over-allocation. We do not consider that these requests are consistent with the overall intent of PPC9 of reducing over-allocation and improving surface water ecosystem health.
- 6.107 Some submitters also opposed raising the minimum flow of the Tūtaekurī River, but again did not provide evidence justifying the reasons for their opposition. HortNZ’s original submission opposed the proposed increase to the Tūtaekurī River minimum flow due to the potential for this to impact growers’ water use in the future. However, HortNZ’s hydrology expert, Ms

43 Page 282, Section 32 Evaluation Report - TANK Catchments Plan Change to RRMP.

44 Para 1502, s42A report.

45 TANK Collaborative Stakeholder Group: Meeting Thirty-Four Record.

46 Maurice Black, EIC on behalf of Te Taiwhenua o Heretaunga, paragraphs 202-204.

47 Marei Apatu, EIC on behalf of Te Taiwhenua o Heretaunga, paragraph k.

48 Daniel Fake, reply evidence on behalf of HBRC, paragraphs 4.8-4.9.

49 Daniel Fake, reply evidence on behalf of HBRC, paragraphs 4.4-4.6.

50 118 Hugo Beamish; 241 Penny & John Reynolds.

Gillian Holmes, stated that she had reviewed the recorded flows in the Tūtaekurī River at Puketapu and the results of the HBRC SOURCE modelling scenarios, and found no modelled restrictions as a result of the 2,500 L/sec minimum flow, and consequently she agreed with the proposed increase in the minimum flow of the Tūtaekurī River under PPC9⁵¹.

- 6.108 The Department of Conservation’s original submission considered there was an inconsistent approach in Schedule 31 to protecting indigenous fish and aquatic life between the Tūtaekurī and Ngaruroro rivers. While we understand the point made this is a complex issue and ‘a one size fits all’ approach is not necessarily appropriate.

Discussion, Findings and s32AA Analysis

- 6.109 There was limited debate and discussion at the hearing around the actual minimum flow values in Schedule 31. The actual values (for both minimum flows and allocation limits) in Schedule 31 did not vary from those in the notified version of PPC9 for many surface waters. Tangata whenua were most vocal in seeking higher minimum flows for some streams and rivers, but provided limited evidence in support, although we do acknowledge their concerns surrounding flows in surface waters of the Karamū catchment in particular.
- 6.110 Those that sought reductions in minimum flows were abstractors, but again they provided no substantive evidence to support their position other than to express concern on the ability to secure water when demand increased over the peak of the irrigation season.
- 6.111 It seems to us that the processes for deriving the minimum flows in Schedule 31 were thoroughly discussed and dissected through the TANK Stakeholder Group process, and that Council provided a significant amount of technical resource to assist stakeholders in understanding flow requirements for instream values such as fish, invertebrates, plants, riverine birds and maintaining water quality. Ultimately, however, consensus was not reached on this issue, perhaps not surprisingly given the competing demands of abstraction for commercial and municipal purposes versus those for cultural and surface water ecosystem health.
- 6.112 A number of objectives and policies in PPC9 are drafted to improve stream ecosystem health through a series of immediate and longer-term directions and initiatives. The minimum flows in Schedule 31 (i.e., the introduction of ‘hard’ numbers or limits) for some surface waters can be regarded as an immediate direction, as can the ‘hard’ allocation limits. Applying existing use as an allocation limit (via the “Actual and Reasonable” test) for other catchments/sub-catchments can be regarded as a longer-term initiative where existing information is insufficient to recommend defined minimum flows and allocation limits. We regard this as a compromise between providing the certainty of well-defined limits and providing time to gather more information on the likes of actual use and surface water hydrology, and interactions between groundwater levels and surface water flows for some areas within the TANK catchments. In particular, we accept that there still exist some information gaps around actual use and flows in the Ahuriri and Karamū catchments, and that more time is required to investigate these systems until greater certainty is reached around appropriate minimum flows and allocation limits. These information gathering requirements are provided for in the PPC9 policies.
- 6.113 We also accept that PPC9 provides for other factors other than ‘hard’ minimum flow limits to come into play to improve surface water ecosystem health. These include managing allocation limits to protect existing investment (discussed briefly above and in detail under our section

⁵¹ Para 60, EIC, Gillian Holmes for HortNZ.

on groundwater, particularly POL TANK 37 and 52), stream flow maintenance schemes and stream habitat enhancement schemes, and high flow allocation. We have not discussed stream flow maintenance schemes and stream habitat enhancement schemes to any great degree in this section, but consider these provide another tool in the toolbox for enabling stream ecosystem enhancement. Currently, such measures appear confined to two situations (Twyford where groundwater is pumped into the Raupare Stream and Bridge Pa where impounded water from the Maraekakaho and Ngaruroro rivers is released occasionally into the Paritua Stream). We acknowledge that tāngata whenua oppose the use of groundwater to segment surface water flows, and it may not be a viable long-term solution, however it appears to provide some benefits to local stream ecosystem health, and so we recommend that provisions in PPC9 to enable these initiatives be retained.

- 6.114 We consider the recommended changes make Schedule 31 clearer and more efficient and effective, and so meet the requirements of s32AA of the RMA

Chapter 7 Water Quantity - High Flow Allocation, Damming & Schedule 32

Introduction

- 7.1 This section of our report deals with the Objectives, Policies, Rules and Schedules that relate to flow triggers and allocation limits for takes under high river flow conditions and the damming of water. The purpose of a high flow allocation (HFA) is to provide water for storage (for example behind a dam or in an off-line reservoir), so that the water may be released or used later when there is demand or need (including for river flow enhancement).
- 7.2 Providing for HFA is one of three policy groups in PPC9 that relate to water quantity, the other two being Heretaunga Plains Groundwater Levels and Allocation Limits (which identifies that the Heretaunga Aquifer is closely connected to surface water bodies across the TANK catchments, and must be managed as an over-allocated catchment) and Surface Water Low Flows (which include specific policies for surface water body catchments, and policies which guide the management of all ground and surface water takes in the TANK catchments).
- 7.3 The s42A Report notes that the taking of high flows is considered an important mechanism for providing improved reliability of supply (through storage) and enabling stream flow mitigation where groundwater pumping is not feasible¹.

Objectives

- 7.4 PPC9 objectives OBJ TANK 16, 17 and 18 relate to water quantity. As noted in the previous section, OBJ TANK 16 refers to priorities for water allocation subject to limits, targets and flow regimes which provide for the values of each water body. There were a number of submissions around the order of prioritisation, but the objective does not specifically refer to high flow takes or HFA. The s42A Reporting Officers made several recommended changes to OBJ TANK 16 to provide more clarity on the intent of the objective. OBJ TANK 16 is discussed more thoroughly in Chapter 8 of this report on the Priority Allocation Framework, and we make no further comment on it here.
- 7.5 OBJ TANK 17 establishes the desired outcomes of allocation, including a pathway for policies and rules which enable allocation of water at high flows for Māori development (Clause 17(a)), ensure reliability of supply for abstraction, and efficient use). As notified, the objective listed four sub-clauses. HortNZ requested in its submission that it be clearly stated that Clauses (a) to (d) are not listed in any order of priority².
- 7.6 Some submissions³ opposed Clause 17(a) applying just to Māori and sought that it be amended to apply to the wider Hawke's Bay community. We discuss this issue further under POL TANK 59. Federated Farmers requested that the reference to Māori in Clause 17(a) be deleted such that the amended clause would effectively apply to everyone⁴.

¹ Para 1218 s42A Report.

² Submitter 180, Horticulture New Zealand.

³ For example, Submitters 3 (Limestone Properties Ltd.), 124 (Brownrigg Agriculture Group Ltd.).

⁴ Submitter 195, Federated Farmers of New Zealand.

- 7.7 Clause 17(d) provided for “Allocation regimes that are flexible and responsive, allowing water users to make efficient use of this finite resource”. The s42A Reporting Officers recommended that Clause 17(d) be deleted because it is already provided for by OBJs TANK 17(c) and 18(b).
- 7.8 OBJ TANK 18 of PPC9 establishes how current and foreseeable water needs are secured for mauri, ecosystem health and future generations through:
- a) water conservation, water use efficiency, and innovations in technology and management;
 - b) flexible water allocation and management regimes;
 - c) water reticulation;
 - d) aquifer recharge and flow enhancement;
 - e) water harvesting and storage.
- 7.9 The s42A Reporting Officers recommended an additional clause be included which specifically identifies avoiding future over-allocation and to phase out existing over-allocation as an objective of PPC9.
- 7.10 Twyford Water and HortNZ sought amendments to OBJ TANK 18 so that it was made clear that the sub-clauses were listed in order of priority, and that water harvesting and storage should have the highest priority.

Discussion, Findings and s32AA Analysis

- 7.11 Recommended changes to OBJs TANK 17 and 18 by the s42A Reporting Officers are largely to improve the clarity of the intent of the objectives, and we recommend that these changes be retained. We note that none of the recommended changes relate specifically to high flow takes and HFA, which is the subject of this section of our decision.
- 7.12 We reject the requests of some submitters to amend Clause 17(a) such that it applies to the wider Hawke’s Bay community. Providing for the development of Māori economic, cultural and social well-being will help achieve RMA sections 6(e) (the relationship of Māori and their culture and traditions with water), 7(a) (kaitiakitanga), and 8 (Te Tiriti o Waitangi). We discuss this issue further under POL TANK 59, following.
- 7.13 Rather than delete Clause 17(d), as recommended by the s42A Reporting Officers, we have amended it to read:
- Clause 17(d) efficient and effective allocation management regimes.***
- 7.14 While Clause 17(c) refers to efficient water use, Clause 17(d) is aimed at encouraging management regimes to be efficient and adaptive.
- 7.15 The amendment to include a new clause in OBJ TANK 18 that refers to avoiding future over-allocation and phasing out existing over-allocation is a core objective of PPC9 and reinforces the sinking lid approach to dealing with over-allocation.
- 7.16 There were a number of submissions on the order of prioritisation in OBJs TANK 17 and 18. As noted above, some requested that water harvesting and storage should be prioritised first. Whereas OBJ TANK 16 specifically notes that the water “...is allocated, subject to limits, targets

and flow regimes ... in the following priority order”, there is no mention of a priority order for the measures listed in both OBJ TANK 18 and 17. Consequently, we see no benefit in shuffling the order of measures listed under these objectives and we received no evidence that justified an order of priority for all the matters listed in each sub-clause.

Approach to High Flow Allocation in PPC9

- 7.17 Before discussing each policy in detail, it is useful to reflect on the science behind HFA as used in PPC9. Under PPC9, the potential adverse ecological effects of high flow takes are managed by:
- a) setting a trigger flow (a cease-take trigger flow), which is the equivalent to a ‘minimum flow’, where takes may only occur above that (high) flow;
 - b) setting allocation limits for high flow takes; and
 - c) prohibiting certain rivers from being dammed.
- 7.18 The HFA limits in TANK rivers and streams have been proposed in a way which results in only a small change to the number of annual flow events three times the median flow or greater. This flow statistic is often referred to as the FRE3.
- 7.19 FRE3 flows have been used throughout New Zealand in setting HFAs since research found that flows of this magnitude, or greater, were significant in influencing ecological processes within the river, such as scouring periphyton (algae) and fine sediments from the bed. Larger flood flows also play important roles in shaping river channels (for example by maintaining braiding patterns), a point noted in the submission of Jet Boating New Zealand, and scouring weed growths from beaches and islands. Therefore, the number of FRE3 events in a year can influence the ecological and physical character of a river, and altering the number of events can induce unintended and potentially undesirable changes to those instream characteristics.
- 7.20 As a general rule of thumb, a river with a lot of FRE3 flow events can be considered ‘flashy’ in nature and have a bed of clean gravels, like many braided and hill country rivers. In contrast, a river with relatively few FRE3 flow events is often silty and prone to algae and weed build-up, like many lowland streams and springs.
- 7.21 The advice received by the Regional Council, and relayed to the TANK Water Augmentation Working Group, was that a 10% change or less to the number of annual FRE3 events is considered a minor effect⁵.
- 7.22 A high flow allocation will typically have a relatively high cease-take trigger flow, to ensure that low flows in a river are not affected. In the case of PPC9, the median flow⁶ was adopted as the trigger flow for the Ngaruroro and Tūtaekurī Rivers and their tributaries.
- 7.23 The HFA for each of the rivers was assessed by examining the volume of water that could be abstracted from each river without the number of FRE3 events each year being reduced by more than 10%. The Water Augmentation Working Group also considered that the potential land available for new irrigation on the Heretaunga Plains and Ngaruroro River flats may be up

⁵ Discussion Document for TANK Meeting 38, March 2018. Part 2: High Flow Allocation Regime; Policy and Rules.

⁶ The median flow is hydrological statistic defined as the flow where half the flow measurements from a monitoring site are higher than the median and half are lower.

to 3,500 ha and that this demand could be met with 17.5 million cubic metres (Mm³) of storage.

- 7.24 Modelling found that 8,000 L/sec could be abstracted from the Ngaruroro River without significantly compromising the flows above FRE3. This allocation volume would also provide the 17.5 Mm³ for additional irrigation as well as flow releases for environmental enhancement. Schedule 32 of PPC9 included 8,000 L/sec as the HFA for the Ngaruroro River and 2,500 L/sec for the Tūtaekurī River. Under Schedule 32, for tributaries of these mainstems the HFA is proportional to its contribution to the mainstem and is part of the total allocation for the mainstem HFA.

Policies

- 7.25 Policies in PPC9 were formulated such that there will be no new water allocations in the TANK catchments, except for surface water at high flows. New users can only gain access to water through a transfer of an existing consent to take and use water, applying for a high flow take, or accessing water made available through storage schemes. Policies TANK 54 to 60 relate to the taking and storing of water at high flows.
- 7.26 All of policies POLs TANK 54 to 60 were included in PPC9 as notified, and the s42A Reporting Officers recommend they all be retained in PPC9. Only relatively minor changes are recommended to these seven policies.

POL TANK 54

- 7.27 POL TANK 54 addresses the potential adverse effects resulting from damming rivers and other waterbodies, and sets out a list of effects that the Regional Council will avoid, remedy or mitigate when assessing applications to dam water and take water from the dam impoundment. A large number of submitters sought identical relief with respect to revisiting HFAs and providing HFAs for the Karamū and Ahuriri catchments. The s42A Reporting Officers noted that HFAs are not considered feasible or desirable in these two catchments because they are small lowland catchments and, in the case of the Ahuriri catchment, there is limited current understanding of water use and resource limits. Their hydrology differs from the Ngaruroro and Tūtaekurī catchments, which have headwaters in high country.
- 7.28 The submission of HortNZ sought the deletion of clauses (a) and (c), leaving Clause (b) on its own, on the grounds that the changes more appropriately reflects the water take focus of the policy⁷.
- 7.29 The provisions of POL TANK 54 apply to all surface waters except those rivers specifically referred to in POL TANK 58, which identifies rivers where damming is prohibited.
- 7.30 A number of submitters also sought that the HFAs in Schedule 32 be revisited, but provided no evidence in support of revised allocations.

Finding and s32AA Analysis

- 7.31 POL TANK 54 helps give effect to OBJ TANK 2, 3 and 18. Dams have significant effects on rivers by displacing flowing water, altering river hydrology and water quality, and restricting fish passage. Consequently, the cultural, ecological and recreational values of the river can be affected. Water taken from dams and reservoirs for land use application can result in land use

⁷ Submission point 180.49, Horticulture New Zealand.

intensification and indirectly affect ground and surface water quality. POL TANK 54 signals that the Regional Council will address these matters and we are satisfied that the policy is consistent with the NPS-FM 2020.

- 7.32 The s42A Reporting Officers did not recommend any changes to the wording of POL TANK 54 from that notified in PPC9, other than some very minor redrafting. The policy refers to POL TANK 58, which lists rivers where damming is prohibited. We think the policy would benefit from some additional text at the end of it to improve clarity, as follows:

“... and, except as prohibited by ~~Policy~~ POL TANK 58, will limit the amount of flow alteration so that the damming of surface water either on its own or in combination with other dams or water storage in a catchment does not cumulatively adversely affect the frequency of flows above three times the median flow by more than a minor amount and provided that any dam in combination with other dams or high flow takes shall not cause changes to the river flow regime that are inconsistent with specified flow triggers, including those specified in Schedule 32.”

- 7.33 While we reject HortNZ’s request to delete clauses (a) and (c), we have made an amendment to clause (c) because, as written in the “Pink version” of PPC9, and in previous versions, it does not make sense following on from the stem clause. POL TANK 54 is currently worded as follows:

54. When assessing applications to dam water and to take water from the dam impoundment, the Council will avoid, remedy or mitigate adverse effects of;

a)...;

b)...;

c) whether there are practicable alternatives;

and, except as prohibited by Policy POL TANK 58, will limit the amount of flow alteration so that the damming of surface water either on its own or in combination with other dams or water storage in a catchment does not cumulatively adversely affect the frequency of flows above three times the median flow by more than a minor amount and provided that any dam in combination with other dams or high flow takes shall not cause changes to the river flow regime that are inconsistent with specified flow triggers.

- 7.34 We have deleted clause (c) and replaced it with:

And consider where there are practicable alternatives;

- 7.35 The policy now reads as follows:

When assessing applications to dam water and to take water from the dam impoundment, the Council will avoid, remedy or mitigate adverse effects of;

a) potential changes to water quality arising from subsequent changes to land use activities that may occur as a result of water being allocated for take and use from the dam and whether relevant freshwater quality objectives can be met;

b) the dam and any associated lake or reservoir, and any effects of the volume, velocity, frequency, and duration of flow releases from the dam, either by itself or cumulatively with other storage structures or dams, on;

(i) the uses and values for any water body identified in the objectives or Schedule 25;

- (ii) water levels and flows in connected water bodies, including lakes and wetlands;*
- (iii) water quality, including effects on temperature and management of periphyton in connected water bodies;*
- (iv) river ecology and aquatic ecosystems, including passage of fish and eels, indigenous species habitat and riparian habitat, including in relation to the storage impoundment;*
- (v) groundwater recharge;*
- (vi) downstream land, property and infrastructure at risk from failure of the proposed dam;*
- (vii) other water users;*
- (viii) downstream river bed stability, including through sediment transfer and management of vegetation in river beds.*

And consider where there are practicable alternatives;

and, except as prohibited by POL TANK 58, will limit the amount of flow alteration so that the damming of surface water either on its own or in combination with other dams or water storage in a catchment does not cumulatively adversely affect the frequency of flows above three times the median flow by more than a minor amount and provided that any dam in combination with other dams or high flow takes shall not cause changes to the river flow regime that are inconsistent with specified flow triggers including those specified in Schedule 32.

- 7.36 We consider these recommended changes make the rule more efficient and effective, and so meet the further evaluation requirements of s32AA of the RMA.

POL TANK 55

- 7.37 POL TANK 55 is similar in intent to POL TANK 54, but addresses the potential adverse effects caused by taking water for off-line storage or taking water from an impoundment. It sets out a list of effects that the Regional Council will avoid, remedy or mitigate when assessing applications to take water for off-stream storage and to take water from a storage impoundment. These are similar to those listed under POL TANK 54.
- 7.38 POL TANK 55 helps give effect to OBJs TANK 2, 3 and 18. It enables the Regional Council to address the potential effects of water takes to off-line storage, and the taking of water from impoundments, on instream values, groundwater recharge, downstream land and other water uses. As for POL TANK 54, it specifically refers to the mechanisms that limit the potential effects of high flow takes (that is, the median flow as a trigger flow below which flows must cease, specified allocation limits which must not be exceeded by cumulative takes, and the limits on the degree of change in annual FRE3 events).
- 7.39 Submissions on POL TANK 55 were similar in nature to those noted above for POL TANK 54. Hawkes Bay Fish and Game Council's submission sought a 50:50 flow sharing regime to "ensure that blocks of water between median and FRE3 are fairly allocated".

Finding

- 7.40 The s42A Reporting Officers did not recommend any changes to the wording of POL TANK 55 from what was notified in PPC9. We are satisfied that the policy is consistent with the NPS-FM 2020. We do not see that changes to the flow sharing regime, such as sought by Hawkes Bay

Fish and Game Council, provide any additional benefit to the river ecosystem. As previously discussed, we are satisfied that the HFA regime in PPC9 is sufficient to allow only minor changes to the frequency of high flow events, which are important for maintaining river ecosystem health.

POL TANK 56

- 7.41 POL TANK 56 provides a set of criteria that the Regional Council will consider when considering applications to take water at high flows, establish storage for water taken at high flows and takes from stored water. These criteria are aimed to encourage applicants to maximise the various potential benefits of storage and augmentation schemes for environmental, economic, social, cultural and recreational uses.
- 7.42 Submissions on POL TANK 56 were similar in nature to those noted above for POL TANK 54 and 55.
- 7.43 Ms Grey Wilson stated in her evidence that she understood NKII's position on the development of the HFA provisions in PPC9 was that it was "offensive and inadequate", and consequently she considered it appropriate to delete POLs TANK 56 to 58 from the plan. She also stated that:

*"NKII seeks that water within the TANK catchments is managed firstly within sustainable limits and secondly in such a way that provides for a tangata whenua allocation within new allocation regimes to be introduced within the life of the Plan."*⁸

Finding

- 7.44 The s42A Reporting Officers did not recommend any changes to the wording of POL TANK 56 from that notified in PPC9. We are satisfied that the wording of the policy is consistent with the NPS-FM 2020. Two submissions sought an amendment to relieve individual off-line storage proposals from being subject to these criteria, but we agree with the s42A Reporting Officers that adverse effects on surface waters across the TANK catchments are cumulative in nature, and as such all activities including off-line storage need to be assessed. We also agree with the s42A Reporting Officers that the wording of the policy is sufficient to enable decision-makers to take into account a wide range of factors, including scale.
- 7.45 We do not agree with Ms Wilson's assertion that the development of HFA provisions in PPC9 is "inadequate". Rather we consider it to be robust, and will ensure that there will be only minor reductions in the frequency of ecologically significant flow events in the Ngaruroro and Tūtaekurī Rivers. Specific allocations are made for tangata whenua in POL TANK 59, which is discussed below.

POL TANK 57

- 7.46 POL TANK 57 commits the Regional Council to carry out further investigation to understand the present and potential future regional water demand and supply including for abstractive water uses and environmental enhancement, and in relation to climate change. The policy also requires the Regional Council to consider water storage options according to the criteria in POL TANK 56 in consultation with local authorities, tangata whenua, industry groups, resource

⁸ evidence of Grey Wilson for Ngāti Kahungunu Iwi Incorporated Paragraphs 96.

users and the wider community when making decisions about water augmentation proposals in its Annual and Long-Term Plans.

- 7.47 Again, submissions on POL TANK 57 were similar in nature to those noted above for POL TANK 54, 55 and 56. Some submissions sought specific wording amendments to ensure that the investigation under POL TANK 57 occurs before the review of allocation and consents under POL TANK 42.

Findings and S32AA Analysis

- 7.48 The s42A Reporting Officers recommended that clarifying timing of the investigation is appropriate to ensure POL TANK 42 review is effective, and we agree that this amendment should be made to the policy for improved clarity, and in doing so meets the further evaluation requirements of s32AA of the RMA.

POL TANK 58

- 7.49 POL TANK 58 prohibits the damming on the mainstems of the Ngaruroro, Tūtaekurī, Taruarau, Omahaki, Mangatutu and Mangaone Rivers. The policy is given effect to by Rule TANK 17 and the prohibited status of damming the mainstems of these rivers is also reiterated in Schedule 32.
- 7.50 The TANK Stakeholder Group agreed on a prohibition on the damming of the Tūtaekurī and Ngaruroro Rivers in recognition of the highly valued instream uses and values of these two rivers, including those related to natural character and landscape, habitat for indigenous species and recreational activities including angling and rafting. They also recognised the strong marae/hapū connections and whakapapa to these rivers⁹. The Group subsequently agreed on additional prohibitions on instream dams in some tributaries of these rivers, including the Taruarau (a large tributary of the Ngaruroro River), Mangaone and Mangatutu Rivers (large tributaries of the Tūtaekurī River). The Omahaki Stream is a smaller tributary of the upper Ngaruroro and was also nominated because it is a source of trout recruitment¹⁰.
- 7.51 Submissions largely supported that damming of these rivers be prohibited.

Finding

- 7.52 The Ngaruroro, Tūtaekurī, Taruarau, Omahaki, Mangatutu and Mangaone Rivers are highly valued for cultural, ecological and recreational reasons. Their protection against damming is consistent with the concepts of Te Mana o Te Wai and ki utu ki tai. The s42A Reporting Officers do not recommend any changes to the wording of POL TANK 58 and we agree with them.

POL TANK 59

- 7.53 POL TANK 59 allocates 20% of the water available for abstraction, storage and use of high flows for environmental enhancement or for economic, cultural, and social well-being of Māori. It is specific to the Ngaruroro and Tūtaekurī catchments. The policy direction is carried through into Schedule 32.

⁹ TANK Meeting 41, Covering Report; TANK Draft Plan Change.

¹⁰ Cover Report TANK meeting 41.

- 7.54 POL TANK 59 is to be read in conjunction with POL TANK 54-58 and it helps to achieve OBJs TANK 2, 17 and 18. Schedule 32 includes the allocation limit at high flows, and the 20% allocation for Māori development and environmental enhancement.
- 7.55 POL TANK 59 attracted a lot of attention from submitters. A large number of identical submissions (particularly from the farming and wine sectors) sought that the allocation be made available not just to Māori, that the allocation to Māori from the Ngaruroro River needs to be reduced (see below) and that the policy needs to be clear on differentiating between an allocation for Māori and an allocation for environmental enhancement¹¹. Some submitters thought the policy should specify particular iwi groups that the allocation would apply to and that the 20% allocation should be for Māori only¹².
- 7.56 A key issue raised by submitters was that POL TANK 59 covers water allocated for both Māori development and environmental enhancement, but that Schedule 32 refers only to Māori development (in column E). Some concern was also expressed by a number submitters¹³ about the volume of water being made available to Māori from the Ngaruroro River, as it was understood by these submitters that the 20% was to be 20% of new HFA water (that is, 6,000 L/sec for the Ngaruroro) and not 20% of the total allocation of 8,000 L/sec, which includes 2,000 L/sec already consented.

Finding and S32AA Analysis

- 7.57 The provision of allocation water for Māori well-being as provided for in POL TANK 59 and Schedule 32 is consistent with OBJ 17(a) of PPC9, and we decided that it be retained. The relevant clause is:

OBJ TANK 17

The allocation and use of water results in;

- a) the development of Māori economic, cultural and social well-being supported through regulating the use and allocation of the water available at high flows for taking, storage and use*

- 7.58 Applicants seeking water under POL TANK 59 do not have to be affiliated with an iwi group, but the water has to benefit Māori well-being, and the Regional Council will need to be satisfied that this is the case. We consider POL TANK 59 can provide opportunity for potential benefits associated with water storage and augmentation as listed under POL TANK 56.
- 7.59 Whether the actual proportion of water available under this policy (20%) is appropriate is something that we did not receive evidence on, other than for some submitters to say it was too much. However, we are satisfied that it remains within the HFA cap for each relevant river and that justification around that cap has been suitably assessed in terms of potential effects on the river environment.
- 7.60 We agree with some of the submitters that there is an element of uncertainty around whether the 20% HFA is available for either environmental enhancement or Māori well-being. This is not clear to us in the s42A Reporting Officers' "pink version" of PPC9. POL TANK 59 refers to both in separate conditions, while Schedule 32 has one column (Column E) titled 'Amount

¹¹ For example, Ritchie Garnham, Booster Wine Group, Submitter 102; and others

¹² Wi Huata, Submitter 133

¹³ For example Submitters 28 (Saint Clair Family Estate Ltd.), 34 (Craggy Range Vineyards Ltd.), 143 (Strathallan Trust), 179 (Otawhao Farms Ltd.).

reserved for Māori development’. We accept that allocation for Māori development could also result in environmental enhancements, but we consider that it should be made clear in PPC9 that the allocation can potentially be for either of these. This will also require an amendment to the wording in Schedule 32 and we have made this accordingly (see below under Schedule 32).

- 7.61 We also agree with those submitters who sought that the 20% volume of water made available to Māori from the Ngaruroro River is to be for new HFA water only (that is 6,000 L/sec for the Ngaruroro) and not 20% of the total allocation of 8,000 L/sec. To enable access to 20% of the total Ngaruroro River HFA of 8,000 L/sec implies that a clawback for water would be required when consents expired for the 2,000 L/sec of water already allocated. We do not consider that this was the intention of the TANK Group, who recommended to the Regional Planning Committee that 20% of ‘available water’ be reserved for Māori¹⁴. Consequently, we have amended the second row of column E of Schedule 32 (see paragraphs 7.82 – 7.89 under Schedule 32).
- 7.62 We accept the recommendation that the policy is amended to refer specifically to Schedule 32 as it improves clarity and in doing so makes the rule more efficient and effective, and so meets the further evaluation requirements of s32AA of the RMA.

POL TANK 60

- 7.63 POL TANK 60 establishes additional criteria for considering applications to take and store high flows to maximise the potential to provide for the development of Māori economic, cultural and social well-being. This policy aligns with OBJ TANK 17.
- 7.64 This policy attracted relatively little response from submitters. Those that did comment on it sought clarification as to whether the policy related just to POL TANK 59 (HFA for Māori well-being). Others suggested some rewording and to include environmental matters for consideration.

Finding

- 7.65 POL TANK 60 is relatively benign in that it signals that the Regional Council will ‘take into account’ a number of matters relating to Māori interests when making decisions about resource consents. The wording of the policy is clear in that it does not relate just to allocation under POL TANK 59, but is to apply to any application to take and store high flow water. We think it is consistent with the other plan provisions of PPC9, in particular those relating to HFA (POL TANK 54 to 59) and OBJ TANK 17(a) listed above, and recommend it remains as drafted in PPC9.

Rules

- 7.66 In PPC9 Rules TANK 13 - 15 are provided for as discretionary activities:
- a) the taking of surface water at high flows;
 - b) damming (including weirs and other barriers) of surface water and discharges from dams; and

¹⁴ Meeting of the Regional Planning Committee 12 December 2018. Item 6: 6. TANK Plan Change (version 8) recommendation to HBRC. Attachment 1: Allocation of high flow water for Māori development.

c) the take and use of water from a dam or water impoundment.

- 7.67 Rule TANK 13 makes the taking of surface water at times of high flow for storage in an impoundment a discretionary activity subject to the conditions contained in Schedule 32. The s42A Reporting Officers recommended that Condition 13(a), which refers to RRMP Rules 67 and 68, be deleted (and inserted into Rule TANK 14, which relates to dam construction) as these two rules are about the construction of dams and are not relevant to Rule TANK 13, which is about the taking of water at high flows.
- 7.68 Rule TANK 14 enables erecting dams and the consequential damming of water a discretionary activity. It notes that Rule TANK 17 explicitly prohibits damming on the main stem of the Ngaruroro, Taruarau, Omahaki, Tūtaekurī, Mangone and Mangatutu Rivers, but we note that abstraction under high flow conditions from these rivers is not prohibited.
- 7.69 Under PPC9, Rule TANK 15 would have made the taking and use of water from a dam or water impoundment a discretionary activity if it exceeds 5 m³ per day per property (that is does not comply with the conditions of Rule TANK 7). Takes under this rule are not subject to the flow triggers and allocation limits in Schedules 31 and 32.
- 7.70 The s42A Reporting Officers recommended that this rule be changed to restricted discretionary status partly on the basis that a discretionary activity status is a high bar to pass and the damming or taking of water at high flows has already had to pass “quite a high bar”¹⁵. They also recommended a new condition specifying that the activity does not result in a change of land use that required consent under Rules TANK 5 and 6.
- 7.71 The s42A Reporting Officers also recommended an additional rule (Rule TANK 15a) be included in PPC9. This rule would make the take and use of water from a dam or water impoundment a discretionary activity if the activity does not comply with the conditions of Rule TANK 15.
- 7.72 If the conditions of Rule TANK 13 – 15a cannot be met, the activity becomes non-complying under Rule TANK 16. Rule TANK 16 provides the opportunity for non-complying activity applications to be made and assessed on their merits where the provisions of Schedule 32 cannot be met. No changes were recommended this rule by section 42A Reporting Officers.
- 7.73 Rule TANK 17 implements POL TANK 58 and prohibits the construction of dams or damming or waters in specified rivers. The rule consists of a single stem clause and the s42A Reporting Officers recommended no changes to its wording. However, we note that under the Conditions/Standards/Terms column, the first clause should be amended from (b) to (a).

Submissions and evidence

- 7.74 A common theme in submissions relating to the above rules is less to do with the wording of the rules, but about revisiting the allocation limits for high flow takes, including providing for HFAs for the Ahuriri and Karamū catchments, and clarifying the 20% allocation to Māori and environmental enhancement.
- 7.75 Federated Farmers submitted that Rule TANK 17 should be changed from a prohibited activity to a non-complying activity on the grounds that there may be unforeseen circumstances which meant that damming these waterways is necessary¹⁶.

¹⁵ S42A Report, Paragraph 1957

¹⁶ Federated Farmers of New Zealand, Submitter 195

Finding and s32AA Analysis

- 7.76 We consider that the recommended changes to the wording of these rules by the s42A Reporting Officers improves their certainty and clarity. We also consider that further clarity can be provided to the conditions of Rule TANK 13 to indicate that reference to Schedule 32 is only where it is applicable, that is, when the taking of water at times of high flows is in relation to the Ngaruroro and Tūtaekurī catchments. These conditions would read:
- b) *The take on its own or in combination with other authorised takes is still available for allocation within the limits specified in both columns (D) and (E) of Schedule 32, where applicable.*
 - c) *The activity either on its own or in combination with other activities does not cause the flow regime of the river to be altered by more than the amount specified in Schedule 32, where applicable.*
- 7.77 We consider these recommended changes improves clarity and in doing so makes the rule more efficient and effective, and so meets the further evaluation requirements of s32AA of the RMA.
- 7.78 We agree with the s42A Reporting Officers that HFAs for the Ahuriri and Karamū catchments are not considered feasible because they are small, lowland catchments, and also because we received no evidence to indicate that the taking of water from these catchments under high flow conditions would be culturally or ecologically acceptable. Any applications to take water from these catchments under high flow conditions would have discretionary activity status under Rule TANK 13 and so be judged on their merits through a consent process.
- 7.79 We also support changing the status of Rule TANK 15 from discretionary to restricted discretionary, and we do not consider it weakens the intent of the policy and rule framework relating to HFA. The matters for proposed discretion, including measures to avoid adverse water quality effects, measures to ensure the water is used efficiently and monitoring, are consistent with the objectives of PPC9.
- 7.80 Submissions seeking that allocation limits and triggers for takes under high flow conditions be revisited have already be discussed under the section on policies (paragraphs 7.25 – 7.65).
- 7.81 There was general agreement in the TANK process to prohibit damming of the rivers listed under Rule TANK 17 and in Schedule 32. Additionally, decisions on PPC7 found both the upper Ngaruroro and Taruarau Rivers were “outstanding” in the region, which would prohibit them from being dammed in any case. We reject calls for PPC9 to prohibit damming on all rivers and tributaries within the TANK catchments as we consider the bar damming surface waters is already set sufficiently high within the policy and rule framework of PPC9.

Schedule 32 High Flow Allocation

- 7.82 The rationale behind the flow triggers and allocation limits have been described above in paragraphs 7.17 to 7.24. As discussed, Schedule 32 sets out the flow triggers for HFAs in the Ngaruroro and Tūtaekurī catchments, including the ‘amount of flow reserved for Māori Development’, and identifies rivers where damming is prohibited.
- 7.83 As already noted, some submitters sought that the allocation limit for high flow takes should be revisited, including HFAs for the Ahuriri and Karamū catchments and clarifying the 20% allocation to Māori and environmental enhancement.

- 7.84 Ms Gillian Holmes, an expert witness for HortNZ, stated that the proposed HFA limit of 8,000 L/sec for the Ngaruroro River should be set as an interim limit, given that modelling had indicated that further allocation would be available before the environmental limit (that is, a 10% reduction in the number of annual FRE3 events) is reached¹⁷.
- 7.85 Ms Holmes also noted in her evidence that HortNZ had requested a HFA be included in Schedule 32 for both the Ahuriri and Karamū catchments. However, she was satisfied that these catchments should not be included in Schedule 32 at this time, “given the current lack of data in the Ahuriri catchment as well as the fact that both catchments are small lowland catchments”. She went on to comment that a future plan change may identify a volume of water that could be harvested from these catchments.
- 7.86 Ms Wilson for NKII stated Schedule 32 would need to be deleted if the HFA regime approach were abandoned in favour of a water allocation approach which fundamentally addresses the issue of over abstraction.

Finding and s32AA Analysis

- 7.87 We have referred to Schedule 32 throughout this section of our decision. It is a key component of PPC9’s components relating to the new allocation of water and allocation of high flow water in particular. We consider that providing an allocation of high flow water in PPC9 is consistent with OBJs TANK 16, 17 and 18. The recommended trigger flows and allocation limits have been based on a considered framework of potential effects of flow alteration while providing for foreseeable needs. The proposed allocation limits are consistent with the approach set out in POLs TANK 54 and 55. We see no merit in allocation limits for HFA being treated as interim limits or altered upwards or downwards. No technical evidence was presented to us in support of alternative limits.
- 7.88 The allocation water reserved under Column (E) of Schedule 32 refers just to Māori development. Environmental enhancement and Māori well-being are not mentioned, but are listed in POL TANK 59 as being activities entitled to this allocation. We have decided that the title of Column E of Schedule 32 be amended to read ‘Amount reserved to give effect to POL TANK 59’.
- 7.89 As indicated above, we have adjusted the amount of Ngaruroro River water reserved under Column E from 1,600 to 1,200 L/sec in line with 20% of 6,000 L/sec, which is the amount of unconsented (and so available) HFA water.

Glossary

- 7.90 The notified PPC9 Glossary defines ‘Allocation limit for high flow takes’ as:

“... the maximum quantity that is able to be allocated in water permits and abstracted expressed in litres per second as an instantaneous flow and calculated as the sum of the instantaneous flow allocations in water permits for a river or management zone.”

- 7.91 The glossary definition makes no reference to high flow and we consider that it is not sufficiently distinct for the glossary definitions for Allocation limit for surface water and Allocation limit for groundwater. Consequently, we have amended the Glossary definition of **Allocation limit for high flow takes** as follows:

¹⁷ EIC of Gillian Holmes for HortNZ at her Paragraphs 75 - 79.

“ means the maximum quantity that is able to be allocated and abstracted at times of high flow in water permits and abstracted expressed in litres per second as an instantaneous flow and calculated as the sum of the instantaneous flow allocations in water permits for a river or management zone, including as specified in Schedule 32.”

7.92 We consider the changes to Schedule 32 and the Glossary make their intent clearer, and more efficient and effective with respect to HFA, and so meets the further evaluation requirements of s32AA of the RMA.

Chapter 8 - Priorities for Water Allocation

Introduction

8.1 In this section of our report we discuss how PPC9 proposes to deal with priorities for water allocation, particularly at times of water scarcity during dry conditions. In doing so we discuss OBJ TANK 16, POLs TANK 50 and 51, as these collectively establish priorities for allocating water. There are no associated rules, and no terms used in the Glossary are relevant to this assessment.

OBJ TANK 16

8.2 This objective sets out the priority order for allocating ground and surface water in the TANK catchments. In summary, as recommended to the Panel by the section 42A Reporting Officers, it says that subject to limits, targets and flow regimes which provide for the values of each water body, water will be allocated according to the following priorities:

- a) The reasonable domestic needs of people, livestock drinking and fire-fighting supply.
- b) Existing and future demand for domestic supply, including marae and papakāinga, and municipal uses as set out in the HPUDS (2017).
- c) Primary production on versatile soils.
- d) Other primary production, food processing, industrial and commercial use.
- e) Other non-commercial end users.

8.3 More detail about how water will be allocated during water shortages is provided for in POL TANK 51, which we discuss at Paragraphs 8.31-8.38 following. As the policy provides significantly more detail, many submitters, and their evidence when provided, focussed more on POL TANK 51 than they did on OBJ TANK 16.

8.4 A number of changes to OBJ TANK Objective 16 have been recommended to us for consideration. We would describe most of these as improving the way the objective is expressed, particularly in the stem clause. One key change is in Clause a), which now specifies that the highest priority includes the reasonable domestic needs of people, together with livestock drinking and firefighting supply.

Submissions and Evidence

8.5 There were a large number of submissions on OBJ TANK 16. Most of them were identical, and sought that Clause c) should specify primary production on “versatile and viticultural soils”, and that Clause e) should specify that “water bottling” is a non-commercial user.

8.6 A number of submitters, including Federated Farmers and Fire and Emergency NZ sought changes to Clause a), which as noted above, have been recommended to us by the section 42A Reporting Officers.

8.7 Ms Sweeney, in her expert evidence on behalf of the TLAs, asserted that “amending Objective 16(b) to include reference to subsequent versions of HPUDS is consistent with the priority order of Te Mana o te Wai and is consistent with the NPS-FM”. She did not explain how she came to this conclusion.

- 8.8 On behalf of Lowe Corporation both Mr Willis, their expert planner, and Mr Robinson, their counsel, were opposed to OBJ TANK 16 as expressed in PPC9. This opposition was based on their perception that industries which source water from reticulated municipal supplies have an unjustified priority advantage over industries that source water from their own bores (which is what Lowe Corporation do).
- 8.9 Their reasoning, as asserted by Mr Willis, being that “some industry, should in effect be accorded a fourth priority (under Te Mana o Te Wai) by virtue of being self-supplied by water”¹. He also opined that in his opinion “there is nothing in the national policy framework that necessitates or justifies the differentiated approach PPC9 proposes for industrial water users”.²

Discussion and Findings

- 8.10 We do not support HDC’s submission, as that would mean all updates of the HPUDS would be allocated water as a priority. We also note that POL TANK 50 says that the Regional Council will allocate water for urban development projections according to the 2017 HPUDS until 2045, and we discuss this matter further in paragraphs 8.18 – 8.19.
- 8.11 We do not support water bottling being considered a non-commercial use of water; as bottled water products are sold and therefore this is a commercial enterprise.
- 8.12 We do not consider that priority needs to be provided for “versatile and viticultural soils” as sought by many submitters. This is because the definition of “versatile land” in the RRMP already includes viticultural soils³, and the recommended replacement of “soils” by “land” resolves this matter.⁴
- 8.13 We accept that the Lowe Corporation appear to have a valid point about industry serviced by municipal supplies receiving more reliable water. However, we consider such concerns are addressed specifically in POL TANK 50(b) which requires water demand for industry/commercial activities within areas serviced by municipal supplies being subject to strong demand management, council asset management plans and by-laws.
- 8.14 Regarding Mr Willis’s assertion about Te Mana o Te Wai, we much prefer the Reporting Officers’ interpretation as expressed in the s42A Report, where they explain that the priority order set out in OBJ TANK 16 is in accord with the NPS-FM 2020, as it prioritises the health needs of people (Clauses a) and b)) followed by uses which allow people and communities to provide for their social, economic and cultural well-being (Clauses c) to e)).⁵
- 8.15 For these reasons we support the priority order set out in OBJ TANK 16, and the recommended amendments put forward by the s42A Reporting Officers, particularly those to the stem of the clause and to Clauses a) and b).

POL TANK 50

- 8.16 POL TANK 50 sets out how the Regional Council will, in ensuring the water needs for future community growth are met, make decisions on resource consent applications for papakāinga

¹ EIC of Gerard Willis at his Paragraph 55.

² EIC of Gerard Willis at his Paragraph 65.

³ S42A Report at Paragraph 1277.

⁴ This change is also supported by the Winegrowers – EIC of Mark St Clair at his Paragraph 57.

⁵ S42A Report at Paragraph 1273.

and municipal water supplies. Three means of doing so are listed: allocating water for current urban growth projections through to 2045; calculating demand within expected water reticulation areas and requiring planning, good practice and leak management amongst other things; and finally collaborating with the NCC and HDC on future planning and water demand, and investigating reticulation options in communities with low water reliability.

- 8.17 In doing so, the policy “puts the flesh” on elements of OBJ TANK 16, by detailing how water will be allocated to municipal supplies.
- 8.18 The stem of the clause says “that the HBRC will ensure the water needs of future community growth are met within water limits.” These provisions appear to be somewhat contradictory, as they state water needs will be met but within water limits, which we presume refers to the 90 million m³/y “interim allocation limit”. Clause 50(a) goes on to say that water for population and urban development projections will be allocated until 2045 on the basis of the HPUDS 2017.
- 8.19 Only minor changes are recommended by the s42A Reporting Officers; none change the substance of POL TANK 50 as notified in PPC9.

Submissions and Evidence

- 8.20 There were no submissions that totally opposed POL TANK 50, but some submitters sought amendments. More specifically both HDC and NCC sought that updates of the HPUDS be accounted for in the policy, Lowe Corporation sought that they be afforded the same priority as municipal suppliers as a “regionally significant industry”, and Federated Farmers wanted Clause a) removed.
- 8.21 In his evidence on behalf of Lowe Corporation Mr Willis sought amendments to POL TANK 50 to specifically recognise and provide for “regionally significant industry”, along with some criteria for deciding how water would be allocated, together with a proposed definition of what a regionally significant industry is.⁶
- 8.22 Reasons he gave for this included that in his opinion “it is not consistent with HPUDS direction to support greenfield development in preference to intensification on existing self-supplied sites” and that it is not consistent with Objective LW1 of the RPS which includes a policy to ensure efficient allocation and use of water”. He also asserted that it was inefficient to take water from an existing established industrial user and make it available for some future currently unspecified industrial user.⁷
- 8.23 To give some context, in Paragraphs 5.111 – 5.119 we have decided that Lowe Corporation’s existing allocation of water is much in excess of what is “actual and reasonable”. Water is not being “taken” from Lowe Corporation, but their existing allocation is nearly three times what they actually use. Our expectation is that their future consents will reduce their total water allocation by a significant amount under the “actual and reasonable use” test.
- 8.24 The TLAs however are a different matter. Legal counsel and several witnesses expressed a range of concerns about only providing existing annual volumes of water to be taken by the two TLAs. They included:

⁶ EIC of Gerard Willis as his Paragraphs 84 and 85.

⁷ EIC of Gerard Willis as his Paragraph 83.

- a) There may be insufficient water available for the councils to meet their future obligations under the provisions of the National Policy Statement for Urban Development 2020 (NPS-UD). This requires TLAs to have enough land live zoned for expected demand within the next 3 years, either zoned or proposed to be zoned for expected demand within the next 3-10 years and identified in a Future Development Strategy for demand in the 10–30-year period. It includes land for both business and housing. Ms Davidson, counsel for the TLAs, said it was implicit in the NPS-UD that any such development needed to be serviced, including water supply, and that there might be enough water for future development, but that was not at all certain.⁸
- b) Ms Davidson also disagreed with the Regional Council’s contention that consented volumes are sufficient for growth in the short term. In her view no evidence had been provided to support this assertion, and that this did not meet the Regional Council’s obligations under the NPS-UD.⁹
- c) She cited case law in the High Court that had stated that “there is no basis on which to prefer or give priority to the provisions of one National Policy Statement over another....much less to treat one as “trumping the other”¹⁰
- d) In Ms Davidson’s assessment it is possible for PPC9 to give effect to both NPS-UD Policy 2 and NPS-FM Policy 11 by amending the prohibited activity status of Rule TANK 12 to non-complying and/or providing for increased allocations for municipal use as a discretionary activity.

8.25 The TLAs sought that Clause 50(a) should also refer to future updates of the HPUDS. The reasons for this were given in Mr Clew’s evidence, where he explained why in his opinion the population projections in the 2017 HPUDS were already outdated.¹¹ In summary, over the period 2017 to 2045 the 2017 HPUDS projected population growth of 16,485 whereas the Statistics NZ medium growth projection is presently 31,506, which is a difference of just over 15,000 people.

Discussion and Findings

8.26 We do not accept the position of the Lowe Corporation on POL TANK 50, and so we have not included the words “regionally significant industry” within the policy.

8.27 We do not support giving equal priority to self-supplied industries and municipal water supplies. This would not be consistent with Objective 1 of the NPS-FM 2020.

8.28 The TLAs however are a different proposition. If we take a reasonably conservative water use as being 180l/d per person per day that 15,000 population growth “difference” equates to an annual demand of 985,500 m³/y, whereas the annual volume of water needed to supply 31,500 additional people is over 2 million m³/y. Even the present 2017 HPUDS estimated population growth of 16,485 to 2045 requires about an additional 1.083 million m³/y to be provided to the TLAs for future growth.

⁸ Legal submissions of Asher Davidson at her Paragraph 12 in particular.

⁹ Legal submissions of Asher Davidson at her Paragraph 14.

¹⁰ Legal submissions of Asher Davidson at her Paragraph 19.

¹¹ EIC of Mark Clews in the table at his Paragraph 96.

- 8.29 We do not support any change that referred to any update of the HPUDS, as that could be over a 10- or 15-year period and could involve allocating water well over the “interim allocation limit”.
- 8.30 However, as we discuss in detail under the section headed “Take and Use Rules” we have decided to provide a non-complying activity pathway Rule TANK 11A for resource consents that seek to provide more water for essential human health needs and papakāinga housing. Our reason for this is that in POL TANK 50 the Regional Council says that in making decisions about consent application for municipal and papakāinga supply, the Regional Council will ensure the water needs of future community growth are met within water limits. This policy intention, which we support, cannot be met without a consenting pathway to do so, and that does not presently exist within PPC9 as any such application would be a prohibited activity under Rule TANK 12.

POL TANK 51

- 8.31 POL TANK 51 sets out when making water shortage directions under s329 of the RMA, which occurs when rivers fall below minimum flows and takes have ceased or been reduced the Regional Council will establish an emergency water management group (with a broad range of participants) to make decisions about water allocation in an established priority order which is water for:
- a) The maintenance of public health.
 - b) As necessary for animal welfare.
 - c) As necessary for community well-being and health.
 - d) What is essential for rootstock survival.
 - e) Water used seasonally for primary production or processing.
 - f) Uses of water which are essential for business continuity not covered by Clause e).
- 8.32 The policy goes on to say that there will not be restrictions for firefighting uses or non-consumptive uses of water, and that non-essential uses will not be provided for, such as for private swimming pools and car washing.
- 8.33 We note that water rationing during very dry summer and/or autumn conditions in Hawke’s Bay are addressed through consent conditions. Section 329 notices which could be used in future where there is a serious temporary shortage of water as a result of rivers falling towards or below their specified minimum flows as set out in Schedule 31 of PPC9. Because of this, there was strong interest in POL TANK 51 and how it is set out.

Submissions and Evidence

- 8.34 There were 81 submissions on POL TANK 51, most of which fell into three main groups:
- a) A large number of submitters wanted the representation on the emergency water management group broadened to include affected primary sector groups or primary sector representatives.
 - b) A large number of horticulturalists who sought a specific amendment allowing up to 20 m³/d for rootstock survival.

- c) Other parties who made more specific submissions, including for instance not providing for horticultural crops, or providing more reliable water during restrictions for industries that supply primary production.

8.35 In his expert evidence on behalf of HortNZ, Mr Dooney supported POL ¹², particularly its provision for water being used for rootstock survival. This was on the provision that Rule TANK 8, which is a permitted activity rule for groundwater takes¹³. The changes they sought to Rule TANK have been recommended to be made by the section 42A Reporting Officers. Ms Holmes, another expert witness for HortNZ also supported these changes.

8.36 In his evidence on behalf of HortNZ Mr Ford implied that it is more straightforward to “ship” water to ¹⁴ move them to a reliable source of water than it is to provide water for rootstock survival as “neither of these options is available to them”. This is implausible – it would be much easier to “ship” water to lowland properties used for horticulture than, for instance, provide additional water to water troughs on a hill country farm.

Discussion and Findings

8.37 Many organisations sought that they be represented on the emergency water management group that will be established under POL TANK 51. The s42A Reporting Officers have recommended that only Fire and Emergency NZ, along with iwi authorities, be included on this group. We agree with this recommendation, as if the group gets too large it will be cumbersome and so somewhat defeat the purpose of having such a group.

8.38 We support the s42A Reporting Officers’ other recommended amendments POL TANK 51, some of which are based on Ravensdown’s submission (135.48). These amendments improve the clarity of the policy.

¹² As outlined in Paragraph 1848 of the s42A Report

¹³ EIC of Andrew Dooney at his Paragraphs 157-163.

¹⁴ EIC of Stuart Ford at his Paragraph 57

Chapter 9 - General Water Quantity Management

Rules for Taking and Using Surface and Ground Water

- 9.1 There were seven rules in PPC9 that controlled how groundwater and/or surface water would be allocated in relation to the Objectives and Policies that set the overall framework for water allocation. Those rules remain, albeit with many recommended amendments, in the “pink version” of PPC9. The rules are:
- a) Rule TANK 7, which is a permitted activity rule for surface water takes.
 - b) Rule TANK 8, which similarly is a permitted activity rule but for groundwater takes.
 - c) Rule TANK 9, which is a restricted discretionary activity rule for groundwater takes.
 - d) Rule TANK 10, which is a discretionary activity rule for both surface water and groundwater takes.
 - e) Rule TANK 11, which is a restricted discretionary activity rule for low flow surface water allocations, or groundwater.
 - f) Rule TANK 12, which is a prohibited activity rule for both surface water and groundwater takes.
 - g) Rule TANK 13, which is a discretionary activity rule for the taking and use of surface water at times of high flow (or to put it another way, “water harvesting”)
- 9.2 In this section of our report we deal with Rules TANK 7-12 inclusive. Rule TANK 13, which deals exclusively with high flow surface water takes, is dealt with in the section on surface flows.
- 9.3 Although Rule TANK 7 applies to surface water flows only, its proposed conditions, standards and terms are very similar to those in Rule TANK 8; accordingly, we deal with both of them here.
- 9.4 RULES TANK 7 is a permitted activity rule for surface water takes; Rule TANK 8 is a permitted activity rule for small takes of groundwater.
- 9.5 The s42A Reporting Officers have recommended some substantial revisions to Rules TANK 7 and 8 versus what was notified in PPC9. These revisions do not substantially change the content of the two rules, but do improve the way they are expressed. We will outline these rules, and the others discussed below, as recommended to be amended by the s42A Reporting Officers.
- 9.6 There are some restrictions on the catchments where Rules TANK 7 and 8 apply, and so where resource consents will be required for any new takes of water after 2 May 2020. For the surface water takes five catchments were listed in PPC9, and these remain, with the proposed addition of the Paritua and Karewarewa catchments. This was in response to a submission made by Mr Marei Apatu on behalf of TToH, and given that surface flows in these catchments are clearly depleted, is one we support. There is only one water short catchment listed in Rule TANK 8, and that has not been changed.

9.7 In summary, in PPC9 as recommended to be amended by the s42A Reporting Officers, Rules TANK 7 and 8 propose to make the following activities permitted:

- a) Any take first commencing after 2 May 2020 is not from specified water bodies (as discussed above, six of these are listed for surface water takes but only those near Lake Poukawa are specified for groundwater takes).
- b) The take shall not exceed 5 m³/day per property except:
 - i. Lawful takes existing as at 2 May 2020 may continue to take up to 20 m³/day.
 - ii. New takes to reasonable domestic needs can take up to 15 m³ over any seven day period per dwelling house on the property.
 - iii. Lawful takes for stock water drinking that existed on 2 May 2020 can continue.
 - iv. Takes that occur for less than 28 days in any 90 day period, provided the total volume taken per property is not more than 200 m³ in any 7 day period.
 - v. For groundwater takes alone (Rule TANK 8) the taking of water for non-consumptive uses including aquifer testing is not limited to 20 m³/day, and the rate of take shall not exceed 10 l/s, except for aquifer testing.¹

9.8 There are some significant changes here from what was in PPC9 as notified. In particular, lawful takes for up to 20 m³/d per property per day that existed when PPC9 was notified on 20 May 2020 are recommended to be permitted for all takes, not just for stockwater, and lawful takes for stockwater that existed on that date are also recommended to be permitted in PPC9

9.9 Some of these recommended changes to Rule TANK 7 were supported by Federated Farmers, on whose behalf Ms Rhea Dasent said:

“we want stock water enabled to reflect its extremely high importance as a farming value. We support the s42A Report’s recommendation to clarify that stock drinking and s14(3)(b) uses are excluded from the 5 and 20 (m³/d) volume limits.”²

9.10 We support these recommended changes for the reasons outlined by the Officers in Paragraphs 1843 – 1846 of the s42A Report.

9.11 Some general conditions apply to one or both of surface water and groundwater takes. For instance, for all such permitted takes there is a requirement that the activity shall not cause changes in the flows or levels in any wetland, and the take shall not prevent any other existing lawful take to be able to continue. Surface takes are required to install a screen, with specified performance standards, to prevent any fish entering the reticulation system, and (a recommended added requirement) that the rate of take shall not exceed 10% of the instantaneous flow at any point. Groundwater takes must prevent any backflow of water or contaminants into the bore.

¹ This is for what is known as pump tests, which are short term (generally a few hours) and undertaken to find out how much water a new bore might provide, and what its potential effects on neighbouring bores might be. It is not practical to restrict such takes.

² Evidence of Rhea Desant at her Paragraph 12.

Submissions and Evidence

- 9.12 There were over 100 submission points on Rules TANK 7 and 8. Among the main points made were: not limiting takes under RMA s14(3)(b) and (e) for domestic use and stock water supply and/or not limiting domestic or stock drinking water, increasing the permitted takes, making the permitted takes depending on the size of the property and allowing takes of up to 20m³/d for survival of horticultural tree crops.
- 9.13 The oil companies sought that Rule TANK 8 be amended to provide for temporary construction dewatering activities for takes of up to 40l/s for up to 10 consecutive days.
- 9.14 The evidence we received focussed on three main matters: first, that stock water for domestic supply should not be limited as s14(3) of the RMA provides for these as a right; second, that the 20m³/d for (particularly) stock water supply was too little; and third, that having water available for horticultural root stock survival was critical for tree crops such as apples. Examples of this evidence included:
- a) Mr Richard Ridell on behalf of Olig Limited (Submitter 17) said he was concerned about the permitted activity threshold for stock water supply. He told us that he would need about up to a maximum of 55 m³/d from the Mangatahi Stream for his 860ha farm at Maraekakaho. This would be to supply up to 400 steers, 400 ewes and 150 bulls. He said he knew of other farmers with similar stock water demands.
 - b) Mr Alexander Macphee (Submitter 116) was also concerned that under permitted activity Rule TANK 7, for stock water 20 m³/d is not enough, and that on a hot summer's day could be using 70 m³/d for stock water on his 700 ha property at Maraekakaho. He said he had springs on his property, and that he would like to be able to use a litre or two per second for his stock.
 - c) Mr Matthew Truebridge (Submitter 85), who farms in the upper Dartmoor Valley noted that in Taupo there are no restrictions on stock water supplies, and implied this same approach should apply to the TANK catchments.

Discussion and Findings

- 9.15 In relation to the evidence provided by both Mr Riddell and Mr Macphee, the Maraekakaho Stream is a relatively small stream sourced from a catchment in low foothills, and so it potentially affected by the cumulative effects of small takes during low flow conditions. We further note that no new takes from the Maraekakaho Stream will be permitted under Rule TANK 7, and so would have to seek consent as a discretionary activity under Rule TANK 11. As this is a water short catchment, we support these restrictions on new takes here and in other small catchments in Rule TANK 7.
- 9.16 We acknowledge that it is difficult to draft rules for permitted takes of water. Limits have to be imposed on how much water can be taken instantaneously and/or over a fixed period of time and for what purposes, and sometimes over what area, and these limits can seem quite arbitrary. However, to make the rules workable "lines in the sand" have to be drawn to provide certainty and clarity for both resource users and the Regional Council, as the regulatory authority. While there are always apparent exceptions that should be provided for, there is generally little dispute that permitted activity takes are necessary to reduce costs and unnecessary bureaucracy, it is where those "lines in the sand" are drawn that is commonly the main issue for many resource users.

- 9.17 All this means there is no such thing as a “perfect”, or indeed anywhere close to perfect, permitted activity rule for the taking of water. Anomalies will always exist. For example rules will often talk about properties or households, but the rules will remain the same regardless if the property is 30ha, 300ha or 3,000ha, and if the household has 1-2 people dwelling there, or a very large family or family groups. Limits could be drawn around such descriptions, but then the permitted activity rules would become very complex, with potentially dozens of conditions for different situations. Our view is that the rules must be relatively simple and easy to understand, otherwise their whole purpose is undermined by being much too complex.
- 9.18 We consider that the proposed permitted takes, as outlined particularly in Condition (b) of both Rules TANK 7 and 8 get the balance between the volumes that are permitted to be taken, and what volumes require consent, are “about right”, by which we mean they are neither too restrictive or too liberal.
- 9.19 We do not consider that temporary construction water takes of up to 40l/s should be permitted as of right, as sought by the oil companies. It is possible that such takes will interfere with nearby bores, and an assessment of whether such effects could occur needs to be undertaken on a case by case basis.
- 9.20 In relation to s14(3)(b) rights to take water, this says that water can be taken or used for an individual’s reasonable domestic needs, or the reasonable needs of (a person’s) animals for drinking water. Both these however are subject to the caveat that **“the taking or use does not, or is not likely to, have an adverse effect on the environment”** (emphasis added).
- 9.21 In water short times in a generally dry part of the region, we cannot be at all confident that unrestricted permitted takes will not have adverse effects on flows in smaller streams in the TANK catchments. For this reason, we do not accept that domestic and stock water takes should not be subject to reasonable restrictions.
- 9.22 We note an exemption is proposed from Rule TANK 7 for take or use of water for emergency or training purposes, as provided or by s14(3)(e) of the RMA. We support this amendment.
- 9.23 We also support the proposed restriction on permitted takes from surface water to less than 10% of the instantaneous flow at the point of take. This should reduce the potential for cumulative effects of permitted takes on small streams.

Section 32AA Analysis

- 9.24 We consider that with the amendments proposed by the s42A Reporting Officers, Rules TANK 7 and 8 are both efficient, by reducing the need for resource consents for minor takes of water, and effective, in that they define more precisely and somewhat more liberally what takes are permitted and in what circumstances than in PPC9 as notified.

Rules TANK 9 and 10

- 9.25 As these two rules are also similar, we discuss them together.
- 9.26 Rule TANK 9 is a restricted discretionary activity for replacement³ of an existing resource consent to take and use water from the Heretaunga Plains groundwater aquifer. It does not apply to applications for new resource consents.

³ Often wrongly referred to as “renewal” of an existing consent. The RMA allows expiring consents to be replaced, but there is no entitlement to “renew” a consent.

- 9.27 The description of the activity is recommended to be changed as a result of submissions, and we support the proposed amendments there as they are more accurate. The application can be either for the continuation of a one or more consents held by a particular person or entity, or can be for a joint or global application that replaces existing permits.
- 9.28 The remainder of the conditions/standards/terms for such groundwater takes have been much simplified in response to submissions. Condition c) now refers (quite correctly) to takes for a potentially wide range of activities rather than irrigation alone, and these will be granted using the “actual and reasonable” use test. Condition (d) says that the quantity taken for municipal, community and papakāinga housing cannot be more than the quantity being replaced. Condition (e) is recommended to be deleted as what it says is now more succinctly expressed in Conditions (c) and (d). Condition (e) is vastly simplified and just refers to undertaking a stream depletion calculation, rather than prescribing at length exactly what that involves.
- 9.29 The matters for control/discretion are largely as notified in PPC9 but with some amendments, particularly to allow consents to be reviewed with new conditions to provide for stream enhancement projects. A new condition providing for non-notification, or limited notification in some circumstances, is recommended to be added under the notification heading, which we support.
- 9.30 Rule TANK 10, which is also a restricted discretionary activity, applies to surface water takes in the TANK catchments. This is achieved somewhat indirectly by prescribing that the take is not from groundwater, except from where a groundwater take is in “Zone 1” which is an area adjacent to the Ngaruroro River near Fernhill where groundwater is hydraulically connected to the surface waters of the river. In simple terms this means that groundwater takes from this zone can affect (deplete) surface flows in the river. In this instance a “stream depletion calculation” must be made.⁴
- 9.31 Many of the same amendments recommended in Rule TANK 9 are made for Rule TANK 10. For example, the changes to Conditions (c) and (d) described for Rule TANK 9 are also recommended to be included in Rule TANK 10, albeit to Conditions (e) and (f) in Rule TANK 10. As we said in relation to Rule TANK 9, we support these recommended changes, and so have included them in Rule TANK 10.
- 9.32 Rule TANK 10 also requires that fish be excluded from the reticulation system, which is the same requirement of for the permitted activity Rule TANK 7 for water takes.

Submissions and Evidence

- 9.33 Many submitters sought changes to Rules TANK 9 and 10. Most of these sought that the definition of “actual and reasonable” should be changed to just reasonable. As we have said repeatedly in our report these submissions have all been rejected.
- 9.34 There were some more thoughtful submissions from parties including Federated Farmers, Ravensdown, the Regional Council, Waterforce and TToH (although many of the latter’s submission points were not directly relevant to the water take and use rules in PPC9, but rather other provisions in the notified plan change). There was some support for the provisions as notified in PPC9, but all these submissions sought particular amendments to Rules TANK 9 and 10.

⁴ More significantly, groundwater takes in Zone 1 become restricted when flows in the Ngaruroro at Fernhill fall below the Schedule 31 minimum flow of 2,400 l/s.

Discussion, Findings and s32AA Analysis

- 9.35 We support the s42A Reporting Officers' recommended changes to Rules TANK 9 and 10. These simplify the rules, take out redundant wording and clarify other wording and make non/limited notification possible in both rules. We consider these recommended changes make the two rules more efficient and effective, and so meet they meet the requirements of s32AA of the RMA.

Rule TANK 11

- 9.36 This rule allows water takes and associated uses from either surface water or groundwater in the TANK catchments that existed before 2 May 2020, but do not comply with the conditions of any of Rules TANK 7-10, to seek consent as a discretionary activity.
- 9.37 Changes are recommended to Rule TANK 11, most particularly to specify that four activities are not subject to Schedule 31 limits: these are for frost protection, takes of water from or dependent on release from a water storage impoundment or aquifer recharge scheme, non-consumptive takes and temporary water takes (such as for construction dewatering).

Discussion and Findings

- 9.38 Rule TANK 11 is what is known as a "default rule", which means that if an activity does not meet any other relevant rules (in this case Rules TANK 7-10) it is treated as discretionary activity. Such a rule is an essential part of a "rule cascade", and we support its inclusion in PPC9.
- 9.39 We also support the recommended specification of what activities are not subject to Schedule 31 minimum flow requirements, which clarifies and improves the rule. This now includes frost-fighting, the reasons for which are discussed under the heading "POL TANK 53" below.

Rule TANK 12

- 9.40 This is a prohibited activity rule, which as presently drafted applies to any new take and use of groundwater. It would apply regardless of what "actual and reasonable" turns out to be. It will take several years to work that out given that large numbers of present consents have expired, and so are continuing under s124 of the RMA. These will all need to now be processed and decisions made under the provisions of PPC9.

Should Provision for a Non-Complying Activity Rule be Made?

- 9.41 POL TANK 50 states in part that "in making decisions about resource consent applications for municipal and papakāinga water supply the Regional Council will **ensure** the water needs of future community growth are met within water limits" (emphasis added). The policy then under Condition (b) lists comprehensive efficiency standards that the TLAs will have to meet with their existing water takes and associated uses.
- 9.42 However, in PPC9 as notified, and in PPC9 as recommended to be amended by the s42A Reporting Officers, there is no consenting pathway available for any further water to be provided to communities. This was highlighted in Ms Davidson's legal submissions made on behalf of the NCC and HDC, which we included in the discussion of POL TANK 50 in Chapter 8 of our report.
- 9.43 We had asked the s42A Reporting Officers for the potential wording of a non-complying activity rule that would enable some water to be provided to users such as the TLAs. That was

provided to us as Appendix 2 to a memorandum dated 4 August 2021 from Ms Robotham, who was (at that time) a Planner with the Regional Council.

- 9.44 Ms Robotham did not support the provision of a non-complying activity rule, stating that “my recommendation remains that prohibited activity status (and the objectives and policies without the amendments shown in Appendix 2) is the most appropriate approach” (at her Paragraph 2). She also cited some recent case law that offered some support to a prohibited activity rule, but which also as an exception made provision for new public water supply applications exceeding the limits as non-complying activities (her paragraphs 7 and 13).
- 9.45 Given that the Regional Council has committed itself to “**ensuring** future water needs are met” for municipal and papakāinga water supplies, we consider it essential that a consenting pathway be provided to enable this provision. Under Rule TANK 12 this pathway does not exist, as any such application would be a prohibited activity.
- 9.46 As discussed by Ms Sweeney in her evidence⁵ there are two alternatives for providing such a consenting pathway. One would be to list municipal supplies as an “exemption” in Rule TANK 11 b(ii); which would mean any such application would be treated as a discretionary activity and not subject to the “interim allocation limit”, and the other is to provide for such applications via a non-complying activity.
- 9.47 We understand Ms Sweeney’s evidence to favour the “exemption provision” in Rule TANK 11b(ii)⁶ but we strongly oppose that approach for two reasons. First, the exemptions provided are for short term activities such as frost protection and temporary water takes, non-consumptive uses and takes from water impoundments. Second, we do not consider any additional water for municipal supplies should be treated as a discretionary activity which is not subject to the “interim allocation limit”.
- 9.48 For these reasons we have made any such activity non-complying and so subject to the s104D RMA tests. We doubt any such application will have effects that are “no more than minor”, and so they would have to pass the “not contrary to the objectives and policies of the relevant plan” test, which in this case would be PPC9.
- 9.49 We are adamant that this latter test should set high policy thresholds for any new takes of water under Rule TANK 11A. Some of those thresholds already exist in PPC9 in POL TANK 50b), but we have added a new POL TANK 50A which adds further significant threshold tests before any non-complying activity could be granted for municipal and papakāinga water supplies. It reads:

POL TANK 50A

The Council will consider applications to take and use water from the Heretaunga Plains Groundwater Quantity Area for essential human health needs for the community or unforeseen non-commercial needs that, by itself or in combination with other water takes in the same water quantity area, causes the total allocation limit as specified in Schedule 31 to be exceeded.

When assessing the application the Council will take into account:

⁵ At her Paragraphs 19 – 37.

⁶ At her Paragraph 30.

- a) *whether the volume and rate of take is reasonable for the use*
- b) *the extent to which demand can be met through other methods or sources of water and that all other options have been considered and exhausted*
- c) *the extent to which the water use meets social, environmental or cultural needs essential for the community*
- d) *the nature and scale of adverse effects, including but not limited to bore interference, stream depletion, effects on minimum flows and potential derogation of existing water takes*
- e) *any adverse effects on the significant values of connected wetlands, outstanding waterbodies in Schedule 25, and the values of connected waterbodies as expressed in OBJ TANK 10-14.*

9.50 Consequential amendments are necessary to POLs TANK 36, 37, 43 and 52 but only to exempt or include POL TANK 50A as part of their considerations.

S32AA Analysis

9.51 The addition of a possible consenting non-complying activity pathway for essential human health needs for the community meets the Regional Council's stated obligation to ensure water is potentially available for such uses. The new Rule TANK 11A is much more efficient than having no such rule in place, as it provides at least a gateway for new applications to take and use water for very specified activities. However, the policy hurdles that any such applications will have to pass through are deliberately set very high, as such applications should be a last resort if all other options to provide water, including efficiencies in water supply and reticulation, are exhausted. Accordingly, we do not believe this new rule opens the door to new applications to take and use water, but it does at least ensure the door is not slammed shut.

9.52 We see the benefits of adding this rule would be greater than the potential costs of not providing a possible consenting pathway.

Rules for Stream Flow Maintenance and Habitat Enhancement Schemes

9.53 Rule TANK 18 as notified relates to both the transfer of water permits and the discharge of groundwater into surface water in the Heretaunga Plains Water Management unit (renamed Water Quantity Area) which are necessary for implementing Stream Flow Maintenance and habitat Maintenance Schemes. Stream Flow Maintenance And Habitat Enhancement Schemes form a part of notified POL TANK 39. Rule TANK 18 as notified is a discretionary activity that has conditions requiring the transfer and discharge of water to be managed according to the applicable requirements of Schedule 36.

9.54 Schedule 36 (Heretaunga Plains Stream Flow Maintenance And Habitat Enhancement Scheme) as notified provides direction for establishing Water User Collectives with applicable permits, to manage stream flow depletion for streams affected by stream depletion.

9.55 Significant recommended amendments by the Reporting Officers to POL TANK 39 (discussed in paragraphs 6.14 - 6.12), which we have accepted, required consequential deletion of Schedule 36. The Reporting officers stated that a principal reason for recommending to delete this schedule was that, in order to fully consult in good faith, iwi, relevant parties and Council

should establish the scheme plan and operational requirements together and on the needs of the relevant stream or water quantity area that the scheme services⁷.

9.56 The Reporting Officers noted that transfers are already managed by RRMP Rules 60-62b, therefore the inclusion of “transfer” within the activity description of Rule TANK 18 was an unnecessary duplication, and that potential adverse effects which require management are those relating to the discharge only, such as:

- a) Changes to water quality caused by the discharge
- b) Changes to water quality caused by land use change enabled by the discharge
- c) Flooding risk.⁸

9.57 A large number of multiple identical submissions sought amendments to Rule TANK 18 to ensure that flow maintenance requirements only apply to lowland streams where it is feasible, and to remove the presumption that the mainstem of the Ngaruroro River will be augmented⁹.

9.58 Forest and Bird sought that the rule and associated framework for stream flow compensation schemes be deleted throughout the plan. Federated Farmers sought that Rule TANK 18 be retained as notified.

9.59 Twyford Water’s submission questioned the activity status of the rule and sought that its status be amended to Restricted Discretionary¹⁰. Their concern was that, as a Discretionary Activity, the rule did not incentivise joining a Stream Flow Maintenance and Habitat Enhancement Scheme. They suggested a Restricted Discretionary status provided a higher level of comfort for an applicant, and also, through identification of matters of discretion, provided a clearer guidance about what information needed to be provided in a consent application.

9.60 The Reporting Officers acknowledged that allocation and transfer of the groundwater to be discharged is already subject to Rules TANK 9, 10, 11, 13 and 15. They considered that making Rule TANK 18 a Restricted Discretionary activity status would encourage investigation and implementation of “innovative, flexible water management regimes and flow enhancement by providing greater security to applicants”, and that this helps implement OBJ TANK 18.

9.61 In the final version of the plan presented to us at the conclusion of the hearing, the Reporting Officers recommended changing the activity status Rule TANK 18 to Restricted Discretionary with the following matters for control or discretion:

- a) Location, quantity, rate, duration and timing of discharge.
- b) Flood mitigation measures.
- c) Compliance monitoring including monitoring for water quality.

⁷ S42A, paragraph 1485.

⁸ S42A, paragraph 1995.

⁹ e.g., submitters 23 (Pattullo's Nurseries Ltd.), 37 (Dartmoor Estate Ltd.), 71 (Bellingham Orchard Ltd.).

¹⁰ Submission point 99.27 (Twyford Water).

- d) Measures or methods required for meeting the receiving water quality targets in Schedule 26.
- e) The duration of the consent having regard to POL TANK 49.
- f) Lapsing of the consent.
- g) Review of consent conditions.

9.62 As a consequence of recommending that Rule TANK 18 be amended to having Restricted Discretionary status, the Reporting Officers further recommended that a new Rule TANK 18a with a Discretionary Activity status be established for activities which do not meet the conditions of Rule TANK 18.

9.63 Mr Dooney, a planning witness for HortNZ, supported the Reporting Officer's recommended changes to Rule TANK 18 and new Rule TANK 18a¹¹.

Discussion, Findings and S32AA Analysis

9.64 The purpose of Rule TANK 18 was to allow existing allocations to be transferred to provide the water required for stream flow mitigation. We do not think that the removal of the 'transfer' part of the rule as recommended by the Reporting Officers is appropriate, as new Rule 66a in the RRMP relates to the transfer of actual and reasonable water between existing points of take, whereas transfers of water scheme flow maintenance is outside of that. Consequently, we have decided that the term transfer be retained in the rule activity.

9.65 We also consider that the matters for discretion put forward by the Reporting Officers do not adequately cover the management of such a mitigation scheme either. Rather, they should refer to parts of POL TANK 39, and as such we have made the following amendments to the matters for discretion:

- a) Location, quantity, rate, duration and timing of discharge, especially in relation to the maintenance of trigger flows in Schedule 31.
- b) The extent to which the activity is consistent with the requirements of POL TANK 39 and 40.
- c) Benefits to stream flows and aquatic ecosystems including across multiple streams as a result of the discharge.
- d) Benefits of the activity for flood control, climate change resilience and public access.
- e) Management of the stream flow scheme.
- f) Compliance monitoring including monitoring for water quality.
- g) Measures or methods required for meeting the receiving water quality targets in Schedule 26, especially dissolved oxygen levels.
- h) The duration of the consent.

¹¹ Andrew Dooney, EIC, paragraph 145. HortNZ.

- i) Lapsing of the consent.
- j) Review of consent conditions.

9.66 We support the officers' recommended other changes to TANK Rule 18 and 18a. These provide for a restricted discretionary consenting pathway in Rule TANK 18 along with greater clarity around the intent of that rule and its relationships with the relevant Schedule and policy of PPC9. We consider these recommended changes make the rules more efficient and effective, and so meet they meet the requirements of s32AA of the RMA.

Water Allocation - Permit Duration POL TANK 49

9.67 POL TANK 49 deals with the durations of permits granted in the TANK catchments by the Regional Council. This included setting common catchment expiry dates, as was set out in Schedule 33. The policy as notified in PPC9 lists the potential effects to be taken into account when reviewing effects of cumulative water use: these include the Regional Council's knowledge of water bodies, any over-allocation of water, patterns of water use, new technology, climate change effects, flow enhancement schemes and riparian improvement.

9.68 The policy sought to provide certainty for consents in a Water Management Unit by granting terms of 15 years including subsequent reviews, and consent durations of up to 30 years for municipal supply consistent with the HPUDS. It also provided for the possibility of extending these periods by up to three years if a consent is granted in the three years before a common catchment expiry date (as listed in Schedule 33, which is discussed in Chapter 13 of our report).

9.69 Section 8.2.4 of the RRMP says that the Council will grant consents for 20 to 35 years unless certain exceptions apply. The exception most relevant to PPC9 is the need to align consent expiry dates to consider cumulative effects through common consent replacements.

9.70 Over 20 submissions were received on POL TANK 49. Seven submission points supported the 15 year consent duration. Three submissions sought longer durations, three submissions sought shorter durations.

9.71 In their discussions on permit duration most of the TANK Group supported a 15 or 20 year consent duration. The s42A Reporting Officers consider that a 15 year consent duration provides a balance between certainty for water users who may need to invest in infrastructure to utilise their consent, and flexibility for changes to respond to environmental needs.

9.72 Hastings District Council submitted that municipal supply consent duration should be up to 30 years, to align with required infrastructure and planning decisions under the NPS-UD. Heinz – Watties also submitted that significant investment needs to be considered and a term of up to 35 years is appropriate. Similarly, Twyford Water sought a longer-term consent duration for water storage taken during high flows.

9.73 The s42A Reporting Officers consider that notifying all of the common consents in a water quantity area is likely to trigger RMA s95 requirements for public notification due to the cumulative effects of those consents being more than minor. There are over 1,500 consents to take groundwater across the TANK Catchments. Publicly notifying all of these consents could cause PPC9 provisions, particularly the definition and application of the "actual and reasonable use" test, to be litigated through individual consents resulting in unnecessary processing delays and cost. A more efficient and effective process would be to consider PPC9 provisions once, through the plan making process. They recommended amendments to Rules

TANK 9 and TANK 10 in accordance with RMA ss95A(5)(a), 95A(9), 95B(6)(a) and 95B(10) to clarify when public notification is not required.

Discussion and findings

9.74 Setting permit durations will always be rather contentious, as larger users often assert that the value of their investment justifies a longer consent duration than for smaller users. In the TANK catchments however, there appears to us to be little justification for such an approach to be embedded in the policy framework, as larger users need to be dealt with at the same time the other permits in the water management unit are considered.

9.75 We support the recommendations of the Reporting Officers to amend POL TANK 49. In particular we are comfortable with the amendments to the consent duration being “up to 30 years’ for municipal supply”. We are particularly mindful of the investment and planning inputs required to support the application and reporting on consents.

Policy 53 - Frost Protection

Introduction

9.76 POL TANK 53 outlines what Council will consider when assessing new consent applications to take and use water to help avoid the effects of frost on sensitive crops - commonly known as frost protection (or frost fighting). Water can be abstracted from either groundwater or surface water depending on availability. In PPC9 the policy was worded as follows:

When considering applications to take water for frost protection, the Council will avoid, remedy or mitigate actual and potential effects of the take on its own or in combination with other water takes;

- a) from groundwater in the Heretaunga Plains Water Management Unit on;*
 - (i) (neighbouring bores and existing water users;*
 - (ii) connected surface water bodies;*
 - (iii) water quality as a result of any associated application of the water onto the ground where it might enter water;*
- b) from surface water on;*
 - (i) instantaneous flow in the surface water body;*
 - (ii) fish spawning and existing water users;*
 - (iii) applicable minimum flows during November to April;*
 - (iv) water quality as a result of any associated application of the water onto the ground where it might enter water;*

By;

- c) taking into account any stream depletion effects of groundwater takes;*
- d) imposing limits in relation to minimum flows or groundwater levels;*
- e) requiring water metering, monitoring and reporting use of water for frost protection.*

9.77 The Reporting Officers note that this practice occurs infrequently, on the fringes of the irrigation season (i.e., spring or autumn), when flows are above the cease take triggers (i.e., the minimum flow). The takes occur for a limited time, and as such the total volume used may

not exceed permitted take volumes under Rules TANK 7 and 8, however the instantaneous rate of take can be quite high¹².

- 9.78 Under PPC9, existing frost protection takes can be applied for as a Restricted Discretionary activity under Rules TANK 9 and 10, and new frost protection takes can be applied for as a Discretionary activity under Rule TANK 11.
- 9.79 Under PPC9, Rule TANK 11 Condition b)(ii), the total amount taken of surface or groundwater, either by itself or in combination with other authorised takes in the same water management unit does not cause the total allocation limit in the relevant management unit as specified in Schedule 31 to be exceeded except this clause does not apply to takes for frost protection (or to takes of water associated with and dependant on release of water from a water storage impoundment).
- 9.80 We note that, under the Glossary definition of 'Allocation limit for Groundwater', water taken for frost protection is excluded from the allocation limits.
- 9.81 The TANK Group Meeting 41 noted a NIWA study that indicated that, at least for the foreseeable future, frost risk remains for the TANK catchments and frost protection is an on-going management requirement¹³. There was also considerable spatial variability in the location and severity of frost risk across the Heretaunga Plains and TANK catchments, and in some areas the risk of light or moderate frost extends right to the end of October, with a very low probability of light frosts in the first week of November. Notes from meeting indicated that severe frosts destroyed around 70% of the Hawke's Bay summer fruit in 2003 and 50% in 2007, both occurring in early November, while vineyard production was almost wiped out in 2001, again during early November.
- 9.82 The s42A Reporting Officers considered that the adverse effects arising from frost protection takes are generally minor and relate to:
- a) The impact on the flow of a stream (through a stream depletion effect). This is generally brief given the short duration of the take.
 - b) The timing of the take. Reductions in flow at times when spawning fish may be sensitive to lower flows (spawning sites could be dewatered).
 - c) The cumulative impact on groundwater levels. The volume of frost protection takes are generally minor given the short duration of a take and its relative infrequency but may have adverse effects on neighbouring bores and have stream depletion effects.
- 9.83 TANK Meeting 41 noted that the Heretaunga Plains water model accounted for frost protection water within the total water abstractions modelled, and while the instantaneous rate of water take in litres per second could be quite high, it only occurs for very limited periods (hours at most) and infrequently during spring (1 – 1.25 frosts per week in limited areas as the long-term median for September). This meant that the total volume of the frost water take is almost insignificant compared to the total irrigation and municipal takes. Council staff's information on current allocations, provided to us in response to our Minute 10, noted that of

¹² S42A report, Paragraphs 1688-1689.

¹³ TANK Meeting 41, Covering report: TANK Draft Plan Change, Section 4 Frost Protection.

the approximate 165 Mm³/y of water presently allocated, only approximately 0.6 million cubic metres of this is for frost protection.

- 9.84 Other measures used for frost protection include frost fans, helicopters and frost protection structures.

Submissions and evidence

- 9.85 There were seven submission points relating to POL TANK 53. The Department of Conservation's submission stated that water used for frost protection should always be within allocation limits and minimum flows¹⁴, while the Royal Forest and Bird Protection Society's submission sought the policy be removed on the grounds that water taken for frost protection should be treated like all other uses¹⁵.
- 9.86 The submission by Delegat Limited noted that, 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 fans¹⁶. Delegat sought an amendment to the policy that requires applicants for frost protection water to firstly investigate and discount alternative non-water reliant options such as frost fans.
- 9.87 Mr Bevan Davidson¹⁷, an orchardist from the Havelock North area, told us at the hearing that he did not need frost protection very often and the need was quite variable. He said his operation also has a new windmill and frost protection using water was mainly around the edges.
- 9.88 In response to questions from the panel, Ms Emma Taylor¹⁸, an independent vinicultural consultant who gave evidence on behalf of the Wine Growers, told us that a lot more water is required for frost protection relative to irrigation (the rate at which it is applied), however the amount required in terms of total volume is decreasing in Hawkes Bay as people are turning towards wind for frost protection. She told us that there are two types of frost; one formed by ground cooling and hot air rising (radiated frosts), creating an inversion layer. With inversion layers, wind machines can help push warmer air down to the vineyard. However, there are areas in Hawkes Bay where inversion layers do not occur and wind transports cold air mass into an area. In such situations, water is needed for frost protection. The spray forms a protective ice around the buds preventing temperatures within from dropping below 1°C¹⁹.
- 9.89 Mr St. Clair, a planning witness on behalf of the Wine Growers, noted that the drafting of POL TANK 11 as amended by the section 42A Hearing Report did not align with POL TANK 53, and he suggested some amendments to the wording to deal with this²⁰. He identified that POL TANK 53 as notified ensures that minimum flows are considered as necessary while Rule TANK 11 as notified specifies that Schedule 31 allocation limits are not relevant to takes for specific uses.

¹⁴ Submitter 123.90, Department of Conservation.

¹⁵ Submitter 210, Royal Forest and Bird Protection Society.

¹⁶ Submitter 8, Delegat Limited.

¹⁷ Submitter 73, Bevan Davidson.

¹⁸ Evidence in Chief Emma Talyor on behalf of the Wine Growers.

¹⁹ TANK Meeting 41 Covering report; TANK Draft Plan Change.

²⁰ Evidence in Chief Mark St. Clair on behalf of the Wine Growers (Hawke's Bay Winegrowers Association Ltd; Gimblett Gravels Winegrowers Association; Villa Maria Estate Ltd; Pernod Ricard Winemakers New Zealand Ltd).

- 9.90 Submissions²¹ on behalf of several oil companies sought POL TANK 53 be expanded to include temporary construction dewatering, on the grounds that there is potential for the proposed provisions to prohibit temporary construction dewatering activities. Evidence by planning witness Mr Peter Brown in support of those submissions recommended broadening POL TANK 53 to frost protection and non-consumptive takes given the similarities in terms of effects²². The Reporting Officers subsequently recommended that the wording of POL TANK 53 title and sub-heading be amended to read:

Frost Protection, temporary, and non-consumptive water takes

POL TANK 53 When considering applications to take water for frost protection, temporary, and non-consumptive water takes, the Council will avoid, remedy or mitigate actual and potential effects of the take on its own or in combination with other water takes; ...

- 9.91 Mr Brown also noted that PPC9 has no definition for non-consumptive use in its Glossary, but does have a definition for consumptive use, to which he recommended some amendments.

Discussion and Findings

- 9.92 We do not support POL TANK 53 being broadened to include temporary construction dewatering activities. These have quite different potential effects to those generated by taking water for frost protection. In saying this we note that both frost fighting and temporary construction water takes are both exempt from Schedule 31 limits under the provisions of RULE TANK 11 b)(ii).
- 9.93 We find that frost protection is a vital component in ensuring successful fruit and grape development and economic viability in Hawkes Bay. There is a reliance on access to water for frost protection through the application of sprayed water to coat the fruit in ice and effectively seal it from further reductions in temperature below zero. While there are alternatives (e.g., helicopters and windmills), these can be costlier and are not always effective under certain frost conditions.
- 9.94 POL TANK 53 provides users with a pathway for accessing water for frost protection while providing a number of conditions that must be considered in relation to protecting the environment, particularly surface waters, from adverse effects. Taking water for frost protection use occurs over very short periods of time and the volume taken is very minor with respect to the total water allocation in the TANK catchments.
- 9.95 Frosts occur outside of the warmer months of the year when surface water flows are at their lowest so any effects on low flows are mostly minimised. However, we heard that taking water for frost protection (either from a surface water or from groundwater), although occurring for short periods of time, can occur at a high rate and can potentially affect flows in local streams either directly or indirectly through connected groundwater. Therefore, we consider taking water under POL TANK 53 should comply with the minimum flow limits specified in Schedule 31, but not with the allocation limits in that Schedule. With that in mind, we accept the recommended changes to POL TANK 53 and Rule TANK 11 in the final “pink version” of PPC9 presented to us by the Reporting Officers’ at the conclusion of the hearing. Recommended changes to Rule TANK 11 in the s42 Addendum report “pink version” which clarify conditions are also accepted. These conditions now read:

a) The activity does not comply with the conditions of Rules TANK 8 or TANK 9

²¹ Submitter 203. Oil Companies (Z Energy Ltd, BP Oil Ltd, Mobil Oil NZ Ltd).

²² Evidence in Chief Philip Brown, Paragraph 418.

where relevant.

b) *Either*

(i) *The application is either for the continuation of a water take and use previously authorised in a permit that was issued before 2 May 2020 or is a joint or global application that replaces these existing water permits previously held separately or individually*

(ii) *Or:*

(iii) *The total amount taken, either by itself or in combination with other authorised takes in the same water quantity area does not cause the total allocation limit in the relevant quantity area as specified in Schedule 31 to be exceeded except this clause does not apply to takes for:*

i. *frost protection*

ii. *takes of water from or dependant on release of water from a water storage impoundment, or managed aquifer recharge scheme*

iii. *water takes that are non-consumptive.*

iv. *temporary water takes*

9.96 We also agree that under POL TANK 53 applicants seeking water for frost protection should be required to demonstrate that non-water reliant alternatives have been investigated and provide evidence as to why they are not appropriate.

9.97 We also are satisfied that the proposed broadening of POL TANK 53 to include temporary and non-consumptive water takes will not create additional adverse effects on surface water environments or other water users given the matters required for consideration.

9.98 We have decided that POL TANK 53 be worded as follows:

Frost Protection, temporary, and non-consumptive water takes

POL TANK 53

When considering applications to take water for frost protection, temporary, and non-consumptive water takes, the Council will avoid, remedy or mitigate actual and potential effects of the take on its own or in combination with other water takes:

a) *from groundwater in the Heretaunga Plains Groundwater Quantity Area on:*

i. *neighbouring bores and existing water users*

ii. *connected surface water bodies*

iii. *water quality as a result of any associated application of the water onto the ground where it might enter water*

b) *from surface water on:*

i. *instantaneous flow ins the surface water body*

ii. *fish spawning and existing water users*

iii. *applicable minimum flows during November to April*

iv. *water quality as a result of any associated application of the water onto the ground where it might enter water*

By:

- c) requiring applicants to demonstrate non-water reliant alternatives have been investigated and provide evidence as to why they are not appropriate*
- d) taking into account any stream depletion effects of groundwater takes*
- e) imposing limits in relation to minimum flows or groundwater levels*
- f) requiring water metering, monitoring and reporting use of water for frost protection, and other activities if necessary.*

Chapter 10 - Source Protection Zones

Introduction

- 10.1 Source Protection Zones (SPZs) were initially established under the National Environmental Standard for Sources of Human Drinking Water (the NES-DWS) in 2007. At that stage they applied only to communities with populations of 500 or more people for at least 60 days a year, so such communities already have provisional SPZs for their community water supplies.
- 10.2 Following the serious contamination of the Havelock North water supply in 2016¹, a new water regulator Taumata Arowai has been established, with a focus on better management of all sources of drinking water. A Water Services Bill is before Parliament at the time of writing this report.
- 10.3 Both the NCC and HDC take and use groundwater for municipal supplies in Napier, Hastings and Havelock North, respectively. Other communities within the boundaries of the TANK catchments also use ground water or surface water to supply their community drinking water supplies.
- 10.4 Our main focus in this discussion is the “size and shape” of the SPZ around the bores used by the HDC to supply water to Hastings and Havelock North, and other nearby areas, as this was the only significant point of contention between the Regional Council and the two local authorities.
- 10.5 In PPC9 OBJ TANK 9 directly addressed SPZs. In PPC9 it is now recommended by the s42A Reporting Officers to read:

*Activities in source protection areas for Registered Water Drinking Supplies do not cause source water in these areas to become unsuitable for human consumption, and that the risks of supply to safe drinking water are appropriately managed*²

- 10.6 Similarly, POLs TANK 6 - 10 in PPC9 addressed the protection of source water for Registered Drinking Water Supplies. Importantly POL TANK 6 says the quality of water for both groundwater and surface water source supplies will be protected (emphasis added).
- 10.7 These policies are given effect to in Schedule 35 of PPC9 which:
- a) In Table 3 defines how SPZs will be determined in communities of different sizes; and³
 - b) In Figure 1 provides a method for calculating the area of an SPZ for a registered drinking water supply; and
 - c) In Table 4 lists the provisional protection extent for groundwater bores of different depths that supply water to communities; and

¹ Noting that this was due to contaminants entering the water supply from an unprotected well head, rather than from contamination of the sources of supply.

² This is the wording now recommended to us in the “pink version” of PPC9 dated 30 July 2021.

³ Additionally, RRMP Rule 31, which allows the discharge of drainage water as a permitted activity, becomes a restricted discretionary or discretionary activity under Rules TANK 18 and 18a throughout the TANK catchments.

- d) Maps the proposed SPZs for Hastings and Napier on Planning Maps 1 and 2 attached to that Schedule.
- 10.8 Source zone protection is to be achieved by proposed amendments in PPC9 to existing rules covering discharges in the RRMP. Specifically, two rules are proposed to be changed as follows:
- a) The discharge of animal effluent would become a discretionary activity in an SPZ under RRMP Rule 15 (at present they are controlled activities under RRMP Rule 14). Note that RRMP Rule 15 already covers other sensitive catchments, including the headwaters of some rivers and the catchments of several lakes.
 - b) Discharges from on-site wastewater systems, which are currently permitted under RRMP Rule 37, become discretionary activities in SPZs under RRMP Rule 52.
- 10.9 Permitted activities are provided for as of right, with no resource consent required. Resource consent applications for controlled activities must be granted, subject to what are known as conditions/standards/terms and matters for control/discretion⁴, and are usually processed as non-notified applications. Restricted discretionary activities may be granted or declined, and may be (but are not usually) publicly notified. This means that there are additional costs and uncertainties for resource users who discharge to land or potentially to groundwater within SPZs that do not exist outside these zones.

OBJ TANK 9

- 10.10 This objective sets out the outcome expected from SPZs within the TANK catchments to ensure that activities in these zones do not cause source water to become unsuitable for human consumption.
- 10.11 In response to evidence at the hearing the s42A Reporting Officers have recommended some amendments to the wording of the objective, including some additional wording in the “pink version” of PPC9 in response to a submission from Pernod Ricard Winegrowers.
- 10.12 Eight submissions were received on OBJ TANK 9, all of which either supported the objective or sought some amendments to improve, but not significantly change, its wording. The TLAs supported the objective, and the amended objective by Ms Sweeney in her evidence on their behalf.⁵

Finding

- 10.13 We support OBJ TANK 9 as recommended to be amended by the s42A Reporting Officers. It is an improvement over the notified objective in PPC9 as it now expressed more clearly as an outcome statement.

⁴ These also apply to restricted discretionary activities.

⁵ EIC of Annette Sweeney at her Paragraph 50.

Protection of Source Water

- 10.14 There were 28 submissions on this topic, which covers POLs TANK 6-9 collectively. Most sought that the policies and associated rules be amended to take out any implied regulatory approach, and instead that the risks be addressed via farm plans, Catchment Collectives and Industry Programmes. Other submitters, most notably the two TLAs, NKII and TToH, sought much more specific changes, such as adding more areas to the SPZs or taking a more strictly regulatory approach.
- 10.15 Under the NES-DSW the Council is obliged to protect the sources of drinking water for communities. This cannot be achieved through a voluntary, non-regulatory approach as sought by many submitters. All such submissions are rejected for this reason.

POL TANK 6

- 10.16 This policy specifies that the quality of the groundwater in the Heretaunga Plains aquifer, and surface water used for Registered Drinking Water Supplies will be protected by the Council using two specific methods.
- a) Identifying source protection extents for small scale drinking water supplies, and SPZs for large water scale supplies using the methods outlined in Schedule 35.
 - b) Regulating activities within SPZs that could affect, or present a risk, to the supply of safe drinking water. Five reasons are outlined for doing so.
- 10.17 The s42A Reporting Officers recommended only minor amendments to POL TANK 6 from what was notified in PPC9.

Submissions and Evidence

- 10.18 There were nine submissions on POL TANK 6, most of which either supported the policy or sought minor amendments.
- 10.19 Each of HortNZ and Federated Farmers sought amendments that we might describe as protecting the interests of their sector groups, specifically seeking options to relocate sources of supply and recognising “lawfully established land uses” within SPZs. On behalf of HortNZ Mr Dooney did not pursue this particular change in his evidence.⁶ Both these submission points are rejected.

Finding

- 10.20 We support POL TANK 6 with the minor amendments recommended by the s42A Reporting Officers.

POL TANK 7

- 10.21 This policy sets out the matters that the Council will consider when considering applications to take water for a Registered Drinking Water Supply.
- 10.22 In the “pink version” of PPC9 the s42A Reporting Officers recommended some amendments to the wording of the policy. These do not change the context of the policy, but certainly improve its wording.

⁶ Although he did suggest the proposed amendment could be included in POL TANK 9.

10.23 Only five submissions were received on POL TANK 7; those from HortNZ and Federated Farmers were identical to those they made on POL TANK 6. These submissions are rejected for the same reasons outlined in the discussion of that policy. We support POL TANK 7 as recommended to be amended by the s42A Reporting Officers.

POL TANK 8

10.24 This policy sets out the matters that the Council will consider when considering applications for activities within the source protection extent for Registered Water Supplies, and in much more detail, the criteria for considering such applications in SPZs.

10.25 Some amendments are recommended by the s42A Reporting Officers, all of which are based on the submissions of the HDC, along with several other parties. We consider these amendments improve the wording, and add a relevant clause, to POL TANK 8.

10.26 Five submissions were received on POL TANK 8. Those of HortNZ and Federated Farmers made similar or identical submissions to those made on POL TANK 6 and 7, and these are rejected for the same reasons outlined in our discussion of POL TANK 6.

10.27 We support POL TANK 8 as recommended to be amended by the s42A Reporting Officers.

POL TANK 9

10.28 This policy describes how the Council will work co-operatively with other agencies with roles and responsibilities for the provision of safe drinking water. There were only six submissions on the policy, three of which sought that Clause g) in PPC9 be deleted because it largely repeated Clause a).

10.29 That is the only change recommended to the policy, apart from the stem of the clause being updated to reflect more recent role changes in the management of drinking water supplies.

10.30 We support POL TANK 9 as recommended to be amended by the s42A Reporting Officers.

Source Protection Zone Maps

10.31 As already discussed, the s42A Reporting Officers recommended a number of amendments to PPC9 after submissions from the HDC and NCC. With one exception these were generally supported by the TLAs and the Hawkes Bay Drinking Water Governance Committee.

10.32 The one main matter of contention between the TLAs and the Council is the “size and shape” of the SPZ mapped around HDC’s water supply bores. Two of these bores are located near Flaxmere, three in a bore field near Frimley to the north-east of the hospital, three on East Street, just to the south-east of the central city, and one at Brookvale, which supplies only Havelock North.

10.33 Our understanding is that there are two methods to determine the “size and shape” of SPZs. These are known as the analytical and numerical methods. The HBRC, particularly via its expert witness Mr Pawel Rakowski, believed that the numerical method (the Heretaunga Plains numerical model) was superior to the analytical method, which is a simpler model that he

asserted had “multiple limitations”.⁷ He went on to explain that analytical methods produce more conservative SPZs due to higher uncertainties.

- 10.34 The HDC considered the SPZ for the Hastings water supply wells should be determined by combining the results of the numerical and analytical methods. No expert evidence was led to support this approach; rather they referred to this as a “conservative and precautionary approach”⁸ and inferred that Mr Rakowski is not qualified to say that the merging of analytical and numerical models is “unnecessarily conservative”.⁹ The conservative approach to mapping the HDC water source SPZ was also supported by Mr Chapman, their “3 Waters Manager”.¹⁰
- 10.35 We observe that Mr Rakowski is an experienced and qualified groundwater modeller. We prefer his evidence, and his stated strong preference for the use of the numerical model to determine the size and shape of the SPZ upgradient of the HDC water supply bores. Basing the SPZ on a combination of models is in our view unduly conservative.

S32AA Analysis

- 10.36 In essence the arguments put forward by the HDC are based on a “precautionary” approach to defining a SPZ for the HDC water supply bores. We understand the basis for that, given the Havelock North water gastroenteritis outbreak caused by contaminated drinking water, although we observe that was very largely due to very poor well head protection at the Brookvale bore, rather than any upgradient contamination of the groundwater supply. That does not in our view justify a very cautious approach to defining the SPZ for the HDC bores.
- 10.37 We disagree with Ms Sweeney’s assertion that that the change of activity status from permitted or controlled to restricted discretionary or discretionary is “not a significant cost burden on the person undertaking the activity”.¹¹ Nor do we accept Mr Chapman’s similar assertion that extending the zone would not “impose any significant implications on landowners” residing in these areas.¹² That is not our experience; it is substantially more onerous to seek restricted discretionary activities than it is for controlled activities, and permitted activities are allowed as of right.
- 10.38 Rather we adopt the analysis in the s32 Evaluation Report, which does not need further evaluation under s32AA, and which reads:

“Use of both models at the same time is overly cautious, would impose a higher consenting burden on landowners and would not be defensible given the more technically robust approach provided by the Heretaunga Plains numerical model”.¹³

Rules in the RRMP for Source Protection

- 10.39 As part of PPC9 a number of rules in the RRMP were specifically amended to exclude SPZs from the activities listed, or to make other similar amendments. This means that the listed activities will face more stringent consenting requirements in SPZs. Examples of these rules include those for Bore Drilling (RRMP Rule 1), Feedlots and Feedpads (RRMP Rule 5), Use of compost,

⁷ Statement of Reply Evidence of Pawel Rakowski for HBRC at Paragraph 3.2
⁸ Evidence of Mr Brett Chapman dated 21 June 2020 at Paragraph 18
⁹ Legal submissions of Asher Davidson for the HDC and NCC at her Paragraph 47
¹⁰ EIC of Brett Chapman at his Paragraphs 46 and 47
¹¹ At Paragraph 13 of Ms Annette Sweeney’s evidence tabled on 21 June 2021
¹² EIC of Brett Chapman at his Paragraph 48.
¹³ Section 32 Evaluation Report – TANK Catchments Plan Change to RRMP, pg. 302

biosolids and other soil conditioners (RRMP Rule 13), Discharge of animal effluent (RRMP Rule 14), and new (on-site) sewage systems (RRMP Rule 37).

10.40 The main submissions on these rules were from Mr Renouf, who sought a number of extra changes to these rules, but these are out of the scope of PPC9.

10.41 We consider that these proposed changes to the RRMP are necessary to provide additional protection to SPZs and we support them.

Chapter 11 - Management of Stormwater Discharges

Introduction

- 11.1 POL TANK 28 - 31 and Rules TANK 19 - 23 of PPC9 dealt with discharges of stormwater to the environment. Those same policies and rules have remained in PPC9, as recommended to us to be amended.
- 11.2 While some of the objectives of PPC9 could be said to have some influence on stormwater discharges, they primarily refer to the water quality in TANK catchments and lakes and wetlands in a generic manner, and so these matters have been dealt with elsewhere in our report.
- 11.3 These policies are given regulatory effect by Rules TANK 19 - 23 of PPC9. Presently, the numbering of these rules is the same in PPC9. We discuss these rules once we have discussed the relevant policies.
- 11.4 In saying this while we first assess the submissions and evidence on these policies, we have decided that POL TANK 28 and 31 mixed and muddled criteria for assessing resource consent applications to discharge stormwater with how the HBRC, NCC and HDC could collaborate and co-operate to provide more effective and efficient stormwater management. For this reason, we have comprehensively redrafted these two policies, so POL TANK 28 focusses solely on assessment criteria, whereas POL TANK 31 focusses only on consistency and collaboration between the three local authorities.
- 11.5 We recognise that this is “stretching” the scope of submissions on the stormwater management provisions, but it does retain the intent of the two policies while making them much more robust and coherent.

Submissions on Stormwater Management

- 11.6 There were a range of submissions on stormwater management as set out in PPC9. They included points about making sure that the stormwater discharges to the Ahuriri Estuary are improved, requiring that all stormwater discharges meet target attribute states in Schedule 26 by 2040, and having better alignment between the HBRC, HDC and NCC regarding stormwater management.
- 11.7 Mr David Renouf sought changes to policies in the RRMP that relate to stormwater management. These are outside the scope of PPC9, and so cannot be taken into account in this decision.

POL TANK 28

- 11.8 POL TANK 28 is one of the most complex in PPC9, with significant changes recommended to us by the s42A Reporting Officers. It is headed “stormwater infrastructure”. PPC9 listed 11 criteria or actions to implement this direction; in PPC9 as recommended to us (in the “pink version” dated 30 July 2021) there are now 14 criteria or actions listed.

Submissions and Evidence

- 11.9 There were a range of very specific requests to amend POL TANK 28. They included:
- a) adding a clause that would require having particular regard to values of the receiving environment for stormwater discharges;

- b) amendments to Clause c) of the policy as notified regarding detention of stormwater;
 - c) taking out words such as “where practicable” in Clause i) and so just referring to best practice.
 - d) requiring management of solid contaminants and debris entering stormwater systems and implementing measures to remove it once instream.
- 11.10 In response to submissions the s42A Reporting Officers had recommended that new Clause a) be added to POL TANK 28 that requires decisions on consent conditions to contain measures to help achieve the target attribute states in Schedule 26. This is consistent with the NPS-FM 2020, and with a large number of other changes recommended to PPC9 by the s42A Reporting Officers.
- 11.11 Expert evidence on behalf of the NCC and HDC was provided by Ms Sweeney, a registered engineer with expertise in “three waters” infrastructure. In reference to POL TANK 28 she sought further changes to POL TANK 28d) and 28g) in PPC9.¹ As we understand it her evidence on both these matters has been accepted by the s42A Reporting Officers, and the changes she sought have been recommended to us.
- 11.12 In response to evidence led on behalf of the NCC and HDC the s42A Reporting Officers recommended a new Clause k) be inserted in POL TANK 28 in the “pink version” of PPC9 dated 30 July 2021.
- 11.13 Ravensdown, through their consultant planner Ms Taylor, supported the intent of POL TANK 28 but did not believe that the 1 January 2025 timeframe for achieving best practicable option was achievable. In her view the requirements of the policy could more readily be implemented when existing consents are replaced.²

Discussion and Findings

- 11.14 The s42A Reporting Officers have recommended most of the amendments sought by the TLAs be accepted. We support their recommendations.
- 11.15 We also agree in part with Ms Taylor, and so we have taken out the date in the stem clause of POL TANK 28.
- 11.16 Having said this, our comprehensive re-write of POL TANK 28 now reads:

POL TANK 28

The Council will reduce or mitigate the adverse effects of stormwater quality and quantity on aquatic ecosystems and community well-being arising from existing and new urban development (including infill development) industrial and trade premises and associated infrastructure by addressing the following matters when considering applications to divert and discharge stormwater, by requiring:

- a) measures to achieve the target attribute states in Schedule 26*
- b) adoption of an integrated catchment management approach to the collection, treatment and discharge of stormwater*

¹ EIC of Annette Sweeney at her Paragraphs 84-86.

² Hearing Evidence of Carmen Taylor at her Paragraph 5.5(b)

- c) *stormwater to be discharged into a reticulated stormwater network where such a network is available or will be made available as part of the development*
- d) *retention or detention of stormwater where necessary, while not exacerbating flood hazards*
- e) *adoption of a good practice approach to stormwater management including adoption of Low Impact Design for stormwater systems; and adherence to relevant industry guidelines*

and by further considering:

- f) *any potential adverse effects on significant and/or outstanding values of the receiving environment including estuaries, wetlands and any waterbody listed in Schedule 25*
- g) *site specific constraints including areas with high groundwater and source protection zones and extents*
- h) *impact of the activity on the joint approach of HBRC, Napier City and Hastings District Councils to provide for integrated stormwater management*
- i) *the effects of climate change when providing for new and upgrading existing infrastructure.*

POL TANK 29

11.17 POL TANK 29 is headed up “source control”; it specifies three actions to reduce sources of stormwater contamination and contaminated stormwater. The s42A Reporting Officers recommended that additional words be added to Clause (b), but that the policy otherwise remain unchanged.

Submissions and Evidence

11.18 There were five submission points on source control and POL TANK 29, as notified in PPC9. Most sought specific changes; one supported the policy as notified and Ravensdown sought the policy be deleted. Ms Taylor reinforced Ravensdown’s desire for the policy to be deleted in her evidence, but in our view gave no good reasons for doing so.³

Finding

11.19 We have retained POL TANK 29 in PPC9, with the inclusion of the added phrase recommended by the s42A Reporting Officers.

POL TANK 30

11.20 POL TANK 30 is headed “dealing with the legacy”. It sets out criteria that stormwater discharges must meet after reasonable mixing. Although amendments are recommended to us, most of those are aimed at improving the way the policy is expressed rather than changing the substance of the policy greatly. There are however two particularly significant changes recommended to us:

- a) Making all of criteria listed under a) and b) in PPC9 subject to reasonable mixing.

³ Hearing Evidence of Carmen Taylor at her Paragraph 5.8(b)

- b) Adding a specific reference to the contents of the 2018 ANZECC guidelines for making decisions on attributes/contaminants not listed in Schedule 26, but potentially in stormwater discharges. Two dates are listed: 80th percentile species protection by 1 January 2025, and 95th percentile protection by 2040.

Submissions and Evidence

- 11.21 Most of the submissions sought some changes to POL TANK 30, including adding a general reference to reasonable mixing, removing any reference to reasonable mixing, and deleting all references to species protection standards. However, no party sought the policy be deleted or completely redrafted.
- 11.22 On behalf of the NCC and HDC Ms Sweeney said that “the s42A Reporting Officers” recommended changes meet the intent of the Councils submission and is appropriate”.
- 11.23 On behalf of Ravensdown Ms Taylor took a different view. She asserted that the ANZECC Guidelines are not intended to be used as water quality standards; rather that where a guideline is not being met in a receiving environment, further investigations are warranted. Additionally, her understanding was that the different percentiles apply to different situations or characteristics of waterways, and cannot be applied universally in catchments, or even a region.⁴
- 11.24 She suggested an amendment that would just refer to the relevant ANZECC guidelines for attributes not included in Schedule 26.

Discussion and Findings

- 11.25 We acknowledge that using the ANZECC guidelines as a “regulatory backstop” is far from perfect. Given however the wide range of contaminants potentially found in stormwater, such as hydrocarbons and heavy metals, a consistent and reasonably rigorous approach to evaluating such potential contaminants in stormwater discharges is necessary. Additionally, because the guidelines refer specifically to levels of species protection, the amendment suggested by Ms Taylor is much too general to be interpreted in any meaningful way.
- 11.26 For these reasons we agree with the s42A Reporting Officers’ recommended changes to POL TANK 30.

POL TANK 31

- 11.27 POL TANK 31 addresses consistency and collaboration between HBRC, NCC and HDC. As notified in PPC9 it contained a stem clause and eight actions that would be adopted to implement the policy.
- 11.28 The s42A Reporting Officers recommended that some relatively minor changes to be made to POL TANK 31, including to the stem clause so this is consistent with other references to “target attribute states in Schedule 26” throughout PPC9, along with two additions recommended to be inserted at the request of the TLAs.⁵

⁴ EIC of Carmen Taylor at her Paragraph 5.8(c).

⁵ EIC of Annette Sweeney at her Paragraph 87

Finding

11.29 While we support the s42A Reporting Officers' recommended amendments to POL TANK 31, as we noted earlier this has been rewritten as follows:

POL TANK 31

To assist in achieving the 2040 target attribute states in Schedule 26, the Council in collaboration with the Napier City and Hastings District Councils will:

- a) *no later than 1 January 2030, implement similar stormwater performance standards and management including through the adoption of:*
 - i. *shared information and processes for monitoring, compliance and auditing management of sites at high risk of stormwater contamination*
 - ii. *consistent levels of service for stormwater management and infrastructure design*
 - iii. *an integrated stormwater catchment management approach, consistent with Schedule 33*
 - iv. *undertaking a programme of mapping the stormwater networks and recording their capacity*
 - v. *aligned resource consent processes including joint hearings where appropriate*
 - vi. *Amending standards, codes of practice and bylaws to specify consistent design standards for stormwater reticulation and discharge facilities including through consent conditions, that will enable implementation of the stormwater policies set out in this Plan*
 - vii. *requirements for site management plans and good site management practices on industrial or trade premises in the following high priority areas:*
 1. *the Ahuriri catchment*
 2. *the Karamū River and its tributaries*
 3. *within identified drinking water Source Protection Zones and*
 4. *land over the unconfined aquifer*
- b) *when reviewing district plans, include provisions that specify consistent design standards for stormwater reticulation and discharge facilities, that will achieve the freshwater objectives set out in this plan*
- c) *develop and make available to the public consistent advice about good stormwater management options (including through HBRC's guidelines)*
- d) *encourage, through education and public awareness programmes, greater uptake and installation of measures that reduce risk of stormwater contamination*

Rules TANK 19 -23

11.30 These five rules set out a framework for regulating stormwater discharges to receiving environments within the TANK catchments, and are structured as follows:

- a) Rule TANK 19 is a permitted activity, but with restrictive conditions: these include there being no increase in flood risk, that the discharge is not from stockyards or has actual or potential hazardous substances present, that it meets the qualitative criteria in s107(1) of the RMA, and that the discharge is from a property with less than 1000 m² of impervious area.
- b) Rule TANK 20 is a restricted discretionary activity that applies to small scale diversion and discharge activities that do not comply with Rule TANK 19, and are not from an industrial or trade premise. In PPC9 11 matters of discretion were listed; three further matters are now recommended to be included.
- c) Rule TANK 21 is a controlled activity for diversion and discharge of water from an existing or new local authority managed stormwater network. There are a set of conditions, but many of the conditions in PPC9 as notified have been removed from the conditions/standards/terms heading and put into a new Schedule 34B.
- d) Rule TANK 22 is a restricted discretionary activity covering stormwater discharges from industrial or trade premises. There are comprehensive sets of conditions/standards/terms and matters for discretion, including (in the “pink version” of PPC9) a recommended performance standard for petroleum hydrocarbon interceptors.
- e) Rule TANK 23 is a default discretionary activity rule for activities that do not comply with any of Rules TANK 19-22. Such a “default rule” is very common in regional plans. No submissions or evidence sought that this rule be deleted, and it was supported by some parties. An amendment sought by the two territorial local authorities⁶ that sought the matter for discretion be removed has been supported by the s42A Reporting Officers, and is appropriate for a discretionary activity rule. For these reasons we do not comment further on Rule TANK 23.

11.31 All these rules have changes recommended by the s42A Reporting Officers in response to submissions and evidence. The most apparently comprehensive change is to put the requirements for an Integrated Catchment Management Plan formerly listed in Rule TANK 21 into a new Schedule 34B. The words used are not recommended to be changed, and having all this detail in a schedule makes eminent sense to us, and so is not a matter we comment further on.

Submissions and Evidence

11.32 A wide range of submissions were made on Rules TANK 19-22 as set out in PPC9 by the TLAs, DOC, Ravensdown, TToH, Federated Farmers (who supported all the rules as notified), the collective oil companies⁷, and RFBPS.

⁶ That is the NCC and HDC, who made identical submission points on the stormwater rules. We will refer to them in the rest of this discussion as the “two TLAs.”

⁷ That is, Z Energy, BP and Mobil, which we will refer to as “the oil companies”.

- 11.33 Evidence on the proposed rules was led by several witnesses, including Mr Brown for the oil companies, and Ms Sweeney for the TLAs.
- 11.34 In his EIC Mr Brown discussed Rules TANK 19-22 as they affect discharges of stormwater from refuelling facilities. He noted that Rule TANK 19, which is a permitted activity, would exclude all such facilities, and sought that discharges that met Ministry for the Environment (MfE) guidelines be permitted.⁸
- 11.35 The s42A Reporting Officers did not accept this assertion; we agree with them.⁹ Our view is that stormwater discharges that potentially contain hydrocarbons or other hazardous waste need to be regulated, and that a restricted discretionary activity, as provided for in Rule TANK 22, is an appropriate way of doing so. Additionally, we do not believe “MfE guidelines” should be given any formal status in a rule, as they are not drafted with that endpoint in mind. Further, they are subject to periodic change, and may not stay the same for the life of PPC9.
- 11.36 Mr Brown also sought that Rule TANK 22 be amended to remove the absolute exclusion of hazardous substances. In his evidence presented at the hearing he proposed an amendment to conditions/standards/terms column of the rule to include an enabling provision allowing some discharges of hydrocarbons in stormwater via an interceptor and a low limit on total petrol hydrocarbons in the discharge.¹⁰ The s42A Reporting Officers have recommended to us that this provision be accepted in the “pink version” of PPC9, and we are comfortable doing so. Similarly the s42A Reporting Officers’ recommended that the words “adherence to relevant industry guidelines” be added to POL TANK 28, which is an amendment supported by Mr Brown.¹¹ In the context it is recommended to us, we are comfortable adding it to POL TANK 28.
- 11.37 Ms Sweeney sought two specific changes to Rule TANK 21.¹² The s42A Reporting Officers have recommended that these be accepted, in one case in a modified form and we agree with their advice.

Findings

- 11.38 In accordance with the above discussion, we support the amendments to the Rules TANK 19 - 23 recommended by the s42A Reporting Officers.
- 11.39 The s42A Reporting Officers also recommended that the pages of detail in the conditions/standards/terms column in Rule TANK 21 be put in a separate Schedule 34B headed “Integrated Catchment Management Plans” We think this an eminently sensible recommendation, which we strongly support.

S32AA Analysis

- 11.40 We have decided to make significant changes to rationalise POL TANK 28 and 31, but not change their overall intent. These changes make the two policies more efficient and effective by clearly separating out assessment criteria and how local authorities will collaborate on stormwater management.
- 11.41 A number of amendments have also been made to the rules that help clarify them and make them more certain, and so more effective. The major change made – to remove a large section

⁸ EIC of Philip Brown at his Paragraphs 6.2 and 6.3.

⁹ Section 42A Report at Paragraph 2181.

¹⁰ Hearing Evidence of Philip Brown at his Paragraphs 20-22.

¹¹ Hearing Evidence of Philip Brown at his Paragraph 23.

¹² Hearing Evidence of Annette Sweeney at her Paragraphs 14(c) and (d).

from Rule TANK 21 and place it in a separate Schedule - much improves the coherence of the rule, and so makes it much more effective.

Chapter 12 - Wetland Management

Introduction

- 12.1 In PPC9 the management of wetlands in the TANK catchments were addressed by OBJ TANK 15, and POLs TANK 3, 14 and 15. The Reporting Officers' s42A Report recommended that these remain in PPC9, with the exception of POL TANK 14 which is recommended to be deleted, with some of its contents recommended to be included in POL TANK 15.

OBJ TANK 15

- 12.2 This objective sets out that wetland and lake waahi taonga in the TANK catchments are to be managed so that mauri, water quality and flows, and levels are maintained and improved to enable five matters, which in summary included: having healthy and diverse biota, improved hydrological functioning, enabling people to safely carry out activities in these water bodies, collection of mahinga kai, improvement of water quality in connected water bodies, and the protection of values in three specified water bodies. An additional provision sought to restore and increase the area of existing wetlands, and create some new wetlands, by 2040.
- 12.3 Submitters sought a number of changes to OBJ TANK 15. Some are more relevant to the policies than this objective. They included enabling more water from wetlands for primary production and economic welfare generally, including recreational values of wetlands, and making the objective more outcome focussed.
- 12.4 The s42A Reporting Officers made several recommended changes to OBJ TANK 15, including making the stem clause more of an outcome statement, recognising "valued introduced" flora and fauna, including the recreational values of wetlands, and enabling more water abstraction for human or animal health.

Discussion and Findings

- 12.5 While we accept that the changes to the stem of OBJ TANK 15 are entirely appropriate, we do not accept most of the other changes recommended by the s42A Reporting Officers. We do not consider that "valued introduced species" should be given the same level of recognition as indigenous fish, bird and plant populations¹. Additionally, given Regulation 53(2) of the NES-F 2020 prohibits the taking and use of water if it results in the complete or partial drainage of a natural wetland, it would be contradictory to encourage such abstraction. For these reasons we do not support the s42A Reporting Officers' recommended changes to Clauses (a) and much of (d).
- 12.6 We support however acknowledging the recreational values of wetlands, as these can be high, and the removal of the words "collection of" in relation to mahinga kai in Clause (d).

POL TANK 3

- 12.7 This policy sets out how the Council will work alongside landowners to improve the quality of wetlands in the TANK catchments. Only minor changes are recommended by the s42A Reporting Officers to the policy from PPC9; these improving consistency and clarity within PPC9.

¹ This would also leave an open judgement as to what is "valued", and by whom.

- 12.8 Five submissions were received on POL TANK 3; two supported the policy and the others including Department of Conservation and Forest and Bird sought amendments of various kinds which are covered by other policies.
- 12.9 The NES-F, which came into effect on 3 September 2020, includes significant restrictions on activities in and around the margins of wetlands, including a prohibition on private landowners modifying natural wetlands. These regulations prevail over any rules in a regional plan. Nothing in POL TANK 3 or 15 contradict these regulations.

Finding

- 12.10 We support the Reporting Officers' recommended amendments to POL TANK 3.

POL TANK 14

- 12.11 POL TANK 14 of PPC9 stated that the Council would regulate activities in and around wetlands and lakes, and would support and encourage the maintenance and improvement of wetland values for six possible reasons, including for biodiversity, cultural uses, their role in the hydrological cycle, and fishery habitat. In doing so, it largely repeats what was set out in OBJ TANK 15.
- 12.12 There were only four submission points related to POL TANK 14 that were either supportive and/or seeking additions to wetland values. The S42A Reporting Officers recommended that POL TANK 14 be deleted, as it largely repeats what was set out in OBJ TANK 15. Those parts of the policy that were not included in OBJ TANK 15 are now recommended to be included in POL TANK 15.

Finding

- 12.13 We support the recommendation to delete POL TANK 14, as it is largely redundant.

POL TANK 15

- 12.14 In PPC9 POL TANK 15 sets out how the Council would support and encourage the restoration and extension of natural wetlands, along with the reinstatement or creation of additional wetlands. Six methods were listed for achieving these outcomes. They include identifying priority areas for improvement and increasing the extent of wetlands, providing information and funding assistance for protection of existing wetlands and constructing new wetlands, and decision-making criteria on such projects, including possibly waiving consenting fees if there would be significant public benefit from a proposal to increase ecosystem benefits.
- 12.15 The s42A Reporting Officers recommended some amendments to POL TANK 15. These include saying the Regional Council will regulate activities in and adjacent to wetlands (which was originally in POL TANK 14), and other relatively minor amendments, one in response to a submission from the Hawke's Bay Fish and Game Council. There were only two other submissions.

Finding

- 12.16 We support the Reporting S42A Reporting Officers' recommended amendments to POL TANK 15.

Chapter 13 - Other Objectives and Policies and Rules in PPC9

Introduction

13.1 This section addresses a number of miscellaneous policies in PPC9 that are important, but which however were not considered particularly contentious by either submitters or witnesses at the hearing. These policies also do not “fit well” within the main chapters of our report.

Monitoring and review – POL TANK 33-35

13.2 These policies set out how the Regional Council will monitor and review PPC9. The three areas they cover are:

- a) POL TANK 33 describes how the Regional Council will recognise and support a mātauranga Māori based monitoring framework that enables kaitiaki and resource users to carry out local scale monitoring.
- b) POL TANK 34 sets out how the Regional Council will meet regularly with representatives from TANK Stakeholder Groups to review and report on the TANK implementation plan and work on issues as they arise.
- c) POL TANK 35 describes a suite of measures to support the Regional Council monitoring and reporting role on the effectiveness of the TANK water quality management policies and rules and to assist in making decisions about reviewing or changing this management framework.

Submissions and Evidence

13.3 There were 34 submission points on these three policies. Four of the submissions supported the policies and wanted them retained. Ten submission points sought minor text changes and links to various parts of the plan, and five submission points were in opposition. These latter points sought the policies either being deleted or moved to the methods section. In addition, there were a number of general submissions from Iwi and hapū submitters supporting the introduction of a mātauranga monitoring framework and sought clarification and more definition of its implementation.

13.4 In response to these submissions the s42A Reporting Officers recommended two technical amendments to these three policies, one to the submission of Federated Farmers, deleting the reference to conducting a review of these provisions in ten years under section 79 of the RMA; the second a minor amendment to the text in response to Ravensdown Limited.

13.5 Mr Apatu for TToH in his evidence said that it is an affront to have the HBRC referred to as Kaitiaki Guardians over the environment for the region and asks that this be removed from PPC9. The Officers Section 42A Addendum Report picks up on this point and recommended that an amendment be made to refer to tangata whenua in POL TANK 33 (b).¹

13.6 We did not receive any other evidence on these policies.

¹ Section 42A Addendum Report. Page 16 (see also Marei Apatu EIC, point f on page 14)

Findings

13.7 We support the s42A Reporting Officers' recommended amendments to POL TANK 33, 34 and 35.

Water use and efficiency POL TANK 46 and 47

13.8 POLs TANK 46 and 47 of PPC9 set out how the Regional Council proposed to ensure that water taken in the TANK catchments and the Heretaunga Plains aquifer is allocated and used efficiently. These two policies are recommended by the s42A Reporting Officers to be retained in PPC9.

POL TANK 46

13.9 This policy lists four ways in which the Regional Council proposed to ensure the efficient management and allocation of water. These are: providing water with known reliability of supply, allocating via the "actual and reasonable use test", encouraging the flexible use of water, and ongoing data collection and monitoring. The s42A Reporting Officers recommended only minor changes to this policy.

13.10 POL TANK 46 relates to OBJ TANK 17 and 18 that seek to ensure there are processes that are efficient and supporting water users to use and manage their allocation well. We discuss OBJ TANK 17 and 18 in Chapter 7, High Flow Allocations, of our report.

Submissions and Evidence

13.11 There were over 50 submission points on POL TANK 46. Most of these opposed the policy and sought the specific use of 'actual and' being deleted from the 'actual and reasonable' test. As we have discussed elsewhere in our report these submissions are all rejected, as the "actual and reasonable use" test accurately describes how water will be allocated in the future.

13.12 The other submissions either supported the policy, or sought it be deleted, that a definition be provided for "actual and reasonable" (which already existed in PPC9) and including references to reliability of supply for irrigators.²

13.13 No substantive evidence was provided on POL TANK 46.

Finding

13.14 We support the s42A Reporting Officers recommended minor amendments to POL TANK 46.

POL TANK 47

13.15 This policy lists six criteria that the Regional Council proposed to use when considering resource consent applications to take and use water and how it will be allocated and used efficiently. In summary these criteria are:

- a) Ensuring that the use of water is efficient through three means, including using appropriate technology and water meters
- b) Using Irricalac to determine efficient water allocations

² Sec42A Report, page 203

- c) Allocating water on the basis of an 80% application efficiency and 95% reliability of supply
- d) Requiring all other takes (apart from municipal supply) to show how 80% efficiency of water use is met.
- e) Requiring any new takes to be installed in accordance with industry codes of practice and standards
- f) Requiring water use systems to be maintained to ensure ongoing efficient water use.

Submissions and Evidence

- 13.16 There were over 25 submissions on POL TANK 47. Most of these sought specific amendments to one more clauses of the policy, such as alternative wording to align with industry terms and interpretations. In response to these submissions the s42A Reporting Officers recommended a substantial number of amendments to POL TANK 47, which we would describe largely as improving and clarifying the wording of the decision making criteria, rather than substantially changing the meaning or effect of those criteria.
- 13.17 Some submission points sought a 90% reliability of supply in Clause (c), versus the 95% reliability of supply provided for in PPC9 and (with amendments) recommended to be retained by the s42A Reporting Officers.
- 13.18 Reliability of supply (sometimes referred to as security of supply) refers to the allocation of water sufficient to meet a 1 in 20-year drought event. 95% reliability of supply is consistent with the RRMP approach and Market Economics modelling which showed a significantly larger adverse economic impact of a 90% reliability of supply than 95% reliability of supply.³
- 13.19 In his evidence for various parties Dr Davoren said that PPC9 must differentiate between application efficiency versus what he called distribution uniformity, which we understand to be how an irrigation system applies water and how uniformly it is spread.⁴ PPC9 talks about application efficiency, which both he and Mr Dooney suggested be defined in the glossary of PPC9. The s42A Reporting Officers recommended adding a definition of application efficiency to the glossary, which we support. As the words “distribution uniformity” are not used in PPC9, there is no reason to include a definition of this term in the glossary.
- 13.20 On behalf of HortNZ Mr Dooney largely supported the s42A Reporting Officers’ recommended amendments to POL TANK 47, although he also sought a definition of distribution uniformity be added to the glossary.

Finding

- 13.21 We support the s42A Reporting Officers recommended amendments to POL TANK 47, as they improve and clarify the policy in a way consistent with some submissions and the main evidence led on the policy. They also make PPC9 more consistent with the RRMP.

Climate change OBJ TANK 3 and POL TANK 61

- 13.22 OBJ TANK 3 included the sole references to climate change in PPC9. In doing so however, most of what was included in the objective is much more appropriate at the policy level, as it sets

³ Section 42A Report, page 204-205

⁴ Such as the EIC of Anthony Davoren for Ngaruroro Irrigation Society at his Paragraphs 36-40.

out how the Regional Council will take account of climate change in decision making. For this reason POL TANK 61 was included in Appendix 1A to the s42A Report.⁵

- 13.23 There were only eight submission points on OBJ TANK 3. None opposed the objective. Two submission points supported the objective and sought its retention. Five submission points sought amendments to the objective to cover natural resources such as the habitat of trout and salmon⁶, aquatic ecosystems⁷, and broader consideration of the four well-beings⁸, and environmental changes such as increases in rainfall, erosion and sediment loss, sea level rise, water shortages⁹, human and animal disease vectors¹⁰.
- 13.24 HortNZ sought a number of changes to POL TANK 21 which had some bearing on POL TANK 61. The S42A Reporting Officers recommended further amendments to POL TANK 61 which considered opportunities to reduce greenhouse emissions alongside contaminant losses.¹¹
- 13.25 The recommended new POL TANK 61 for climate change includes the matters raised in submissions on OBJ TANK 3, along with most of the content of the objective. A concise outcome focussed statement is now all that is recommended to be included as OBJ TANK 3. The recommended new POL TANK 61 sets out criteria that the Regional Council will consider to address climate change in making decisions on land and water management.

Findings

- 13.26 OBJ TANK 3 in PPC9 muddled an outcome statement with criteria for decision making. They should be separated. For this reason we support the s42A Reporting Officers recommendations to pare down OBJ TANK 3 to just an outcome statement, and put the detailed decision making criteria in new POL TANK 61.

Management of Point Source Discharges

- 13.27 POL TANK 10 of PPC9 deals with the management of point source discharges. These are discharges that are from a distinct point to water; examples include treated discharges from industry or dairy farming discharges from effluent treatment ponds.
- 13.28 POL TANK 10 explicitly does not cover stormwater discharges, which are addressed in POL TANK 26 - 29 and Rules TANK 19 - 23. We deal with these separately in Chapter 11 of our report.
- 13.29 In PPC9 as notified POL TANK 10 had a stem clause, and three subsidiary clauses which outlined matters to be taken into account in decision making. In response to submissions and evidence the s42A Reporting Officers have recommended a change to the stem clause, and that two additional subsidiary clauses be added to POL TANK 10.

⁵ Appendix 1A - Recommended Changes to PPC9. Page 36

⁶ Peter Wilson sub point 58.5

⁷ Heretaunga Tamatea Settlement Trust sub point 201.18

⁸ Federated Farmers of NZ sub point 195.19

⁹ Heretaunga Tamatea Settlement Trust sub point 201.18

¹⁰ Hawkes Bay District Health Board sub point 233.5

¹¹ Horticulture NZ sub point 180.31

Evidence and Submissions

- 13.30 The recommended change to the stem clause, which involves additional words requiring existing water quality be maintained as an alternative to meeting 2040 target attribute states in Schedule 26, came from the evidence of Ms Wilson for NKII.¹² We support that change.
- 13.31 A number of submitters supported the policy as notified. In their submission the oil companies sought an addition be made to Clause (b), but in their evidence accepted the s42A Reporting Officers' recommendation that this be rejected.¹³ Similarly, some other submitters sought changes that would have made the policy cumbersome and/or ambiguous and/or very directive. The changes they sought are rejected.
- 13.32 The s42A Reporting Officers recommended two new clauses be added to POL TANK 10. A recommended Clause (d) referred to compliance with "good management standards"; a new Clause (e) to best practicable option and whether it was necessary to include in consent conditions.

Findings

- 13.33 We consider that the strength is primarily in the stem clause, particularly with the addition of Ms Wilson's suggested amendment. Accordingly, we have added the word "also" in the last phrase, so it reads "will also take into account."
- 13.34 We do not consider that the addition of a proposed Clause (d) to POL TANK 10 adds value to the assessment criteria, as it is not clear what "good management standards" would refer to. They are not defined in the glossary, and we consider this clause to be too uncertain to include as an assessment criterion.
- 13.35 We do consider however that the proposed addition of a new Clause (e) is helpful, as best practicable option is defined in the RMA, and this gives certainty about how it is to be applied. We have added the words "point source" before discharge, just to be very clear where this is to apply.

Rules in the RRMP

- 13.36 In PPC9 there were 23 rules that the s42A Reporting Officers recommended be either amended or deleted. These same recommendations largely remain in PPC9, except that proposed Rule 33A has been deleted.
- 13.37 The Panel has discussed a number of these rules in other chapters of our report, particularly in the section on Source Protection Zones. These were RRMP Rules 1, 2, 4, 5, 6, 13, 14, 15 and 37.
- 13.38 Several of these rules deal with the transfers of water use and takes from site to site. These changes were made so that the specific rules in PPC9 for the TANK catchments override the RRMP rules, which still apply for the rest of the region. These were RRMP Rules 61, 62, 62A and 62B.
- 13.39 Several of the other rules similarly establish a stricter regulatory framework in the TANK catchments than in the remainder of the region. These rules cover matters such as discharges of drainage water. These changes are necessary because in PPC9 Schedule 26 sets target attribute states for water bodies in the TANK catchments, and these will not be met if, for

¹² EIC of Grey Wilson at her Paragraphs 57-59.

¹³ EIC of Philip Brown at pp3 of his Annexure.

example, uncontrolled discharges of drainage water continue to exist. RRMP Rules 31, 32 and 33 were considered too lenient for the TANK catchments. In PPC9 an additional Rule 33A was proposed to be added to the RRMP, but this has been recommended to be deleted and its provisions incorporated into RRMP Rule 33.

- 13.40 RRMP Rules 67 and 69 would establish a stricter regulatory regime in the TANK catchments; this is necessary to meet POL TANK 58.
- 13.41 One other rule recommended to be amended refers to riparian shading, and a new permitted activity rule allows shade planting to be provided for along rivers and streams that are part of the Heretaunga Plains Flood Control and Drainage scheme. These are RRMP Rules 70 and 71.
- 13.42 RRMP Rule 7 was recommended to be amended to reduce the potential for sediment loss within the TANK catchments. This is consistent with POL TANK 20.
- 13.43 Finally, there were also amendments proposed to RRMP Rules 42-46, and RRMP Rules 53-55. These rules dealt with stormwater and the take and use of water respectively, and have been supplanted by Rules TANK 19-23 and 7-13 respectively.

Submissions

- 13.44 Most of these proposed amendments to the RRMP attracted few submissions, and those were sometimes to re-litigate other matters dealt with in PPC9. An example is the submissions to exempt the TANK catchments from the provisions of Rules TANK 7-13, such as by increasing the permitted activity threshold for water takes from 20 to 60 m³/day, or changing the term “allocation limits” to “abstraction limits”.
- 13.45 By way of contrast there were 154 submissions on RRMP Rules 60-62A, which would make transfers of water more restrictive in the TANK catchments than elsewhere in the region. 151 of these submission points were identical and sought that all transfers of all permits that have been exercised be enabled. We understand that would mean that water that has been allocated over and above the “actual and reasonable use test” is able to be transferred.

Discussion and Findings

- 13.46 The s42A Reporting Officer recommendations to amend rules in the RRMP is not intended to open the door for carte blanche changes to newly established rules in PPC9 via an alternative pathway. Rather they are to ensure that the regulatory frameworks established in the Policies and Rules of PPC9 remain intact and unambiguous. For this reason, we generally support the s42A Reporting Officers’ recommended changes to the rules in the RRMP.
- 13.47 There were some minor amendments recommended by the s42A Reporting Officers in response to submissions, and we support those. An example is that five submitters sought that proposed RRMP Rule 33A be deleted and the amendments incorporated into RRMP Rule 32, which is a change we support.

Schedule 33: Water Permit Expiry Dates

Introduction

- 13.48 Schedule 33 tabulates the timeframes for consent reviews in the TANK Catchments. In the notified version of PPC9, all consents will be reviewed within 10 years of the plan becoming operative, which aligns with the proposed requirements of POL TANK 38 (relating to permits

for re-allocation of groundwater). Schedule 33 also helps implement POL TANK 49 which relates to setting common expiry dates for water permits in each catchment.

- 13.49 Restricted discretionary Rules TANK 9 (groundwater takes) and 10 (surface water and Zone 1 groundwater takes) list the duration of the consent as provided for in Schedule 33 as a matter for control/discretion. Schedule 33 would also be a matter for consideration when assessing water applications under discretionary Rule TANK 11 (groundwater and low flow surface water takes).
- 13.50 The table in Schedule 33 lists all the current common expiry dates and a programme of setting future common expiry dates to align them to common 15-year periods (with some exceptions), as provided for under POL TANK 49. Clause 49(j) of this policy also enables the Regional Council to grant consents granted within three years prior to the relevant common catchment expiry date with a duration to align with the second common expiry date, except where the application is subject to Section 8.2.4 of the RRMP). The relevant dates in this situation are listed in the right-hand column of Schedule 33.
- 13.51 The Karamū, Twyford and Ahuriri water quantity units have multiple common expiry dates which require a staged approach to align to a single expiry date for each water quantity area. This is reflected in Schedule 33.

Submissions and Evidence

- 13.52 There were a range of submission points on Schedule 33 including support for Schedule 33 as notified, extending permit durations, reducing permit durations, aligning permit durations with farm plan requirements, correcting policy references and correcting dates which do not align with POL TANK 49.
- 13.53 TToH opposed Schedule 33 until the objectives and policies have been more integrated with the RPS and NPS-FM 2020 provisions, and Rules TANK 9, 10 and 11 have been amended to reflect a number of changes including requiring consent renewals to occur upon consent expiry or when PPC9 becomes operative, whichever occurs first¹⁴.
- 13.54 Ms Grey Wilson's evidence on behalf of NKII stated:
- "Schedule 32 [which relates to High Flow Allocation] would be deleted if the high flow allocation regime approach were abandoned in favour of a water allocation approach which fundamentally addresses the issue of over abstraction. Likewise, **Schedule 33** would require changes to align with changes to consent expiry dates that would need to occur to give effect to the proposed review at five years from the date the Plan become operative¹⁵."*
- 13.55 The submission of OIrig considered a 15-year duration for water permits was inadequate given the significant investment requirement and contended that 30 years is more appropriate¹⁶. Federated Farmers submission requested the schedule be amended so that all expiry dates had a minimum of 20-year intervals¹⁷.

¹⁴ Submission point 132.160, Te Taiwhenua o Heretaunga.

¹⁵ Ms Wilson, EIC for NKII, para 101.

¹⁶ Submission point 50.19, OIrig Ltd.

¹⁷ Submission point 195.148, Federated Farmers of New Zealand.

- 13.56 The submissions of Ravensdown and Pernod Ricard pointed out that the notified version of Schedule 33 referred to POL TANK 45 and sought that this be amended to POL TANK 49¹⁸.
- 13.57 The submission of Hawkes Bay Fish and Game Council noted that some catchment expiry dates may be inconsistent with consent term limits¹⁹.

Finding and s32AA Analysis

- 13.58 We accept the changes recommended in the “pink version” of PPC9 presented to us by the s42A Reporting Officers at the conclusion of the hearing. The changes include amending the reference to POL TANK 45 to POL TANK 49, some minor changes to the naming of water quantity areas to align with the wording used throughout PPC9 and amendments to the consent expiry dates in some catchments. We also recommend that the last two columns of the table in Schedule 33, which relate to next expiry dates, include individual sub-headings to improve the clarity as to what these two columns refer to.
- 13.59 Submissions seeking the duration dates for permits be aligned with FEPs are rejected. We agree with the s42A Reporting Officers when they state that FEPs are intended to be a much more dynamic document with more frequent reviews than water permits, which are relatively static over their duration²⁰.
- 13.60 Submissions seeking longer or shorter duration dates for permits are also rejected. The 1-year duration provided for the majority of permits in the management areas identified in Schedule 33 aligns with POL TANK 49.
- 13.61 We consider recommended changes make Schedule 33 clearer and more efficient and effective, and so meet the further evaluation requirements of s32AA of the RMA.

¹⁸ Submission points 135.65, Ravensdown Ltd., 194.110 Pernod Ricard Winemakers New Zealand Ltd.

¹⁹ Submission point 58.40, Hawkes Bay Fish and Game Council.

²⁰ S42A Report, paragraph 1624.

Chapter 14 – Glossary

Introduction

- 14.1 The glossary has been formed over many years in the development of PPC9 including drawing on the collaborative engagement with tangata whenua, resource users and stakeholder groups.

Submissions

- 14.2 The Section 42A Report identified some 15 submission points on the Glossary.¹ In the course of our deliberations we have identified some 52-additonal submission points that are not dealt with in the main body of our report.
- 14.3 As outlined in Chapter 2 (Repetitive of Pro-forma Submissions) a large number of submissions sought to amend the definition of “Actual and Reasonable” in PPC9. As we have said elsewhere in our report, the definition of “actual and reasonable” reflects how water will be allocated in PPC9. We have addressed these submissions in Chapters 5 and 13.
- 14.4 A number of submissions have supported a glossary and retaining definitions in the glossary as notified.² Similarly a number of submissions have sought ‘te reo Māori’ terms be included in the glossary and that these terms should be consistent with higher order documents, regional plans and incorporate views of tangata whenua.³
- 14.5 Most submissions here have sought ‘new’ terms to be added to the Glossary of PPC9. These terms include; distribution uniformity⁴, aquatic ecosystems⁵, TANK estuarine systems⁶, TANK waterbodies⁷, water mining⁸, hazardous substances⁹, cultural flow¹⁰, baseline commercial vegetable growing rotation¹¹, baseline commercial vegetable growing area¹², land holding¹³, nitrogen losses from production land¹⁴, production land¹⁵, production land use change¹⁶, Collective Catchment Programme Industry Programme, drain, Modified water course, Re-allocation, Versatile Soils, Zone 1¹⁷, Groundwater dependent ecosystem¹⁸, food and fibre

1 Section 42A Report, Section 12.10, pages 48-50
2 Sub point 24.3, sub points 203.32, 203.33, 203.34, 203.35, 135.68
3 Sub point 97.81, sub points 120.143, 120.144
4 Sub point 59.42, sub point 66.50
5 Sub point 126.34
6 Sub point 126.35
7 Sub point 126.36
8 Sub point 132.135
9 Sub point 132.139
10 Sub point 132.168
11 Sub point 180.76
12 Sub point 180.75
13 Sub point 180.79
14 Sub point 180.80
15 Sub point 180.81
16 Sub point 180.82
17 Sub point 194.116
18 Sub point 123.162

producers¹⁹, Regionally Significant Industry²⁰, Accurate Water Meter Data²¹, and local authority²². DOC have requested definitions for enhanced, maintained and restored.²³

- 14.6 Some submissions have requested amendments to the glossary definitions for Farm²⁴, TANK Industry Programme or TANK Catchment Collective²⁵, Registered Drinking Water Supply²⁶, Allocation limit²⁷, Allocation limit for groundwater²⁸, Farm Environment Plan²⁹, indigenous vegetation³⁰, Land Use Change³¹, Consumptive Water Use³², and stream depletion³³.
- 14.7 Several submissions have sought specific relief that excludes their activity or sector from the definitions; an example is Mr Ezekial Hudspith for Pernod Ricard Winemakers seeking a frost protection exception. These types of submissions have been addressed in the relevant topic chapters.³⁴
- 14.8 A small number of submissions have sought deletion of definitions such as Applicable stream flow maintenance scheme³⁵.

Discussion and findings

- 14.9 As a general rule of thumb the panel consider that definitions in the glossary should provide certainty and clarity in the interpretation of the objectives, policies and rules of PPC9.
- 14.10 In this section we have considered the glossary on an exception basis, that is, where submissions on terms have not been addressed in the main body of our decision report.
- 14.11 A number of submissions sought definitions for terms that the Panel considers either have ordinary dictionary meanings and/or have been subject to case law. This is the case for words as maintained, enhanced, and restored. In these cases, we have not included a definition in the glossary.
- 14.12 There are a number of instances where submissions have sought to make changes to terms that have been defined in the RMA, other legislation or national direction. Unless there is specific and special meaning of these terms in a PPC9 context we have not made changes to them.
- 14.13 As mentioned in Chapter 2, we have replaced the term 'mana whenua' with 'tangata whenua' where it has appeared in PPC9. This is for several reasons including alignment with the definitions in the RMA, NPS-FM and consistency throughout the plan change. Both terms

- ¹⁹ Sub point 97.78
- ²⁰ Sub point 82.1
- ²¹ Sub point 66.61
- ²² Sub point 58.3
- ²³ Sub points 123.163, 123.164, 123.165
- ²⁴ Sub point 180.77
- ²⁵ Sub point 180.83
- ²⁶ Sub point 207.37, sub point 119.23
- ²⁷ Sub point 210.149, sub point 129.40, 129.41
- ²⁸ Sub point 210.150
- ²⁹ Sub point 210.53, sub point 194.115, sub point 131.5
- ³⁰ Sub point 210.54
- ³¹ Sub point 194.116
- ³² Sub point 129.42
- ³³ Sub point 123.161
- ³⁴ Sub point 194.114
- ³⁵ Sub point 210.152

have been used interchangeably, however, 'tangata whenua' has been most commonly used by Ngāti Kahungunu submitters.

- 14.14 We have also amended the definitions for 'mahinga kai' and 'marae'. The mahinga kai amendments better reflect the description in Appendix 1A of the NPS-FM and the amendment of the marae definition more accurate and reflects the context of the term related to domestic supply and water supply in the objectives and policies.
- 14.15 Some submissions have sought definitions which repeated the term in its definition. In these cases we find that they have not added value or clarity to defining the terms.
- 14.16 Several submissions have requested definitions of terms that have not been used in PPC9 or the Panel believe are not relevant or add any value. In these instances we have not included them.
- 14.17 One submission sought to add the specific qualifications of people suitable to undertake or audit Farm Environment Plans (now Farm Freshwater Plans). We think the definitions are not a suitable place to define those types of things which can be dynamic and may change over the period of the plan change.³⁶
- 14.18 Some submitters have sought specific exclusions for their water use from definitions.³⁷ The Panel have thought that these types of exclusion are unhelpful and are likely to make definitions verbose and unworkable. In most of these instances the topic chapters have addressed these matters.
- 14.19 Some submissions such as those seeking to replace the 'Registered Drinking Water Supply' with the definition that is in the Water Services Bill are premature. It is anticipated that once this occurs, the meanings in the Water Services Regulator Act or its successor will prevail.
- 14.20 Our findings are detailed in the amendments made to Appendix 2 (track change decision version of PPC9) and 3 (clean decision version of PPC9) and the decisions on submissions in Appendix 4.

³⁶ Sub point 135.5

³⁷ Sub point 194.114

Chapter 15 Statutory Considerations

Is the Plan Change designed in accordance with, and assist the Council to carry out its functions so as to achieve the purposes of the Act?

- 15.1 The purpose of PPC9 is to ensure integrated management of land and water resources in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū (TANK) Catchments by introducing a catchment management approach to improve water quality and water quantity, and to manage values for the catchments.
- 15.2 PPC9 has been designed to accord with and assist the Council in carrying out its section 30 functions, in particular section 30(1)(a), (1)(c)(ii),(iii),(iiia), (1)(e), (1)(f), and (fa)(i).

Does the Plan Change give effect to any NPS or the NZCPS?

- 15.3 In Chapter 2 of our report, we find that PPC9 gives effect to the NPSFM 2014 (amended 2017), and NPS-FM 2020 to the extent that it is practicable to do at this time.

Does the plan change give effect to the RPS?

- 15.4 PPC9 does not propose changes to the RPS sections of the RRMP. At Chapter 2 of our decision and consistent with the section 32 evaluation we find that the PPC9 gives effect to the RPS.

Is the plan change consistent with any regional plans or proposed regional plans?

- 15.5 The changes in PPC9 provide a regulatory decision-making framework for the TANK catchments in conjunction with existing provisions in the regional plan, along with a number of amendments to the RRMP included in PPC9.

Are the provisions the most appropriate way to achieve objectives having regard to their efficiency and effectiveness, actual and potential environmental effects and reasonable alternatives?

- 15.6 This is a consideration we turned our minds to at Chapter 2 of our report. Our finding, as expressed there is that the provisions of PPC9 as attached at Appendices 2 and 3 to our report represent the most appropriate way to implement the 'objectives' having had regard to their efficiency and effectiveness, actual and potential environmental effects.

What (if any) regard should be given to relevant management plans and strategies under the Acts, including any relevant entry in the Historic Places Register?

- 15.7 The most relevant resource management plans and strategies that we have had regard to under this category are listed in Chapter 1 of our report.

Are the proposed objectives the most appropriate way to achieve the purpose of the Act?

- 15.8 As set out in Chapter 2 of our decision, there are a number of objectives that we have considered, being:
- a) The goals set out in the plan change's purpose; and
 - b) The settled, relevant objectives of the RRMP.

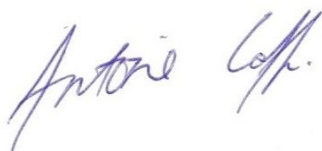
15.9 Our finding as set out in that part of our report is that the 'objectives' of the plan change are the most appropriate way to achieve the purpose of the Act.

Chapter 16 - Overall Decision

16.1 Based on the Panel's consideration of all the material before it, including the section 42A reports, submissions, further submissions, evidence presented at the hearings and following consideration of the requirements of section 32AA and other relevant statutory matters, and for the reasons set out in this decision report:

- a) PPC9 is accepted as notified, and as further amended prior to, during and subsequent to the hearings, as set out in Appendices 2 and 3.
- b) All submissions on PPC9 be accepted, accepted in part or rejected to the extent that they correspond with that conclusion and the matters the Panel has set out in the preceding report sections (and as summarised in Appendix 4).
- c) Pursuant to clause 10 of the First Schedule of the Resource Management Act 1991, the Panel gives notice of its decision on submissions to PPC9.

DATED THIS 31ST DAY OF AUGUST 2022



Antoine Coffin

Independent Commissioner (Chair)



Dr Brent Cowie

Independent Commissioner



Dr Greg Ryder

Independent Commissioner



Rauru Kirikiri

Independent Commissioner



Dr Roger Maaka

Independent Commissioner

Proposed Plan Change 9

Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments

Hawke's Bay Regional Resource Management Plan

Decision Version

9 September 2022

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Amendments Proposed in Plan Change 9

The Proposed Plan Change makes the following amendments to the Regional Resource Management Plan.

Chapter 5.10 Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments

A new chapter 5.10 inserts objectives and policies for the management of land and water in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū (TANK) Catchments.

This Plan Change also makes consequential amendments to parts of Section 5 of the Regional Resource Management Plan.

Chapter 6.9 Regional Rules

A new section 6.10 inserts new rules to manage land and water resources in the TANK catchments.

This Plan Change also makes consequential amendments to existing rules in Chapter 6. These amendments apply only where the activity is carried out in the TANK catchments.

Schedules

New Schedules 26 – 34 are inserted to support policy and rules.

Chapter 9 Glossary

New terms are inserted to support interpretation of the Plan.

Proposed Plan Change PC9 to the Hawke's Bay Regional Resource Management Plan – TANK Catchments

Insert at the end of Chapter 5 the following new chapter:

5.10 Introduction

Freshwater is essential to the region's economic, environmental, cultural and social well-being. The way in which these well-beings are provided for is informed by how the values for freshwater are understood and identified. Figure 1 provides an illustration of the wider community values for the TANK freshwater bodies expressed across the four well-being domains.

This Plan also recognises Te Mana o te Wai, which puts the mauri of the waterbody and its ability to provide for te hauora o te tangata (the health of the people), te hauora o te taiao (health of the environment) and te hauora o te wai (the health of the waterbody) to the forefront of freshwater management.

Water is viewed as a taonga by Māori; a treasure where mauri and ecosystem health are protected and provided for. Mauri is a spiritual value that is manifested by abundant and healthy water and aquatic resources, including plants and animals that depend on water.

Figure 2 below shows the interrelated nature and cultural connections of the values held by Māori for water. These core values are underpinned by a philosophy of etiquette, customs, harmony and timing.

The two expressions of the values for freshwater complement and build on each other. They enable the directions of the National Policy Statement for Freshwater Management to be given effect to and ensure the Plan provides for all of the community's values.

Figure 1: community values and attributes for water management

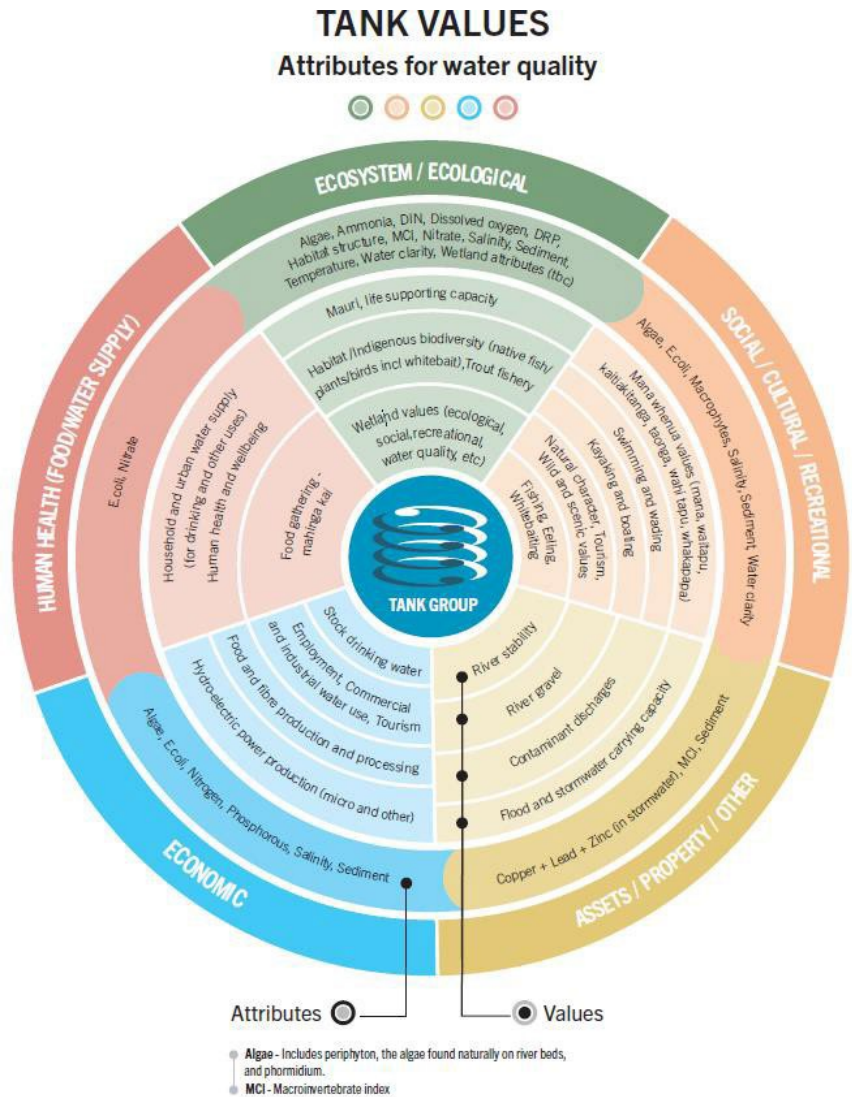
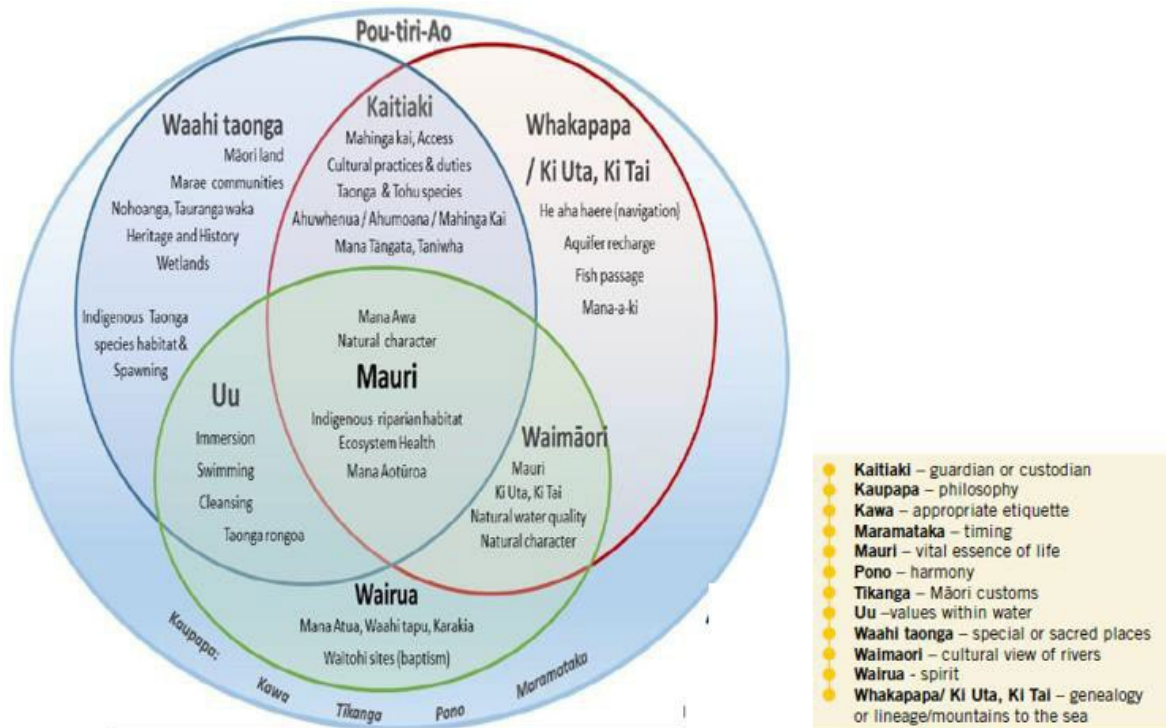


Figure 2: Wāriu (value) groups and aspects for management



This articulation of community and Māori values has enabled decisions to be made about the use and management of waterbodies of the TANK catchments.

The Plan focuses on all the values for which water is to be managed by the setting of objectives, limits and other management measures that enable the needs of those values to be met. It also acknowledges the wider tikanga Māori perspectives that support Māori values for water management and ensures the outcomes that are being sought are consistent with tikanga.

Key attributes that allow the state of the values to be assessed and monitored have been developed and objectives established for them. Attributes for both water quality and water quantity have been identified and the desired attribute state has been agreed. For some water bodies, the desired state meets the actual state, however, for others, the state is less than desired and the plan provides measures and introduces new rules that will enable the objectives to be met. This includes objectives for water quality attributes as well as limits and flows for managing quantity of water.

5.10.1 TANK Objectives

General Objectives

OBJ TANK 1 Land and freshwater in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments are sustainably managed as integrated natural resources so that:

- a) Te Mana o te Wai and, ki uta ki tai (mountains to the sea) are upheld and recognised
- b) The interconnectedness between land and water and between surface water and groundwater are recognised
- c) Indigenous biodiversity is protected and life-supporting capacity and the aquatic ecosystem processes are safeguarded
- d) outstanding water bodies in Schedule 25 and the values in the plan objectives are appropriately protected and provided for

and that:

- e) the kaitiaki responsibilities of tangata whenua to land and freshwater and cultural connection are recognised and provided for
- f) tangata whenua are supported in carrying out cultural practices with respect to water management in their rohe.

OBJ TANK 2 Mauri enhancement and ecosystem health outcomes are achieved through:

- a) Collectively managing all of the specified attributes described in Schedule 26
- b) Establishing and implementing minimum flows and allocation limits in rivers and streams
- c) Establishing an interim allocation limit of 90million cubic metres per year for takes of groundwater
- d) Allocating water based on Actual and Reasonable use
- e) Flow enhancement schemes.

Climate change

OBJ TANK 3 Climate change is taken into account when making decisions about land and water management within the TANK catchments.

Water Quality General

OBJ TANK 4 The quality of the TANK freshwater bodies is maintained where objectives are currently being met, or is improved in degraded waterbodies so that they meet target attribute states in Schedule 26 by 2040 provided that:

- a) for any specific water body where the attribute state is found to be higher than the target attribute state given in Schedule 26, the higher state is to be maintained
- b) progress is made over the life of this Plan towards the long term target attribute states by the mixture of regulatory and non-regulatory provisions in this Plan.

OBJ TANK 5 Riparian margins are protected or improved where necessary to provide for aquatic ecosystem health and mauri of water bodies in the TANK catchment and to:

- a) reduce effects of contaminant loss from land use activities
- b) improve aquatic habitat and protect indigenous species including fish spawning habitat
- c) reduce stream bank erosion
- d) enhance natural character and amenity
- e) improve indigenous biodiversity

- f) reduce water temperature in summer
- g) reduced nuisance macrophyte growth.

OBJ TANK 6 Activities in source protection areas for Registered Drinking Water Supplies do not cause source water in these areas to become unsuitable for human consumption, and that risks to the supply of safe drinking water are appropriately managed.

Catchment Objectives

OBJ TANK 7 In combination with meeting the target attribute states specified in Schedule 26 the mauri, water quality and water quantity of the **Ahuriri** freshwater catchments are maintained and enhanced where necessary to enable:

- a) Ahuriri estuary sediments to be healthy and not accumulate excessively
- b) healthy ecosystems
- c) healthy and diverse indigenous aquatic plant, fish and bird populations
- d) people and communities to safely meet their domestic water needs
- e) primary production water for community social and economic well-being; and provide for
- f) contribution to the healthy functioning of the Te Whanganui a Orotū (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.

OBJ TANK 8 In combination with meeting the target attribute states specified in Schedule 26, the mauri, water quality and water quantity in the **Ngaruroro River** catchment 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:

- a) healthy ecosystems
- b) 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
- c) 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
- d) protection of the natural character, instream values and hydrological functioning of the Ngaruroro mainstem and Taruarau and Omahaki tributaries
- e) collection of mahinga kai to provide for social and cultural well-being
- f) people and communities to safely meet their domestic water needs
- g) primary production, industrial and commercial water needs and water required for associated processing and other urban activities to provide for community social and economic well-being

and provide for:

- h) contribution to water flows and water quality in the connected Heretaunga Plains Aquifers
- 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.

OBJ TANK 9 In combination with meeting the target attribute states specified in Schedule 26, the mauri, water quality and water quantity in the **Tūtaekurī River** catchment are maintained in the upper reaches of the mainstem and are improved in the tributaries and lower reaches where necessary to enable:

- a) healthy ecosystems
- b) healthy and diverse indigenous aquatic and bird populations, especially whitebait, torrent fish, macroinvertebrate communities and a healthy trout fishery
- c) people to safely carry out a wide range of social, cultural and recreational activities, especially swimming and cultural practices of Uu and boating
- d) protection of the natural character, instream values and hydrological functioning of the Tūtaekurī mainstem and Mangatutu tributary
- e) collection of mahinga kai to provide for social and cultural well-being

- f) people and communities to safely meet their domestic water needs
- g) primary production, industrial and commercial water needs and water required for associated processing and other urban activities to provide for community social and economic well-being

and provide for:

- 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.

OBJ TANK 10 In combination with meeting the target attribute states specified in Schedule 26, the mauri, water quality and water quantity in the **Karamū and Clive Rivers** catchment are improved to enable:

- a) healthy ecosystems
- b) healthy and diverse indigenous aquatic and bird populations, especially black pātiki, tuna and whitebait, and healthy macroinvertebrate communities
- 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
- d) collection of kai to provide for social and cultural well-being
- e) people and communities to safely meet their domestic water needs
- f) primary production, industrial and commercial-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 kai in the estuary.

OBJ TANK 11 In combination with meeting the target attribute states specified in Schedule 26, 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 is managed 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
- b) primary production, industrial and commercial 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.

OBJ TANK 12 **Wetland and waahi taonga** within the TANK catchments are managed so that mauri, water quality and flows, and levels are maintained and improved to enable:

- a) healthy and diverse indigenous fish, bird and plant populations in wetland and lake areas and connected waterways
- b) improved hydrological functioning in wetland and lakes and in connected waterways
- c) people to safely carry out a wide range of social, recreational and cultural activities
- d) mahinga kai to provide for social and cultural well-being
- e) contribution to improved water quality in connected surface waters
- f) the protection of the outstanding values of those wetlands and lakes listed in Schedule 25.

and to:

- g) increase the total wetland area by protecting and restoring 200ha hectares of existing wetland and reinstating or creating 100ha of additional wetland by 2040.

Water quantity

OBJ TANK 13 Ground and surface water in the TANK Catchment is allocated, subject to limits, targets and flow regimes which provide for the values of each water body, in the following priority order:

- a) The reasonable domestic needs of people, livestock drinking and fire-fighting supply
- b) Existing and future demand for domestic supply including marae and papakāinga, and municipal uses as described in HPUDS (2017)
- c) Primary production on versatile land
- d) Other primary production, food processing, industrial and commercial end uses
- e) Other non-commercial end uses.

OBJ TANK 14 The allocation and use of water results in:

- a) the development of Māori economic, cultural and social well-being supported through regulating the use and allocation of the water available at high flows for taking, storage and use
- b) water being available for abstraction at agreed reliability of supply standards
- c) efficient water use
- d) efficient and effective allocation management regimes.

OBJ TANK 15 The current and foreseeable water needs for mauri and ecosystem health and of future generations are secured through:

- a) avoiding future over-allocation and phasing out existing over-allocation
- b) water conservation, water use efficiency, and innovations in technology and management
- c) flexible water allocation and management regimes
- d) water reticulation
- e) aquifer recharge and flow enhancement
- f) water harvesting and storage.

5.10.2 Policies: Surface Water and Groundwater Quality Management

General

- POL TANK 1** Freshwater management in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments will be achieved by the Council, tangata whenua and the urban and rural community working together in a way that:
- recognises tangata whenua as kaitiaki and other resource users as stewards and the responsibilities they each have in freshwater management
 - recognises the importance of monitoring, resource investigations and the use of mātauranga Māori to inform decision making and limit setting for sustainable management
 - ensures good land and water management practices are followed and where necessary, mitigation or restoration measures adopted
 - supports good decision making by resource users.

Priority Management Approach

- POL TANK 2** The Council will regulate land use activities and will work with tangata whenua, landowners, local authorities, industry and community groups, and other stakeholders to manage land use activities so that existing water quality is maintained in its current state or improved to meet target attribute states shown in Schedule 26 by focusing on:
- water quality improvement in priority catchments (as described in Schedule 27) where water quality is not meeting specified freshwater quality targets
 - sediment management as a key contaminant pathway to also address phosphorus and bacteria losses
 - the significant environmental stressors of excessive sedimentation and macrophyte growth in lowland rivers and nutrient loads entering Te Whanganui ā Orotū (Ahuriri) and Waitangi estuaries
 - the management of riparian margins
 - the management of urban stormwater networks and the reduction of contaminants in urban stormwater
 - the protection of water quality for domestic use and registered drinking water supplies.

- POL TANK 3** In the **Clive/Karamū Rivers** and their tributaries, in addition to POL TANK 2 the Council will work with tangata whenua, landowners and the Hastings District Council to:
- reduce water temperature and increase the level of dissolved oxygen by:
 - the establishment of riparian vegetation to shade the water and reduce macrophyte growth while accounting for flooding and drainage objectives
 - reducing excessive macrophyte growth by physical removal of aquatic plants in the short term
 - adopt flow management regimes to remedy or mitigate the effects of surface and ground water abstraction
 - reduce the amount of sediment and nutrients entering the freshwater from adjacent land
 - improve stormwater and drainage water quality and the ecosystem health of urban waterways and reduce contamination of stormwater associated with poor site management practices, spills and accidents in urban areas (refer also to POLs TANK 26 -29).

- POL TANK 4** In **lakes and wetlands** in the TANK Catchments, in addition to POL TANK 2 the Council will work at a catchment scale with land owners in the wetland or lake catchments (refer also to POLs TANK 21 to 23) to:
- reduce sediment and nutrient inputs into the waterbody
 - improve water quality by increasing macrophyte plant growth in shallow lakes
 - improve ecosystem health and water quality by excluding stock and improving riparian management
 - meet target attribute states in Schedule 26 for water bodies downstream of the lake or wetland

- e) support and assist landowners to protect, increase or restore existing wetlands or create new wetlands including for the management of urban stormwater.

POL TANK 5 In the **lower Ngaruroro and Tūtaekurī Rivers** and their tributaries, in addition to POL TANK 2 the Council will work with landowners to:

- a) improve water clarity and reduce deposited sediment by reducing the amount of sediment being lost from land
- b) reduce risk of proliferation of algae by reducing nutrient losses from land, including by reducing phosphorous loss associated with sediment
- c) improve ecosystem health and water quality by excluding stock from surface water bodies and improving riparian management.

POL TANK 6 In the tributaries of **Te Whanganui ā Orotū (Ahuriri Estuary)**, in addition to POL TANK 2 the Council will support the development of an Integrated Catchment Management Plan and will work with tangata whenua, landowners and the Napier City Council to:

- a) improve water clarity and reduce deposited sediment by reducing the amount of sediment being lost from land and river banks
- b) reduce risk of proliferation of algae by reducing nutrient losses from land, including through management of phosphorous loss associated with sediment
- c) improve stormwater and drainage water quality and the ecosystem health of urban waterways and reduce contamination of stormwater associated with poor site management practices, spills and accident in urban areas
- d) carry out further investigations to understand the estuary hydrology, functioning and environmental stressors.

Protection of Source Water

POL TANK 7 The quality of **groundwater of the Heretaunga Plains and surface waters used as source water** for Registered Drinking Water Supplies will be protected, in addition to POL TANK 2, by the Council:

- a) identifying a source protection extent for small scale drinking water supplies or Source Protection Zones for large scale drinking water supplies by methods defined in Schedule 34
- b) regulating activities within Source Protection Zones that may actually or potentially affect the quality of the source water or present a risk to the supply of safe drinking water because of:
 - i. direct or indirect discharge of a contaminant to the source water including by overland flow and/or percolation to groundwater
 - ii. an increased risk to the safety of the water supply as a result of a non-routine event
 - iii. potentially impacting on the level or type of treatment required to maintain the safety of the water supply
 - iv. shortening or quickening the connection between contaminants and the source water, including damage to a confining layer of the aquifer
 - v. in the case of groundwater abstraction, the rate or volume of abstractions causing a change in groundwater flow direction or speed and/ or a change in hydrostatic pressure that is more than minor.

POL TANK 8 When considering applications to take water for a Registered Drinking Water Supply, the Council will:

- a) require the determination of a source protection extent or Source Protection Zone which reflects the level of protection required for that supply, according to a method specified in Schedule 34
- b) work with the applicant to prepare and notify a Plan Change to introduce or amend a Source Protection Zone planning map
- c) require applications to include an assessment of the Source Protection Zone or extent required, taking into account the factors set out in Schedule 34
- d) have regard to:

- i. the extent to which the application reflects the factors and methodology in Schedule 34 when establishing the Source Protection Zone or extent
- ii. the impacts, including any costs and benefits, of any additional restrictions in the Source Protection Zone
- iii. the level of consultation with landowners and occupiers in the Source Protection Zone.

POL TANK 9 The Council will, when considering applications to discharge contaminants or carry out land or water use activities within:

- a) the source protection extent for Registered Drinking Water Supplies, take into account possible contamination pathways and risks to the quality of the source water for the water supply
- b) a Source Protection Zone, avoid or mitigate risk of contamination from the activity of the source water for the water supply by taking into account criteria including but not limited to:
 - i. the amount, concentration and type of contaminants likely to be present as a result of the activity or in any discharge
 - ii. the potential pathways for those contaminants, including any likely or potential preferred pathways
 - iii. the mobility and survival rates of any pathogens likely to be in the discharge or arising as a result of the activity
 - iv. any risks the proposed land use, water take or discharge activity has either on its own or in combination with other existing activities, including as a result of non-routine events
 - v. any risks of any abstraction of groundwater where abstraction has the potential to have more than a minor impact on flow direction or speed and/ or hydrostatic pressure
 - vi. the effectiveness of any mitigation measures to avoid or mitigate risk of contaminants entering the source water and the extent to which the effectiveness of the mitigation measure can be verified, including whether the activity is regulated by and/or complies with relevant codes of practice or guidelines
 - vii. notification, monitoring or reporting requirements to the Registered Drinking Water Supplier
 - viii. outcomes of consultation with the Registered Drinking Water Supplier with respect to the risks to source water from the activity, including measures to minimise risks and protocols for notification to the Registered Drinking Water Supplier should an event presenting a risk to groundwater occur.

POL TANK 10 The Council will work with the agencies which have roles and responsibilities for the provision of safe drinking water, including local government agencies, the national regulator, health agencies and registered water suppliers through multi-agency collaboration to:

- a) implement a multi-barrier approach to the delivery of safe drinking water for Registered Drinking Water Supplies, through the consideration of source protection measures, water treatment and supply distribution standards
- b) understand the nature and extent of the water resources used to supply communities, their connectivity with other waterbodies and their recharge sources
- c) understand the nature of the relationship between water age and water quality, the use of water age as an attribute and implications for its management
- d) understand risks to the quality of water used for Registered Drinking Water Supplies, including through consultation on any applicable resource applications in Source Protection Zones
- e) maintain shared databases of activities, including information in consents for land and water use, that have the potential to adversely affect quality of water used for community supply
- f) develop solutions that address risks to water quality including wastewater reticulation solutions in Source Protection Zones.

Managing point source discharges

- POL TANK 11** The Council will manage point source discharges (that are not stormwater discharges) so that after reasonable mixing, contaminants discharged either by themselves or in combination with other discharges enable existing water quality to be maintained or do not cause the 2040 target attribute states in Schedule 26 to be exceeded and when considering applications to discharge contaminants will also take into account:
- a) measurement uncertainties associated with variables such as location, flows, seasonal variation and climatic events
 - b) the degree to which a point source discharge is of a temporary nature, or is associated with necessary maintenance work
 - c) when it is an existing activity, identification of mitigation measures, where necessary, and timeframes for their adoption that contribute to the meeting of target attribute states
 - d) the necessity for requiring best practicable option to prevent or minimise any actual or likely adverse effect on the environment of any point source discharge of a contaminant.

Riparian Land Management

- POL TANK 12** The Council will promote and support the establishment of riparian vegetation, including in conjunction with stock exclusion and setback regulations, that:
- a) contributes to the health of aquatic ecosystems especially for indigenous species
 - b) provides shading to reduce macrophyte growth and water temperature especially in lowland tributaries of the Karamū River
 - c) reduces contamination of water from land use activities
 - d) reduces river bank erosion
 - e) improves local amenity
 - f) enhances recreational activities
 - g) improves fish spawning habitat
 - h) assist in weed control.

- POL TANK 13** When making decisions about riparian land management in accordance with POL TANK 12, the Council will account for management objectives related to land drainage and flood control, and regional biosecurity and where appropriate, support establishment of native plant species in riparian margins to contribute to improving the region's indigenous biodiversity, the collection of kai, taonga raranga and taonga rongoa and the mauri of the river.

- POL TANK 14** The Council will support improvement of riparian management to meet the specified timeframes (in POL TANK 25) consistent with POLs TANK 12 and TANK 13 by:
- a) working with industry groups and land owner collectives to identify where riparian management is to be improved
 - b) providing information about appropriate riparian planting that assists in meeting the outcomes sought for riparian land
 - c) regulating cultivation, and indigenous vegetation clearance activities that have a significant adverse effect on functioning of riparian margins in relation to water quality and aquatic ecosystem health in adjacent waterbodies
 - d) providing funding assistance for riparian vegetation improvements and
 - e) when making decisions on applications for resource consent to:
 - i. take into account benefits arising to the outcomes in POL TANK 12 and 13 as a result of the activity
 - ii. consider whether to waive the fees and charges required to process the application where:
 1. there is significant public benefit from the activity or the nature and scale of the activity results in significant ecosystem benefits
 2. the activity is not a requirement of any other resource consent.

Wetland and Lake Management

POL TANK 15 The Council will regulate activities in and adjacent to wetlands and lakes and will support and encourage the restoration and extension of natural wetlands and lakes and the reinstatement or creation of additional wetlands to provide for or improve the wetland values by working with tangata whenua, industry and community groups, landowners, the Hawke's Bay Fish and Game Council and other stakeholders in alignment with the Regional Biodiversity Strategy to:

- a) identify priority areas where wetland and lake management can be improved
- b) identify priority areas where wetland extent can be increased
- c) provide information to landowners about wetland and lake values and their management
- d) provide funding assistance for wetland and lake protection and for construction of new wetlands and lakes
- e) target resources where multiple objectives can be met
and
- f) when making decisions on applications for resource consent to:
 - i. take into account benefits arising to the values listed in OBJ TANK 12 as a result of the activity
 - ii. consider whether to waive the fees and charges required to process an application to improve or maintain wetland or lake values where:
 1. there is significant public benefit from the activity or the nature and scale of the activity result in significant ecosystem benefits
and
 2. the activity is not a requirement of any other resource consent.

Microcoleus (Phormidium) Management

POL TANK 16 The Council will address the risks to human health and dogs from toxic microcoleus by:

- a) regular monitoring and reporting on the incidence of algae, including toxic microcoleus and nutrient concentrations and ratios of nutrients in freshwater related to microcoleus establishment
- b) adopting applicable national guidelines for the monitoring and management of toxic algae
- c) supporting national investigations into the incidence of toxic microcoleus, the reasons for its establishment and measures to reduce the incidence
- d) reducing nutrient and sediment inputs in accordance with POL TANK 17 and 19
- e) maintaining flushing flows
- f) ensuring the public has information about phormidium risk, including as a result the accumulation of toxic algal mats as specified in Schedule 26.

5.10.3 Policies: Managing Adverse Effects from Land Use on Water Quality (Diffuse Discharges)

Adaptive Approach to Nutrient and Contaminant Management

POL TANK 17 The Council will achieve or maintain the 2040 target attribute states in Schedule 26 with landowners, industry groups, and other stakeholders and will implement the following measures:

- a) establish programmes and processes through Freshwater Farm Plans, Catchment Collectives and Industry Programmes to ensure land managers:
 - i. adopt good management practice

- ii. identify critical source areas of contaminants at both property and catchment scale
- iii. adopt effective measures to mitigate or reduce contaminant loss
- b) include contaminant management provisions in Freshwater Farm Plans, Catchment Collective Plans or Industry Programmes according to the priority order for specific contaminants listed in Schedule 27 and portrayed in Schedule 27 Maps 1 - 4.

POL TANK 18 The Council will achieve or maintain the 2040 target attribute state in Schedule 26 by:

- a) gathering information to determine sustainable nutrient loads
- b) developing nutrient limits and a nutrient allocation regime if the management framework in POL TANK 17 is not leading to improved nutrient attribute states by the time this plan is reviewed
- c) regulating land use change to manage significant risk of increased nitrogen loss
- d) gathering and assessing information about environmental state and trends and the impact of land use activities on these
- e) working with industry groups, landowners and other stakeholders to undertake research and investigation into:
 - i. contaminant pathways, concentrations and loads in rivers and coastal receiving environments
 - ii. nutrient uptake and loss pathways at a property scale
 - iii. measures to reduce contaminant losses at a property as well as catchment scale including those delivered through industry programmes.

Sediment Management

POL TANK 19 The Council will reduce adverse effects on freshwater and coastal aquatic ecosystems from eroded sediment, and from the phosphorus associated with this, by prioritising the following mitigation measures:

- a) regulating cultivation, and vegetation clearance activities
- b) targeting priority areas and activities for sediment loss management where there is high sediment loss risk and working with land managers to identify and manage critical source areas of contaminants at both property and catchment scale
- c) informing land managers where land is vulnerable to erosion, using tools such as SedNet and LUC and providing information about measures that reduce soil loss
- d) recognising the benefits provided by tree planting and retirement of land for erosion control as well as for mitigating climate change effects and improving indigenous biodiversity by:
 - i. targeting resources where multiple objectives can be met
 - ii. and supporting landowners to retire land, establish forests where appropriate, and plant trees on land with high actual or potential erosion risk
- e) supporting and encouraging improved riparian management across all TANK catchments.

Land Use Change and Nutrient Losses

POL TANK 20 The Council will regulate production land use change to manage the the potential impact of increases in diffuse discharges of nutrients on freshwater quality objectives and in making decisions on resource consent applications, the Council will take into account:

- a) whether target attribute states are being met in the catchment where the activity is to be undertaken
- b) where a relevant TANK Industry Programme or Catchment Collective is in place, the extent to which the changed production land use activity is consistent with the Industry Programme or Collective outcomes, mitigation measures and timeframes
- c) any mitigation measures required, and timeframes by which they are to be implemented that are necessary to ensure that nutrient losses occurring from the property, in combination with other nutrient losses in the catchment will be consistent with meeting-2040 target attribute states in Schedule 26, including:

- i. performance in relation to good management practice
- ii. efficient use of nutrients
- iii. minimisation of nutrient losses

and will:

- d) avoid land use change that will result in increased nutrient loss that contributes to target attribute states in Schedule 26 for DIN and DRP not being met.

Industry Programmes and Catchment Collectives

POL TANK 21 The Council will support the establishment and operation of Industry Programmes and Catchment Collectives and:

- a) support development of industry good management practice by industry groups and support provision of relevant information or expertise for making sustainable land management decisions to farm operators
- b) support local investigation and water monitoring programmes where information gaps exist
- c) support development and use of models that assist in identification and management of critical source areas
- d) support collective and farm scale decision making to meet target attribute states and encourage local solutions and innovative and flexible responses to water quality issues.

POL TANK 22 The Council will continue to work with farm operators, industry groups and other stakeholders to manage land and water use activities so that they meet 2040 target attribute states for freshwater/aquatic ecosystems by:

- a) further supporting the development of **Industry Programmes** that:
 - i. identify practices that contribute to meeting applicable target attribute states
 - ii. specify timeframes for completion or adoption of measures to reduce contaminant losses
 - iii. ensure individual performance under an Industry Programme is audited
 - iv. provide annual reports to the Council on progressive implementation of measures identified in Industry Programme Freshwater Farm Plans established under Schedule 29 and progress towards meeting applicable target attribute states
 - v. promote adoption of good industry management practice
 - vi. ensure that Industry Programmes are consistent with the requirements of Schedule 29
- b) supporting farm operators to establish **Catchment Collectives** to develop and implement environmental management plans that contribute to meeting applicable freshwater objectives and that:
 - i. identify and adopt measures at a property scale and, collectively with other farm operators, identify and adopt measures at a catchment scale that reduce contaminant losses or remedy or mitigate the effects of land use on target attribute states
 - ii. specify timeframes for completion or adoption of measures to reduce contaminant losses
 - iii. ensure individual performance under a Catchment Collective is monitored
 - iv. provide annual reports to the Council on progressive implementation of measures identified in landowner Catchment_Collectives established under Schedule 29 and progress towards meeting applicable target attribute states
 - v. promote adoption of good management practice
 - vi. ensure programmes prepared by a Catchment Collective are consistent with the requirements of Schedule 29
- c) approving any Catchment Collective or Industry Programme developed under Schedule 29
- d) requiring Auditing of Catchment_Collective or Industry Programmes prepared and approved under Schedule 29 including auditing of member properties.

POL TANK 23 Where a farm operator is not part of an Industry Programme or Catchment Collective, the Council will require development and implementation of a **Freshwater Farm Plan** for the farm.

Management and compliance

POL TANK 24 Where farm operators are members of a **Catchment Collective** or **Industry Programme** but do not undertake their activity in accordance with the approved plan prepared in accordance with Schedules 27 or 29, or do not follow the agreed terms of membership of a Catchment Collective or Industry Programme the Council will:

- a) provide a conflict resolution service
- b) where a farm operator is no longer, or is deemed through conflict resolution processes not to be, a member the Council will:
 - (i) require the development of a Freshwater Farm Plan for that property within 6 months or
 - (ii) require an application for a land use consent to be made
- c) take appropriate enforcement action.

Timeframes: Water and Ecosystem Quality

POL TANK 25 The Council will develop an implementation plan for this Plan Change with industry groups, landowners, water permit holders, tangata whenua, and other stakeholders and to ensure that the farm operator are engaged in industry or Catchment Collective programmes or have prepared freshwater farm plans within the timeframes in Schedule 27 and to ensure reporting (as specified in Schedule 29) on the milestone in Table 1 below.

Table 1: Milestones and Timeframes

Action	Activity	Milestone	Output to be reported on
Stock and Riparian Land Management			
1: Riparian planting	Riparian margins planted		Km of riparian margins planted
2: Sediment mitigation	sediment mitigation in hill country managed through environmental programme or farm plan	According to priority set out in Schedule 27	Soil erosion and critical source area mitigation measures and timeframes for implementation
3: Riparian management	Shading and planting in Karamū catchment and Heretaunga plains	200km of waterway subject to planting programmes	River and streams in Karamū catchment with riparian planting for shade
Wetlands			
4: Wetland management and improvement	Protection and restoration of existing wetlands	100ha in 5 years and 200ha in ten years from operative date	Hectares of protected and restored wetland
	Reinstatement or creation of additional wetland	100 ha reinstated or additional wetland	Hectares of new wetland
Nutrient Management			
5: Nutrient management	Nutrient management plans	Farms have plans according to priority set out in Schedule 27	Number of farms subject to nutrient plan

Policies: Stormwater Management

Stormwater Infrastructure

POL TANK 26 The Council will reduce or mitigate the adverse effects of stormwater quality and quantity on aquatic ecosystems and community well-being arising from existing and new urban development (including infill development) industrial or trade premises and associated infrastructure, by addressing the following matters when considering applications to divert and discharge stormwater, by requiring:

- a) measures to achieve the target attribute states in Schedule 26
- b) adoption of an integrated catchment management approach to the collection, treatment and discharge of stormwater
- c) stormwater to be discharged into a reticulated stormwater network where such a network is available or will be made available as part of the development
- d) retention or detention of stormwater where necessary, while not exacerbating flood hazards
- e) adoption of a good practice approach to stormwater management including adoption of Low Impact Design for stormwater systems and adherence to relevant industry guidelines

and by further considering:

- f) any potential adverse effects on significant and/or outstanding values of the receiving environment including estuaries, wetlands and any waterbody listed in Schedule 25
- g) site specific constraints including areas with high groundwater and, source protection zones and extents
- h) impact of the activity on the joint approach of HBRC, Napier City and Hastings District Councils to provide for integrated stormwater management
- i) the effects of climate change when providing for new and upgrading existing infrastructure.

Source Control

POL TANK 27 Sources of stormwater contamination and contaminated stormwater will be reduced by:

- a) specifying requirements for the design and installation of stormwater control facilities on sites where there is a high risk of freshwater contamination arising from either the direct discharge of stormwater to freshwater, the discharge of stormwater to land where it might enter water or the discharge to a stormwater or drainage network
- b) requiring the implementation of good site management practices on all sites where there is a risk of stormwater contamination arising from the use, or storage of contaminants including the management of solid contaminants and debris to avoid these entering stormwater
- c) controlling, and if necessary avoiding, activities that will result in water quality standards not being able to be met.

Dealing with the Legacy

POL TANK 28 Aquatic ecosystem health improvements and community wellbeing and reduced stormwater contamination will be achieved by HBRC working with the Napier City and Hastings District Councils requiring discharges from stormwater networks to meet, after reasonable mixing:

- a) the 2040 target attribute states in Schedule 26 for freshwater and estuary health through resource consent conditions, including requirements:
 - i. to apply the Stream Ecological Valuation methodology to inform further actions
 - ii. to install treatment devices within the drainage network where appropriate
 - iii. to avoid solid contaminants and debris entering stormwater

- iv. for stream planting/re-alignment for aquatic ecosystem enhancement
- v. for wetland creation, water sensitive design and other opportunities for increasing stormwater infiltration where appropriate
- vi. recognise existing and planned investments in stormwater infrastructure
- b) for attributes not accounted for in Schedule 26, the ANZECC Guidelines 2018 will be used to achieve:
 - i. the 80th percentile level of species protection in receiving waters by 1 January 2025
 - ii. the 95th percentile level of species protection by 31 December 2040.

Consistency and Collaboration: Integration of city, district and regional council rules and processes

POL TANK 29 To assist in achieving the 2040 target attribute states in Schedule 26, the Council in collaboration with the Napier City and Hastings District Councils will:

- a) no later than 1 January 2030, implement similar stormwater performance standards and management including through the adoption of:
 - i. shared information and processes for monitoring, compliance and auditing management of sites at high risk of stormwater contamination
 - ii. consistent levels of service for stormwater management and infrastructure design
 - iii. an integrated stormwater catchment management approach, consistent with Schedule 33
 - iv. undertaking a programme of mapping the stormwater networks and recording their capacity
 - v. aligned resource consent processes including joint hearings where appropriate
 - vi. amending standards, codes of practice and bylaws to specify consistent design standards for stormwater reticulation and discharge facilities including through consent conditions, that will enable implementation of the stormwater policies set out in this Plan
 - vii. requirements for site management plans and good site management practices on industrial or trade premises in the following high priority areas:
 - 1. the Ahuriri catchment
 - 2. the Karamū River and its tributaries
 - 3. within identified drinking water Source Protection Zones and
 - 4. land over the unconfined aquifer
- b) when reviewing district plans, include provisions that specify consistent design standards for stormwater reticulation and discharge facilities, that will achieve the freshwater objectives set out in this plan
- c) develop and make available to the public consistent advice about good stormwater management options (including through HBRC's guidelines)
- d) encourage, through education and public awareness programmes, greater uptake and installation of measures that reduce risk of stormwater contamination.

5.10.5 Policies: Monitoring and Review

POL TANK 30 The Council will recognise and support monitoring according to mātauranga Māori and will recognise and support local scale monitoring to assess ecosystem health and mauri including water quality in relation to identified values and its contribution to:

- a) understanding local ecosystem health and land and water use impacts on it
 - b) enabling the kaitiaki role of tangata whenua and resource users' responsibilities for sustainable freshwater management to be met
 - c) assessing effectiveness of mitigation measures adopted to meet freshwater objectives
 - d) understanding state and trends of local water quality
 - e) adding to the regional knowledge about environmental state and trends
- by:
- f) developing protocols and procedures for monitoring appropriate to the purpose of the monitoring

- g) providing assistance and advice
- h) supporting the provision of monitoring materials
- i) collating and reporting on data as appropriate.

POL TANK 31 Council will meet regularly with representatives from TANK stakeholder groups to:

- a) review and report on the TANK implementation plan
- b) identify issues arising and develop measures to enable their resolution.

POL TANK 32 The Council will monitor and report on the effectiveness of the TANK water quality management policies and rules and to assist in making decisions about reviewing or changing this management framework, the Council will:

- a) continue to monitor instream water quality and review and report on the progress towards and achievement of the water quality objectives in Schedule 26 and according to OBJ TANK 2 of this Plan in its regular State of the Environment monitoring
- b) monitor and report on the state of riparian land and wetlands, and carry out regular ecosystem habitat assessments, including native fish monitoring and through the application of mātauranga Māori tools and approaches when they are developed
- c) monitor the progress towards the milestones listed in POL TANK 25, according to timeframes specified in Schedule 27 and collate and report annually on information about
- d) the nature and extent of the mitigation measures being adopted to meet water quality and/or quantity outcomes through Catchment Collectives, Industry Programmes and Freshwater Farm Plans
- e) the establishment of Catchment Collectives and assess progress in implementing the measures specified in their environment plans
- f) the preparation of Freshwater Farm Plans and assess progress in implementing the measures specified in that plan
- g) work with Industry Groups to collate information annually on the functioning and success of any Industry Programme in implementing measures specified in the Industry Programme
- h) along with the Napier City Council and Hastings District Council, report annually on progress towards the improvement of the stormwater network, including reporting on the preparation of Site Management Plans for activities at risk of contaminating stormwater in urban areas.

5.10.6 Policies: Heretaunga Plains Groundwater Levels and Allocation Limits

Heretaunga Plains Aquifer Management

POL TANK 33 The Council recognises the actual and potential adverse effects of groundwater abstraction in the Heretaunga Plains Groundwater Quantity Area on:

- a) groundwater levels
- b) flows in connected surface waterbodies
- c) flows of the Ngaruroro River
- d) groundwater quality through risks of sea water intrusion
- e) tikanga and mātauranga Māori

and will:

- f) adopt a staged approach to groundwater management that includes:
 - i. avoiding further adverse effects by not granting new consents to take and use groundwater except as provided for by POL TANK 49
 - ii. reducing existing levels of water use
 - iii. mitigating the adverse effects of groundwater abstraction on flows in connected water bodies
 - iv. gathering information about actual water use and its effects on stream depletion
 - v. monitoring the effectiveness of stream flow maintenance and habitat enhancement schemes
 - vi. including plan review directions to assess effectiveness of these measures.

POL TANK 34 In managing the allocation and use of groundwater in the Heretaunga Plains Groundwater Quantity Area, the Council will:

- a) adopt an interim allocation limit of 90 million cubic metres per year based on Actual and Reasonable water use
- b) Except for providing water for stream flow maintenance 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
- c) manage the Heretaunga Plains Groundwater Quantity Area as an over- allocated management unit and prevent any new allocations of groundwater except as provided for by POL TANK 48
- d) when considering applications in respect of existing consents due for expiry, or when reviewing consents, to:
 - i. allocate groundwater the basis of the maximum quantity that is able to be abstracted during each year or irrigation season expressed in cubic meters per year
 - ii. apply an assessment of Actual and Reasonable use (except as provided by POL TANK 48)
 - iii. take into account any water use required as part of a programmed or staged development specified within the existing water permit or associated resource consent, if:
 1. the consent holder can demonstrate that the existing investment is dependent on water use over and above Actual and Reasonable use
 2. the whole or part of the specified activity or development has not lapsed during the resource consent duration
 3. the activity or development is integral to the on-going operation of the activity or development for which the permit was issued
 4. where applicable, water demand is calculated for rootstock only where there is evidence of a contract for the supply of that rootstock existing as at 2 May 2020
- e) mitigate stream depletion effects on lowland streams by providing for stream flow maintenance and habitat enhancement schemes.

POL TANK 35 The Council will restrict the re-allocation of groundwater to holders of permits to take and use water in the Heretaunga Plains Groundwater Quantity Area issued before 2 May 2020 and will review permits or allocate water according to the plan policies and rules either:

- a) upon expiry of the consent
- or
- b) in accordance with a review of all permits not granted under the provisions of this Plan Change within ten years of <the operative date>.

Flow maintenance

POL TANK 36 To mitigate the stream depletion effects of groundwater takes in the Heretaunga Plains Groundwater Quantity Area the Council will:

- a) consult with tangata whenua and other relevant parties to investigate the environmental, technical, cultural, social and economic feasibility of options for stream flow maintenance and habitat enhancement schemes including water storage and release options and groundwater pumping and discharge options that:
 - i. maintain stream flows in lowland rivers above trigger levels where groundwater abstraction is depleting stream flows
 - ii. improve oxygen levels and reduce water temperatures
- b) determine the preferred solutions taking into account whether:
 - i. wide-scale aquatic ecosystem benefits are provided by maintaining stream flow across multiple streams
 - ii. multiple benefits can be met including for flood control and climate change resilience
 - iii. the solutions are efficient and cost effective

- iv. scheme design elements to improve ecological health of affected water bodies have been incorporated
 - v. opportunities can be provided to improve public access to affected waterways
- c) develop and implement a funding mechanism that enables the Council to recover the costs of developing, constructing and operating stream flow maintenance and habitat enhancement schemes from permit holders, including where appropriate:
- i. management responses that enable permit holders to manage local solutions
 - ii. develop any further plan change within an agreed timeframe if necessary to implement a funding solution
- d) where schemes are operational, either:
- i. require abstraction to cease when applicable stream flow maintenance trigger is reached
 - or
 - ii. require permit holders to contribute to and participate in the scheme
- e) ensure that stream flow maintenance and habitat enhancement schemes are constructed and operating within ten years of the operative date of the Plan while adopting a priority regime according to the following criteria:
- i. solutions that provide wide-scale benefit for maintaining stream flow across multiple streams
 - ii. solutions that provide flow maintenance for streams that are high priority for management action because of low oxygen levels
- f) review as per POL TANK 39 if no schemes are found to be feasible.

POL TANK 37 When assessing applications for a stream flow maintenance and habitat enhancement scheme the Council will have regard to:

- a) opportunities for maximising the length of waterbodies where habitat and stream flow is maintained or enhanced
- b) any improvements to water quality, especially dissolved oxygen, and ecosystem health as a result of the stream flow maintenance and habitat enhancement schemes
- c) the duration and magnitude of adverse effects as a consequence of flow maintenance scheme operation
- d) the extent to which the applicant has engaged with tangata whenua.

POL TANK 38 The Council will mitigate the stream depletion effects of groundwater takes in the Heretaunga Plains Water Management Unit on the Ngaruroro River, in consultation with tangata whenua, land and water users and the wider community through:

- a) further investigating the environmental, technical, cultural, social, and economic feasibility of a water storage and release scheme to off-set the cumulative stream depletion effect of groundwater takes, and
- b) if such a scheme is feasible, developing options for funding, construction and operation of such a scheme including through a targeted rate
- or:
- c) if such a scheme is not feasible, reviewing alternative methods and examine the costs and benefits of those.

Groundwater management review

- POL TANK 39** After water has been re-allocated and consents reviewed in accordance with POL TANK 34 - 36, the Council will commence a review of these provisions within ten years of <operative date> in accordance with Section 79 of the RMA and will determine:
- a) the amount of water allocated in relation to the interim allocation limit
 - b) the total annual metered groundwater use for the Heretaunga Plains Groundwater Quantity Area during the ten years prior to the time of review
 - c) if any changes in the relationship between groundwater abstraction and the flows of rivers and groundwater levels have occurred
 - d) the extent of any stream flow maintenance, augmentation, or habitat enhancement schemes including in relation to:
 - i. the length of stream subject to flow maintenance
 - ii. the extent of habitat enhancement including length of riparian margin improvements, and new or improved wetlands
 - iii. the magnitude and duration of stream flow maintenance scheme operation
 - iv. trends oxygen and temperature levels in affected streams

and will:

- e) in relation to plan objectives and adverse effects listed in POL TANK 34, assess:
 - i. the effects of the groundwater takes on stream flows
 - ii. effectiveness of any stream flow maintenance, augmentation, or habitat enhancement schemes in maintaining water flows, groundwater levels and improving water quality
 - iii. effectiveness of habitat enhancement including through improved riparian management and wetland creation in meeting freshwater objectives
- f) review the appropriateness of the allocation limit in relation to the freshwater objectives
- g) develop a plan change to ensure any over-allocation is phased out.

5.10.7 Policies: Surface Water Low Flow Management

Flow Management Regimes; Tūtaekurī, Ahuriri, Ngaruroro and Karamū

- POL TANK 40** The Council will manage river flows and lake or wetland water levels affected by surface water abstraction activities, including groundwater abstraction in Zone 1 Groundwater, during low flow periods so that they meet objectives for aquatic ecosystem health, mauri, tikanga Māori values, and other instream values by applying the minimum flows, flow maintenance triggers, and allocation limits specified in Schedule 30, except as provided for by POLs TANK 43, 52 and 49, when considering applications to take and use water.

Paritua and Karewarewa Streams

- POL TANK 41** The Council recognises the connectivity between ground and surface water abstraction on the flows in the Paritua and Karewarewa Streams and their tributaries, acknowledges the contribution of flows from these streams to the flows in the Awanui Stream, Karamū River and the Heretaunga Plains Groundwater Quantity Area, and their importance to local marae and will work with water permit holders, landowners and tangata whenua to:
- a) further refine the Heretaunga Plains Aquifer Model to improve model outputs for this catchment
 - b) investigate opportunities for wetland creation to improve hydrological functioning and water quality in the river, especially during low flows
 - c) improve riparian management to provide shade, reduce macrophyte growth, increased dissolved oxygen levels and decrease water temperature

- d) carry out resource investigations to understand natural stream flow regimes and feasible options for remediation including:
 - i. managed aquifer recharge
 - ii. flow enhancement from groundwater or storage
 - iii. streambed modification to reduce losses to groundwater in highly conductive reaches
- e) enable and support water permit holders and landowners to collectively manage the maintenance of specified flows in the Paritua and Karewarewa Streams
- f) provide for water to be diverted from the Ngaruroro River for the enhancement of flows in the Paritua Stream.

General Water Allocation

POL TANK 42 When assessing applications to take water the Council will:

- a) provide that the taking and use of water that has been taken and impounded or stored at times of high flow and released for subsequent use, is not subject to allocation limits
- b) require water meters to be installed for all water takes authorised by a water permit and water use to be recorded and reported via telemetry provided that telemetry will not normally be required where the consented rate of take is less than 5l/sec
- c) ensure water allocation from tributaries is accounted for within the total allocation limit for the relevant zone and that the total abstraction from any tributary does not exceed 30% of the MALF for that tributary unless otherwise specified in Schedule 30
- d) offset the stream depletion effects of any groundwater takes in Zone 1 Groundwater, that were not previously considered stream depleting, by managing them as if they were in the Heretaunga Plains Groundwater Quantity Area

and:

- i. require contributions to an applicable lowland stream enhancement scheme at a rate equivalent to the stream depletion effect consistent with POL TANK 37 once such schemes are operational

or:

- ii. require the water take to cease when the minimum flow for the affected river is reached if a permit holder does not contribute under clause (i) where there is an applicable lowland stream enhancement

and:

- iii. allow further technical assessments to determine the extent of stream depletion effect.

Water Use and Allocation – Efficiency

POL TANK 43 The Council will ensure efficient management of the allocation of water available for abstraction by:

- a) ensuring allocation limits and allocations of water for abstraction are calculated with known reliability of supply
- b) ensuring water is allocated to meet Actual and Reasonable use
- c) encouraging and supporting flexible management of water by permit holders so that the allocatable water can be used efficiently and within specified limits
- d) on-going data collection and monitoring of water resources and water use to better understand patterns of water availability and water use and further develop efficient and effective water management provisions.

- POL TANK 44** When considering applications for resource consent, the Council will ensure water is allocated and used efficiently by:
- a) ensuring that the use of water is efficient through:
 - i. allocation of water for irrigation end-uses based on soil, climate and plant needs
 - ii. requiring the adoption of good practice water use technology and processes that minimise the amount of water lost from the soil profile
 - iii. the use of water meters
 - b) using the IRRICALC water demand model or a suitable equivalent approved by Council that utilises crop type, soil type and climatic conditions to determine efficient water allocations for irrigation uses
 - c) allocating water for irrigation on the basis of an 80% application efficiency, and 95% reliability of supply
 - d) requiring all non-irrigation water takes (except as provided by POL TANK 48 for municipal and papakāinga supplies) to show how water use efficiency of at least 80% is being met and is consistent with any applicable industry good management practice
 - e) requiring new water takes and irrigation systems to be designed and installed in accordance with industry codes of practice and standards
 - f) requiring irrigation and other water use systems to be maintained and operated to ensure on-going efficient water use in accordance with applicable industry codes of practice.

Water Use Change/Transfer

- POL TANK 45** When considering any application to change the water use specified by a water permit, or to transfer a point of take to another point of take, the Council will take into account:

- a) changes to the nature, location, scale and intensity of effects on:
 - i. total water use
 - ii. specified minimum flows and levels or other water users' access to water
 - iii. the values of outstanding water bodies listed in Schedule 25
 - iv. the values of outstanding water bodies as listed in the objectives and policies of this Plan
 - v. the patterns of water use over time, including changes from seasonal use to water use occurring throughout the year or changes from season to season
 - vi. water quality
- and will consider declining applications:
- b) where the transfer is to another water quantity area unless:
 - i. new information provides more accurate specification of applicable boundaries
 - ii. where the lowland tributaries of the Karamū River are over-allocated, whether the transfer of water take from surface to groundwater provides a net beneficial effect on surface water flows
 - c) to change/transfer water away from irrigation of the versatile land of the Heretaunga Plains for primary production especially food production, except where a change of use and/or transfer is for:
 - i. a flow enhancement or ecosystem improvement scheme, subject to clause (a)
or
 - ii. the efficient delivery of water supplies and to meet the communities' human health needs for water supply, including for marae and papakāinga, subject to clause (a)
 - d) in over-allocated quantity areas, to transfer allocated but unused water
 - e) for a change of use from frost protection to any other end use.

Water Allocation - Permit Duration

POL TANK 46 When considering applications to take and use water, the Council will set common expiry dates that enable consistent and efficient management of the resource, and will set durations that provide a periodic opportunity to review effects of the cumulative water use and to take into account potential effects of changes in:

- a) knowledge about the water bodies
- b) over-allocation of water
- c) patterns of water use
- d) development of new technology
- e) climate change effects
- f) flow enhancement and aquifer recharge schemes and any riparian margin upgrades

and the Council:

- g) will impose consent durations of 15 years according to specified water quantity area expiry dates as specified in Schedule 32. Future dates for expiry or review of consents within that catchment are every 15 years thereafter
- h) will impose a consent duration of up to 30 years for municipal supply and will impose consent review requirements that align with the expiry of all other consents in the applicable quantity area
- i) may grant consents granted within three years prior to the relevant common catchment expiry date with a duration to align with the second common expiry date in Schedule 32, except where the application is subject to section 8.2.4 of the RRMP.

Water Allocation - Priority

POL TANK 47 In making decisions about resource consent applications for municipal and papakāinga water supply the Council will ensure the water needs of future community growth are met within water limits and:

- a) allocate water for population and urban development projections according to estimates provided by the HPU DS (2017) to 2045
- b) calculate water demand according to existing and likely residential, non-residential, and non-residential (e.g. schools, hospitals, commercial and industrial) demand within the expected reticulation areas and:
 - i. require that water demand and supply management plans are developed and adopted and industry good management practice targets for water infrastructure management and water use efficiency including whether an Infrastructure Leakage Index of 4 or better can be achieved
 - ii. seek that the potential effects of annual water volumes are reflected in level of water supply service and reliability of supply objectives in asset management plans and bylaws for water supply
- c) work collaboratively with Napier City and Hastings District Councils to:
 - i. develop an integrated planning approach that gives effect to the National Policy Statements within the limits of finite resources
 - ii. develop a good understanding of the present and future regional water demand and opportunities for meeting this
 - iii. identify communities at risk from low water reliability or quality and investigate reticulation options.

POL TANK 48 The Council will consider applications to take and use water from the Heretaunga Plains groundwater quantity area for essential human health needs of the community or unforeseen non-commercial needs that, by itself or in combination with other water takes in the same water quantity area, causes the total allocation limit as specified in Schedule 31 to be exceeded. When assessing and application the Council will take into account:

- a) whether the volume and rate of take is reasonable for the use
- b) the extent to which demand can be met through other methods or sources of water and that all other options have been considered and exhausted
- c) the extent to which the water use meets social, environmental or cultural needs essential for the community
- d) the nature and scale of adverse effects, including but not limited to bore interference, stream depletion or effects on minimum flows and potential derogation of existing water takes
- e) any adverse effects on the significant values of connected wetlands, outstanding waterbodies in Schedule 25, and the values of connected waterbodies as expressed in OBJs TANK 7-11.

POL TANK 49 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 Council, Hastings District Council, Fire and Emergency New Zealand, Hawke's Bay District Health Board, iwi authorities and Ministry of Primary Industries, to make decisions about providing for water uses in the following priority order:

- a) water for the maintenance of public health
- b) water necessary for the maintenance of animal welfare
- c) water essential for community 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 or processing
- f) uses for which water is essential for the continued operation of a business, not provided for by clause (e).

The following uses will not be authorised under a water shortage direction:

- g) use of water not associated with the continued operation of a business or community well-being
- h) non-essential amenity uses such as private swimming pools and car washing.

Takes not subject to any restrictions are:

- i) firefighting uses
- j) non-consumptive uses.

Over-Allocation

POL TANK 50 The Council will phase out over-allocation by:

- a) preventing any new allocation of water (not including any reallocation in respect of permits issued before 2 May 2020, or high flow allocations)
- b) for applications in respect of existing consents due for expiry or when reviewing consents, to:
 - i. allocate water according to Actual and Reasonable use (except as provided for by POLs

TANK 48 and 49) and take into account any water use required as part of a programmed or staged development specified within the existing water permit or associated resource consent, if:

1. the consent holder can demonstrate that existing investment is dependent on water use over and above Actual and Reasonable use
 2. the specified activity or development has not lapsed during the resource consent duration
 3. the activity or development is integral to the on-going operation of the activity or development for which the permit was issued
 4. where applicable, water demand is calculated for rootstock only where there is evidence of a contract for the supply of that rootstock existing as at 2 May 2020
- ii. impose conditions that require implementation of good management practice for efficiency of water use, including through altering the volume, rate or timing of the take, and providing information to verify efficiency of water use relative to good management practice standards
- c) provide for, within the duration of the consent, meeting water efficiency standards where hardship can be demonstrated
- d) reducing the amount of water permitted to be taken without consent, including those provided for by Section 14 (3)(b) of the RMA, except for authorised uses existing before 2 May 2020
- e) encouraging voluntary reductions, site to site transfers (subject to clause (f)) or promoting water augmentation/harvesting
- f) prevent site to site transfers of allocated but unused water that does not meet the definition of Actual and Reasonable use
- 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.

Frost Protection, temporary, and non-consumptive water takes

POL TANK 51 When considering applications to take water for frost protection, temporary, and non-consumptive water takes, the Council will avoid, remedy or mitigate actual and potential effects of the take on its own or in combination with other water takes:

- a) from groundwater in the Heretaunga Plains Groundwater Quantity Area on:
- i. neighbouring bores and existing water users
 - ii. connected surface water bodies
 - iii. water quality as a result of any associated application of the water onto the ground where it might enter water
- b) from surface water on:
- i. instantaneous flow in the surface water body
 - ii. fish spawning and existing water users
 - iii. applicable minimum flows during November to April
 - iv. water quality as a result of any associated application of the water onto the ground where it might enter water

by:

- c) requiring applicants to demonstrate non-water reliant alternatives have been investigated and provide evidence as to why they are not appropriate
- d) taking into account any stream depletion effects of groundwater takes
- e) imposing limits in relation to minimum flows or groundwater levels
- f) requiring water metering, monitoring and reporting use of water for frost protection, and other activities if necessary.

5.10.8 Policies: High Flow Allocation Adverse Effects – Water Damming

POL TANK 52 When assessing applications to dam water and to take water from the dam impoundment, the Council will avoid, remedy or mitigate adverse effects of:

- a) potential changes to water quality arising from subsequent changes to land use activities that may occur as a result of water being allocated for take and use from the dam and whether relevant freshwater quality objectives can be met
- b) the dam and any associated lake or reservoir, and any effects of the volume, velocity, frequency, and duration of flow releases from the dam, either by itself or cumulatively with other storage structures or dams, on:
 - i. the uses and values for any water body identified in the objectives or Schedule 25
 - ii. water levels and flows in connected water bodies, including lakes and wetlands
 - iii. water quality, including effects on temperature and management of periphyton in connected water bodies
 - iv. river ecology and aquatic ecosystems, including passage of fish and eels, indigenous species habitat and riparian habitat, including in relation to the storage impoundment
 - v. groundwater recharge
 - vi. downstream land, property and infrastructure at risk from failure of the proposed dam
 - vii. other water users
 - viii. downstream river bed stability, including through sediment transfer and management of vegetation in river beds

and consider whether there are practicable alternatives

and, except as prohibited by POL TANK 56, will limit the amount of flow alteration so that the damming of surface water either on its own or in combination with other dams or water storage in a catchment does not cumulatively adversely affect the frequency of flows above three times the median flow by more than a minor amount and provided that any dam in combination with other dams or high flow takes shall not cause changes to the river flow regime that are inconsistent with specified flow triggers including those specified in Schedule 31.

Adverse Effects – Water Take and Storage

POL TANK 53 When assessing applications to take water for off-stream storage or to take water from the impoundment the Council will avoid remedy or mitigate adverse effects of:

- a) potential changes to water quality arising from subsequent changes to land use activities as a result of water being allocated for take and use from the impoundment and whether relevant freshwater quality objectives can be met
- b) the magnitude, frequency, duration and timing of water takes either by itself or cumulatively with other storage structures or dams, on:
 - i. the uses and values for any water body identified in the objectives
 - ii. water levels and flows in connected water bodies, including lakes and wetlands
 - iii. water quality, including effects on temperature and management of periphyton in connected water bodies
 - iv. river ecology and aquatic ecosystems, including passage of fish and eels, indigenous species habitat and riparian habitat, including in relation to the storage impoundment
 - v. groundwater recharge
 - vi. downstream land, property and infrastructure at risk from failure of the proposed storage structure
 - vii. other water users

and will limit the amount of flow alteration so that the taking of surface water does not cumulatively adversely affect the frequency of flows above three times the median flow by more than a minor amount and provided that:

- viii. the high flow take ceases when the river is at or below the median flow
- ix. such high flow takes do not cumulatively exceed the specified allocation limits
- x. any takes to storage existing as at 2 May 2020 will continue to be provided for within new allocation limits and subject to existing flow triggers.

Benefits of Water Storage and Augmentation

POL TANK 54 The Council will recognise beneficial effects of water storage and augmentation schemes, including water reticulation in the TANK catchments and out-of-stream- storage, and when considering applications for resource consent will take into account the nature and scale of the following criteria:

- a) benefits for aquatic organisms
- b) affects on the values of outstanding water bodies listed in Schedule 25
- c) whether water availability is improved or the level to which the security of supply for water users is enhanced
- d) whether the proposal provides for the productive potential of un-irrigated land or addresses the adverse effects of water allocation limits on land and water users, especially in relation to primary production on versatile land
- e) whether the proposal provides benefits to downstream water bodies at times of low flows provided through releases from storage or the dam
- f) the nature and scale of potential ecosystem benefits provided by the design and management of the water storage structure, its margins and any associated wetlands
- g) benefits for other water users including recreational and cultural uses and any public health benefits
- h) other community benefits including improving community resilience to climate change
- i) whether the proposal provides for renewable electricity generation.

POL TANK 55 The Council will carry out further investigation to understand the present and potential future regional water demand and supply including for abstractive water uses and environmental enhancement and in relation to climate change prior to the review of the planning provisions as per POL TANK 39. It will consider water storage options according to the criteria in POL TANK 54 in consultation with local authorities, tangata whenua, industry groups, resource users and the wider community when making decisions about water augmentation proposals in its Annual and Long Term Plans.

POL TANK 56 The Council will protect the instream water values and uses identified in OBJs TANK 8 and 9 for the Ngaruroro and Tūtaekurī Rivers and their tributaries, the Taruarau, Omahaki, Mangatutu and Mangaone Rivers by prohibiting the construction of dams on the mainstem of those rivers.

High Flow Reservation

POL TANK 57 The Council will allocate 20% of the total water available at times of high flow in the Ngaruroro or Tūtaekurī River catchments as specified in Schedule 31 for abstraction, storage and use for the following activities:

- a) contribution to environmental enhancement that is in addition to any conditions imposed on the water storage proposal
- b) improvement of access to water for domestic use at marae and papakāinga
- c) the use of water for any activity, provided that:
 - i. it includes contribution to a fund managed by the Council in consultation with tangata whenua
 - ii. the fund will be used to provide for development of Māori wellbeing
 - iii. the contribution to the fund is proportional to the amount of reserved water being taken and any commercial returns resulting from the application
- d) the development of land returned to a Post-Settlement Governance Entity (PSGE) through a Treaty

Settlement.

And in making decisions on applications to take and store this water the Council will:

- e) require information to be provided that demonstrates how the activity will provide for Māori economic, cultural or social well-being
- f) have regard to the views of any affected PSGE or iwi authority arising from consultation about the application and any assessment of the potential to provide part, or all of the 20% high flow allocation
- g) have regard to any relevant provisions for the storage and use of high flow allocation water for Māori development in any joint iwi/hapū management plans relevant to the application (where more than one PSGE, iwi/hapū is affected, the iwi management plan must be jointly prepared by the affected iwi/hapū).

POL TANK 58 When making decisions about resource consent applications to take and store high flow water, the Council will take into account the following matters:

- a) whether water allocated for development of Māori well-being is still available for allocation
- b) whether there is any other application to take and use the high flow allocation for development of Māori well-being relevant to the application
- c) the scale of the application and whether cost effective or practicable options for taking and using the high flow allocation for Māori development can be incorporated into the application
- d) the location of the application and whether cost effective or practicable options for including taking and using water for Māori development can be developed as part of the application
- e) whether there has been consultation on the potential to include taking and using all or part of the water allocated for Māori development into the application
- f) whether it is the view of the applicant that a joint or integrated approach for the provision of the high flow water allocated to Māori development is not appropriate or feasible, and the reasons why this is the case.

Climate change

POL TANK 59 The Council will require decisions on land and water management to consider:

- a) the effects on climate change on aquatic ecosystems, indigenous biodiversity, freshwater bodies, water supply, human health, primary production and infrastructure from the predicted:
 - i. Increases in intensity and frequency of rainfall
 - ii. effects of rainfall on erosion and sediment loss
 - iii. increases in sea level and the effects of salt water intrusion
 - iv. increasing frequency of water shortages
 - v. increasing variability in river flows
- b) the amount of information available
- c) the scale and probability of adverse effects, particularly irreversible effects, as a consequence of acting or not acting
- d) the timeframes relevant to the activity
- e) how to improve community resilience for changes
- f) opportunities to reduce greenhouse emissions alongside other contaminant losses.

Chapter 6 New Regional Rules

Amend Summary of Existing Rules to insert a new Section 6.10:

6.10 TANK Catchments specific rules	Classification	Page [TBC]
6.10.1 Use of Production Land		
Rule TANK 1 Use of Farm Land	Permitted	0
Rule TANK 2 Use of Farm Land	Controlled	0
Rule TANK 3 Use of Production Land	Permitted	0
Rule TANK 4 Use of Production Land (land use change)	Controlled	0
Rule TANK 5 Use of Production Land (land use change)	Restricted Discretionary	0
6.10.2 Take and Use of Water		
Rule TANK 6 Take and use of surface water	Permitted	0
Rule TANK 7 Take and use of groundwater	Permitted	0
Rule TANK 8 Take and use groundwater (Heretaunga Plains)	Restricted Discretionary	0
Rule TANK 9 Take and use ground or surface water	Restricted Discretionary	0
Rule TANK 10 Take and use water	Discretionary	0
Rule TANK 11 Take and use water	Non-complying	00
Rule TANK 12 Take and use water	Prohibited	0
Rule TANK 13 Take and use water (high flow)	Discretionary	0
Rule TANK 14 Damming water	Discretionary	0
Rule TANK 15 Take and use water (from an impoundment)	Restricted Discretionary	0
Rule TANK 16 Take and use water	Discretionary	0
Rule TANK 17 Take and use water (from an impoundment)	Non-complying	0
Rule TANK 18 Damming water	Prohibited	0
Rule TANK 19 Stream flow maintenance	Restricted Discretionary	0
Rule TANK 20 Stream flow maintenance	Discretionary	0
6.10.3 Discharge of Stormwater		
Rule TANK 21 Stormwater	Permitted	0
Rule TANK 22 Stormwater	Restricted Discretionary	0
Rule TANK 23 Stormwater	Controlled	0
Rule TANK 24 Stormwater	Restricted Discretionary	0
Rule TANK 25 Stormwater	Discretionary	0

Insert the following rules as new Section 6.10

6.10 Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchment Rules (TANK)

6.10.1 Use of Production Land

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
TANK 1 Use of Farm Land	The use of farm land where: 20 or more hectares of the farm is arable land use; or 5 or more hectares of the farm is horticultural land use; or 20 or more hectares of the farm is pastoral land use; or 20 or more hectares of the farm is a combination of any 2 or more of the land uses described above	Permitted	a) The farm has less than 75% plantation forest cover ⁴ . b) Either: 1. The is either a member of a TANK Industry Programme or a member of a TANK Catchment Collective within the timeframes specified in Schedule 27 and accordance with the requirements of Schedule 29 Or: 2. The farm operator shall prepare a Freshwater Farm Plan in accordance with the requirements of Schedule 29 and within the timeframes specified in Schedule 27; and the Freshwater Farm Plan is being implemented and: 1. the Council shall be provided with the Freshwater Farm Plan upon request 2. information about the implementation of the mitigation measures identified for the farm shall be supplied to the Council on request.		

⁴ The National Environmental Standards: Plantation Forestry also apply where there is plantation forest. This rule only applies if a property has less than 75% plantation forest cover

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
TANK 2 Use of Farm Land	The use of farm land where: a) 20 or more hectares of the farm is arable land use; or b) 5 or more hectares of the farm is horticultural land use; or c) 20 or more hectares of the farm is pastoral land use; or d) 20 or more hectares of the farm is a combination of any 2 or more of the land uses described above.	Controlled	a) The activity does not meet the conditions of Rule TANK 1.	1. The target attribute states in Schedule 26 for the catchment where the activity is being undertaken and any measures required to reduce the actual or potential contaminant loss occurring from the property, taking into account their costs and likely effectiveness and including performance in relation to industry good management practice and requirements for: a) Efficient use of nutrients and minimisation of nutrient losses b) Wetland management c) Riparian management d) Management of farm wastes e) Management of stock including in relation to water ways and contaminant losses to ground and surface water f) Measures required to maintain or improve the physical and biological condition of soils so as to reduce risks of erosion, movement of soil into waterways, and damage to soil structure g) Measures to prevent or minimise any adverse effects on the quality of the source water used for a Registered Drinking Water Supply irrespective of any treatment process for the Registered Drinking Water Supply.	Consent applications will generally be considered without notification and without the need to obtain written approval of affected persons.

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
				2. Timeframes for any alternative mitigation measures 3. Duration of consent 4. Lapsing of consent 5. Review of consent conditions 6. The collection, recording, monitoring and provision of information concerning the exercising of the consent.	
TANK 3 Use of Production Land	Land use change in the TANK catchments pursuant to Section 9(2) RMA and associated non-point source discharges pursuant to Section 15 of the RMA.	Permitted	a) The land use change is a change from the land use that existed at 2 May 2020 and b) The amount of intensive winter grazing does not increase by more than 10 hectares on a farm compared to any time prior to 2 May 2020. or The change in land use is no more than 10 hectares when the change is from a land use with a lower nitrogen leaching risk level to a higher leaching risk level as shown in Table 1 of Schedule 28 except where the land use change is between levels 1 – 3 and the land use change is no more than 20 hectares.		
TANK 4 Use of Production Land	Land use change in the TANK catchments pursuant to Section 9(2) RMA and associated non-point source discharges pursuant to Section 15 of the RMA	Controlled	a) The activity does not comply with the conditions of Rule TANK 3. b) The area of intensive winter grazing does not increase by more than 10 hectares compared to the total area in any year prior to 2 May 2020. c) The change in land use is no more than 10% of the total farm area, provided that the farm operator of the production land subject to the changed land use is a member of a Catchment Collective which has a Catchment Collective Freshwater Plan meeting the requirements of Schedule 29.	1. Modelling using models approved by Council to demonstrate the change in land use activity will be consistent with the requirements of POL TANK 20 2. Impact of the land use change on other contaminant loss risks including greenhouse gas emissions consistent with Policy 59 3. The measures being undertaken by the Catchment Collective to meet the 2040 target attribute states, including measures required as a result of the proposed land use change. 4. Measures to be undertaken which contribute to meeting the 2040 target attribute states including by: a) Efficient use of nutrients and minimisation of nutrient losses	Consent applications in that catchment will be considered without public notification and without the need to obtain written approval of affected persons.

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
				<ul style="list-style-type: none"> b) Wetland management c) Riparian management d) Management of farm wastes e) Management of stock including in relation to waterways and contaminant losses to ground and surface water f) Measures required to maintain or improve the physical and biological condition of soils so as to reduce risks of erosion, movement of soil into waterways, and damage to soil structure g) Measures to prevent or minimise any adverse effects on the quality of the source water used for a Registered Drinking Water Supply irrespective of any treatment process for the Registered Drinking Water Supply <p>5. Timeframes for any alternative mitigation measures</p> <p>6. Duration of consent</p> <p>7. Lapsing of consent</p> <p>8. Review of consent conditions</p> <p>9. The collection, recording, monitoring and provision of information including relevant model files.</p>	

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
TANK 5 Use of Production Land	Land use change in The changing of a use of production land on farm properties or farming enterprises that are greater than 10 hectares in the TANK catchments pursuant to Section 9(2) RMA and associated non-point source discharges pursuant to Section 15 of the RMA.	Restricted Discretionary	a) The activity does not meet the conditions of Rule TANK 4.	<ol style="list-style-type: none"> 1. Modelling using models approved by Council to demonstrate the change in land use activity will be consistent with the requirements of POL TANK 20 2. Impact of the land use change on other contaminant loss risks including greenhouse gas emissions consistent with Policy 59 3. The measures being undertaken by any relevant Catchment Collective to meet 2040 target attribute states, including measures required as a result of the proposed land use change 4. Whether 2040 target attribute states in Schedule 26 are being met in the catchment where the new activity is to be undertaken 5. The extent to which the land use change will affect the ability to meet water quality objectives 6. Any measures required to reduce the actual or potential contaminant loss occurring from the property, taking into account their costs and likely effectiveness and including performance in relation to industry good management practice and requirements for: <ol style="list-style-type: none"> a. Efficient use of nutrients and minimisation of nutrient losses b. Wetland management c. Riparian management d. Management of farm wastes e. Management of stock including in relation to waterways and contaminant losses to ground and surface water f. Measures required to maintain or improve the physical and biological condition of soils so as to reduce risks of erosion, movement of soil into waterways, 	If water quality limits and targets in Schedule 26 are being met in the catchment, consent applications in that catchment will be considered without public notification and without the need to obtain written approval of affected persons

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
				<p>and damage to soil structure</p> <p>g. Measures to prevent or minimise any adverse effects on the quality of the</p> <p>h. source water used for a Registered Drinking Water Supply irrespective of any treatment process for the Registered Drinking Water Supply</p> <p>7. Timeframes for any alternative mitigation measures</p> <p>8. Duration of consent</p> <p>9. Lapsing of consent</p> <p>10. Review of consent conditions</p> <p>11. The collection, recording, monitoring and provision of information.</p>	

Water – Take and Use

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
TANK 6 Surface Water take	The take and use of surface water in the TANK Water Quantity Areas including under Section 14(3)(b) of the RMA and from a dam or water impoundment	Permitted	<p>a) Any take first commencing after 2 May 2020 is not from any of the following:</p> <ul style="list-style-type: none"> (i) Maraekakaho Water Quantity Area (ii) Ahuriri Water Quantity Area (iii) Awanui Stream Water Quantity Area (iv) Poukawa Water Quantity Area (v) Louisa Stream Water Quantity Area (vi) Paritua-Karewarewa Water Quantity Area. <p>b) The take shall not exceed 5 cubic metres per day per property except:</p> <ul style="list-style-type: none"> (i) Lawful takes existing as at 2 May 2020 may continue to take up to 20 cubic metres per property per day (ii) New takes to meet reasonable domestic needs may take up to 15 cubic metres over any 7 day period per dwelling house on the property (iii) Lawful takes for stock drinking water on the property existing as at 2 May 2020 (iv) 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 metres per 7 day period. <p>c) The taking of water shall not cause any stream or river flow to cease</p> <p>d) Fish, including eels, shall be prevented from entering the reticulation system</p> <p>e) The activity shall not cause changes to the flows or levels of water in any connected wetland</p> <p>f) 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>g) The rate of take shall not exceed 10% of the instantaneous flow⁵ at the point of take.</p>		

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
			<p>A Means of Compliance for Condition d)</p> <p>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.</p> <p>Note – Conditions of this rule do not apply to the take and use of water in accordance with RMA Section 14(3)(e).</p>		
<p>TANK 7 Groundwater take</p>	<p>The take and use of groundwater in the TANK Water Quantity Areas including under Section 14(3)(b) of the RMA</p>	<p>Permitted</p>	<p>a) Any take first commencing after 2 May 2020 is not from the Poukawa Water Quantity Area.</p> <p>b) There is only one point of take per property and the take does not exceed 5 cubic metres per day except:</p> <ul style="list-style-type: none"> i. Lawful takes existing as at 2 May 2020 may continue to take up to 20 cubic metres per property per day ii. New takes to meet reasonable individual domestic needs may take up to 15 cubic metres over any 7 day period per dwellinghouse on the property⁶ iii. Lawful takes for stock drinking water on the property existing as at 2 May 2020 iv. 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 metres per 7 day period. v. The taking of water for non-consumptive uses including aquifer testing is limited to 20 cubic metres per day. 		

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
			<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> <p>Note – Conditions a) and b) do not apply to the take and use of water for emergency or training purposes in accordance with RMA Section 14(3)(e).</p>		
TANK 8 Groundwater Take – Heretaunga Plains	Replacement of an existing Resource Consent to take and use water from the Heretaunga Plains Groundwater Quantity Area	Restricted Discretionary	<p>a) The activity does not comply with the conditions of Rule TANK 7</p> <p>b) An application is either for the continuation of a water take and use previously authorised in a permit that was issued before 2 May 2020 or is a joint or global application that replaces these existing water permits previously held separately or individually.</p> <p>Actual and Reasonable Re-allocation</p> <p>c) The quantity taken and used, other than provided for under d), is the Actual and Reasonable amount</p> <p>d) The quantity taken and used for municipal, community and papakāinga water supply is:</p> <ul style="list-style-type: none"> i) the quantity specified on the permit being replaced or ii) any lesser quantity applied for. 	<p>1. The extent to which the need for water has been demonstrated and is Actual and Reasonable provided that the quantities assessed or calculated may be amended after taking account of:</p> <ul style="list-style-type: none"> a. the completeness of the water permit and water meter data record b. the climate record for the same period as held by the Council (note: these records will be kept by the Council and publicly available) and whether that resulted in water use restrictions or bans being imposed c. effects of water sharing arrangements d. crop rotation/development phases. 	<p>Applications may be considered without notification and without the need to obtain the written approval of affected persons in accordance with section 94(1)(b) of the RMA. Applications may be notified if special circumstances exist in terms of section 95B(10) of the RMA or upon review of a consent.</p>

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
			<p><u>Stream Flow Maintenance Scheme</u></p> <p>e) The take is subject to a stream depletion calculation</p> <p>General Conditions</p> <p>f) A water meter is installed</p> <p>g) Back flow of water or contaminant entry into the bore shall be prevented.</p> <p>Advisory Note:</p> <p>Any application to change water use as specified under (c) (d) or (e) may trigger a consent requirement under Rules TANK 4 or 5.</p>	<p>2. Previous history of exercising the previous consent</p> <p>3. The quantity, rate, and timing of the take, including rates of take and any other requirements in relation to any minimum or trigger flow or level given in Schedule 30 and rates of take to limit drawdown effects on neighbouring bores</p> <p>4. Where the take is in a Source Protection Zone or source protection extent, the actual or potential effects of the rate of take and volume abstracted on the quality of source water for the water supply and any measures to prevent or minimise any adverse effects on the quality of the source water used for a Registered Drinking Water Supply irrespective of any treatment including notification requirements to the Registered Drinking Water supplier</p> <p>5. For applications to take water for municipal, community and papakāinga water supply:</p> <p>a) provisions for demand reduction and asset management over time so that water use is at reasonable and justifiable levels including whether an Infrastructure Leakage Index of 4 or better will be achieved</p> <p>b) rate and volumes of take limited to the projected demand for the urban area provided in the HPUDS 2017</p> <p>c) water demand based on residential and non-residential use including for schools, rest homes, industrial demand within the planned</p>	

				<p>reticulation areas</p> <p>d) any Source Protection Zone or extent (as specified in Schedule 35) and:</p> <p>i. any proposed changes to provisional protection areas</p> <p>ii. the impacts of any changes to restrictions on land or water use activities in the protection area</p> <p>6. Measures to achieve efficient water use or water conservation and avoid adverse water quality effects including the method of irrigation application necessary to achieve efficient use of the water and avoid adverse water effects through ponding and runoff and percolation to groundwater</p> <p>7. The effects of any water take and use for frost protection on the flows in connected surface water bodies</p> <p>8. For applications other than irrigation, municipal, community or papakāinga water supply or frost protection, measures to ensure that the take and use of water meets an efficiency of use of at least 80%</p> <p>9. Management of bores including means of backflow prevention and ensuring well security.</p>	
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Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
				<p>10. Information to be supplied and monitoring requirements including timing and nature of water metering data reporting and the installation of telemetered recording and reporting</p> <p>11. The duration of the consent (Section 123 of the RMA) as provided for in Schedule 33 timing of reviews and purposes of reviews (Section 128 of the RMA)</p> <p>12. Lapsing of the consent (Section 125(1) of the RMA)</p> <p>13. Stream flow depletion amount in litres per second calculated using the Stream Depletion Calculator</p> <p>14. Review of permit and new conditions to be imposed in respect of contribution to a stream flow maintenance and habitat enhancement scheme, when applicable.</p>	
<p>TANK 9 Surface and groundwater water takes (abstraction at low flows)</p>	<p>Replacement of an existing Resource Consent to take and use water.</p>	<p>Restricted Discretionary</p>	<p>a) The take is not from the Heretaunga Plains Groundwater Quantity Areas</p> <p>b) The taking and use of water from surface or groundwater water bodies does not comply with conditions of Rules TANK 6, or TANK 7</p> <p>c) Where the take was previously subject to a condition restricting the take at flows that are higher than the applicable flow specified in Schedule 30, the higher flow will continue to apply. For all other takes, the flows specified in Schedule 30 apply</p> <p>d) An application is either for the continuation of a water take and use previously authorised in a</p>	<p>1. The extent to which the need for water has been demonstrated and is Actual and Reasonable provided that the quantities assessed or calculated may be amended after taking account of:</p> <ul style="list-style-type: none"> i) the completeness of the water permit and water meter data record ii) the climate record for the same period as held by the Council (note: these records will be kept by the Council and publicly available) and whether 	<p>Applications may be considered without notification and without the need to obtain the written approval of affected persons in accordance with section 94(1)(b) of the RMA. Applications may be notified if special circumstances exist in terms of section</p>

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
			<p>permit that was issued before 2 May 2020 or is a joint or global application that replaces these existing water permits previously held separately or individually</p> <p>Actual and Reasonable Re-allocation</p> <p>e) The quantity taken and used, other than provided for by f), is the Actual and Reasonable amount.</p> <p>f) The quantity taken and used for municipal, community and papakāinga water supply is the quantity specified on the permit being replaced or any lesser quantity applied for</p> <p>Surface Water Quantity Area</p> <p>g) Any take from groundwater in Zone 1 Groundwater authorised as at 2 May 2020 in any surface Water Quantity Area is subject to a stream depletion calculation</p> <p>General Conditions</p> <p>h) A water meter is installed</p> <p>i) Fish and eels are prevented from entering the reticulation system</p> <p>j) Back flow of water or contaminants into any bore shall be prevented.</p> <p>Advisory Note:</p> <p>Any application to change water use as specified under (c) (d) or (e) may trigger a consent requirement under Rules TANK 4 or 5.</p> <p>Means of Compliance for Condition (j)</p> <p>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.</p>	<p>that resulted in water use restrictions or bans being imposed</p> <p>iii) effects of water sharing arrangements</p> <p>iv) crop rotation/development phases</p> <p>2. Previous history of exercising the previous consent</p> <p>3. The quantity, rate and timing of the take, including rates of take and any other requirements in relation to any relevant minimum flow or level or allocation limit given in Schedule 30</p> <p>4. Where the take is in a Source Protection Zone or source protection extent, the actual or potential effects of the rate of take and volume abstracted on the quality of source water for the water supply and any measures to prevent or minimise any adverse effects on the quality of the source water used for a Registered Drinking Water Supply irrespective of any treatment including notification requirements to the Registered Drinking Water supplier</p> <p>5. For applications to take water for municipal, community and papakāinga water supply:</p> <p>i) provisions for demand reduction and asset management over time so that water use is at reasonable and justifiable levels including whether an Infrastructure Leakage Index of 4 or better will be achieved</p> <p>ii) Rate and volumes of take limited to the projected demand for the</p>	<p>95B(10) of the RMA or upon review of a consent</p>

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
				<p>urban area provided in the HPUDS 2017</p> <p>iii) water demand based on residential and non-residential use including for schools, rest homes, and industrial demand, within the planned reticulation areas</p> <p>6. The location of the point(s) of take</p> <p>7. The effects of any water take and use for frost fighting on the natural flow regime of the river</p> <p>8. Information to be supplied and monitoring requirements including timing and nature of water meter data reporting and the installation of telemetered recording and reporting</p> <p>9. For applications other than irrigation, municipal, community or papakāinga water supply or frost protection, evidence that the take and use of water meets an efficiency of use of at least 80%</p> <p>10. Measures to achieve efficient water use or water conservation and avoid adverse water quality effects including the method of irrigation application necessary to achieve efficient use of the water and avoid adverse water effects through ponding and runoff and percolation to groundwater</p> <p>11. Management of bores and other water take infrastructure including means of backflow prevention</p> <p>12. Measures to prevent fish from entering the reticulation system</p>	

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
				<p>13. The duration of the consent (Section 123 of the RMA) as provided for in Schedule 33 timing of reviews and purposes of reviews (Section 128 of the RMA)</p> <p>14. Lapsing of the consent (Section 125(1) of the RMA)</p> <p>15. For takes from Zone 1 Groundwater in the Ngaruroro and Tūtaekurī Water Quantity Areas review of permit and new conditions to be imposed in respect of contribution to a Stream flow maintenance and habitat enhancement scheme, when applicable.</p>	
<p>TANK 10 Groundwater and Surface water take (low flow)</p>	<p>The take and use of surface (low flow allocations) or groundwater</p>	<p>Discretionary</p>	<p>a) The activity does not comply with the conditions of Rules TANK 8 or TANK 9</p> <p>b) Either:</p> <ul style="list-style-type: none"> i. The application is either for the continuation of a water take and use previously authorised in a permit that was issued before 2 May 2020 or is a joint or global application that replaces these existing water permits previously held separately or individually <p>Or:</p> <ul style="list-style-type: none"> ii. The total amount taken, either by itself or in combination with other authorised takes in the same water quantity area does not cause the total allocation limit in the relevant quantity area as specified in Schedule 30 to be exceeded-except this clause does not apply to takes for: <ul style="list-style-type: none"> 1. frost protection 2. takes of water associated with and from or dependant on release of water from a water storage impoundment, or 		

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
			<p>managed aquifer recharge scheme</p> <p>3. water takes that are non- consumptive</p> <p>4. temporary water takes</p> <p>5. water required as part of a programmed or staged development existing as at 2 May 2020 that is not otherwise Actual and Reasonable water use.</p>		
TANK 11 Groundwater take	The take and use of groundwater	Non-complying	<p>a) The activity does not comply with the conditions of Rule TANK 10</p> <p>b) The take and use is for:</p> <p>i. essential human health needs</p> <p>or</p> <p>ii. an unforeseeable non-commercial need.</p>		
TANK 12 Groundwater and Surface water take	The take and use of surface or groundwater	Prohibited	<p>a) The activity does not comply with the conditions of Rule TANK 10 or 11</p> <p>No application may be made for this activity.</p>		
TANK 13 Taking water – high flows	The taking and use of surface water at times of high flow (including for storage in an impoundment)	Discretionary	<p>a) The take on its own or in combination with other authorised takes is still available for allocation within the limits specified in both columns (D) and (E) of Schedule 31 where applicable</p> <p>b) The activity either on its own or in combination with other activities does not cause the flow regime of the river to be altered by more than</p> <p>c) the amount specified in Schedule 31 where applicable.</p>		

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
TANK 14 Damming water	The erection or placement of any dam or weir or other barrier structure, damming of surface waters and discharge from dams except as prohibited by Rule TANK 18	Discretionary	a) The activity does not comply with the conditions of RRMP 67 or RRMP 68 b) Except as prohibited by Rule TANK 18, the activity either on its own or in combination with other dam or discharge activities in the same water quantity area does not cause the flow regime of the river to be altered by more than the amount specified in Schedule 31.	Note: The construction of dams greater than 4 metres in height and holding more than 20,000 m ³ will also need a Building Consent. Dams smaller than this are exempt from the Building Act provisions.	
TANK 15 Take and use from storage	Take and use from a dam or water impoundment	Restricted Discretionary	a) The activity does not comply with the conditions of Rule TANK 6 b) The activity will not result in a change of land use that requires consent under Rules TANK 4 or 5.	1. The location, quantity, rate and timing of the take 2. Measures to avoid adverse water quality effects 3. Measures to ensure that the take and use of water meets an efficiency of use of at least 80% 4. Information to be supplied and monitoring requirements including timing and nature of water metering data reporting and the installation of telemetered recording and reporting 5. The duration of the consent 6. Lapsing of the consent 7. Review of consent conditions.	
TANK 16 Take and use from storage	Take and use from a dam or water impoundment	Discretionary	a) The activity does not comply with the conditions of Rule TANK 15.		
TANK 17	Damming, take and use at high flow or take from a dam or water impoundment	Non-complying	a) Except as prohibited by Rule TANK 18, the activity does not comply with the conditions of Rules TANK 13 - 15.		

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
TANK 18 Damming water	Construction of dams or the damming of water	Prohibited	a) The construction of dams or the damming of water on the mainstem of the following rivers <ul style="list-style-type: none"> i) Ngaruroro River ii) Taruarau River iii) Omahaki River iv) Tūtaekurī River: v) Mangaone River vi) Mangatutu River b) No application may be made for these activities.		
TANK 19 Stream Flow Maintenance and Habitat Enhancement Scheme	Transfer and Discharge of groundwater into surface water in the Heretaunga Plains Water Quantity Area	Restricted Discretionary	a) The activity does not comply with the conditions of RRMP Rule 31.	1. Location, quantity, rate, duration and timing of discharge, especially in relation to the maintenance of trigger flows in Schedule 30 2. The extent to which the activity is consistent with the requirements of POL TANK 37 and 38 3. Benefits to stream flows and aquatic ecosystems including across multiple streams as a result of the discharge 4. Benefits of the activity for flood control, climate change resilience and public access. 5. Management of the stream flow scheme 6. Compliance monitoring including monitoring for water quality 7. Measures or methods required for meeting the receiving water quality targets in Schedule 26, especially dissolved oxygen levels 8. The duration of the consent 9. Lapsing of the consent 10. Review of consent conditions.	
TANK 20 Stream Flow Maintenance and Habitat Enhancement Scheme	Discharge of groundwater into surface water in the Heretaunga Plains Water Quantity Area	Discretionary	a) The activity does not comply with the conditions of Rule TANK 19.		

Stormwater

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion
<p>TANK 21 Small scale stormwater diversion and discharge</p>	<p>The diversion and discharge of stormwater into water, or onto land where it may enter water.</p>	<p>Permitted</p>	<p>a) The diversion and discharge shall not:</p> <ul style="list-style-type: none"> (i) cause any permanent bed scouring or bank erosion of land or any water course at or beyond that point of discharge (ii) cause or contribute to flooding of any property (iii) cause any permanent reduction in the ability of the receiving environment to convey flood flows (iv) contain hazardous substances or, be from a site used for the storage, use or transfer of hazardous substances (v) contain drainage from a stockyard (vi) cause to occur or contribute to any of the following after reasonable mixing: <ul style="list-style-type: none"> i. production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials ii. any emission of objectionable odour iii. any conspicuous change in colour or the visual clarity of the receiving water body (including the runoff from bulk earthworks) iv. any freshwater becoming unsuitable for consumption by farm animals (vii) cause to occur or contribute to the destruction or degradation of any habitat, mahinga kai, plant or animal in any water body or coastal water (viii) cause to occur or contribute to the discharge of microbiological contaminants including sewage, blackwater, greywater or animal effluent. <p>b) The discharge is from a property that contains less than 1000m² of impervious area</p> <p>c) Any structure associated with the point of discharge or diversion is maintained in a condition such that it is clear of debris, does not obstruct fish passage and is structurally sound.</p> <p>d) The person who discharges or diverts, or who causes the discharge or diversion to occur, shall provide such information upon request by the Council to show how Condition (a) will be met or has been met.</p>	

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion
<p>TANK 22 Small scale stormwater diversion and discharge</p>	<p>The diversion and discharge of stormwater into water, or onto land where it may enter water.</p>	<p>Restricted Discretionary</p>	<p>a. The activity does not comply with the conditions of Rule TANK 21.</p> <p>b. the activity is not from an industrial or trade premise with less than 1000m² impervious area.</p>	<ol style="list-style-type: none"> 1. Location of the point of diversion and discharge including its catchment area 2. Volume, rate, timing and duration of the discharge, in relation to a specified design rainfall event 3. Effects of the activity on downstream flooding. 4. Contingency measures in the event of pipe capacity exceedance 5. Actual or likely adverse effects on fisheries, wildlife, habitat or amenity values of any surface water body 6. Actual or likely adverse effects on the potability of any ground water 7. The actual or potential effects of the activity on the quality of source water for Registered Drinking Water Supplies and any measures to reduce the risk to the water quality including notification requirements to the Registered Drinking Water supplier irrespective of any treatment process for the Registered Drinking Water Supply 8. The timing of future planned reticulated networks 9. The actual or potential effects of the activity on the target attribute states set out in Schedule 26 or where relevant for other attributes, with reference to levels of species protection in receiving water in the ANZECC Guidelines (2018) 10. Compliance with any relevant industry codes of practice or guidelines 11. When required, the efficacy of a Stormwater Management Plan (Schedule 33) including measures adopted to minimise the risk of contaminants of concern entering stormwater to assist in meeting Schedule 26 target attribute states including: <ol style="list-style-type: none"> i. Installation of stormwater management devices including as detailed in table 3.1 of the Hawke's Bay Regional Council Industrial Stormwater Waterway Design Guidelines (2009). ii. Alignment with relevant industry guidelines and best practice standards 12. Duration of the consent 13. A compliance monitoring programme 14. Bonds or Administrative charges.

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion
TANK 23 Stormwater Diversion and discharge from local authority networks	Diversion and discharge of stormwater from an existing or new local authority managed stormwater network into water, or onto land where it may enter water	Controlled	<p>a) The diversion and discharge shall not:</p> <ul style="list-style-type: none"> i) cause any permanent bed scouring or bank erosion of land or any water course at or beyond that point of discharge ii) cause or contribute to flooding of any property, except where stormwater may be directed to a secondary flow path iii) cause any permanent reduction in the ability of the receiving environment to convey flood flows iv) Contain drainage from a stockyard v) Contain any direct connection from a sewage, blackwater or greywater system to the stormwater network vi) Cause to occur or contribute to any of the following after reasonable mixing: <ul style="list-style-type: none"> i. production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials ii. any emission of objectionable odour iii. any conspicuous change in colour or the visual clarity of the receiving water body (including the runoff from bulk earthworks) iv. any freshwater becoming unsuitable for consumption by farm animals v. the destruction or degradation of any habitat, mahinga kai, plant or animal in any water body or coastal water vi. exceedance of water quality targets for microbiological contamination <p>b) An application for resource consent must include an Integrated Catchment Management Plan in accordance with Schedule 33.</p>	<ol style="list-style-type: none"> 1. The efficacy of the Integrated Catchment Management Plan including, but not limited to: <ul style="list-style-type: none"> a. Its contribution to achieving water quality objectives b. its implementation programme and milestones c. The comprehensiveness and reliability of the monitoring regime d. The use of low impact stormwater design methods 2. The actual of potential effects of the activity on the target attribute states set out in Schedule 26 or where relevant for other attributes, with reference to levels of species protection in receiving water in the ANZECC Guidelines (2018) 3. The characteristics of the proposed discharge and its effects on the receiving environment 4. The actual or potential effects of the activity on the quality of source water for Registered Drinking Water Supplies and any measures to reduce the risk to the water quality including notification requirements to the Registered Drinking Water supplier irrespective of any treatment process for the Registered Drinking Water Supply 5. Duration of the consent 6. Review of consent conditions 7. Compliance monitoring 8. Administrative charges.
TANK 24 Stormwater discharge from industrial or trade premises	Discharge of stormwater to water or onto land where it may enter water from any industrial or trade premises	Restricted discretionary	<ol style="list-style-type: none"> a) An application for resource consent must include a Stormwater Management Plan (Schedule 33) b) The diversion and discharge: <ul style="list-style-type: none"> (i) shall not cause permanent bed scouring or bank erosion of land or alter the natural course of any water body 	<ol style="list-style-type: none"> 1. The efficacy of the Stormwater Management Plan (Schedule 33) including measures adopted to minimise the risk of contaminants of concern entering stormwater to assist in meeting Schedule 26 target attribute states or where relevant for other attributes, with reference to levels of species protection in receiving water in the ANZECC Guidelines (2018) including:

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion
			<ul style="list-style-type: none"> (ii) shall not cause or contribute to flooding of any property (iii) shall not cause any permanent reduction in the ability of the receiving environment to convey flood flows (iv) shall not contain hazardous substances, except petroleum hydrocarbons and the stormwater is passed through an interceptor and the discharge does not contain more than 15 milligrams per litre of total petrol hydrocarbons prior to release c) The diversion and discharge shall not cause any of the following to occur after reasonable mixing: <ul style="list-style-type: none"> i. production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials ii. any emission of objectionable odour iii. any conspicuous change in colour or the visual clarity iv. result in any freshwater becoming unsuitable for consumption by farm animals d) The diversion and discharge shall not cause to occur or contribute to: <ul style="list-style-type: none"> i. the destruction or degradation of any habitat, mahinga kai, plant or animal in any water body or coastal water ii. the discharge of microbiological contaminants, including sewage, blackwater, greywater or animal effluent e) Any structure associated with the point of discharge or diversion is maintained in a condition such that it is clear of debris, does not obstruct fish passage and is structurally sound. 	<ul style="list-style-type: none"> a. Design, installation and maintenance of stormwater management devices including as detailed in table 3.1 of the Hawke's Bay Regional Council Industrial Stormwater Waterway Design Guidelines (2009) b. Alignment with relevant industry guidelines and best practice standards 2. Water quality standards in the discharge in relation to any contaminants being used on site and specific methods for treating these 3. The actual or potential effects of the activity on the quality of source water for Registered Drinking Water Supplies and any measures to reduce the risk to the water quality including notification requirements to the Registered Drinking Water supplier irrespective of any treatment process for the Registered Drinking Water Supply 4. The characteristics of the proposed discharge and its effects on the receiving environment 5. Duration of the consent 6. Review of consent conditions 7. Compliance monitoring.
TANK 25 Stormwater activities	The diversion and discharge of stormwater into water, or onto land where it may enter water.	Discretionary	a) The activity does not comply with Rules TANK 21 to TANK 24.	

Chapter 6.9 Amendments to Regional Resource Management Plan Rules (see below underline/strikeout version of chapter 6)

Proposed Plan Change 9 proposes changes to Chapter 6 of the RRMP and make consequential changes to the rules and to insert new provisions relevant to the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments. The amendments subject to the Proposed Plan Change are shown below in bold with new text underlined and text to be deleted shown in strikeout. (Editor’s Note: Only the text shown underlined and in **bold** have been the subject of submissions)

Bore Drilling & Bore Sealing

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>1 Bore drilling <i>Refer POL</i> 17, 21, 27, 75</p>	<p>The drilling, construction, and alteration of bores.⁵</p>	<p>Controlled</p>	<p>a) The bore shall be cased and sealed to prevent aquifer cross-connection, and leakage from the ground surface into ground water b) <u>The bore is not located within a Source Protection Zone.</u></p>	<p>a) Bore location, diameter, depth. b) Bore screen slot size, length, depth and diameter. c) Well head completion. d) Backflow prevention. e) Information requirements, including bore logs, hydraulic head levels and aquifer tests. f) Duration of consent. g) Lapsing of consent. h) Review of consent conditions. i) Compliance monitoring.</p>	<p>Applications will generally be considered without notification, without the need to obtain the written approval of affected persons.</p>

⁵ For the purposes of this Plan, a ‘bore’ is defined as any pipe, cylinder or hole inserted into the ground that either

- i. is created for the purpose of accessing underground water, oil or gas, or
- ii. penetrates a confined aquifer, or
- iii. in any way causes the release of water from a confined aquifer, or
- v. is created for the purpose of exploring water, oil or gas resources.

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>2 Bore drilling that does not comply with Rule 1 Refer POL 17, 21, 27, 75</p>	<p>The drilling, construction, or alteration of bores that does not comply with Rule 1.</p>	<p>Restricted discretionary</p>		<p>a) Bore location diameter, depth. b) Bore screen slot size, length, depth and diameter. c) Bore head completion. d) Backflow prevention. e) Information requirements, including bore logs, hydraulic head levels and aquifer tests. f) <u>In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, the actual or potential effects of the bore and bore drilling on the quality of source water for Registered Drinking Water Supplies irrespective of any treatment process for the Registered Drinking Water Supply.</u> g) <u>and any measures to reduce the risk to the water quality including advising any affected Registered Drinking Water supplier of intent to drill prior to the activity occurring, the maintenance of the bore and the well head, including decommissioning the bore where necessary.</u> h) <u>In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, information to confirm compliance with conditions (a) to (f) shall be provided to the Council.</u> i) Duration of consent. j) Lapsing of consent. k) Review of consent conditions. l) Compliance monitoring.</p>	

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>4 Decommissioning of bores <i>Refer POL 75</i></p>	<p>The decommissioning or sealing of bores.</p>	<p>Permitted</p>	<p>a. Decommissioned bores shall be backfilled and sealed at the surface to prevent contamination of groundwater.</p> <p>b. Decommissioned holes and bores intersecting groundwater shall be sealed to prevent the vertical movement of groundwater, and to permanently confine the groundwater to the specific zone (or zones) in which it originally occurred.</p> <p>c. Backfill materials, where used between permanent seals, shall consist of clean sand, coarse stone, clay or drill cuttings. The material shall be non toxic.</p> <p>d. Decommissioning shall be undertaken by a suitably qualified person.</p> <p>e. The Council shall be advised of any bores that are decommissioned.</p> <p>f. <u>Where the bore is in a Source Protection Zone, information to confirm compliance with conditions (a) to (d) shall be provided to the Council.</u></p>		

Feedlots & Feedpads

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>5 Feedlots & feedpads⁶ Refer POL 71</p>	<p>The use of land for the purposes of operating a feedlot⁷ or feedpad⁸.</p>	<p>Permitted</p>	<p>a. The land used for the feedlot or feedpad shall be managed in a manner that prevents any seepage of contaminants into groundwater^{9,10}.</p> <p>b. The feedlot or feedpad shall be located no less than 20 m from any surface water body.</p> <p>c. The feedlot or feedpad shall be located no less than:</p> <ul style="list-style-type: none"> i. 150 metres from a residential building or any other building being part of a place of assembly on another site ii. 50 metres from a property boundary, and iii. 20 metres from a public road. <p>d. Runoff from the surrounding catchment area is prevented from entering the feedlot or feedpad.</p> <p><u>e. The feedpad or feedlot is not located in a Source Protection Zone.</u></p>		

⁶ Rule 5 only address the use of land for a feedlot or feedpad (and thus, the effects associated with having a high density of animals on one site). Any discharges of contaminants associated with the operation of a feedlot or feedpad, e.g. the use of stock feed and the management of animal effluent, are addressed under rules in sections 6.4 and 6.6 of this Plan. Any discharge of contaminants associated with the operation of a feedlot or feedpad, such as the disposal of animal wastes and the bedding material or the runoff of manure during heavy rainfall are addressed under Rules in Sections 6.4 and 6.6. Any discharge of contaminants to air are covered in Rule 21.

⁷ For the purposes of this Plan, a 'feedlot' is defined as an area of land upon which animals are kept and fed, for more than 15 days in any 30 day period, where the stocking density or feedlot structure (e.g. a concrete pad) precludes the maintenance of pasture or ground cover.

⁸ For the purposes of this Plan, a 'feedpad' is defined as an area of land to which animals are brought for supplementary feeding on a regular basis, where the stocking density or feedpad structure precludes the maintenance of pasture or ground cover.

⁹ Sealing - The Council will accept, as one means of compliance with condition (a), the construction of a sealing layer with a permeability of no greater than 10⁻⁹ m/s (0.00000001 m/s).

¹⁰ **Compliance** – At any time Council may request information from the operator of a feedlot or feedpad to confirm compliance with condition (a).

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>6 Feedlots & feedpads that do not comply with Rule 5¹¹ <i>Refer POL 17, 20, 47, 48, 71</i></p>	<p>The use of land for the purposes of operating a feedlot or feedpad, in a manner which does not comply with Rule 5.</p>	<p>Restricted discretionary</p>		<p>a) The conditions which the activity cannot comply with, and the related environmental effects. b) Duration of consent. c) Lapsing of consent. d) Review of consent conditions. e) Compliance monitoring. f) In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, the actual or potential effects of the activity on the quality of source water for Registered Drinking Water Supplies irrespective of any treatment process for the Registered Drinking Water Supply, and any measures to manage the risks to the water quality.</p>	

¹¹ Rule 6 only address the use of land for a feedlot or feedpad (and thus, the effects associated with having a high density of animals on one site). Any discharges of contaminants associated with the operation of a feedlot or feedpad, e.g. the use of stock feed and the management of animal effluent, are addressed under rules in sections 6.4 and 6.6 of this Plan. Any discharge of contaminants associated with the operation of a feedlot or feedpad, such as the disposal of animal wastes and the bedding material or the runoff of manure during heavy rainfall are addressed under Rules in Sections 6.4 and 6.6. Any discharge of contaminants to air are covered in Rule 21.

Vegetation Clearance and Soil Disturbance Activities

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>7</p> <p>Vegetation clearance and soil disturbance¹²</p> <p>29a</p> <p><i>Refer to POL 3, 67, 71</i></p>	<p>Vegetation clearance¹³ or soil disturbance¹⁴ activities.</p>	<p>Permitted</p>	<p>a) All cleared vegetation, disturbed soil or debris shall be deposited or contained to reasonably prevent the transportation or deposition of disturbed matter into any water body¹⁵.</p> <p>b) Vegetation clearance or soil disturbance shall not give rise to any significant change in the colour or clarity of any adjacent water body, after reasonable mixing.</p> <p>c) No vegetation clearance shall occur within 5 metres of any permanently flowing river, or any other river with a bed width in excess of 2 metres, or any other lake or wetland, except that this condition shall not apply to:</p>		

¹² Rule 7 does not apply to the trimming, felling, or removing of any tree or vegetation or earthworks, in relation to an existing high voltage electricity transmission lines. Refer to the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.

^{29a} Rule 7 does not apply to the harvesting, vegetation clearance and soil disturbance associated with plantation forestry activities. Refer to the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017.

¹³ "Vegetation clearance" means the cutting, burning, clearing or destruction (including destruction by spraying) of trees, shrubs, or plants.

¹⁴ "Soil disturbance" means the disturbance of soil by any means including blading, contouring, ripping, discing, root raking, moving, ploughing, removing, cutting and blasting. Vegetation clearance and soil disturbance exclude:

- The normal maintenance of legally established structures, roads, tracks, railway lines and river beds.
- The clearance of grasses, forest thinning, and agricultural and horticultural crops.
- The clearance of isolated or scattered regrowth on productive pasture.
- The clearance of any indigenous vegetation understorey beneath plantation forests.
- The clearance of noxious weeds covered by the Regional Plant Pest Management Strategy prepared under the Biosecurity Act, 1993.
- Non-motorised soil disturbance activities.
- Thrusting, boring, trenching or mole ploughing associated with cable or pipe laying or a network utility operation.
- Soil disturbance undertaken by a mine or quarry operation which either had a valid mining licence at the date the Proposed Regional Resource Management Plan was publicly notified (15 April 2000) or is lawfully established.
- Cultivation and grazing.
- Foundations works for structures.
- Construction and maintenance of fences and drains.

¹⁵ Explanation of Rule 7 (a): In considering whether condition (a) in Rule 7 has been met, Council shall have regard to recognised Industry Codes of Practice, Best Practice Guidelines and Environmental Management Plans relevant to and adopted in carrying out the activity.

NOTE: 10 kg/m² of dry soil is equivalent to 5 mm depth assuming a specific gravity of 2 kg/litre.

^{32a} NOTE: Rule 7(c) has been deleted to ensure the Regional Plan aligns with the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017 and does not conflict with, or duplicate the requirements within those Regulations.

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
			<p>the clearance of plantation forestry established prior to the date of this Plan becoming operative, or 32a the areas identified in Schedule X to this Plan.</p> <p>d. Deposition of soil or soil particles across a property boundary shall not be objectionable or offensive, cause property damage or exceed 10 kg/m².</p> <p>e. Where the clearance of vegetation or the disturbance of soil increases the risk of soil loss the land shall be:</p> <p>i. re-vegetated as soon as practicable after completion of the activity, but in any event no later than 18 months with species providing equivalent or better land stabilisation; or</p> <p>ii. retained in a manner which inhibits soil loss.</p> <p>f. <u>In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, there is no clearance of indigenous vegetation within 10m of any rivers except:</u></p> <p>i. <u>where the clearance is part of improvements to riparian management for water quality/biodiversity purposes as specified in the relevant Freshwater Farm Plan or Catchment Collective Plan</u></p> <p>ii. <u>where the clearance is necessary for construction of crossings or installation of a reticulated or network service.</u></p> <p>g) <u>In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments there is no cultivation of land over 20 degrees of slope except where it is less than 10% of the paddock area.</u></p> <p>h) <u>In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, there is no cultivation of land that results in exposure of bare soil within:</u></p> <p>i. <u>5 m of any river, modified watercourse or drain or lake or wetland where the land is flat to gently rolling (0-7 degrees of slope)</u></p> <p>ii. <u>10 m of any river, modified watercourse or drain or lake or wetland where the land is moderately rolling (>7 – 20 degrees of slope)</u></p> <p>iii. <u>15 m of any river, modified watercourse or drain or lake or wetland where the land is over 20 degrees of slope.</u></p> <p>i) <u>Except conditions h(i) – (ii) do not apply:</u></p> <p>i. <u>where cultivation is part of improvements to riparian management for water quality/biodiversity purposes as</u></p>		

			ii. <u>specified in the relevant Freshwater Farm Plan or Catchment Collective Plan where the cultivation is in relation to activities permitted by Rule 70.</u>		
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6.4.2 Agricultural Activities & Other Activities on Production Land - Discharges to Air/Land/Water

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
12 Stock feed Refer POL 12, 69, 71, 75	The discharge of contaminants into air, or onto or into land arising from the storage, transfer, treatment, mixing or use of stock feed ¹⁶ on production land, including silage.	Permitted¹⁷	<p>a) Any area in the Heretaunga Plains unconfined aquifer (Schedule Va) or the Ruataniwha Plains unconfined aquifer (Schedule IV) which is used for storing stock feed, including silage, and when there is a potential for contamination of groundwater by seepage of contaminants, shall be managed in a manner that prevents such contamination.</p> <p>b) Any discharges to air shall not cause any offensive or objectionable odour, or noxious or dangerous levels of gases, beyond the boundary of the subject property.</p> <p>c) There shall be no visible discharge of any material, including dust, beyond the boundary of the subject property, unless written approval is obtained from the affected property owner.</p> <p>d) The discharge shall not result in any airborne liquid contaminant being carried beyond the boundary of the subject property.</p> <p>e) There shall be no discharge within 20 m of any surface water body.</p> <p>f) There shall be no surface ponding in any area used to store stock feed or feed stock, and no runoff of contaminants into any surface water body.</p> <p>g) There shall be no discharge within 30 m of any bore or well.</p> <p>h) <u>Where the activity is in a Source Protection Zone, information to confirm compliance with conditions (a) to (g) shall be provided to the Council upon request.</u></p>		

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>13 Use of compost, biosolids & other soil conditioners¹⁸ <i>Refer POL</i></p>	<p>The discharge of contaminants into air, or onto or into land, arising from the storage, transfer, treatment, mixing or use of compost, biosolids and other (solid or liquid) organic material for soil</p>	<p>Permitted²¹</p>	<p>a) Any area in the Heretaunga Plains unconfined aquifer (Schedule Va) or the Ruataniwha Plains unconfined aquifer (Schedule IV) which is used for storing organic material and when there is a potential for contamination of ground water by seepage of contaminants, shall be managed in a manner that prevents such contamination.</p> <p>b) Any discharges to air shall not cause any offensive or objectionable odour, or noxious or dangerous levels of gases, beyond the boundary of the subject property.</p> <p>c) There shall be no visible discharge of any material, including dust, beyond the boundary of the subject property, unless written approval is obtained from the affected property owner.</p> <p>d) The discharge shall not result in any airborne liquid contaminant being carried beyond the boundary of the subject property.</p> <p>e) There shall be no surface ponding in the area used to store, mix or use the organic material, and no runoff of contaminants into any surface water body.</p> <p>f) There shall be no discharge within 30 m of any bore or well.</p> <p>g) The discharge shall occur no less than 600 mm above the winter ground water table.</p> <p>h) Where material is discharged onto grazed pasture, the application rate shall not exceed 150 kg/ha/y of nitrogen.</p> <p>i) Where material is discharged onto land used for a crop, the application rate shall not exceed the rate of nitrogen uptake by the crop.</p> <p>j) <u>Where the activity is in a Source Protection Zone, the storage or processing of compost or bio-solids and other soil conditions does not exceed 100 cubic metres of material.</u></p>		

¹⁶ For the purposes of this Plan, "stock feed" means organic material that can be consumed by farmed animals.

¹⁷ If Rule 12 cannot be complied with, then the activity is a restricted discretionary activity under Rule 30, or a discretionary activity under Rule 52, whichever is relevant.

²¹ If Rule 13 cannot be complied with, then the activity is a restricted discretionary activity under Rule 30, or a discretionary activity under Rule 52, whichever is relevant.

¹⁸ If Council receives complaints about an activity operating under this rule, the Council may request a management plan which sets out how the conditions are being met.

¹⁹ For the purpose of this rule "soil conditioning purposes" means the application of organic material to improve the structure and quality of the soil

²⁰ The composting of more than 100 m³ of compost and raw material per premises is regulated by Rule 28.

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>14 Animal effluent <i>Refer POL</i> 8, 12, 14, 17, 19, 47</p>	<p>The discharge of contaminants into air, or onto or into production land, arising from the management of liquid animal effluent²², including dairy shed effluent, piggery effluent, and poultry farm effluent²³, including associated sludges (except as provided for by Rules 13 & 15).</p>	<p>Controlled²⁴</p>	<p>a. Any area used for storing animal effluent, where there is a potential for contamination of groundwater by seepage of contaminants, shall be managed in a manner that prevents any such contamination.</p> <p>b. Either:</p> <p>i. there shall not be offensive or objectionable odour, or noxious or dangerous levels of gases or other airborne liquid contaminants, beyond the boundary of the subject property, or</p> <p>ii. for discharges of effluent from piggeries, every point of discharge shall be sited so as to meet the requirements of the "Code of Practice - Pig Farming" (New Zealand Pork Industry Board, 1997), in respect of buffer zone distances.</p> <p>c. There shall be no visible discharge of any material, including dust, beyond the boundary of the subject property, unless written approval is obtained from the affected property owner.</p> <p>d. There shall be no runoff of any contaminant into any surface water body.</p> <p>e. There shall be no discharge within 30 m of any bore or well.</p> <p>f. Where effluent is discharged onto grazed pasture, the nitrogen loading rate from the effluent application shall not exceed 150 kg/ha/y of nitrogen.</p> <p>g. 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.</p> <p>h. <u>The activity is not in a Source Protection Zone.</u></p>	<p>a. Amount of effluent per discharge.</p> <p>b. Frequency of discharge.</p> <p>c. Maintenance of vegetative cover.</p> <p>d. Buffer zone requirements.</p> <p>e. Measures to avoid a breach of the environmental guidelines for surface and groundwater quality set out in section 5.4 and 5.6.</p> <p>f. Management of cumulative adverse effects.</p> <p>g. For discharges of effluent from piggeries, use of the best practicable option for minimising discharges of odour beyond the boundary of the subject property.</p> <p>h. Duration of consent.</p> <p>i. Review of consent conditions.</p> <p>j. Compliance monitoring.</p>	<p>Applications may be considered without notification, without the need to obtain the written approval of affected persons, except that written approval of affected neighbours may be required for new consents, but upon renewal the approval of affected neighbours will not be required.</p>

²² For the purposes of this rule, "animal effluent" refers to animal excreta (excluding human waste) that is collected and managed by people, including associated process water and contaminants including associated process water, contaminants and sludges.

²³ Rule 14 covers the discharge of poultry effluent from poultry farms on land associated with the poultry farm, where the discharge is for the purpose of disposal.

²⁴ If Rule 14 cannot be complied with, then the activity is a restricted discretionary activity under Rule 30, or a discretionary activity under Rule 52, whichever is relevant.

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>15</p> <p>Discharge of animal effluent in sensitive catchments Refer POL 8, 17, 19, 20, 47</p>	<p>The discharge of contaminants into air, or onto or into production land, arising from the management of liquid animal effluent²⁵, including dairy shed effluent, piggery effluent, and poultry farm effluent in the following catchments as shown in Schedule VIb:</p> <ul style="list-style-type: none"> • Headwaters of Mohaka River • Headwaters of the Ngaruroro River • Maungawhio • Lake Hatuma • Lake Tutira • Heretaunga Plains unconfined aquifer • Ruataniwha Plains unconfined aquifer • Lake Whakaki • Headwaters of the Tūtaekurī River • Headwater of the Tukituki River. <p><u>Or in any Source Protection Zone</u></p>	<p>Discretionary</p>			

²⁵ For the purposes of this rule, “animal effluent” refers to animal excreta (excluding human waste) that is collected and managed by people, including associated process water and contaminants including associated process water, contaminants and sludges.

6.5.1 Water - Discharges to Water

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
31 Discharge of water²⁶ <i>Refer POL, 71, 79</i>	The discharge of water (excluding drainage water) into water ²⁷ .	Permitted²⁸	<p>a. The discharge shall not cause or contribute to the flooding of any property unless written approval is obtained from the affected property owner.</p> <p>b. The discharge shall not cause any scouring or erosion of any land or any watercourse beyond the point of discharge.</p> <p>c. The discharge shall not cause the natural temperature of any receiving water to be changed by more than 3°C from normal seasonal water temperature fluctuations, after reasonable mixing²⁹.</p> <p>d. <u>The discharge is not a discharge of groundwater into surface water in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū water quality management units.</u></p>		

ADVISORY NOTE:

1. **Discharge of water onto or into land** - Note that the discharge of water onto or into land is not restricted by the RMA.

²⁶ Rule 31 does not apply to the discharge of water into water in relation to an existing high voltage electricity transmission activity. Refer to the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.

²⁷ Discharges of sediment to surface water bodies as a result of scouring are covered by Rule 49.

²⁸ If Rule 31 cannot be complied with, then the activity is a discretionary activity under Rule 52.

²⁹ See Glossary for definition of "after reasonable mixing".

6.6.2 Drainage Water - Discharges to Land/Water

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>32 Discharge of drainage water (gravity flow systems) Refer POL 71, 72, 79</p>	<p>The diversion and discharge of drainage³⁰ water into water or onto or into land, from a gravity flow system (without pumping).</p>	<p>Permitted³¹</p>	<p>a. There shall be no adverse flooding effects on any property owned or occupied by another person, as a result of any discharge from the drainage activity.</p> <p>b. The discharge shall not cause any scouring or erosion of any land or any water course beyond the point of discharge.</p> <p>c. The activity shall not adversely affect any wetland³².</p> <p>d. The discharge shall not cause the natural temperature of any receiving water to be changed by more than 3°C from normal seasonal water temperature fluctuations, after reasonable mixing.</p> <p>e. Any discharge of water arising from a drainage system shall be to the same catchment³³ as that to which the water would naturally flow.</p> <p>f. Any suspended solids in the discharge shall comply with Policy 72 except in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū water quality management units.</p> <p>g. 10 years after the operative date of PC9, in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū water quality management units, dissolved nutrient and sediment concentrations in the receiving water after reasonable mixing shall not increase as a result of the discharge when measuring:</p> <p style="margin-left: 40px;"><u>i DIN</u></p> <p style="margin-left: 40px;"><u>ii DRP</u></p> <p style="margin-left: 40px;"><u>iii suspended sediment.</u></p>		

³⁰ 'Drainage' means the activity of lowering the water table to achieve productive land use to facilitate stability of land or structures, or to achieve some other resource use activity. This generally involves the diversion of water.

³¹ If Rule 32 cannot be complied with, then the activity is a discretionary activity under Rule 52.

³² For the purposes of this Plan the term 'wetland' does NOT include:

- wet pasture land
- artificial wetlands used for wastewater or stormwater treatment
- farm dams and detention dams
- land drainage canals and drains
- reservoirs for firefighting, domestic or municipal water supply
- temporary ponded rainfall
- artificial wetlands.

³³ 'Catchment' means the total area from which a single water body collects surface and subsurface runoff.

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>33</p> <p>Discharge of drainage water (pumped systems)</p> <p>Refer POL 71, 72, 79</p>	<p>The diversion and discharge of drainage³⁴ water into water or onto or into land, from a pumped system³⁵.</p>	<p>Controlled³⁶</p>	<p>a. There shall be no adverse flooding effects on any property owned or occupied by another person, as a result of the drainage activity.</p> <p>b. The discharge shall not cause any scouring or erosion of any land or any water course beyond the point of discharge.</p> <p>c. The activity shall not adversely affect any wetland.</p> <p>d. The discharge shall not cause the natural temperature of any receiving water to be changed by more than 3°C from normal seasonal water temperature fluctuations, after reasonable mixing.</p> <p>e. Any discharge of water arising from a drainage system shall be to the same catchment³⁷ as that to which the water would naturally flow.</p> <p>f. Any suspended solids in the discharge shall comply with Policy 72 <u>except in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū water quality management units.</u></p>	<p>a. Location of discharge.</p> <p>b. Rate of pumping.</p> <p>c. Time of pumping.</p> <p>d. Flood mitigation measures.</p> <p>e. Duration of consent.</p> <p>f. Review of consent conditions.</p> <p>g. Compliance monitoring.</p> <p>h. <u>For activities carried out in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū water quality management units, monitoring water quality to categorise the nature and extent (concentration and loads) of contaminants in the drainage water.</u></p>	<p>Applications will generally be considered without notification or the need to obtain the written approval of affected persons.</p>

³⁴ 'Drainage' means the activity of lowering the water table to achieve productive land use to facilitate stability of land or structures, or to achieve some other resource use activity. This generally involves the diversion of water.

³⁵ While the discharge of drainage water by gravity flow is a permitted activity, the discharge of drainage water from a pumped system requires a resource consent due to the potential adverse environmental effects of greater water flow, generated by a pumped system. The consent authority may require the ability to control the water flow from time to time, such as through temporary cessation of pumping or other means.

³⁶ If Rule 33 cannot be complied with, then the activity is a discretionary activity under Rule 52.

³⁷ 'Catchment' means the total area from which a single water body collects surface and subsurface runoff.

6.6.4 Domestic Sewage - Discharges to Land

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>37 New³⁸ sewage systems <i>Refer POL 16, 71, 75</i></p>	<p>Except as provided for in Rule 35 or Rule 36, the discharge of contaminants (including greywater) onto or into land, and any ancillary discharge of contaminants into air, from a new sewage system.</p>	<p>Permitted</p>	<ul style="list-style-type: none"> a. Where the wastewater receives no more than advanced primary treatment, the discharge shall be onto or into a property with a land area of no less than 2500m². b. aA. Where the wastewater receives more than advanced primary treatment then: <ul style="list-style-type: none"> i. the discharge shall be onto or into a property with a land area of no less than 1000m²; and ii. the net site area to discharge volume ratio shall not be less than 1.5 m² per litre per day ³⁹. c. The rate of discharge of sewage (including greywater) shall not exceed 2 m³/d, averaged over any 7 day period. d. The treatment and disposal system shall be designed to cater for the peak daily loading. e. The discharge shall not occur over the Heretaunga Plains or Ruataniwha Plains unconfined aquifer as shown in Schedule IV. f. The discharge and land treatment field shall not be within 20 m of any surface water body (including any stormwater open drain or roadside drain), or any tile drain or within 1.5 metres of any property boundary. g. eA. The system shall be designed and installed in accordance with the requirements specified in Figure 6. h. There shall be no surface ponding as a result of the discharge, or direct discharge into any water body. i. The discharge shall be distributed evenly over the entire disposal area. j. There shall be no increase in the concentration of pathogenic organisms in any surface water body as a result of the discharge. k. At the time of installation and commencement, the discharge shall not occur within 30 m of any bore drawing groundwater from an unconfined aquifer into which any contaminant may enter as a result of the discharge. l. The point of discharge shall be no less than 600 mm above the highest seasonal groundwater table. m. The discharge shall not result in, or contribute to, a breach of the "Drinking Water Quality Standards for New Zealand" (Ministry of Health, 2005 (Revised 2008)) in any groundwater body after reasonable mixing. n. The discharge shall not cause any emission of offensive or objectionable 		

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
			<ul style="list-style-type: none"> o. odour, or release of noxious or dangerous gases (including aerosols) beyond the boundary of the subject property or on any public land. p. For discharges using pit privies: <ul style="list-style-type: none"> i. the privy shall be constructed in soil with an infiltration rate not exceeding 150 mm/h, and ii. the privy shall not be the primary wastewater system for any permanently occupied dwelling. q. The system shall be designed, constructed, operated and maintained in a manner which ensures that there is no clogging of the disposal system or soils. r. The discharge shall not be into a trench or bed disposal system constructed in category 5 or 6⁴⁰ soil except where wastewater receives at least secondary treatment. s. Where the wastewater receives secondary treatment or better, the discharge shall not exceed 20 g/m³ of BOD, and 30 g/m³ of suspended solids. t. The wastewater treatment and land application system shall be maintained in accordance with the manufacturer's instructions, or if no manufacturer's instructions exist, in accordance with the best management practice as described in AS/NZS 1547, or TP58: On-site Wastewater Systems: Design and Management Manual (Auckland Regional Council Technical Publication No. 58), or other alternative recognised on-site wastewater design manuals. A schedule of maintenance shall be kept, and this schedule shall be available for inspection by the Regional Council upon request. u. The discharge shall not be disposed of by way of spray irrigation. v. The discharge shall not be into a raised bed. w. <u>The activity is not located in a Source Protection Zone.</u> 		

³⁸ NOTE: New sewage systems include those systems installed after this Plan becomes operative, as well as those lawfully established sewage systems that have been modified or replaced since 1 January 2012.

³⁹ NOTE: The net site area to discharge volume ratio can be calculated by dividing the net site area by the expected daily wastewater volume. If the answer is less than 1.5, the discharge does not comply with this condition. e.g. a 1000 m² property with a three bedroom home on it with maximum daily discharge volume of 1200 L (6 people at 200 L/p/d) has a ratio of 0.83 (1000/1200). This discharge would not comply with this condition.

⁴⁰ A category 5 soil is a light clay, permeability (Ksat) can range generally between 0.5 m/d (strongly structured) and <0.06 m/d (weakly structured or massive) and the soil is poorly drained. Clay content of approximately 35-40%. Category 6 soils are medium to heavy clays that are very poorly drained. The permeability of category 6 soils is generally less than 0.06 m/d. Clay content of over 40%.

Stormwater - Discharges to Land/Water

Insert after the heading;

Rules 42 – 46 do not apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River Catchments. Refer to Section 6.10 for the new Tūtaekurī, Ahuriri, Ngaruroro and Karamū rules for stormwater.

Take & Use of Water

Insert after the heading;

Rules 53 – 55 do not apply in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments Refer to Section 6.10 for the new Tūtaekurī, Ahuriri, Ngaruroro and Karamū rules for take and use of water.

6.7.3 Transfer of Water Permits

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
60 Transfer of permits to take & use surface water from a lake <i>Refer POL36</i>	The transfer of a permit to take and use surface water from a lake, to another site.	Permitted	a. The transfer is to another site within the same lake.		
61 Transfer of permits to take & use surface water from a river <i>Refer POL 36, 79</i>	The transfer of a permit to take and use surface water from a river to another site.	Controlled	a. The transfer is to another site within the same stream management zone, ⁴¹ where the flow is not significantly less than at the original site of abstraction. b. The transfer shall not result in any reduction in the rate of surface water recharge into groundwater. c. The transfer shall not adversely affect any lawfully established surface water abstraction, which existed prior to transfer of the take. d. The transfer shall not result in any increase in adverse effects on aquatic ecosystems or fish passage. e. <u>The transfer is not in any Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchment.</u>	a. Timing of take. b. Design of intake. c. Duration of consent. d. Review of consent conditions. e. Compliance monitoring. f. Volume of water required by, or reasonable needs of, transferee. g. In the Tukituki River catchment, the efficient use of water having regard to POL TT12.	Consent applications will generally be considered without notification, without the need to obtain the written approval of affected persons.

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>62 Transfer of permits to take & use groundwater <i>Refer POL 25, 77</i></p>	<p>The transfer of a permit to take and use groundwater, to another site.</p>	<p>Controlled</p>	<p>a. The transfer is to another site within the same aquifer. b. The transfer is to a location at which the aquifer has the same or greater aquifer transmission and storage characteristics. c. The transfer shall not adversely affect any lawfully established efficient groundwater abstraction,⁴² which existed prior to transfer of the take. d. The transfer shall not cause any reduction in the flow of any river or spring. e. <u>The transfer is not in any Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchment.</u></p>	<p>a. Aquifer testing. b. Duration of consent. c. Review of consent conditions. d. Compliance monitoring. e. Volume of water required by, or reasonable needs of transferee. f. In the Tukituki River catchment, the efficient use of water having regard to POL TT12.</p>	<p>Consent applications will generally be considered without notification, without the need to obtain the written approval of affected persons.</p>

⁴¹ “Stream Management Zone” refers to the reaches of a river and/or its tributaries governed by a single minimum flow site.

⁴² For the purposes of this Plan “efficient abstraction” of groundwater means abstraction by a bore which penetrates an aquifer from which water is being drawn at a depth sufficient to enable water to be drawn all year (i.e. the bore depth is below the range of seasonal fluctuations in groundwater level), with a pump capable of drawing water to the land surface.

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>Rule 62A</p> <p>Transfer of permits to take and use water (fix up DM)</p>	<p>Permanent or temporary transfer of water in accordance with S136(2)(b)(i) of the RMA</p>	<p>Controlled</p>	<p>a. <u>The transfer is the whole or any part of the holder's interest in the permit for taking and use of surface or groundwater:</u></p> <p>i. <u>To another person on another site</u></p> <p>ii. <u>To another site</u></p> <p>b. <u>The transfer is not between ground and surface water point of take</u></p> <p>c. <u>The permit is:</u></p> <p>i. <u>within the same catchment to any point downstream (excluding downstream tributaries) of the location to which the permit applies</u> <u>and</u></p> <p>ii. <u>the transfer is within the same Water Quantity Area</u></p> <p>d. <u>The transfer of a groundwater take is to an existing bore for which pump tests are available and there is no increase in the nature and scale of drawdown effects on neighbouring bores or connected water bodies as a result of the transfer</u></p> <p>e. <u>The transfer does not result in an increase in nitrogen loss exceeding the amounts as specified in Table 2 in Schedule 28</u></p> <p>f. <u>All parties to the transfer shall have metering and reporting at any applicable recording and reporting level</u></p> <p>g. <u>In fully or over-allocated water quantity areas, the transfer shall only be of that part of the permit for which there is Actual and Reasonable use</u></p> <p>h. <u>The purpose for the waer use does not change except:</u></p> <p>i. <u>that water takes for irrigation use may be transferred for irrigation of different crops subject to conditions (e) and (f)</u></p> <p>ii. <u>for transfers that enable the operation of a flow enhancement scheme (ref POL TANK 36)</u></p>	<p>a. <u>Any applicable conditions on the permit being transferred and any water use permit at the location the water is to be transferred to</u></p> <p>b. <u>The quantity, rate and timing of the take, including rates of take and any other requirements in relation to any relevant minimum flow or level or allocation limit or drawdown effects, including in relation to any Source Protection Zone for a registered drinking water supply</u></p> <p>c. <u>Compliance with any applicable minimum flows and levels including flow maintenance in any applicable stream.</u></p>	

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
			<p>iii. <u>the transfer enables efficient delivery of water supply to meet the communities' human health needs.</u></p> <p>Advisory Notes</p> <ul style="list-style-type: none"> • <u>For the purpose of (i), the transfer of water from any municipal use to any other municipal use is not considered a change in use.</u> • <u>Section 136(5) of the RMA provides that when notification of the transfer has occurred, the permit, or that part of the permit transferred shall be deemed to be cancelled, and the permit or part transferred shall be deemed to be a new permit subject to the same conditions as the original permit.</u> <p><u>Note that Rules TANK 4, 5 or 19 may be triggered as a result of a transfer activity.</u></p>		
Rule 62B <u>Transfer of permits to take and use water</u>	<u>Permanent or temporary transfer of water in accordance with S136(2)(b)(i) of the RMA</u>	Discretionary	a. The transfer is the whole or any part of the holder's interest in the permit for taking and use of surface or groundwater that does not comply with Rule 62A		

ADVISORY NOTE: Notifying transfers of water permits - Pursuant to section 136 of the RMA, the transfer of a water permit has no effect until written notice of the transfer has been received by the HBRC. In addition, section 136 also sets out the requirements for the transfer of a water permit in circumstances that do not comply with the rules above.

6.8.2 Erection & Placement of Dams & Other Barrier Structures, & Damming of Water

Insert after heading

Rule 69 does not apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments. Refer to Section 6.10 for the new Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchment rules for dams and damming.

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>67 Dams, weirs & other barrier structures in rivers, lakes and artificial water – courses^{150B} Refer POL 79</p>	<p><u>Except as prohibited by Rule TANK 18</u>, the erection or placement of any dam⁴³, weir or other barrier structure in, on, under, or over the bed of a river, lake and artificial watercourse, and:</p> <ul style="list-style-type: none"> any associated damming or diversion of water, and any associated discharge of sediment; and any associated disturbance of the river or lake bed. 	Permitted ⁴⁴	<p>a. The catchment area of the <u>new</u> structure shall not exceed 50 hectares.</p> <p>b. The volume of water to be stored or retained by the <u>new</u> structure to spill level shall not exceed 20,000 m³.</p> <p>c. The height of the structure (as measured vertically from the downstream bed to the crest) shall be no greater than 4 m.</p> <p>d. A spillway shall be constructed to prevent the <u>new</u> structure being overtopped during storm events, unless the structure is designed to allow overtopping.</p> <p>e. The impounded water shall not encroach onto any property, nor impede any drainage system, beyond the subject property unless agreed to in writing by any affected property owners.</p> <p>f. Erection or placement of the structure shall not cause any erosion, scour or deposition beyond the area of erection or placement.</p> <p>g. The impounded water shall not cause any erosion or instability of bordering land.</p> <p>h. Within rivers and lakes, provision shall be made to maintain existing fish passage within the water body and, where the water body is permanently flowing, provision shall be made to maintain a residual flow immediately downstream of the structure of at least 1.2 l/min per hectare of catchment above the structure, except at times where such flow would not have occurred prior to the construction of the structure.</p>		

^{150B} Rule 67 does not apply to dams, weirs & other barrier structures in rivers, lakes and artificial watercourses associated with plantation forestry activities. Refer to the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017

⁴³ Dams - Include stock water dams, Irrigation dams, fire-fighting dams and dams in artificial water courses.

⁴⁴ If Rule 67 cannot be complied with, then the activity is a discretionary activity under Rule 69.

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
			<p>i. Where the volume of water to be stored or retained by the structure to spill levels exceeds 10,000 m³ and where the structure is located within the catchment of a land drainage or flood control scheme area that is managed by a local authority exercising its powers, functions and duties under the Soil Conservation and River Control Act 1941, the Land Drainage Act 1908, or the Local Government Act 1974 the HBRC shall be informed about the erection or placement of the structure at least 15 working days prior to the commencement of works.</p> <p>j. There shall be no disturbance of any part of the bed covered by water from 1 May to 30 September (fish spawning season) except in relation to the erection of whitebait stands, maimai, and necessary access structures to these.</p> <p>k. In areas of fish spawning there shall be no disturbance of any part of the bed covered by water from 1 May to 30 September (fish spawning season) except in relation to the erection of whitebait stands, maimai, and necessary access structure to these.</p> <p>l. Conditions (a) to (d) do not apply to structures which are located in a land drainage or flood control area that is managed by a local authority exercising its powers, functions and duties under the Soil Conservation and Rivers Control Act 1941, the Land Drainage Act 1908 or the Local Government Act 1974.</p>		
<p>68 Existing damming of water in rivers and lakes <i>Refer POL 79</i></p>	<p>Any existing damming of water associated with a lawfully established dam⁴⁵, weir, or other barrier structure in, on, under, over the bed of a river, lake or artificial water course that is not provided for by Rule 67.</p>	<p>Controlled</p>	<p>a. The impounded water shall not encroach onto any property beyond the subject property, unless agreed to in writing by any affected property owners.</p>	<p>a. Stability of the land bordering the dam. b. Residual downstream flow. c. Flood risk in the event of failure. d. Maintenance of structure. e. Duration of the consent. f. Review of consent conditions. g. Compliance monitoring.</p>	<p>Consent applications will generally be considered without notification without the need to obtain the written approval of affected persons.</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>69 River & lake bed activities that are not expressly regulated by other rules <i>Refer POL 79</i></p>	<p><u>Except within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments</u> Any activity which cannot comply with any of the rules in section 6.8 of this Plan and which is not expressly regulated by other rules in this Plan.</p>	<p>Discretionary</p>			

⁴⁵ Dams - Include stock water dams, Irrigation dams, fire-fighting dams and dams in artificial water courses.

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p>71 Activities affecting river control & drainage schemes^{48,49} <i>Refer POL 79</i></p>	<p>Any of the following activities, where they are undertaken by persons other than the local authority or persons acting on their behalf, within a land drainage or flood control scheme area that is managed by a local authority exercising its powers, functions and duties under the Soil Conservation and Rivers Control Act 1941, the Land Drainage Act 1908, or the Local Government Act 1974:</p> <ul style="list-style-type: none"> • The introduction or planting of any plant including any tree in, on, or under the bed of any river, lake or artificial water course, or within 6 metres of the bed <u>except that this provision does not apply to rivers in the Karamū catchment.</u> • The erection of any building, fence or other structure in, on, or under the bed of any river, lake or artificial water course, or within 6 metres of the bed. • The deposition of any rock, shingle, earth, debris or other substance in, on, or under the bed of any river, lake or artificial water course, or within 6 metres of the bed. • The reclamation or drainage of the bed of any river, lake or artificial water course. • The undertaking of any other land disturbance activity which impedes access to the bed of any river, lake or artificial water course, or within 6 metres of the bed. • The erection of any structure and the undertaking of any land disturbance activity which interferes with • the integrity of any defence against water.⁵⁰ 	<p>Discretionary⁵¹</p>			

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
71A Activities affecting river control & drainage schemes ^{48,49}	The introduction or planting of any plant including any tree in or on the bed of a river, lake or artificial watercourse or within 6 metres of the bed of any river within the Heretaunga Plains Flood Control and Drainage Scheme.	Permitted	a. The planting complies with the planting design, including species, setbacks and density requirements specified in Hawke's Bay Regional Council's Water Way Planting Guide for the Heretaunga Plains Flood Control and Drainage Scheme (date)		

⁴⁷ For the purpose of this Plan the term 'wetland' does NOT include:

- wet pasture land artificial wetlands used for wastewater or stormwater treatment
- farm dams and detention dams land drainage canals and drains
- reservoirs for firefighting, domestic or municipal water supply temporary ponded rainfall
- artificial wetlands.

⁴⁸ It is important to note that the Hawke's Bay Regional Council owns much of the land within River Control and Drainage Schemes, and thus has landowner rights and responsibilities in relation to this land.

⁴⁹ Any activity permitted by Rules 64 and 65 is not subject to Rule 71.

⁵⁰ "Defence against water" includes stopbanks and their foundations.

⁵¹ The ongoing maintenance or repair of any structure authorized by a resource consent pursuant to Rule 71 is permitted pursuant to Rule 64.

SCHEDULES

Insert the following new Schedules after Schedule 25

- Schedule 26
- Schedule 27
- Schedule 28
- Schedule 29
- Schedule 30
- Schedule 31
- Schedule 32
- Schedule 33
- Schedule 34

Chapter 9 Glossary of Terms Used

Insert or amend meanings for the following words and terms into the Glossary. Note that where a term is already included, its meaning is only changed in respect of the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments.

Actual and Reasonable in relation to applications to take and use water means:

- a) no more than the quantity specified on the permit due for renewal or any lesser amount applied for; and the least of either:
- b) the maximum annual amount as measured by accurate water meter data in the ten years preceding 2 May 2020 if accurate water meter data is available. (If insufficient or no accurate data is available either clause a) or c) will apply)
or
- c) 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 with an equivalent method), and to a 95% reliability of supply where the irrigated area is:
 - (i) no more than in the permit due for renewal, or any lesser amount applied for, and in the case of Heretaunga Plains Groundwater Quantity Area, is not more than the amount irrigated in the ten years preceding 2 May 2020 and
 - (ii) evidence is supplied to demonstrate that the area has, and can continue to be, irrigated and the permit substantially given effect to

In applying the IRRICALC model, the Council will take into account any water meter data that is applicable.

Allocation limit for surface water means the maximum quantity that is able to be allocated in water permits and abstracted for consumptive water use, expressed in litres per second and calculated as the average rate required to abstract the maximum weekly or 28 day volume allocated to each water permit and summed for all water permits in the applicable management unit

Allocation limit for groundwater means the maximum quantity that is able to be allocated in water permits and abstracted during each year, expressed in cubic metres per year, and is calculated as the sum of maximum water permit allocations for the groundwater zone. Allocations for irrigation will be calculated on the basis of the irrigation period of November- May. The Heretaunga Plains Water Groundwater Quantity Area groundwater allocation limit will be in addition to water taken and used for frost protection which is expressed as an instantaneous take in litres per second and calculated as the sum of water permit allocations.

Allocation limit for high flow takes means the maximum quantity that is able to be allocated and abstracted at times of high flow in water permits expressed in litres per second as an instantaneous flow and calculated as the sum of the instantaneous flow allocations in water permits for a river or management zone including as specified in Schedule 31.

Application Efficiency (AE) means the percentage of applied water that is retained in the crop root zone or in the target area after an irrigation event. To meet good irrigation management practice, 80% of water applied must be retained in the crop root zone.

Aquifer testing means taking and using groundwater at a constant rate not exceeding 3 consecutive days in any 28 day period to test attributes and characteristics of an aquifer and/or groundwater. Those characteristics may include transmissivity, storativity and chemical composition. It does not include the taking or use of groundwater where a device is connected to that might result in variability of water flow.

Arable land use is as defined by Part 9 of the RMA.

The use of land to grow any of the following crops for harvest:

- (a) grain cereal, legumes, or pulse grain*
- (b) herbage seed*
- (c) oilseed*
- (d) maize grain, maize silage, cereal silage, or mangels*
- (e) crops grown for seed multiplication*
- (f) a crop prescribed in regulations made under section 217M(1)(a)*

Consumptive water use means any use of fresh water that alters the flows and or levels in a water body on either a temporary or permanent basis, but excludes any non-consumptive use where:

- (a) the same amount of water is returned to the same water body at or near the location from which it was taken and
- (b) there is no significant delay between the taking and returning of the water.
- (c) For the purposes of provisions in this Plan, the term 'consumptive use' does not apply to water used in hydro-electric power generation or water use or diversions which substantially return the water used to the same water body.

Crop rotation means the systematic planting of different crops in sequence over multiple years within the same growing space or across changing land parcels, and often including a pasture phase^{180.80, 180.31}.

Essential human health needs means the proportion of water supplied to residential and other end users for essential human health needs and will be calculated at a rate of 200 litres per person per day (l/p/d).

Freshwater Farm Plan means a plan that has been prepared in accordance with the requirements of Schedule 29 and which is implemented by a landowner or on behalf of a landowner.

Farm is as defined by Part 9 of the RMA. *A farm where all or part of the farm is—*

- (a) *arable land use; or*
- (b) *horticultural land use; or*
- (c) *pastoral land use; or*
- (d) *other agricultural land use prescribed in regulations under section 17M(1)(b); or*
- (e) *any combination of the above*

And a farm can include an aggregation of parcels held in single or multiple ownership (whether or not held in common ownership) that constitute a single farming operating unit

Farm Operator is as defined by Part 9 of the RMA *The person with ultimate responsibility for the operation of a farm.*

Flushing Flows mean river flows that are small floods or freshes that have the ability to mobilise fine deposited sediment (sand and silt) from the river bed and are sometimes called surface flushing flows. The movement of this sediment also scours algae from the larger gravels, cobbles and boulders (substrate) leaving a “clean” river bed

Forestry Management Plan means a harvest plan or management plan as provided for in the National Environmental Standards for Plantation Forestry; 2017.

Fre₃ means a flow that is at least three times above the median flow for a river as determined by the Regional Council records.

Hapū (In Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments) means kinship group, section of a large kinship group and the primary political unit in traditional Māori society.

Heretaunga Plains Groundwater Model is a numerical model for the waters of the Heretaunga Plains and meets the requirements for artesian head and stochastic uncertainty analysis as provided for in Schedule 34

Horticultural land use is as defined by Part 9 of the RMA *The use of land to grow food or beverage crops for human consumption (other than arable crops), or flowers for commercial supply.*

Indigenous vegetation for the purposes of rules regulating removal of vegetation, means any area of naturally occurring vegetation where the cover of indigenous plants is the same as or greater than exotic plants but excludes any indigenous vegetation which grows beneath plantation forestry.

Infrastructure Leakage Index is a performance indicator of real (physical) water loss from a water supply network of water distribution developed by the International Water Association and included in the New Zealand BenchlossNZ manual and which outlines performance indicators for NZ.

Insufficient or no accurate water meter data in relation to Actual and Reasonable water use means:

- a) where there is no or incomplete water use data for an irrigation season or, for other water uses, a water year, within the ten year period up to 2020 that would otherwise be the year reflecting their maximum annual amount.
- b) where there is no or incomplete seasonal water use recorded as a result of water use restrictions or bans being imposed by HBRC or as a result of consent conditions.

Kaitiakitanga; add: “and in Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments is passed down through generations via whakapapa, and iwi/hapū/whānau use obligations”.

Proposed Plan Change 9 (Tūtaekurī, Ahuriri, Ngaruroro & Karamū catchments)

Ki uta ki tai – means the movement of water from mountains to sea, through the landscape and the numerous interactions it may have on its journey. Ki uta ki tai acknowledges the connections between the atmosphere, surface water, groundwater, land use, water quality, water quantity, and the coast. It also acknowledges the connections between people and communities, people and the land, and people and water.

Land Use Change means a change from one leaching level to a higher leaching level as shown in Table 1 of Schedule 28 or where the area of intensive winter grazing is changed by more than the amounts specified. Land use change does not include where there is arable or vegetable cropping on a rotational basis (including with animal grazing), and including on lease land at variable locations, where the total area of arable or vegetable cropping on that farm does not change by more than the amounts specified.

Mahinga Kai insert: “and in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments mahinga kai generally refers to places where indigenous freshwater species have traditionally been sourced. Mahinga kai provide food for the people of the rohe and the species obtained give an indication of the overall health of the catchment. For this value, kai would be safe to harvest and eat and intergenerational knowledge transfer is maintained. In freshwater management units that are highly valued for providing mahinga kai, the desired species are plentiful enough for long- term harvest and the range of desired species is present across all life stages.

Māori means the native people of New Zealand.

Marae A marae is the ground space in front of a traditional whare nui (meeting house) where important speech making takes place and iwi/hapū matters of state are discussed openly. Nowadays it encompasses the whole complex, including the whare nui, whare kai (dining house) and ancillary facilities.

Mātauranga Māori is the indigenous Māori world view and knowledge of the environment in which we live

Mauri Insert: “and in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments mauri refers to the life force that defines the health of the natural world, in this case water. In the Māori world view, all-natural things have mauri, both animate and inanimate. Within freshwater environments, the manifestation of healthy mauri is abundant and healthy water and aquatic resources, including the fish, insects, birds and plants that interact with the water.”

Nutrient Management Budget means a calculation that compares plant nutrient demand and supply to assist with appropriate nutrient applications and nutrient management. The budget can be crop specific or at the property scale.

Papakāinga are groups of three or more houses usually developed on multiple owned Māori land.

Pastoral land use is as defined by Part 9 of the RMA *The use of land for the grazing of livestock*.

Registered Drinking Water Supply (or Supplies) means a drinking water supply that is recorded in the drinking water register maintained by the Chief Executive of the Ministry of Health (the Director-General) under section 69J of the Health Act 1956 that provides no fewer than 25 people with drinking water for not less than 60 days in each calendar year.

River - defined as in the RMA. This will be interpreted to align with the implementation for Tukituki PC and applies to all flowing permanent and intermittent rivers/creeks, lakes and wetlands. An intermittent river or creek is a waterway that periodically flows and has a defined river bed that is predominantly un-vegetated and comprised of silt, sand, gravel and similar.

Source Protection Zone (SPZ) means an area surrounding the point of take for a registered drinking water supply that provides no fewer than 501 people with drinking water for not less than 60 days in each calendar year where plan provisions apply and includes any provisional Source Protection Zone and is defined by methods specified in Schedule 34 (information about the location of SPZs can be found on the Council's webpage).

Source Protection Extent is an area surrounding the point of take for a registered drinking water supply that provides no less than 25 and no more than 500 people with drinking water for not less than 60 days in each calendar year and includes any Provisional Source Protection Extent and is defined by methods specified in Schedule 34 (information about the location of these areas can be found on the Council's webpage).

Stream Depletion Calculator is a publicly available tool that the Hawke's Bay Regional Council has developed to quantify the stream depleting effects of groundwater abstractions in the Heretaunga Plains. The calculator is based on the Heretaunga numerical groundwater model but enables very rapid stream depletion assessments.

TANK Industry Programme or a TANK Catchment Collective is a group of people meeting the requirements of Schedule 29 Section A and which has a Catchment Collective or Industry Programme that has been prepared in accordance with the requirements of Schedule 29 Section B by a person with the professional qualifications necessary to prepare such a Programme.

Waka ama the Pacific outrigger canoeing traditional sport

Consequential Amendments to Chapter 5 of the Regional Resource Management Plan

As a consequence of the new chapters 5.10 and 6.10, amendments have been made to the following parts of Chapter 5 of the operative plan:

Chapter 5.4 Surface Water Quality. The Tūtaekurī, Ahuriri, Ngaruroro and Karamū River Catchments are excluded from this chapter.

Chapter 5.5 Surface Water Quantity. The Tūtaekurī, Ahuriri, Ngaruroro and Karamū River Catchments are excluded from this chapter.

Chapter 5.6 Groundwater Quality; The Tūtaekurī, Ahuriri, Ngaruroro and Karamū River Catchments are excluded from this chapter.

Chapter 5.7 Groundwater Quantity

The amendments listed above are shown in **bold** text with new insertions underlined and with deletions shown as ~~bold strikethrough~~ over the pages that follow. (Note; Submissions can only be made in respect of the amended text).

Editor's note: Once Plan Change 9 is operative, it will be incorporated into the Regional Resource Management Plan. There will be consequential amendments made at that time to clarify some interim policies no longer apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments. Those interim policies were inserted into the RRMP by earlier versions of the NPSFM. Those earlier NPSFMs had directed amendments to be made without using the RMA's Schedule 1 process.

Surface Water Quality

Insert under heading:

The provisions of Chapter 5.4 do not apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments.

Table 8. Environmental Guidelines – Surface Water Quality Part II - Guidelines that Apply to Specific Catchments

Catchment Area	Faecal Coliforms (cfu/100 ml)	Suspended Solids (mg/l)
Aropaoanui River	200	50
Clive Rivers and tributaries	200	40
Esk River	200	50
Ikanui Stream	200	50
Kopuawhara Stream	200	50
Mangakuri Stream	200	50
Maraetotara River	200	50
Mohaka River	50	10
Ngaruroro River upstream of Fernhill Bridge	50	40
Ngaruroro River between Fernhill Bridge and Expressway Bridge	400	25
Ngaruroro River downstream of the Expressway Bridge	150	25
Opoutama Stream	200	50
Porangahau River	200	50
Puhokio Stream	200	50
Taharua Stream	50	10
Tūtaekurī River upstream of Redclyffe Bridge	50	40
Tūtaekurī River between Redclyffe Bridge and SH50	400	25
Tūtaekurī River downstream of the Expressway Bridge	150	25
Waingonoro Stream	200	50
Waipatiki Stream	200	50
Waipuka Stream	200	50
Wairoa River and tributaries upstream of Frasertown	100	25
Wairoa River at and downstream of Frasertown	200	25

These guidelines apply after reasonable mixing and disregarding the effect of any natural perturbations that may affect the water body, as set out in Policy 72.

* The figures in Table 8 represent concentrations of contaminants in the water body that should not be exceeded after reasonable mixing.

Surface Water Quantity

Insert under heading:

The provisions of Chapter 5.5 do not apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments

POL 74 IMPLEMENTATION OF ENVIRONMENTAL GUIDELINES - SURFACE WATER QUANTITY

Resource Allocation: To define the allocatable volume as being the difference between the summer 7- day Q95 and the minimum flow.

To implement the environmental guidelines for surface water quantity predominantly in the process of making decisions on **resource consents** in accordance with section 104 (1)(b) of the RMA, through Table 9.

Table 9. Minimum Flow and Allocatable Volumes for Specified Rivers

River name	Minimum Flow Site Name	Minimum Flow (l/s)	Allocatable Volume (m ³ /week)	Map Reference
Awanui Stream	At The Flume	120	0	V21:357613
Awanui Stream	At Paki Paki Culvert	35	0	V21:351608
Esk River	At Shingle Works	1,400	355,018	V20:432945
Esk River	At SH2	1,000		V20:438939
Irongate Stream	At Clarks Weir	100	0	V21:367666
Karamū River	At Floodgates	1,100	18,023	V21:427708
Karewarewa River	At Turamoe Road	75	-	V21:341622
Louisa Stream	At Te Aute Road	30	0	V21:410625
Mangateretere Stream	At Napier Road	100	0	V21:438659
Maraekakaho River	At Taits Road	100	5,443	V21:170668
Maraetotara River	At Te Awanga Bridge	220	30,971	W21:520661
Ngaruroro River	At Fernhill Bridge	2,400	956,189	V21:330729
Nuhaka River	At Valley Road	80	41,731	X19:225329
Ongaru Drain	Wenley Road	5	0	V21:234653
Pouhokio Stream	At Allens Bridge	80	-	V22:498441
Poukawa Inflow	Site No. 1 (d/s dam)	10	0	V22:282504
Poukawa Inflow	Site No. 1a (u/s dam)	10	0	V22:285502
Poukawa Inflow	Site No. 6	3	0	V22:266478
Poukawa Stream	At Douglas Road	20	0	V22:298533
Raupare Stream	At Ormond Road	300	83,844	V21:398713
Te Waikaha Stream	At Mutiny Road	25	-	V22:361572
Trib. of Kauhauroa Stream	(Taylors)	5	0	X19:970397
Tūtaekurī River	At Puketapu	2,000	928,972	V21:357812
Tūtaekurī Waimate	At Goods Bridge	1,200	367,114	V21:384751
Waimaunu Stream	At Duncans	10	15,304	X19:229300

Groundwater Quality

Insert after Heading:

The provisions of Chapter 5.6 do not apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments

OBJECTIVES

OBJ 42 No degradation of existing groundwater quality in aquifers ~~in the Heretaunga Plains aquifer system.~~

POLICIES

POL 75 ENVIRONMENTAL GUIDELINES - GROUNDWATER QUALITY

- Other than in the productive aquifer systems in the Tukituki River catchment **and the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments**, to manage the effects of activities affecting the quality of groundwater in accordance with the environmental guidelines set out in Table 10.

Table 10. Environmental Guidelines – Groundwater Quality

CONFINED, PRODUCTIVE AQUIFERS IN THE HERETAUNGA PLAINS AQUIFER SYSTEM (as shown in Schedule IV)	
1. No degradation	There should be no degradation of existing water quality.
OTHER PRODUCTIVE AQUIFERS	
1. Human consumption	The quality of groundwater should meet the “Drinking Water Quality Standards for New Zealand” (Ministry of Health, 1995) without treatment, or after treatment where this is necessary because of the natural water quality.
2. Irrigation	The quality of groundwater should meet the guidelines for irrigation water contained in the “Australian Water Quality Guidelines for Fresh and Marine Waters” (Australian and New Zealand Environment and Conservation Council, 1998) without treatment, or after filtration where this is necessary because of the natural water quality.

Groundwater Quantity

Insert after the heading:

The provisions of Chapter 5.7 do not apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments

Consequential Amendments to Chapter 7 of the Regional Resource Management Plan

As a consequence of the new chapters 5.10 and 6.10, amendments have been made to the following parts of Chapter 7 Information Requirements for Consent Applications of the operative plan: Chapter 7.7 Water Takes, Uses, Damming & Diversions.

The amendments are shown in **bold** text with new insertions underlined and with deletions shown as ~~strike through~~.

Section 7.7.1 Take and Use of Groundwater

TAKE AND USE OF GROUNDWATER

Refer to Rule 55 and Rules TANK 8 to 11

- a) Location of the take.
- b) Purpose for which water is to be taken.
- c) Where water is to be taken for crop irrigation, a description of:
 - i. type of crop to be irrigated
 - ii. area of crop to be irrigated
 - iii. method of irrigation, including scheduling.
- d) Maximum volume of water to be taken.
- e) Rate at which water is to be taken.
- f) Description of bore(s) from which water is to be taken.
- g) Results of any pump tests carried out.
- h) Description of any water conservation measures.
- i) The identity and location of neighbouring abstractors likely to be affected.
- j) Description of likely detrimental effects of the activity, particularly on nearby bores, springs and surface water bodies, and any action proposed to reduce such effects.
- k) The details of any bore including diameter, depth, screen location, static water level and bore log.
- l) **Where an application is made in respect of water takes in TANK quantity areas that are over-allocated, including in the Heretaunga Plains groundwater quantity area, information may be required to support increases in water use at rates or amounts greater than historic levels of water use as defined by Actual and Reasonable use, including:**
 - i. **Details of the existing investment that would be affected by capping water use to historic levels.**
 - ii. **evidence of programmed future development or staged growth that was dependent on access to increasing water use available.**
 - iii. **the degree to which the water use complies with industry good practice in relation to the water use activity, including adoption of technology, production systems and efficient water use.**
 - iv. **the degree to which the amount of water being applied for was depended on in making investment decisions.**

Insert in section 7.7.2 Take and Use of Surface Water:

TAKE AND USE OF SURFACE WATER

Refer to Rule 55 and Rules TANK 9, 10 and 13

- a. Purpose for which water is to be taken.
- b. Where water is to be taken for crop irrigation, a description of:
 - i. type of crop to be irrigated
 - ii. area of crop to be irrigated
 - iii. method of irrigation, including scheduling.
- c. Maximum volume of water to be taken.
- d. Rate at which water is to be taken.
- e. Source of water, and description of water resource.
- f. Intake screening and associated structure.
- g. Description of any water conservation measures.
- h. The identity and location of other abstractors within the vicinity.
- i. Description of likely detrimental effects of the activity, particularly on the natural character of the surface water body, the quantity or flow of water in the water body, downstream users, aquatic ecosystems, and ground water bodies, together with any action proposed to reduce such effects.
- j. **Where an application is made in respect of water takes in TANK quantity areas that are over-allocated, including in the Heretaunga Plains groundwater quantity area, information may be required to support increases in water use at rates or amounts greater than historic levels of water use as defined by Actual and Reasonable use, including:**
 - i. **Details of the existing investment that would be affected by capping water use to historic levels.**
 - ii. **evidence of programmed future development or staged growth that was dependent on access to increasing water use available**
 - iii. **the degree to which the water use complies with industry good practice in relation to the water use activity, including adoption of technology, production systems and efficient water use**
 - iv. **the degree to which the amount of water being applied for was depended on in making investment decisions.**

Schedule 26: Freshwater Quality Objectives

Schedule 26 is re-presented to align with the NOF framework in the NPS-FM.

Introduction to Schedule 26 Freshwater Quality Objectives

For water quality management, the TANK catchments have been divided into 5 separate areas:

Tūtaekurī Catchment

Ahuriri Catchment

Ngaruroro Catchment

Karamū Catchment

Ahuriri Estuary / Te Whanganui-a-Orotū and Waitangi Estuary

Maps

Refer to Schedule 26 Map Index and Schedule 26 Maps 1 - 5.

Baseline data

Baseline data in Schedule has been obtained from the reports listed below unless otherwise specified in the Schedules:

Haidekker, S., Uytendaal, A., Hicks, A., Wade, Wade, H., Lyon, Madarasz-Smith, A.L., 2016. Ngaruroro, Tūtaekurī, Karamū River and Ahuriri Estuary Catchments: State and Trends of River Water Quality and Ecology (No. 4787). Hawke's Bay Regional Council, Napier.

Haidekker, S. (2021) Unpublished data.

Madarasz-Smith, A., Shanahan, B., 2020. State of the Hawke's Bay Coastal Marine Environment: 2013 to 2018 (No. 5425). Hawke's Bay Regional Council, Napier.

Madarasz-Smith, A.L., 2018. Proposed trigger levels for TANK estuaries Waitangi and Ahuriri Estuaries (No. 5027). Hawke's Bay Regional Council, Napier.

Madarasz-Smith, A.L., Shanahan, B., Ellmers, J., 2019. Recreational Water Quality in Hawke's Bay State of the Environment: 2013 - 2018 (No. 5403). Hawke's Bay Regional Council, Napier.

Schedules 26.1 – 26.5

Insert Schedules as follows:

SCHEDULE 26.1: TŪTAEKURĪ CATCHMENT

Refer to Schedule 26 Map 1

Vision
<to be drafted through Kotahi Review process>

Outcomes
This sits in the body of the plan. Refer to TANK Objectives 9 and 11

TABLE 26.1.1a: Ecosystem Health (Water quality)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR					
DIN (mg/L)	Median 5 years All flows	Headwaters (Upper Tūtaekurī)	Default	No/Insufficient data	< 0.05	< 0.05	Blue: (≤ 0.05) Green: (≤ 0.05 and < 0.15) Yellow: (≤ 0.15 and < 0.3) Red: (> 0.3) Light Green: (≤ 0.444) Below ANZECC default guideline value, unlikely to be concerning.	Algal growth	<ul style="list-style-type: none"> • Uu • Waimaori • Mauri • Mahinga kai, taonga/tohu species • Estuary ecosystem health • Recreation • Aquifer recharge • Natural character • Abstractive uses • Drinking water 					
			Lawrence Hut	0.016	Maintain	Maintain								
		Main stem (Lower Tūtaekurī)	Default	No/Insufficient data	<0.15	<0.15								
			u/s Mangaone River	0.182	<0.15	<0.15								
			Brookfields Bridge / Puketapu	0.172	<0.15	<0.15								
		Hill country tributaries	Default	No/Insufficient data	<0.444	<0.444								
			Mangatutu Stream	0.45	<0.444	<0.444								
			Mangaone River (Rissington)	0.326	<0.444	<0.444								
		Ammonia (mg NH ₄ -N/L) NOF Table 5	Annual median Annual max Unionised ammonia based on pH at 20°C All flows	Headwaters	Default	No/Insufficient data				Median ≤ 0.03 Max ≤ 0.05	Median ≤ 0.03 Max ≤ 0.05	A band (blue): (Median ≤ 0.03; Max ≤ 0.05) 99% species protection level, no observed effect on any species tested. B band (green): (Median > 0.03 and ≤ 0.24; Max >0.05 and ≤ 0.40) 95% species protection; starts impacting occasionally on the 5% most sensitive species. C band: (red, below national bottom line): (Median > 0.24 and ≤ 1.30; Max > 0.40 and ≤ 2.20) 80% species protection; starts impacting regularly on the 20% most sensitive	Toxicity	<ul style="list-style-type: none"> • Waimaori • Mauri • Indigenous taonga/tohu species habitat and spawning, ahu moana • Aquifer recharge • Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use
					Lawrence Hut	Med 0.002 A Max 0.006 A				Maintain	Maintain			
Main stem	Default			No/Insufficient data	Median ≤ 0.03 A Max ≤ 0.05 A	Median ≤ 0.03 A Max ≤ 0.05 A								
	u/s Mangaone River			Med 0.007 A Max 0.017 A	Maintain	Maintain								
	Brookfields Bridge /			Med 0.012 A										

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR		
			Puketapu	Max 0.024 A			species (Reduced survival of most sensitive species). D band (purple, below national bottom line): (Median > 1.30; Max > 2.20) Starts approaching acute impact level (that is, risk of death) for sensitive species.				
		Hill country tributaries	Default	No/Insufficient data	Median ≤ 0.03 A	Median ≤ 0.03 A					
					Max ≤ 0.05 A	Max ≤ 0.05 A					
			Mangatutu Stream	Med 0.005 A	Maintain	Maintain					
				Max 0.043 A							
		Mangaone River (Rissington)	Med 0.006 A	Maintain	Maintain						
			Max 0.04 A								
Nitrate (mg NO ₃ -N/L) NOF Table 6	1. Annual median 2. Annual 95 th percentile Hazen method All flows	Headwaters	Default	No/Insufficient data	Median ≤ 1.0 A	Median ≤ 1.0 A	A band (blue): (Median ≤ 1.0; 95 th percentile ≤ 1.5) High conservation value system. Unlikely to have adverse effects, even on sensitive species. B band (green): (Median > 1.0 and ≤ 2.4; 95 th percentile > 1.5 and ≤ 3.5) 95% species protection; some growth effects on up to 5% of species. C band : (red, below national bottom line) (Median > 2.4 and ≤ 6.9; 95 th percentile > 3.5 and ≤ 9.8) Growth effects on up to 20% of species; (mainly sensitive species such as fish). No acute effects. D band (purple, below national bottom line) (Median > 6.9; 95 th percentile > 9.8). Impacts on growth of multiple species, and starts approaching acute impact level (that is, risk of death) for sensitive species at higher concentrations (> 20 mg/L).	Toxicity	<ul style="list-style-type: none"> Waimaori Mauri Indigenous taonga/tohu species habitat and spawning, ahu moana Aquifer recharge Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use 		
										95 th percentile ≤ 1.5 A	95 th percentile ≤ 1.5 A
					Lawrence Hut	Med 0.008 A				Maintain	Maintain
						95 th percentile 0.025 A					
				Main stem	Default	No/Insufficient data				Median ≤ 1.0 A	Median ≤ 1.0 A
										95 th percentile ≤ 1.5 A	95 th percentile ≤ 1.5 A
					u/s Mangaone River	Med 0.18 A				Maintain	Maintain
						95 th percentile 0.397 A					
				Brookfields Bridge / Puketapu	Med 0.21 A	Maintain				Maintain	
					95 th percentile 0.536 A						
				Hill country tributaries	Default	No/Insufficient data				Median ≤ 1.0 A	Median ≤ 1.0 A
										95 th percentile ≤ 1.5 A	95 th percentile ≤ 1.5 A
					Mangatutu Stream	Med 0.4 A				Maintain	Maintain
						95 th percentile 0.848 A					
		Mangaone River (Rissington)	Med 0.34 A	Maintain	Maintain						
			95 th percentile 0.767 A								

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR	
DRP (mg/L) NOF Table 20	1. Median 2. 95 th percentile All flows	Headwaters	Default	No/Insufficient data	Median ≤ 0.006 A	Median ≤ 0.006 A	A band (blue): (Median ≤ 0.006; 95 th percentile ≤ 0.021) Ecological communities and ecosystem processes are similar to those of natural reference conditions. No adverse effects attributable to dissolved reactive phosphorus (DRP) enrichment are expected. B band (green): (Median >0.006 and ≤ 0.010; 95 th percentile >0.021 and ≤0.030) Ecological communities are slightly impacted by minor DRP elevation above natural reference conditions. If other conditions also favour eutrophication, sensitive ecosystems may experience additional algal and plant growth, loss of macroinvertebrate taxa and higher respiration and decay rates. C band (orange): (Median >0.01 and ≤ 0.018; 95 th percentile >0.030 and ≤0.054) Ecological communities are impacted by moderate DRP elevation above natural reference conditions. If other conditions also favour eutrophication, DRP enrichment may cause increased algal plant growth, loss of sensitive macro-invertebrate and fish taxa, and high rates of respiration and decay. D band (red): (Median > 0.018; 95 th percentile > 0.054) Ecological communities impacted by substantial DRP elevation above natural reference conditions. In combination with other conditions favouring eutrophication, DRP enrichment drives excessive primary production and significant changes in macroinvertebrate and fish communities, as taxa sensitive to hypoxia are lost.	Algal growth	<ul style="list-style-type: none"> • Uu • Waimaori • Mauri • Mahinga kai, taonga/tohu species • Estuary ecosystem health • Recreation • Aquifer recharge • Natural character • Abstractive uses 	
					95 th percentile ≤ 0.21 A	95 th percentile ≤ 0.21 A				
					Lawrence Hut	Med 0.004 A				Maintain
				95 th percentile0.006 A	Maintain	Maintain				
			Main stem	Default	No/Insufficient data	Median ≤ 0.01 B				Median ≤ 0.01 B
						95 th percentile ≤ 0.03 B				95 th percentile ≤ 0.03 B
		u/s Mangaone River				Med 0.014 C				Med ≤ 0.01 B
				95 th percentile0.02 B	Maintain	Maintain				
		Brookfields Bridge / Puketapu		Med 0.02 D	Med ≤ 0.018 C	Med ≤ 0.01 B				
				95 th percentile0.031 C	95 th percentile ≤ 0.03 B	95 th percentile ≤ 0.03 B				
		Hill country tributaries	Default	No/Insufficient data	Median ≤ 0.01 B	Median ≤ 0.01 B				
					95 th percentile ≤ 0.03 B	95 th percentile ≤ 0.03 B				
Mangatutu Stream	Med 0.02 D				Med ≤ 0.018 C	Med ≤ 0.01 B				
	95 th percentile0.023 B		Maintain	Maintain						
Mangaone River (Rissington)	Med 0.026 D		Med ≤ 0.018 C	Med ≤ 0.01 B						
	95 th percentile0.036 C		95 th percentile ≤ 0.03 B	95 th percentile ≤ 0.03 B						
Suspended fine sediment Visual clarity (m) NOF Table 8	Trout fishery: Visual clarity Median Below median flow NOF: Visual clarity Median Monthly samples Minimum 5 years Suspended Sediment (Classes 1 – 4)	Headwaters	Default	No/Insufficient data	≥ 5	≥ 5	Trout fishery: Bright blue ≥ 5 meets outstanding trout fishery values. Light green ≥ 3.75 and < 5 meets significant trout fishery. Russet <3.75 does not meet significant trout fishery values. NOF Attribute <Kotahi Review>	Trout fishery - outstanding	<ul style="list-style-type: none"> • Recreation • Mauri • Natural character • Uu • Indigenous biodiversity and mahinga kai, taonga and tohu species and habitat • Amenity natural character • Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use 	
						<Kotahi Review>				<Kotahi Review>
					Lawrence Hut (Class 1)	7.6				Maintain
			6.9 A	<Kotahi Review>	<Kotahi Review>					
		Main stem	Default	No/Insufficient data	≥ 3.75	≥ 3.75				
						<Kotahi Review>		<Kotahi Review>		
				A band (Class 1 ≥ 1.78; Class 2 ≥ 0.93)	Trout fishery - significant					

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
			u/s Mangaone River (Class 1)	3.4	Improving trend	≥ 3.75	Minimal impact of suspended sediment on instream biota. Ecological communities are similar to those observed in natural reference conditions. B band (Class 1: < 1.78 and ≥ 1.55; Class 2: < 0.93 and ≥ 0.76) Low to moderate impact of suspended sediment on instream biota. Abundance of sensitive fish species may be reduced. C band (Class 1: < 1.55 and ≥ 1.34, Class 2: < 0.76 and ≥ 0.61) Moderate to high impact of suspended sediment on instream biota. Sensitive fish species may be lost. D band (below national bottom line) (Class 1: < 1.34; Class 2: < 0.61) High impact of suspended sediment on instream biota. Ecological communities are significantly altered, and sensitive fish and macroinvertebrate species are lost or at risk of being lost.		
				2.54 A	<Kotahi Review>	<Kotahi Review>			
			Brookfields Bridge / Puketapu	3.35	Improving trend	≥ 3.75			
				2 A	<Kotahi Review>	<Kotahi Review>			
		Hill country tributaries	Default	No/Insufficient data	≥ 3.75	≥ 3.75			
					<Kotahi Review>	<Kotahi Review>			
			Mangatutu Stream (Class 1)	1.85	Improving trend	≥ 3.75			
				1.5 C	≥ 1.78 A	≥ 1.78 A			
			Mangaone River (Rissington) (Class 2)	2.3	Improving trend	≥ 3.75			
				2.15 A	<Kotahi Review>	<Kotahi Review>			
Deposited fine sediment (%)	% fine sediment cover Monthly samples Minimum 5 years	Headwaters		No/Insufficient data	<20%	<20%		Light green < 20% protects stream biodiversity and fish (native and trout) habitat. Russet: ≥ 20% doesn't meet protection of stream biodiversity and fish (native and trout) habitat.	Biodiversity
	95 th percentile	Main stem		No/Insufficient data	<20%	<20%			
		Hill country tributaries		No/Insufficient data	<20%	<20%			
Deposited fine sediment (%)	% fine sediment cover Median Monthly samples Minimum 5 years				<Kotahi Review>				
NOF Table 16									

TABLE 26.1.1b: Ecosystem Health (Aquatic life)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Fish index of Biotic Integrity (F-IBI) NOF Table 13					<Kotahi Review>				
Macroinvertebrates	1. MCI Macroinvertebrate Community Index Average Below median flow	Headwaters	Default	No/Insufficient data	MCI ≥ 130	MCI ≥ 130	A band (blue): (MCI ≥ 130; QMCI ≥ 6.5; ASPM ≥ 0.6) Macroinvertebrate community indicative of pristine	Ecosystem health	<ul style="list-style-type: none"> • Wai Māori • Mauri • Kaitiakitanga, whakapapa, taonga/tohu species habitat and spawning • Natural character • Indigenous biodiversity
MCI					QMCI ≥ 6.5	QMCI ≥ 6.5			
QMCI					ASPM ≥ 0.6	ASPM ≥ 0.6			
NOF Table 14									

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR		
ASPM NOF Table 15	QMCI Quantitative Macroinvertebrate Community Index ASPM Macroinvertebrate average score per metric		Lawrence Hut	MCI 129 B	MCI ≥ 130 A	MCI ≥ 130 A	<p>conditions with almost no organic pollution or nutrient enrichment. Macroinvertebrate communities have high ecological integrity, similar to that expected in reference conditions.</p> <p>B band (green): (MCI ≥ 110 and < 130; QMCI ≥ 5.5 and < 6.5; ASPM < 0.6 and ≥ 0.4) Macroinvertebrate community indicative of mild organic pollution or nutrient enrichment. Largely composed of taxa sensitive to organic pollution/nutrient enrichment. Macroinvertebrate communities have mild-to-moderate loss of ecological integrity.</p> <p>C band (orange): (MCI ≥ 90 and < 110; QMCI ≥ 4.5 and < 5.5; ASPM < 0.4 and ≥ 0.3) Macroinvertebrate community indicative of moderate organic pollution or nutrient enrichment. There is a mix of taxa sensitive and insensitive to organic pollution/nutrient enrichment. Macroinvertebrate communities have a moderate-to-severe loss of ecological integrity.</p> <p>D band (red): (below national bottom line) (MCI < 90; QMCI < 4.5; ASPM < 0.3) Macroinvertebrate community indicative of severe organic pollution or nutrient enrichment. Communities are largely composed of taxa insensitive to organic pollution/enrichment. Macroinvertebrate communities have severe loss of ecological integrity.</p>		<ul style="list-style-type: none"> Trout 		
				QMCI 6.7 A	Maintain	Maintain					
				ASPM 0.64 A	Maintain	Maintain					
	Main stem	Default	No/Insufficient data		MCI ≥ 110	MCI ≥ 110				MCI ≥ 110	
					QMCI ≥ 5.5	QMCI ≥ 5.5				QMCI ≥ 5.5	
					ASPM ≥ 0.4	ASPM ≥ 0.4				ASPM ≥ 0.4	
		u/s Mangaone River	MCI 104 C	Improving trend		MCI ≥ 110 B				MCI ≥ 110 B	MCI ≥ 110 B
						QMCI 4.9 C				Improving trend	QMCI ≥ 5.5 B
						ASPM 0.39 C				Improving trend	ASPM ≥ 0.4 B
		Brookfields Bridge / Puketapu	MCI 93 C	Improving trend		MCI ≥ 110 B				MCI ≥ 110 B	MCI ≥ 110 B
						QMCI 4.8 C				Improving trend	QMCI ≥ 5.5 B
						ASPM 0.30 C				Improving trend	ASPM ≥ 0.4 B
		Hil country tributaries	Default	No/Insufficient data		MCI ≥ 110				MCI ≥ 110	MCI ≥ 110
						QMCI ≥ 5.5				QMCI ≥ 5.5	QMCI ≥ 5.5
						ASPM ≥ 0.4				ASPM ≥ 0.4	ASPM ≥ 0.4
	Mangatutu River		MCI 120 B	Maintain		MCI ≥ 110 B				MCI ≥ 110 B	MCI ≥ 110 B
						QMCI 5.2 C				Improving trend	QMCI ≥ 5.5 B
						ASPM 0.42 B				Maintain	Maintain
	Mangaone River (Rissington)		MCI 116 B	Maintain		MCI ≥ 110 B				MCI ≥ 110 B	MCI ≥ 110 B
						QMCI 6 B				Maintain	Maintain
						ASPM 0.55 B				Maintain	Maintain

TABLE 26.1.1c: Ecosystem Health (ecological processes)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Periphyton (Trophic state) (mg Chl-a/m ²) NOF Table 2	Max 8% exceedance over 3 years monthly observations	Main stem	Puketapu	B	<Kotahi Review>	Maintain	<p>A band: (≤ 50 less than 8%) Rare blooms reflecting negligible nutrient enrichment and/or alteration of the natural flow regime.</p> <p>B band: (Exceeds >50 and ≤ 120 less than 8%) Occasional blooms reflecting negligible nutrient enrichment and/or alteration of the natural flow regime.</p> <p>C band: (Exceeds >120 and ≤ 200 less than 8%). Periodic short -duration nuisance blooms reflecting moderate enrichment and/or moderate alteration of the natural flow regime or habitat</p> <p>D band: (exceeds national bottom line) (> 200 less than 8%) Regular and/or extended-duration nuisance blooms reflecting high nutrient enrichment and/or significant alteration of the natural flow regime or habitat</p>	Ecosystem health	
Periphyton cover (median of annual max %PeriWCC)	Monthly observations All year 3 years monthly observations	Headwaters	Default	No/Insufficient data	≤ 20	≤ 20	<p>Blue: (≤ 20) Ecological condition excellent and maintains recreation/aesthetics values.</p> <p>Green: (> 20 and ≤ 30) Ecological condition good and maintains recreation/aesthetics values.</p> <p>Yellow: (> 30 and ≤ 40) Ecological condition good and doesn't meet recreation/aesthetics values.</p> <p>Orange: (> 40 and ≤ 55) Ecological condition fair and doesn't meet recreation/aesthetics values.</p> <p>Red: (> 55) Ecological condition poor and doesn't meet recreation/aesthetics values.</p>	Ecosystem health	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Kaitiakitanga, he aha haere, taonga/tohu species habitat and spawning, mahinga kai, nohoanga, cultural practices, tauranga waka, Māori land, marae/hapū • Natural character • Indigenous biodiversity • Abstractive uses including stock drinking
			Lawrence Hut	12 (2012-15)	Maintain	Maintain			
		Main stem	Default	No/Insufficient data	≤ 30	≤ 30			
			u/s Mangaone River	28 (2012-15)	Maintain	Maintain			
			Brookfields Bridge / Puketapu	34 (2012-15)	Improving trend	≤ 30			
		Upland tributaries	Default	No/Insufficient data	≤ 30	≤ 30			
			Mangatutu Stream	14 (2012-15)	Maintain	Maintain			
Mangaone River (Rissington)	1.7 (2012-15)		Maintain	Maintain					
Dissolved Oxygen (mg/L)	Below point source 7-day mean min Summer 1 Nov – 30 Apr		Consent related		No change from background levels	No change from background levels			
Dissolved Oxygen (mg/L or %)	Continuous data 7-day mean minimum 1-day minimum Summer period (Nov-April)	Headwaters		No/Insufficient data	≥ 8 (7-d mean min) ≥ 7.5 (1-d min) ≥ 80% saturation A	≥ 8 (7-d mean min) ≥ 7.5 (1-d min) ≥ 80% saturation A	<p>A band (blue): (7-day mean minimum ≥ 8.0; 1-day min ≥ 7.5) No stress caused by low dissolved oxygen on any aquatic organisms that are present at matched reference (near-pristine) sites.</p> <p>B band (green): (7-day mean minimum ≥ 7.0 and < 8.0; 1-day min ≥ 5.0 and < 7.5) Occasional minor stress on sensitive organisms caused by short periods (a few hours a day) of lower dissolved oxygen. Risk of reduced abundance of sensitive fish and macroinvertebrate species.</p>	Ecosystem health	<ul style="list-style-type: none"> • Wai Māori • Natural character • Mauri • Kaitiakitanga, whakapapa, indigenous taonga/tohu species • Indigenous biodiversity • Trout
		Main stem		No/Insufficient data					
		Hill country tributaries		No/Insufficient data					

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
							<p>C band (orange): (7-day mean minimum ≥ 5.0 and < 7.0; 1-day min ≥ 4.0 and < 5.0) Moderate stress on a number of aquatic organisms caused by dissolved oxygen levels exceeding preference levels for periods of several hours each day. Risk of sensitive fish and macroinvertebrates being lost.</p> <p>D band (red, (below national bottom line)) (7-day mean minimum < 5; 1-day min < 4.0) Significant persistent stress on a range of aquatic organisms caused by dissolved oxygen exceeding tolerance levels. Likelihood of local extinctions of keystone species and loss of ecological integrity.</p>		
BOD (ScBOD ₅)	Below median flow		Consent related		< 2 mg/L	< 2 mg/L	Aquatic organisms are not subject to risk from low dissolved oxygen conditions.	Ecosystem health	
Ecosystem Metabolism (gO ₂ m ⁻² d ⁻¹) NOF Table 21	7-day min (Dec-Mar) Young <i>et al.</i> method				$< Kotahi Review >$				
Temperature (°C) 5-day CRI	Cox-Rutherford-Index Continuous measurement Hottest 5 consecutive days All flows	Headwaters		No/Insufficient data	$< Kotahi Review >$	$\leq 1^{\circ}C$ increment from reference state A	<p>A band (blue): ($\leq 1^{\circ}C$ increment compared to reference site) No thermal stress on any aquatic organisms that are present at matched reference (near-pristine) sites.</p>		<ul style="list-style-type: none"> • Wai Māori • Mauri • Kaitiakitanga • Whakapapa, taonga/tohu species, ahumoana, ahuwahenua, mahinga kai • Natural character • Indigenous biodiversity • Trout
		Main stem		No/Insufficient data	$< Kotahi Review >$	$\leq 2^{\circ}C$ increment from reference state B	<p>B band (green): ($\leq 2^{\circ}C$ increment compared to reference site) Minor thermal stress on occasion (clear days in summer) on particularly sensitive aquatic organisms such as certain insects or fish.</p>		
		Hill country tributaries		No/Insufficient data	$< Kotahi Review >$	$\leq 2^{\circ}C$ increment from reference state B	<p>C band (orange): ($\leq 3^{\circ}C$ increment compared to reference site) Some thermal stress on occasion, with elimination of certain sensitive insects and absence of certain sensitive fish.</p>		
		Lowland tributaries		No/Insufficient data	$< Kotahi Review >$	$\leq 2^{\circ}C$ increment from reference state B	<p>D band (red): ($> 3^{\circ}C$ increment compared to reference site) Significant thermal stress on a range of aquatic organisms. Risk of local elimination of keystone species with loss of ecological integrity.</p>		
pH	At all times, 95 th percentile				$< Kotahi Review >$				
Heavy metals & metalloids, pesticides & organic contaminants, radioactive contaminants	As required		As required	No/Insufficient data	95% species protection at all times	95% species protection at all times	Greater than 95% of species are protected.	Ecosystem health	

TABLE 26.1.2: Human Contact

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Cyanobacteria¹ (benthic cover %)	Monthly observations, All year	All hard bottomed streams	As required	No/Insufficient data	< 20% ¹	< 20% ¹	Light Green < 20% benthic cover Orange ≥ 20% and <50% benthic cover Red >50% benthic cover	Recreation	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Kaitiakitanga, he aha haere, taonga/tohu species habitat and spawning, mahinga kai, nohoanga, cultural practices, tauranga waka, Māori land, marae/hapū, • Natural character • Abstractive uses including stock drinking
Escherichia coli (E.coli) (cfu/100 mL) NOF Table 9	All year All flows Overall band determined over 4 numeric attribute states – details see NOF Table 9	Headwaters	Default	No/Insufficient data	A	A	A band (Blue) For at least half the time, the estimated risk is <1 in 1,000 (0.1% risk). The predicted average infection risk is 1%. B band (Green) For at least half the time, the estimated risk is <1 in 1,000 (0.1% risk). The predicted average infection risk is 2%. C band (Yellow) For at least half the time, the estimated risk is <1 in 1,000 (0.1% risk). The predicted average infection risk is 3%. D band (Orange) 20-30% of the time the estimated risk is ≥50 in 1000 (>5% risk). The predicted average infection risk is >3%. E band (Red) For more than 30% of the time the estimated risk is ≥50 in 1000 (>5% risk). The predicted average infection risk is >7%.	Uu Recreation Human health	<ul style="list-style-type: none"> • Wai Māori • Mauri • Kaitiakitanga, he aha haere • Ahuwhenua mahinga kai, nohoanga, cultural practices, tauranga waka, Māori land, marae/hapū connections • Aquifer recharge • Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use
			Lawrence Hut	A	Maintain	Maintain			
		Main stem	Default	No/Insufficient data	B	B			
			u/s Mangaone River	B	Maintain	Maintain			
			Brookfields Bridge / Puketapu	B	Maintain	Maintain			
		Hill country tributaries	Default	No/Insufficient data	B	B			
			Mangatutu Stream	D	B	B			
			Mangaone River (Rissington)	D	B	B			

Note 1 The target attribute state for cyanobacteria is applicable only in relation to Policy 16 and any exceedance triggers an alert level response by Council ((from the MfE Alert-level Framework: NZ Guidelines for cyanobacteria in recreational freshwaters.)

TABLE 26.1.3: Groundwater (Water Use)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Any aesthetic determinand (Drinking Water Standards for New Zealand)	As required	Groundwater – all areas	<Kotahi review>	<Kotahi review>	Within guidelines specified in the Drinking Water Standards for New Zealand	Within guidelines specified in the Drinking Water Standards for New Zealand		Human Health	
E. coli (cfu / 100ml)	Maximum concentration As required	Groundwater – all areas	<Kotahi review>	<Kotahi review>	< 1	< 1		Human Health	
Nitrate-nitrogen (mg N-NO ₃ /l)	95 th percentile 5 years	Groundwater – all areas	<Kotahi review>	<Kotahi review>	< 1	< 1		Ecosystem health	
All other determinands (Drinking Water Standards for New Zealand)	As required	Groundwater – all areas	<Kotahi review>	<Kotahi review>	Within guidelines specified in the Drinking Water Standards for New Zealand	Within guidelines specified in the Drinking Water Standards for New Zealand		Human Health	
Notes: The attributes are as measured in groundwater at 10m below ground level. Some aesthetic determinands including iron, manganese and hardness are affected by geological conditions and will affect natural water quality.									

TABLE 26.1.4: Threatened Species

<Insert through Kotahi process>

TABLE 26.1.5: Mahinga Kai

<Insert through Kotahi process>

TABLE 26.1.6: Mātauranga Māori

<Insert through Kotahi process>

TABLE 26.1.7: Wetlands and Lakes

<Insert through Kotahi process>

SCHEDULE 26.2: AHURIRI CATCHMENT

Refer to Schedule 26 Map 2

Vision

<to be drafted through Kotahi Review process>

Outcomes

This sits in the body of the plan. Refer to TANK Objectives 7 and 11

TABLE 26.2.1a: Ecosystem Health (Water quality)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
DIN (mg/L)	Median 5 years All flows	Lowland	Default	No/Insufficient data	≤ 0.444	≤ 0.444	Light Green: (≤ 0.444) Below ANZECC default guideline value, unlikely to be concerning. Orange: (> 0.444) Above ANZECC default guideline value, investigation/ management recommended.	Estuary ecosystem health	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Mahinga kai, taonga/tohu species • Recreation • Natural character • Abstractive uses including for domestic, farm and community water supply, primary production, industrial and commercial use
			Taipo Stream	0.356	Maintain	Maintain			
			Wharerangi Stream	No/Insufficient data	≤ 0.444	≤ 0.444			
Ammonia (mg NH ₄ -N/L) NOF Table 5	Annual median Annual max Unionised ammonia at a pH of 8 and temperature of 20°C All flows	Lowland	Default	No/Insufficient data	Median ≤ 0.03 A	Median ≤ 0.03 A	A band (blue): (Median ≤ 0.03; Max ≤ 0.05) 99% species protection level, no observed effect on any species tested. B band (green): (Median > 0.03 and ≤ 0.24; Max >0.05 and ≤ 0.40) 95% species protection; starts impacting occasionally on the 5% most sensitive species. C band: (red, below national bottom line): (Median > 0.24 and ≤ 1.30; Max > 0.40 and ≤ 2.20) 80% species protection; starts impacting regularly on the 20% most sensitive species (Reduced survival of most sensitive species). D band (purple, below national bottom line): (Median > 1.30; Max > 2.20) Starts approaching acute impact level (that is, risk of death) for sensitive species.	Toxicity	<ul style="list-style-type: none"> • Wai Māori • Mauri • Indigenous taonga/tohu species habitat and spawning, ahu moana • Aquifer recharge • Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use
					Taipo Stream	Median 0.016 A			
			Max 0.119 B	Max ≤ 0.05 A		Max ≤ 0.05 A			
			Wharerangi Stream	No/Insufficient data	Median ≤ 0.03 A	Median ≤ 0.03 A			
					Max ≤ 0.05 A	Max ≤ 0.05 A			
			Nitrate (mg NO ₃ -N/L) NOF Table 6	Annual median Annual 95th percentile Hazen method All flows	Lowland	Default			
Taipo Stream	95 th percentile ≤ 1.5 A	95 th percentile ≤ 1.5 A							
	Median 0.131 A	Maintain				Maintain			

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
				95 th percentile 0.66 A	Maintain	Maintain	95% species protection; some growth effects on up to 5% of species. C band: (red, below national bottom line) (Median > 2.4 and ≤ 6.9; 95 th percentile > 3.5 and ≤ 9.8) Growth effects on up to 20% of species; (mainly sensitive species such as fish). No acute effects. D band (purple, below national bottom line) (Median > 6.9; 95 th percentile > 9.8). Impacts on growth of multiple species, and starts approaching acute impact level (that is, risk of death) for sensitive species at higher concentrations (> 20 mg/L).		
			Wharerangi Stream	No/Insufficient data	Median ≤ 1.0 A	Median ≤ 1.0 A			
					95 th percentile ≤ 1.5 A	95 th percentile ≤ 1.5 A			
DRP (mg/L) NOF Table 20	Median 95 th percentile All flows	Lowland	Default	No/Insufficient data	Maintain or improving trend	Median ≤ 0.018 C	A band (blue): (Median ≤ 0.006; 95 th percentile ≤ 0.021) Ecological communities and ecosystem processes are similar to those of natural reference conditions. No adverse effects attributable to dissolved reactive phosphorus (DRP) enrichment are expected. B band (green): (Median >0.006 and ≤ 0.010; 95 th percentile >0.021 and ≤0.030) Ecological communities are slightly impacted by minor DRP elevation above natural reference conditions. If other conditions also favour eutrophication, sensitive ecosystems may experience additional algal and plant growth, loss of macroinvertebrate taxa and higher respiration and decay rates. C band (orange): (Median >0.01 and ≤ 0.018; 95 th percentile >0.030 and ≤0.054) Ecological communities are impacted by moderate DRP elevation above natural reference conditions. If other conditions also favour eutrophication, DRP enrichment may cause increased algal plant growth, loss of sensitive macro-invertebrate and fish taxa, and high rates of respiration and decay. D band (red): (Median > 0.018; 95 th percentile > 0.054) Ecological communities impacted by substantial DRP elevation above natural reference conditions. In combination with other conditions favouring eutrophication, DRP enrichment drives excessive primary production and significant changes in macroinvertebrate and fish communities, as taxa sensitive to hypoxia are lost.	Ecosystem health	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Mahinga kai, taonga/tohu species • Aquifer recharge • Natural character • Abstractive uses
			Taipo Stream	Median 0.25 D	Improving trend	Median ≤ 0.018 C			
				95 th percentile 0.59		95 th percentile ≤ 0.018 C			
			Wharerangi Stream	No/Insufficient data	Improving trend	Median ≤ 0.018 C			
						95 th percentile ≤ 0.018 C			
Suspended fine sediment Visual clarity (m) NOF Table 8	Recreation/ aesthetics Visual clarity Median Monthly samples Minimum 5 years	Lowland	Default	No/Insufficient data	> 1.6	> 1.6	Recreation /Aesthetics Very Light Green: > 1.6 meets recreation/aesthetics values. Light Russet ≤ 1.6 doesn't meet recreation/aesthetics values. NOF Attribute <Kotahi Review>	Recreation/ Aesthetics	<ul style="list-style-type: none"> • Recreation • Mauri • Uu • Indigenous biodiversity and mahinga kai, taonga and tohu species and habitat • Natural character • Amenity natural character • Abstractive uses including for domestic, farm and community water
			Taipo Stream (class 2)	0.40	Improving trend	> 1.6			

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
	NOF: Visual clarity Median Monthly samples Minimum 5 years Suspended Sediment (Classes 1 – 4)		Wharerangi Stream (class 2)	0.40 D No/Insufficient data	<Kotahi Review> > 1.6	<Kotahi Review> > 1.6	A band (Class 1 ≥ 1.78; Class 2 ≥ 0.93) Minimal impact of suspended sediment on instream biota. Ecological communities are similar to those observed in natural reference conditions. B band (Class 1: < 1.78 and ≥ 1.55; Class 2: < 0.93 and ≥ 0.76) Low to moderate impact of suspended sediment on instream biota. Abundance of sensitive fish species may be reduced. C band (Class 1: < 1.55 and ≥ 1.34, Class 2: < 0.76 and ≥ 0.61) Moderate to high impact of suspended sediment on instream biota. Sensitive fish species may be lost. D band (below national bottom line). (Class 1: < 1.34; Class 2: < 0.61) High impact of suspended sediment on instream biota. Ecological communities are significantly altered, and sensitive fish and macroinvertebrate species are lost or at risk of being lost.		supply, primary production and food production, industrial and commercial use
Deposited fine sediment (%) NOF Table 16	Median % fine sediment cover Monthly samples Minimum 5 years				<Kotahi review>				

TABLE 26.2.1b: Ecosystem Health (Aquatic life)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Fish index of Biotic Integrity (F-IBI) NOF Table 13				No/Insufficient data	<Kotahi review>				
Macroinvertebrates MCI QMCI NOF Table 14 ASPM NOF Table 15	1. MCI (sb-MCI where relevant) Macroinvertebrate Community Index Average Below median flow 2. QMCI (sb-QMCI where relevant) Quantitative Macroinvertebrate Community Index 3. ASPM Macroinvertebrate average score per metric	Lowland	Default Taipo Stream	No/Insufficient data MCI 57.2 D	Maintain or improve Improving trend	MCI > 90 C QMCI > 4.5 C ASPM > 0.3 C MCI > 90 C	A band (blue): (MCI ≥ 130; QMCI ≥ 6.5; ASPM ≥ 0.6) Macroinvertebrate community indicative of pristine conditions with almost no organic pollution or nutrient enrichment. Macroinvertebrate communities have high ecological integrity, similar to that expected in reference conditions. B band (green): (MCI ≥ 110 and < 130; QMCI ≥ 5.5 and < 6.5; ASPM < 0.6 and ≥ 0.4) Macroinvertebrate community indicative of mild organic pollution or nutrient enrichment. Largely	Ecosystem health	<ul style="list-style-type: none"> Wai Māori Mauri Kaitiakitanga, whakapapa, taonga/tohu species habitat and spawning Natural character Indigenous biodiversity

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
				QMCI 1.8 D	Improving trend	QMCI > 4.5 C	<p>composed of taxa sensitive to organic pollution/nutrient enrichment. Macroinvertebrate communities have mild-to-moderate loss of ecological integrity.</p> <p>C band (orange): (MCI ≥ 90 and < 110; QMCI ≥ 4.5 and < 5.5; ASPM < 0.4 and ≥ 0.3) Macroinvertebrate community indicative of moderate organic pollution or nutrient enrichment. There is a mix of taxa sensitive and insensitive to organic pollution/nutrient enrichment. Macroinvertebrate communities have a moderate-to-severe loss of ecological integrity.</p> <p>D band (red, (below national bottom line) (MCI < 90; QMCI < 4.5; ASPM < 0.3) Macroinvertebrate community indicative of severe organic pollution or nutrient enrichment. Communities are largely composed of taxa insensitive to organic pollution/enrichment. Macroinvertebrate communities have severe loss of ecological integrity.</p>		
				ASPM 0.1 D	Improving trend	ASPM > 0.3 C			
			Wharerangi Stream	No/Insufficient data	Maintain or improve	MCI > 90 C			
						QMCI > 4.5 C			
						ASPM > 0.3 C			
Macrophytes (max % CAV)	Monthly All year observations	Lowland	Default	No/Insufficient data	≤ 50 %	≤ 50 %	Light Green ≤ 50 % maintains ecological condition / flow conveyance / recreation values.	Ecosystem health	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Kaitiakitanga, he aha haere, taonga/tohu species, mahinga kai, nohoanga, cultural practices • Natural character • Indigenous biodiversity • Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use
			Taipō Stream	No/Insufficient data	≤ 50 %	≤ 50 %	Russet > 50% doesn't meet ecological condition / flow conveyance / recreation values.		
			Wharerangi Stream	No/Insufficient data	≤ 50 %	≤ 50 %			

TABLE 26.2.1c: Ecosystem Health (ecological processes)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Dissolved Oxygen (mg/L or %)	Continuous data	Lowland	Default	No/Insufficient data	≥ 5 (7-d mean min) ≥ 4 (1-d min) ≥ 80% saturation C	≥ 7 (7-d mean min) ≥ 5 (1-d min) ≥ 80% saturation B	<p>A band (blue): (7-day mean minimum ≥ 8.0; 1-day min ≥ 7.5) No stress caused by low dissolved oxygen on any aquatic organisms that are present at matched reference (near-pristine) sites.</p> <p>B band (green): (7-day mean minimum ≥ 7.0 and < 8.0; 1-day min ≥ 5.0 and < 7.5) Occasional minor stress on sensitive organisms caused by short periods (a few hours a day) of lower dissolved oxygen.</p>	Ecosystem health	<ul style="list-style-type: none"> • Wai Māori • Mauri • Kaitiakitanga, whakapapa, indigenous taonga/tohu species • Natural character • Indigenous biodiversity
NOF Table 17	7-day mean minimum 1-day minimum Summer period (Nov-April)		Taipō Stream	No/Insufficient data	≥ 5 (7-d mean min) ≥ 4 (1-d min) ≥ 80% saturation C	≥ 7 (7-d mean min) ≥ 5 (1-d min) ≥ 80% saturation B			

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
			Wharerangi Stream	No/Insufficient data	≥ 5 (7-d mean min) ≥ 4 (1-d min) ≥ 80% saturation C	≥ 7 (7-d mean min) ≥ 5 (1-d min) ≥ 80% saturation B	Risk of reduced abundance of sensitive fish and macroinvertebrate species. C band (orange): (7-day mean minimum ≥ 5.0 and < 7.0; 1-day min ≥ 4.0 and < 5.0) Moderate stress on a number of aquatic organisms caused by dissolved oxygen levels exceeding preference levels for periods of several hours each day. Risk of sensitive fish and macroinvertebrates being lost. D band (red, below national bottom line) (7-day mean minimum < 5; 1-day min < 4.0) Significant persistent stress on a range of aquatic organisms caused by dissolved oxygen exceeding tolerance levels. Likelihood of local extinctions of keystone species and loss of ecological integrity.		
Dissolved Oxygen (mg/L) NOF Table 7	Below point source 7-day mean min Summer 1 Nov – 30 Apr		Consent related		No change from background levels	No change from background levels	No increased risk from point source.	Ecosystem health	<ul style="list-style-type: none"> Wai Māori Mauri Kaitiakitanga, whakapapa, indigenous taonga/tohu species Natural character Indigenous biodiversity
BOD (ScBOD ₅)	Below median flow		Consent related		<2 mg/L	<2 mg/L	Aquatic organisms are not subject to risk from low dissolved oxygen conditions.	Ecosystem health	
Ecosystem Metabolism (gO ₂ m ⁻² d ⁻¹) NOF Table 21	7-day min (Dec-Mar) Young et al method	Lowland			<Kotahi review>	<Kotahi review>			
Temperature (°C) 5-day CRI	Continuous measurement Cox-Rutherford-Index Averaged over 5 hottest days of summer period	Lowland		No/Insufficient data	<Kotahi review>	≤ 2° C increment from reference state B	A band (blue): (≤ 1°C increment compared to reference site) No thermal stress on any aquatic organisms that are present at matched reference (near-pristine) sites. B band (green): (≤ 2°C increment compared to reference site) Minor thermal stress on occasion (clear days in summer) on particularly sensitive aquatic organisms such as certain insects or fish. C band (orange): (≤ 3°C increment compared to reference site) Some thermal stress on occasion, with elimination of certain sensitive insects and absence of certain sensitive fish. D band (red): (> 3°C increment compared to reference site) Significant thermal stress on a range of aquatic organisms. Risk of local elimination of keystone species with loss of ecological integrity.	Ecosystem health	<ul style="list-style-type: none"> Wai Māori Mauri Kaitiakitanga, whakapapa, taonga/tohu species, ahumoana, ahuhwhenua mahinga kai Indigenous biodiversity Natural character
pH	At all times, 95 th percentile				<Kotahi review>				
Heavy metals & metalloids, pesticides & organic contaminants, radioactive contaminants	As required		As required	No/Insufficient data	95% species protection at all times	95% species protection at all times	Greater than 95% of species are protected.	Ecosystem health	

TABLE 26.2.2: Human Contact

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
<i>Escherichia coli (E.coli)</i> (cfu/100 mL) NOF Table 9	All year All flows Refer to NOF Table 9 for a description of how to measure the 4 metrics for this attribute	Lowland	Default	No/Insufficient data	C	C	A band (Blue) For at least half the time, the estimated risk is <1 in 1,000 (0.1% risk). The predicted average infection risk is 1%. B band (Green) For at least half the time, the estimated risk is <1 in 1,000 (0.1% risk). The predicted average infection risk is 2%. C band (Yellow) For at least half the time, the estimated risk is <1 in 1,000 (0.1% risk). The predicted average infection risk is 3%. D band (Orange) 20-30% of the time the estimated risk is ≥50 in 1000 (>5% risk). The predicted average infection risk is >3%. E band (Red) For more than 30% of the time the estimated risk is ≥50 in 1000 (>5% risk). The predicted average infection risk is >7%.	Uu Recreation Human health	<ul style="list-style-type: none"> Wai Māori Mauri Kaitiakitanga, he aha haere, ahu moana, ahuhenua mahinga kai, nohoanga, cultural practices, tauranga waka, Māori land, marae/hapū connections, Aquifer recharge Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use
			Taipo Stream	E	C	C			
			Wharerangi Stream	No/Insufficient data	C	C			

TABLE 26.2.3: Groundwater (Water Use)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Any aesthetic determinand (Drinking Water Standards for New Zealand)	As required	Groundwater – all areas	<Kotahi review>	<Kotahi review>	Within guidelines specified in the Drinking Water Standards for New Zealand	Within guidelines specified in the Drinking Water Standards for New Zealand		Human Health	
E. coli (cfu / 100ml)	Maximum concentration As required	Groundwater – all areas	<Kotahi review>	<Kotahi review>	< 1	< 1		Human Health	
Nitrate-nitrogen (mg N-NO ₃ /l)	95 th percentile 5 years	Groundwater – all areas	<Kotahi review>	<Kotahi review>	<!	< 1		Ecosystem health	
All other determinands (Drinking Water Standards for New Zealand)	As required	Groundwater – all areas	<Kotahi review>	<Kotahi review>	Within guidelines specified in the Drinking Water Standards for New Zealand	Within guidelines specified in the Drinking Water Standards for New Zealand		Human Health	
Notes: The attributes are as measured in groundwater at 10m below ground level. Some aesthetic determinands including iron, manganese and hardness are affected by geological conditions and will affect natural water quality.									

TABLE 26.2.3: Threatened Species

<Insert through Kotahi process>

TABLE 26.2.4: Mahinga Kai

<Insert through Kotahi process>

TABLE 26.2.5: Mātauranga Māori

<Insert through Kotahi process>

TABLE 26.2.6: Wetlands and Lakes

<Insert through Kotahi process>

SCHEDULE 26.3: NGARURORO CATCHMENT

Refer to Schedule 26 Map 3

Vision

<to be drafted through Kotahi Review process>

Outcomes

This sits in the body of the Plan. Refer to TANK Objectives 8 and 11

TABLE 26.3.1a: Ecosystem Health (Water quality)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
DIN (mg/L)	Median 5 years All flows	Headwaters (Upper Ngaruroro)	Default	No/Insufficient data	< 0.05	< 0.05	Blue: (≤ 0.05) Green: (≤ 0.05 and < 0.15) Yellow: (≤ 0.15 and < 0.3) Red: (> 0.3) Light green: (≤ 0.444) Below ANZECC lowland guideline value, unlikely to be concerning.	Algal growth	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Mahinga kai, taonga/tohu species • Estuary ecosystem health • Recreation • Aquifer recharge • Natural character • Abstractive uses • Drinking water
			Kuripapango	0.01	Maintain	Maintain			
			Whanawhana	0.027	Maintain	Maintain			
		Main stem (Lower Ngaruroro)	Default	No/Insufficient data	< 0.15	< 0.15			
			d/s HB Dairies	0.086	Maintain	Maintain			
			Fernhill	0.106	Maintain	Maintain			
			Chesterhope	0.08	Maintain	Maintain			
		Hill country tributaries	Default	No/Insufficient data	0.44	0.44			
			Ohara Stream	No/Insufficient data	0.44	0.44			
			Poporangi Stream	0.548	0.44	0.44			
			Maraekakaho Stream	0.231	Maintain	Maintain			
		Lowland tributaries	Default	No/Insufficient data	≤ 0.444	≤ 0.444			
			Waitio Stream	0.219	Maintain	Maintain			
			Ohiwia Stream	0.468	≤ 0.444	≤ 0.444			
			Tūtaekurī-Waimate Stream	0.243	Maintain	Maintain			
		Ammonia (mg NH ₄ -N/L)	1. Annual median 2. Annual max	Headwaters	Default	No/Insufficient data			
Kuripapango	Median 0.0025 A				Maintain	Maintain			
Kuripapango	Max 0.005 A				Maintain	Maintain			
NOF Table 5	Unionised ammonia based on pH at 20°C All flows	Headwaters	Default	No/Insufficient data	Median ≤ 0.03 A	Median ≤ 0.03 A	A band (blue): (Median ≤ 0.03; Max ≤ 0.05) 99% species protection level, no observed effect on any species tested. B band (green): (Median > 0.03 and ≤ 0.24; Max > 0.05 and ≤ 0.40)	Toxicity	<ul style="list-style-type: none"> • Wai Māori • Mauri • Indigenous taonga/tohu species habitat and spawning, ahu moana • Aquifer recharge • Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use
			Kuripapango	Median 0.0025 A	Maintain	Maintain			

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR	
			Whanawhana	Median 0.002 A			<p>95% species protection; starts impacting occasionally on the 5% most sensitive species.</p> <p>C band: (red, below national bottom line): (Median > 0.24 and ≤ 1.30; Max > 0.40 and ≤ 2.20)</p> <p>80% species protection; starts impacting regularly on the 20% most sensitive species (Reduced survival of most sensitive species).</p> <p>D band (purple, below national bottom line): (Median > 1.30; Max > 2.20)</p> <p>Starts approaching acute impact level (that is, risk of death) for sensitive species.</p>			
				Max 0.01 A						
		Main stem	Default	No/Insufficient data	Median ≤ 0.03 A	Median ≤ 0.03 A				
						Max ≤ 0.05 A		Max ≤ 0.05 A		
				d/s HB Dairies	No/Insufficient data	Median 0.002 A		Maintain	Maintain	
								Max 0.17 A		
				Fernhill	No/Insufficient data	0.003 A				
								Max 0.036 A		
				Chesterhope	No/Insufficient data	Median 0.004 A				
								Max 0.008 A		
			Hill country tributaries	Default	No/Insufficient data	Median ≤ 0.03 A		Median ≤ 0.03 A		
									Max ≤ 0.05 A	Max ≤ 0.05 A
					Ohara Stream	No/Insufficient data		Median ≤ 0.03 A	Median ≤ 0.03 A	
									Max ≤ 0.05 A	Max ≤ 0.05 A
				Poporangi Stream (Big Hill Rd)	No/Insufficient data	Median 0.0025 A		Maintain	Maintain	
								Max 0.01 A		
				Maraekakaho Stream	No/Insufficient data	Median 0.003 A				
								Max 0.017 A		
		Lowland tributaries	Default	No/Insufficient data	Median ≤ 0.03 A	Median ≤ 0.03 A				
								Max ≤ 0.05 A	Max ≤ 0.05 A	
				Waitio Stream	No/Insufficient data	Median 0.002 A		Maintain	Maintain	
								Max 0.017 A		
				Ohiwia Stream	No/Insufficient data	Median 0.006 A				
								Max 0.034 A		
			Tūtaekurī-Waimate Stream	No/Insufficient data	Median 0.008 A					

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR	
				Max 0.028 A						
Nitrate (mg NO ₃ -N/L) NOF Table 6	Annual median Annual 95 th percentile Hazen method All flows	Headwaters	Default	No/Insufficient data	Med ≤ 1 A	Med ≤ 1 A	<p>A band (blue): (Median ≤ 1.0; 95th percentile ≤ 1.5) High conservation value system. Unlikely to have adverse effects, even on sensitive species.</p> <p>B band (green): (Median > 1.0 and ≤ 2.4; 95th percentile > 1.5 and ≤ 3.5) 95% species protection; some growth effects on up to 5% of species.</p> <p>C band: (red, below national bottom line) (Median > 2.4 and ≤ 6.9; 95th percentile > 3.5 and ≤ 9.8) Growth effects on up to 20% of species; (mainly sensitive species such as fish). No acute effects.</p> <p>D band (purple, below national bottom line) (Median > 6.9; 95th percentile > 9.8). Impacts on growth of multiple species, and starts approaching acute impact level (that is, risk of death) for sensitive species at higher concentrations (> 20 mg/L).</p>	Toxicity	<ul style="list-style-type: none"> Wai Māori Mauri Indigenous taonga/tohu species habitat and spawning, ahu moana Aquifer recharge Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use 	
					Kuripapango	Median 0.0075 A				Maintain
			95 th percentile 0.029 A							
			Whanawhana	Med 0.017 A	Maintain	Maintain				
				95 th percentile 0.106 A						
			Main stem	Default	No/Insufficient data	Med ≤ 1 A				Med ≤ 1 A
						95 th percentile ≤ 1.5 A				95 th percentile ≤ 1.5 A
				d/s HB Dairies	Med 0.072 A	Maintain				Maintain
					95 th percentile 0.26 A					
				Fernhill	Med 0.094 A	Maintain				Maintain
		95 th percentile 0.35 A								
		Chesterhope		Med 0.093 A	Maintain	Maintain				
				95 th percentile 0.292 A						
		Hill country tributaries		Default	No/Insufficient data	Med ≤ 1 A	Med ≤ 1 A			
						95 th percentile ≤ 1.5 A	95 th percentile ≤ 1.5 A			
			Ohara Stream	No/Insufficient data	Med ≤ 1 A	Med ≤ 1 A				
					95 th percentile ≤ 1.5 A	95 th percentile ≤ 1.5 A				
			Poporangi Stream (Big Hill Rd Bridge)	Med 0.585 A	Maintain	Maintain				
				95 th percentile 0.857 A						
		Maraekakaho Stream	Med 0.335 A	Maintain	Maintain					
95 th percentile 1.431 A										
Lowland tributaries	Default	No/Insufficient data	Med ≤ 1 A	Med ≤ 1 A						
			95 th percentile ≤ 1.5 A	95 th percentile ≤ 1.5 A						

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR						
			Waitio Stream	Med 0.23 A 95 th percentile 0.54 A	Maintain	Maintain									
			Ohiwia Stream	Med 0.66 A 95 th percentile 0.92 A											
			Tūtaekuri-Waimate Stream	Med 0.25 A 95 th percentile 0.52 A											
DRP (mg/L) NOF Table 20	Median 95 th percentile All flows	Headwaters	Default	No/Insufficient data						Med ≤ 0.006 A	Med ≤ 0.006 A	<p>A band (blue): (Median ≤ 0.006; 95th percentile ≤ 0.021) Ecological communities and ecosystem processes are similar to those of natural reference conditions. No adverse effects attributable to dissolved reactive phosphorus (DRP) enrichment are expected.</p> <p>B band (green): (Median >0.006 and ≤ 0.010; 95th percentile >0.021 and ≤ 0.030) Ecological communities are slightly impacted by minor DRP elevation above natural reference conditions. If other conditions also favour eutrophication, sensitive ecosystems may experience additional algal and plant growth, loss of macroinvertebrate taxa and higher respiration and decay rates.</p> <p>C band (orange): (Median >0.01 and ≤ 0.018; 95th percentile >0.030 and ≤ 0.054) Ecological communities are impacted by moderate DRP elevation above natural reference conditions. If other conditions also favour eutrophication, DRP enrichment may cause increased algal plant growth, loss of sensitive macro-invertebrate and fish taxa, and high rates of respiration and decay.</p> <p>D band (red): (Median > 0.018; 95th percentile > 0.054) Ecological communities impacted by substantial DRP elevation above natural reference conditions. In combination with other conditions favouring eutrophication, DRP enrichment drives excessive primary production and significant changes in macroinvertebrate and fish communities, as taxa sensitive to hypoxia are lost.</p>	Algal growth	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Mahinga kai, taonga/tohu species Estuary ecosystem health • Recreation • Aquifer recharge • Natural character • Abstractive uses 	
				Kuripapango						Med 0.002 A 95 th percentile 0.003 A	Maintain				Med ≤ 0.002 A
			Whanawhana							Med 0.002 A 95 th percentile 0.004 A					Med ≤ 0.002 A
				Main stem	Default	No/Insufficient data	Med ≤ 0.01 B	Med ≤ 0.01 B							
			95 th percentile ≤ 0.03 B			95 th percentile ≤ 0.03 B									
			d/s HB Dairies		Med 0.005 A 95 th percentile 0.009 A	Maintain	Med ≤ 0.005 A	95 th percentile ≤ 0.009 A							
		Fernhill			Med 0.008 B 95 th percentile 0.020 A		Maintain	Med ≤ 0.008 B	95 th percentile ≤ 0.020 A						
			Chesterhope		Med 0.007 B 95 th percentile 0.014 A	Maintain	Med ≤ 0.007 B	95 th percentile ≤ 0.014 A							
		Hill country tributaries			Default	No/Insufficient data	Med ≤ 0.01 B	Med ≤ 0.01 B							
			95 th percentile ≤ 0.03 B	95 th percentile ≤ 0.03 B											

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
			Ohara Stream	No/Insufficient data	Maintain or improve	Med ≤ 0.01 B 95 th percentile ≤ 0.03 B			
			Poporangi Stream (Big Hill Rd Bridge)	Med 0.026 D 95 th percentile 0.035 C	Improving trend	Med ≤ 0.01 B 95 th percentile ≤ 0.03 B			
			Maraekakaho Stream	Med 0.024 D 95 th percentile 0.071 D		Med ≤ 0.01 B 95 th percentile ≤ 0.03 B			
		Lowland tributaries	Default	No/Insufficient data	Improving trend	Med ≤ 0.018 C 95 th percentile ≤ 0.054 C		Estuary ecosystem health	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Aquifer recharge • Mahinga kai, taonga/tohu species • Natural character • Abstractive uses
			Waitio Stream	Med 0.024 D 95 th percentile 0.081 D	Improving trend	Med ≤ 0.018 C 95 th percentile ≤ 0.054 C			
			Ohiwia Stream	Med 0.117 D 95 th percentile 0.21 D		Med ≤ 0.018 C 95 th percentile ≤ 0.054 C			
			Tūtaekurī-Waimate Stream	Med 0.03 D 95 th percentile 0.049 D		Med ≤ 0.018 C 95 th percentile ≤ 0.054 C			
Suspended fine sediment Visual clarity (m) NOF Table 8	Trout fishery: Median Below median flow Recreation/aesthetics Visual clarity Median Monthly samples Minimum 5 years NOF: Visual clarity Median Monthly samples Minimum 5 years Suspended Sediment (Classes 1 – 4)	Headwaters	Default	No/Insufficient data	≥ 5 <Kotahi Review>	≥ 5 <Kotahi Review>	Trout fishery: Bright blue ≥ 5 meets outstanding trout fishery values. Light green ≥ 3.75 and < 5 meets significant trout fishery. Russet <3.75 does not meet significant trout fishery values. Recreation /aesthetics Very light green: > 1.6 meets recreation/aesthetics values. Light russet: ≤ 1.6 doesn't meet recreation/ aesthetics values. NOF Attribute <Kotahi Review> A band (Class 1 ≥ 1.78 m; Class 2 ≥ 0.93) Minimal impact of suspended sediment on instream biota.	Trout fishery - outstanding	<ul style="list-style-type: none"> • Mauri • Uu • Indigenous biodiversity and mahinga kai, taonga and tohu species and habitat • Natural character • Recreation • Amenity natural character • Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use
			Kuripapango (Class 1)	5.7 A	Maintain <Kotahi Review>	Maintain <Kotahi Review>			
			Whanawhana (Class 1)	4.5 1.94 A	Improving trend <Kotahi Review>	≥ 5 <Kotahi Review>			
			Default	No/Insufficient data	≥ 3.75 <Kotahi Review>	≥ 3.75 <Kotahi Review>			
		Main stem	d/s HB Dairies (Class 1)	3.31 0.95 D	Improving trend <Kotahi Review>	≥ 3.75 <Kotahi Review>			
			Fernhill (Class 1)	2.74	Improving trend	≥ 3.75			

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
				0.65 D	<Kotahi Review>	<Kotahi Review>	<p>Ecological communities are similar to those observed in natural reference conditions.</p> <p>B band (Class 1: < 1.78 and ≥ 1.55; Class 2: < 0.93 and ≥ 0.76) Low to moderate impact of suspended sediment on instream biota. Abundance of sensitive fish species may be reduced.</p> <p>C band (Class 1: < 1.55 and ≥ 1.34, Class 2: < 0.76 and ≥ 0.61) Moderate to high impact of suspended sediment on instream biota. Sensitive fish species may be lost.</p> <p>D band (below national bottom line) (Class 1: < 1.34; Class 2: < 0.61). High impact of suspended sediment on instream biota. Ecological communities are significantly altered, and sensitive fish and macroinvertebrate species are lost or at risk of being lost.</p>		
			Chesterhope (Class 1)	2.1	Improving trend	≥ 3.75			
				1.58 - D	<Kotahi Review>	<Kotahi Review>			
		Hill country tributaries	Default	No/Insufficient data	≥ 3.75	≥ 3.75			
					<Kotahi Review>	<Kotahi Review>			
			Ohara Stream (Class 3)	No/Insufficient data	≥ 3.75	≥ 3.75			
					<Kotahi Review>	<Kotahi Review>			
			Poporangi Stream (Class 1)	No/Insufficient data	≥ 3.75	≥ 3.75			
					<Kotahi Review>	<Kotahi Review>			
		Lowland tributaries	Default	No/Insufficient data	> 1.6	> 1.6			
					<Kotahi Review>	<Kotahi Review>			
			Waitio Stream (Class 2)	4.45	Maintain	Maintain			
					<Kotahi Review>	<Kotahi Review>			
			Ohiwia Stream (Class 2)	3.15	Maintain	Maintain			
					<Kotahi Review>	<Kotahi Review>			
			Tūtaekurī-Waimate Stream (Class 1)	1.58	> 1.6	> 1.6			
					<Kotahi Review>	<Kotahi Review>			
Deposited fine sediment (%)	% fine sediment cover Monthly samples Minimum 5 years	Headwaters		No/Insufficient data	<20%	<20%	<p>Light green: < 20% protects stream biodiversity and fish (native and trout) habitat.</p> <p>Russet: ≥ 20% doesn't meet protection of stream biodiversity and fish (native and trout) habitat.</p>	Biodiversity	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Kaitiakitanga- ahu whenua mahinga kai, he aha haere, taonga/tohu species habitat and spawning, cultural practices, wetlands and lakes, Māori land, marae/hapū • Natural character • Indigenous biodiversity
		Main stem		No/Insufficient data	<20%	<20%			
		Hill country tributaries		No/Insufficient data	<20%	<20%			
		Lowland tributaries	Hard bottom streams	No/Insufficient data	<20%	<20%			
Deposited fine sediment (%) NOF Table 16	% fine sediment cover Median Monthly samples Minimum 5 years				<Kotahi Review>				

TABLE 26.3.1b: Ecosystem Health (Aquatic life)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR	
Fish index of Biotic Integrity (F-IBI) NOF Table 13					<Kotahi Review>					
Macroinvertebrates MCI QMCI NOF Table 14 (Action Plan required) ASPM NOF Table 15 (Action Plan required) ASPM Macroinvertebrate average score per metric	MCI (sb MCI where relevant) Macroinvertebrate Community Index Average Below median flow QMCI (sb QMCI where relevant) Quantitative Macroinvertebrate Community Index ASPM Macroinvertebrate average score per metric	Headwaters	Default	No/Insufficient data	Improving trend	MCI ≥ 130 A	A band (blue): (MCI ≥ 130; QMCI ≥ 6.5; ASPM ≥ 0.6) Macroinvertebrate community indicative of pristine conditions with almost no organic pollution or nutrient enrichment. Macroinvertebrate communities have high ecological integrity, similar to that expected in reference conditions. B band (green): (MCI ≥ 110 and < 130; QMCI ≥ 5.5 and < 6.5; ASPM <0.6 and ≥ 0.4) Macroinvertebrate community indicative of mild organic pollution or nutrient enrichment. Largely composed of taxa sensitive to organic pollution/nutrient enrichment. Macroinvertebrate communities have mild-to-moderate loss of ecological integrity. C band (orange): (MCI ≥ 90 and < 110; QMCI ≥ 4.5 and < 5.5; ASPM <0.4 and ≥ 0.3) Macroinvertebrate community indicative of moderate organic pollution or nutrient enrichment. There is a mix of taxa sensitive and insensitive to organic pollution/nutrient enrichment. Macroinvertebrate communities have a moderate-to-severe loss of ecological integrity. D band (red): (below national bottom line) (MCI < 90; QMCI < 4.5; ASPM < 0.3) Macroinvertebrate community indicative of severe organic pollution or nutrient enrichment. Communities are largely composed of taxa insensitive to organic pollution/enrichment Macroinvertebrate communities have severe loss of ecological integrity.	Ecosystem health	<ul style="list-style-type: none"> Wai Māori Mauri Kaitiakitanga, whakapapa, taonga/tohu species habitat and spawning Natural character Indigenous biodiversity Trout 	
				Kuripapango	MCI 117 A	Improving trend				MCI ≥ 130 A
					QMCI No/Insufficient data					QMCI ≥ 6.5 A
			ASPM No/Insufficient data			ASPM ≥ 0.6 A				
			Whanawhana	MCI 117 B	Improving trend	MCI ≥ 130 A				
				QMCI 5.2 C	Improving trend	QMCI ≥ 6.5 A				
				ASPM 0.52 B	Improving trend	ASPM ≥ 0.6 A				
			Main stem	Default	No/Insufficient data	Maintain or improve				MCI ≥ 110 B
										QMCI ≥ 5.5 B
										ASPM ≥ 0.4 B
				d/s HB Dairies	MCI 111 B	Maintain				MCI ≥ 111 B
					QMCI 5.5 B	Maintain				QMCI ≥ 5.5 B
		ASPM 0.46 B			Maintain	ASPM ≥ 0.46 B				
		Fernhill		MCI 100 C	Improving trend	MCI ≥ 110 B				
				QMCI 5.3 C	Improving trend	QMCI ≥ 5.5 B				
				ASPM 0.43 B	Maintain	ASPM ≥ 0.4 B				
		Chesterhope		MCI 107.1 C	Improving trend	MCI ≥ 110 B				
				QMCI No/Insufficient data		QMCI ≥ 5.5 B				
				ASPM No/Insufficient data		ASPM ≥ 0.4 B				
		Hill country tributaries	Default	No/Insufficient data	Maintain or improve	MCI ≥ 110 B				
						QMCI ≥ 5.5 B				
				ASPM ≥ 0.4 B						

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR		
			Ohara Stream	MCI No/Insufficient data	Maintain or improve	MCI ≥ 110 B					
		QMCi No/Insufficient data		QMCi ≥ 5.5 B							
		ASPM No/Insufficient data		ASPM ≥ 0.4 B							
			Poporangi Stream	MCI 117 B	Maintain	MCI ≥ 117 B					
				QMCi 6 B	Maintain	QMCi ≥ 6 B					
				ASPM 0.6 A	Maintain	ASPM ≥ 0.6 A					
			Maraekakaho Stream	MCI 86 D	Improving trend	MCI ≥ 110 B					
				QMCi 4.5 C	Improving trend	QMCi ≥ 5.5 B					
				ASPM 0.30 C	Improving trend	ASPM ≥ 0.4 B					
		Lowland tributaries	Default	No/Insufficient data	Maintain or improve	MCI ≥ 90 C			<ul style="list-style-type: none"> • Wai Māori • Mauri • Kaitiakitanga, whakapapa, taonga/tohu species habitat and spawning • Natural character • Indigenous biodiversity 		
						QMCi ≥ 4.5 C					
						ASPM ≥ 0.3 C					
			Waitio Stream			Maintain or improve	MCI 98.1 C	MCI ≥ 98.1 C			
							QMCi 4.5 C	Maintain or improve		QMCi ≥ 0.3 C	
							ASPM 0.48 B	Maintain		ASPM ≥ 0.4 B	
			Ohiwia Stream			Improving trend	MCI 80.3 D	MCI ≥ 90 C			
							QMCi 3.1 D	Improving trend		QMCi ≥ 4.5 C	
							ASPM 0.22 D	Improving trend		ASPM ≥ 0.3 C	
			Tūtaekurī-Waimate Stream			Improving trend	MCI 75.8 D	MCI ≥ 90 C			

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
				QMCI 3.1 D	Improving trend	QMCI ≥ 4.5 C			
				ASPM 0.16 D	Improving trend	ASPM ≥ 0.3 C			
Macrophytes (max % CAV)	Monthly All year observations	Lowland tributaries		No/Insufficient data	≤ 50 %	≤ 50 %	Light green ≤ 50 % maintains ecological condition / flow conveyance / recreation values. Russet > 50% doesn't meet ecological condition / flow conveyance / recreation values.	Ecosystem health	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Kaitiakitanga, he aha haere, taonga/tohu species, mahinga kai, nohoanga, cultural practices, tauranga waka • Natural character • Indigenous biodiversity • Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use

TABLE 26.3.1c: Ecosystem Health (ecological processes)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE* ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Periphyton (mg/m ²) (Trophic state) NOF Table 2	Max exceedance < 8% of samples exceedances over 3 years monthly observations	Main stem	Fernhill	C	B	B	A band: (≤ 50 less than 8%) Rare blooms reflecting negligible nutrient enrichment and/or alteration of the natural flow regime. B band: (Exceeds >50 and ≤ 120 less than 8%) Occasional blooms reflecting negligible nutrient enrichment and/or alteration of the natural flow regime. C band: (Exceeds >120 and ≤ 200 less than 8%). Periodic short -duration nuisance blooms reflecting moderate enrichment and/or moderate alteration of the natural flow regime or habitat D band: (exceeds national bottom line) (> 200 less than 8%) Regular and/or extended-duration nuisance blooms reflecting high nutrient enrichment and/or significant alteration of the natural flow regime or habitat	Ecosystem health	<ul style="list-style-type: none"> • Uu • Wai Māori • Natural character • Mauri • Kaitiakitanga, he aha haere, taonga/tohu species habitat and spawning, mahinga kai, nohoanga, cultural practices, tauranga waka, Māori land, marae/hapū • Indigenous biodiversity
Periphyton cover (median of annual max %PeriWCC)	Monthly observations All year	Headwaters	Default	No/Insufficient data	≤ 20	≤ 20	Blue: (≤ 20) Ecological condition excellent and maintains recreation/aesthetics values. Green: (> 20 and ≤ 30)	Ecosystem health	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Kaitiakitanga, he aha haere, taonga/tohu species habitat and spawning, mahinga kai, nohoanga, cultural practices, tauranga waka, Māori land, marae/hapū • Natural character • Indigenous biodiversity • Abstractive uses including stock drinking
			Kuripapango	No/Insufficient data	≤ 20	≤ 20			
			Whanawhana	27 (2012-2015)	≤ 20	≤ 20			
		Main stem	Default	No/Insufficient data	≤ 30	≤ 30			
			d/s HB Dairies	39 (2012-2015)	≤ 30	≤ 30			

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE* ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
			Fernhill	41 (2012-2015)	≤ 30	≤ 30	Ecological condition good and maintains recreation/aesthetics values. Yellow: (> 30 and ≤ 40) Ecological condition good and doesn't meet recreation/aesthetics values. Orange: (> 40 and ≤ 55) Ecological condition fair and doesn't meet recreation/aesthetics values. Red: (> 55) Ecological condition poor and doesn't meet recreation/aesthetics values.		
			Chesterhope	No/Insufficient data	≤ 30	≤ 30			
		Upland tributaries	Default	No/Insufficient data	≤ 30	≤ 30			
			Ohara Stream	No/Insufficient data	≤ 30	≤ 30			
			Poporangi Stream	No/Insufficient data	≤ 20	≤ 20			
			Maraekakaho Stream	80 (2012-2015)	≤ 30	≤ 30			
		Lowland tributaries	Default (hard bottom streams)	No/Insufficient data	≤ 30	≤ 30			
			Waitio Stream	22 (2012-2015)	≤ 22	≤ 22			
			Ohiwia Stream	49 (2012-2015)	≤ 40	≤ 30			
Dissolved Oxygen (mg/L) NOF Table 7	Below point source 7-day mean min Summer 1 Nov – 30 Apr		Consent related		No change from background level	No change from background level	No increased risk from point source	Ecosystem health	<ul style="list-style-type: none"> Wai Māori Mauri Kaitiakitanga, whakapapa, indigenous taonga/tohu species Natural character Indigenous biodiversity Trout
Dissolved Oxygen (mg/L or %) NOF Table 17	Continuous data 7-day mean minimum 1-day minimum Summer period (Nov-April)	Headwaters		No/Insufficient data	A	≥ 8 (7-d mean min) ≥ 7.5 (1-d min) ≥ 80% saturation A	A band (blue): (7-day mean minimum ≥ 8.0; 1-day min ≥ 7.5) No stress caused by low dissolved oxygen on any aquatic organisms that are present at matched reference (near-pristine) sites.	Ecosystem health	<ul style="list-style-type: none"> Wai Māori Mauri Kaitiakitanga, whakapapa, indigenous taonga/tohu species Natural character Indigenous biodiversity Trout
		Main stem		No/Insufficient data					
		Hill country tributaries		No/Insufficient data					
		Lowland tributaries		No/Insufficient data	≥ 5 (7-d mean min) ≥ 4 (1-d min) ≥ 80% saturation C	≥ 7 (7-d mean min) ≥ 5 (1-d min) ≥ 80% saturation B			
						C band (orange): (7-day mean minimum ≥ 5.0 and < 7.0; 1-day min ≥ 4.0 and < 5.0) Moderate stress on a number of aquatic organisms caused by dissolved oxygen levels exceeding preference levels for periods of several hours each day. Risk of sensitive fish and macroinvertebrates being lost.			
						D band (red): (below national bottom line) (7-day mean minimum < 5; 1-day min < 4.0) Significant persistent stress on a range of aquatic organisms caused by dissolved oxygen exceeding tolerance levels. Likelihood of local extinctions of keystone species and loss of ecological integrity.			

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE* ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
BOD (ScBOD ₅)	Below median flow		Consent related		<2 mg/l	<2 mg/l	Aquatic organisms are not subject to risk from low dissolved oxygen conditions.		
Ecosystem Metabolism (gO ₂ m ⁻² d ⁻¹) NOF Table 21	7-day min (Dec-Mar) Young et al method				<Kotahi review>	<Kotahi review>			
Temperature (°C) 5-day CRI	Continuous measurement Cox-Rutherford-Index Averaged over 5 hottest days of summer period	Headwaters		No/Insufficient data	<Kotahi review>	≤ 1° C increment from reference state A	A band (blue): (≤ 1°C increment compared to reference site) No thermal stress on any aquatic organisms that are present at matched reference (near-pristine) sites. B band (green): (≤ 2°C increment compared to reference site) Minor thermal stress on occasion (clear days in summer) on particularly sensitive aquatic organisms such as certain insects or fish. C band (orange): (≤ 3°C increment compared to reference site) Some thermal stress on occasion, with elimination of certain sensitive insects and absence of certain sensitive fish. D band (red): (> 3°C increment compared to reference site) Significant thermal stress on a range of aquatic organisms. Risk of local elimination of keystone species with loss of ecological integrity.	Ecosystem health	<ul style="list-style-type: none"> Wai Māori Mauri Kaitiakitanga, whakapapa, taonga/tohu species, ahumoana, ahuwheua mahinga kai Natural character Indigenous biodiversity Trout
		Main stem		No/Insufficient data	<Kotahi review>	≤ 2° C increment from reference state B			
		Hill country tributaries		No/Insufficient data	<Kotahi review>	≤ 2° C increment from reference state B			
		Lowland tributaries		No/Insufficient data	<Kotahi review>	≤ 2° C increment from reference state B			
pH	At all times, 95 th percentile				<Kotahi Review>	<Kotahi Review>			
Heavy metals & metalloids, pesticides & organic contaminants, radioactive contaminants	As required		As required	No/Insufficient data	95% species protection at all times	95% species protection at all times	Greater than 95% of species are protected.	Ecosystem health	

TABLE 26.3.2: Human Contact

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR			
Cyanobacteria¹ (benthic cover %)	Monthly observations, All year	All hard bottomed streams	As required	No/Insufficient data	< 20% ¹	< 20% ¹	Light green < 20% benthic cover. Orange ≥ 20% and <50% benthic cover. Red >50% benthic cover.	Recreation	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Kaitiakitanga, he aha haere, taonga/tohu species habitat and spawning, mahinga kai, nohoanga, cultural practices, tauranga waka, Māori land, marae/hapū, • Ecosystem health • Natural character • Abstractive uses including stock drinking 			
Escherichia coli (E.coli) (cfu/100 mL) NOF Table 9	All year All flows Refer to NOF Table 9 for a fuller description of how to measure these attributes	Headwaters	Default Kuripapango Whanawhana	No/Insufficient data A A	A Maintain Maintain	A A	A band (Blue) For at least half the time, the estimated risk is <1 in 1,000 (0.1% risk). The predicted average infection risk is 1%. B band (Green) For at least half the time, the estimated risk is <1 in 1,000 (0.1% risk). The predicted average infection risk is 2%. C band (Yellow) For at least half the time, the estimated risk is <1 in 1,000 (0.1% risk). The predicted average infection risk is 3%. D band (Orange) 20-30% of the time the estimated risk is ≥50 in 1000 (>5% risk). The predicted average infection risk is >3%. E band (Red) For more than 30% of the time the estimated risk is ≥50 in 1000 (>5% risk). The predicted average infection risk is >7%.	Uu Recreation Human health	<ul style="list-style-type: none"> • Wai Māori • Mauri • Kaitiakitanga, he aha haere, ahūwhenua mahinga kai, nohoanga, cultural practices, tauranga waka, Māori land, marae/hapū connections • Aquifer recharge • Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use 			
Main stem	Refer to NOF Table 9 for a fuller description of how to measure these attributes	Headwaters	Default	No/Insufficient data	B	B						
			d/s HB Dairies	A	Maintain	Maintain						
			Fernhill	B	Maintain	Maintain						
			Chesterhope	B	Maintain	Maintain						
			Hill country tributaries	Refer to NOF Table 9 for a fuller description of how to measure these attributes	Headwaters	Default				No/Insufficient data	B	B
						Ohara Stream				No/Insufficient data	B	B
						Poporangi Stream				No/Insufficient data	B	B
						Maraekakaho Stream				D	B	B
			Lowland tributaries	Refer to NOF Table 9 for a fuller description of how to measure these attributes	Main stem	Default				No/Insufficient data	B	B
						Waitio Stream				B	Maintain	Maintain
						Ohiwia Stream				D	B	B
						Tūtaekurī-Waimate Stream				D	B	B
Escherichia coli (E.coli) (cfu/100 mL) NOF Table 22	95 th percentile of <i>E.coli</i> per 100 mL	Lowland	Ngaruroro at Chesterhope Bridge	308 Fair	<Kotahi review>		Excellent < 130 Estimated risk of <i>Campylobacter</i> infection has a <0.1% occurrence, 95% of the time. Good >130 and < 260 Estimated risk of <i>Campylobacter</i> infection has a 0.1 – 10% occurrence, 95% of the time. Fair >260 and < 540 Estimated risk of <i>Campylobacter</i> infection has a 1 - 5% occurrence, 95% of the time. Poor >540 (below national bottom line) Estimated risk of <i>Campylobacter</i> infection has a >5% occurrence, 95% of the time.	Primary contact	<ul style="list-style-type: none"> • Wai Māori • Mauri • Kaitiakitanga, he aha haere, ahūwhenua mahinga kai, nohoanga, cultural practices, tauranga waka, Māori land, marae/hapū connections • Aquifer recharge • Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use 			
Note 1 The target attribute state for cyanobacteria is applicable only in relation to Policy 16 and any exceedance triggers an alert level response by Council ((from the MfE Alert-level Framework: NZ Guidelines for cyanobacteria in recreational freshwaters.))												

TABLE 26.3.3: Groundwater (Water Use)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Any aesthetic determinand (Drinking Water Standards for New Zealand)	As required	Groundwater – all areas	<Kotahi review>	<Kotahi review>	Within guidelines specified in the Drinking Water Standards for New Zealand	Within guidelines specified in the Drinking Water Standards for New Zealand		Human Health	
E. coli (cfu / 100ml)	Maximum concentration As required	Groundwater – all areas	<Kotahi review>	<Kotahi review>	< 1	< 1		Human Health	
Nitrate-nitrogen (mg N-NO ₃ /l)	95 th percentile 5 years	Groundwater – all areas	<Kotahi review>	<Kotahi review>	< 1	< 1		Ecosystem health	
All other determinands (Drinking Water Standards for New Zealand)	As required	Groundwater – all areas	<Kotahi review>	<Kotahi review>	Within guidelines specified in the Drinking Water Standards for New Zealand	Within guidelines specified in the Drinking Water Standards for New Zealand		Human Health	
Notes: The attributes are as measured in groundwater at 10m below ground level. Some aesthetic determinands including iron, manganese and hardness are affected by geological conditions and will affect natural water quality.									

TABLE 26.3.4: Threatened Species

<Insert through Kotahi process>

TABLE 26.3.5: Mahinga Kai

<Insert through Kotahi process>

TABLE 26.3.6: Mātauaranga Māori

<Insert through Kotahi process>

TABLE 26.3.7: Wetlands and Lakes

<Insert through Kotahi process>

SCHEDULE 26.4: KARAMŪ CATCHMENT

Refer to Schedule 26 Map 4

Vision
<to be drafted through Kotahi Review process>

Outcomes
This sits in the body of the Plan. Refer to TANK Objectives 10 and 11

TABLE 26.4.1a: Ecosystem Health (Water quality)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
DIN (mg/L)	Median 5 years All flows	Karamū (Lowland)	Default	Insufficient/no data	≤ 0.444	≤ 0.444	Light Green: (≤ 0.444) Below ANZECC default guideline value, unlikely to be concerning. Orange: (> 0.444) Above ANZECC default guideline value, investigation/management recommended.	Estuary ecosystem health	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Mahinga kai, taonga/tohu species • Recreation • Aquifer recharge • Natural character • Abstractive uses including for domestic, farm and community water supply, primary production, industrial and commercial use
			Raupare Stream	0.284	Maintain	Maintain			
			Ruahapia Stream	Insufficient/no data	≤ 0.444	≤ 0.444			
			Irongate Stream	Insufficient/no data	≤ 0.444	≤ 0.444			
			Karewarewa Stream	1.119	≤ 0.444	≤ 0.444			
			Awanui Stream	0.994	≤ 0.444	≤ 0.444			
			Poukawa Stream	0.088	Maintain	Maintain			
			Herehere Stream	0.13	Maintain	Maintain			
			Mangarau Stream (Te Aute)	Insufficient/no data	≤ 0.444	≤ 0.444			
			Clive River	0.445	≤ 0.444	≤ 0.444			
Ammonia (mg NH ₄ -N/L) NOF Table 5	Annual median Annual max Unionised ammonia based on pH at 20°C All flows	Karamū (Lowland)	Default	Insufficient/no data	Median ≤ 0.03 A	Median ≤ 0.03 A	A band (blue): (Median ≤ 0.03; Max ≤ 0.05) 99% species protection level, no observed effect on any species tested. B band (green): (Median > 0.03 and ≤ 0.24; Max >0.05 and ≤ 0.40) 95% species protection; starts impacting occasionally on the 5% most sensitive species. C band: (red, below national bottom line): (Median > 0.24 and ≤ 1.30; Max > 0.40 and ≤ 2.20) 80% species protection; starts impacting regularly on the 20% most sensitive species (Reduced survival of most sensitive species). D band (purple, below national bottom line): (Median > 1.30; Max > 2.20) Starts approaching acute impact level (that is, risk of death) for sensitive species.	Toxicity	<ul style="list-style-type: none"> • Wai Māori • Mauri • Indigenous taonga/tohu species habitat and spawning, ahu moana • Aquifer recharge • Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use
					Max ≤ 0.05 A	Max ≤ 0.05 A			
			Raupare Stream	Median 0.009 A	Maintain	Maintain			
				Max 0.035 A	Maintain	Maintain			
			Ruahapia Stream	Insufficient/no data	Median ≤ 0.03 A	Median ≤ 0.03 A			
					Max ≤ 0.05 A	Max ≤ 0.05 A			
			Irongate Stream	Insufficient/no data	Median ≤ 0.03 A	Median ≤ 0.03 A			
					Max ≤ 0.05 A	Max ≤ 0.05 A			
			Karewarewa Stream	Median 0.021 A	Maintain	Maintain			
				Max 0.091 C	Improving trend	Max ≤ 0.05 A			
			Awanui Stream	Median 0.012 A	Maintain	Maintain			
				Max 0.083 C	Improving trend	Max ≤ 0.05 A			
			Poukawa Stream	Median 0.002 A	Maintain	Maintain			

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
				Max 0.01 A	Maintain	Maintain			
			Herehere Stream	Median 0.008 A	Maintain	Maintain			
				Max 0.053 B	Max ≤ 0.05 A	Max ≤ 0.05 A			
			Mangarau Stream (Te Aute)	Insufficient/no data	Median ≤ 0.03 A	Median ≤ 0.03 A			
					Max ≤ 0.05 A	Max ≤ 0.05 A			
			Clive River	Median 0.013 A	Maintain	Maintain			
				Max 0.126 B	Max ≤ 0.05 A	Max ≤ 0.05 A			
Nitrate (mg NO ₃ -NL) NOF Table 6	1. Annual median 2. Annual 95 th percentile Hazen method All flows	Karamū (Lowland)	Default	Insufficient/no data	Median ≤ 1 A	Median ≤ 1 A	A band (blue): (Median ≤ 1.0; 95 th percentile ≤ 1.5) High conservation value system. Unlikely to have adverse effects, even on sensitive species. B band (green): (Median > 1.0 and ≤ 2.4; 95 th percentile > 1.5 and ≤ 3.5) 95% species protection; some growth effects on up to 5% of species. C band : (red, below national bottom line) (Median > 2.4 and ≤ 6.9; 95 th percentile > 3.5 and ≤ 9.8) Growth effects on up to 20% of species; (mainly sensitive species such as fish). No acute effects. D band (purple, below national bottom line) (Median > 6.9; 95 th percentile > 9.8). Impacts on growth of multiple species, and starts approaching acute impact level (that is, risk of death) for sensitive species at higher concentrations (> 20 mg/L).	Toxicity	Wai Māori Mauri Indigenous taonga/tohu species habitat and spawning, ahu moana Aquifer recharge Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use
					95 th percentile ≤ 1.5 A	95 th percentile ≤ 1.5 A			
			Raupare Stream	Median 0.255 A	Maintain	Maintain			
					95 th percentile 0.830 A	Maintain			
			Ruahapia Stream	Insufficient/no data	Median ≤ 1.0 A	Median ≤ 1.0 A			
					95 th percentile ≤ 1.5 A	95 th percentile ≤ 1.5 A			
			Irongate Stream	Insufficient/no data	Median ≤ 1 A	Median ≤ 1 A			
					95 th percentile ≤ 1.5 A	95 th percentile ≤ 1.5 A			
			Karewarewa Stream	Median 1.25 B	Median ≤ 1 A	Median ≤ 1 A			
					95 th percentile 4.4 C	Improving trend			
			Awanui Stream	Median 1.2 B	Median ≤ 1 A	Median ≤ 1 A			
					95 th percentile 3.17 B	95 th percentile ≤ 1.5 A			
			Poukawa Stream	Median 0.086 A	Maintain	Maintain			
					95 th percentile 0.618 A	Maintain			
			Herehere Stream	Median 0.194 A	Maintain	Maintain			
95 th percentile 0.941 A	Maintain	Maintain							
Mangarau Stream (Te Aute)	Insufficient/no data	Median ≤ 1 A	Median ≤ 1 A						

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
					95 th percentile ≤ 1.5 A	95 th percentile ≤ 1.5 A			
			Clive River	Median 0.61 A	Maintain	Maintain			
				95 th percentile 1.832 B	95 th percentile ≤ 1.5 A	95 th percentile ≤ 1.5 A			
DRP (mg/L) NOF Table 20	Median 95 th percentile All flows	Karamū (Lowland)	Default	Insufficient/no data	Maintain or improving trend	Median ≤ 0.018; C 95 th percentile ≤ 0.054 C	<p>A band (blue): (Median ≤ 0.006; 95th percentile ≤ 0.021) Ecological communities and ecosystem processes are similar to those of natural reference conditions. No adverse effects attributable to dissolved reactive phosphorus (DRP) enrichment are expected.</p> <p>B band (green): (Median >0.006 and ≤ 0.010; 95th percentile >0.021 and ≤0.030) Ecological communities are slightly impacted by minor DRP elevation above natural reference conditions. If other conditions also favour eutrophication, sensitive ecosystems may experience additional algal and plant growth, loss of macroinvertebrate taxa and higher respiration and decay rates.</p> <p>C band (orange): (Median >0.01 and ≤ 0.018; 95th percentile >0.030 and ≤0.054) Ecological communities are impacted by moderate DRP elevation above natural reference conditions. If other conditions also favour eutrophication, DRP enrichment may cause increased algal plant growth, loss of sensitive macro-invertebrate and fish taxa, and high rates of respiration and decay.</p> <p>D band (red): (Median > 0.018; 95th percentile > 0.054) Ecological communities impacted by substantial DRP elevation above natural reference conditions. In combination with other conditions favouring eutrophication, DRP enrichment drives excessive primary production and significant changes in macroinvertebrate and fish communities, as taxa sensitive to hypoxia are lost.</p>	Estuary ecosystem health	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Mahinga kai, taonga/tohu species • Aquifer recharge • Natural character • Abstractive uses
			Raupare Stream	Median 0.027 D 95 th percentile 0.038 C	Improving trend	Median ≤ 0.018; C 95 th percentile ≤ 0.054 C			
			Ruahapia Stream	Insufficient/no data	Improving trend	Median ≤ 0.018; C 95 th percentile ≤ 0.054 C			
			Irongate Stream	Insufficient/no data					
			Karewarewa Stream	Median 0.122 D 95 th percentile 0.275 D	Improving trend	Median ≤ 0.018; C 95 th percentile ≤ 0.054 C			
				Awanui Stream					
			Poukawa Stream	Median 0.154 D 95 th percentile 0.365 D	Improving trend	Median ≤ 0.018; C 95 th percentile ≤ 0.054 C			
				Herehere Stream					
			Mangarau Stream (Te Aute)	Insufficient/no data					
			Clive River	Median 0.09 D 95 th percentile 0.23 D	Improving trend	Median ≤ 0.018; C 95 th percentile ≤ 0.054 C			

Suspended fine sediment	Recreation/ Aesthetics	Karamū (Lowland)	Default	Insufficient/no data	> 1.6	> 1.6	Recreation/ aesthetics	Recreation/ aesthetics	Ju Mauri
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ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Visual clarity (m) NOF Table 8	Visual clarity Median Monthly samples Minimum 5 years NOF: Visual clarity Median Monthly samples Minimum 5 years Suspended Sediment (Classes 1 – 4)				<Kotahi Review>	<Kotahi Review>	<p>Very Light Green: > 1.6 meets recreation/aesthetics values.</p> <p>Light Russet ≤ 1.6 doesn't meet recreation/aesthetics values.</p> <p>NOF Attribute <Kotahi Review></p> <p>A band (Class 1 ≥ 1.78 m; Class 2 ≥ 0.93) Minimal impact of suspended sediment on instream biota. Ecological communities are similar to those observed in natural reference conditions.</p> <p>B band (Class 1: < 1.78 and ≥ 1.55; Class 2: < 0.93 and ≥ 0.76) Low to moderate impact of suspended sediment on instream biota. Abundance of sensitive fish species may be reduced.</p> <p>C band (Class 1: < 1.55 and ≥ 1.34, Class 2: < 0.76 and ≥ 0.61) Moderate to high impact of suspended sediment on instream biota. Sensitive fish species may be lost.</p> <p>D band (below national bottom line) (Class 1: < 1.34; Class 2: < 0.61) High impact of suspended sediment on instream biota. Ecological communities are significantly altered, and sensitive fish and macroinvertebrate species are lost or at risk of being lost.</p>		<ul style="list-style-type: none"> • Indigenous biodiversity and mahinga kai, taonga and tohu species and habitat • Natural character • Recreation • Amenity natural character • Abstract uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use
			Raupare Stream (class 1)	1.75	Maintain	Maintain			
				1.75 B	<Kotahi Review>	<Kotahi Review>			
			Ruahapia Stream (class 1)	Insufficient/no data	> 1.6	> 1.6			
					<Kotahi Review>	<Kotahi Review>			
			Irongate Stream (class 1)	Insufficient/no data	> 1.6	> 1.6			
					<Kotahi Review>	<Kotahi Review>			
			Karewarewa Stream (class 2)	2.15	Maintain	Maintain			
				2.15 A	<Kotahi Review>	<Kotahi Review>			
			Awanui Stream (class 2)	1.5	Improving trend	> 1.6			
				1.5 A	<Kotahi Review>	<Kotahi Review>			
			Poukawa Stream (class 2)	2.02	Maintain	Maintain			
				2.02 A	<Kotahi Review>	<Kotahi Review>			
			Herehere Stream (class 2)	2.35	Maintain A	Maintain A			
	2.35 A	<Kotahi Review>	<Kotahi Review>						
Mangarau Stream (Te Aute) (class 2)	Insufficient/no data	> 1.6	>1.6						
		<Kotahi Review>	<Kotahi Review>						
Clive River (class 1)	0.85	Improving trend	≥ 1.6						
	0.85 D	<Kotahi Review>	<Kotahi Review>						
Deposited fine sediment (%)	% fine sediment cover Monthly samples Minimum 5 years 95 th percentile	Karamū (Lowland)	Hard-bottomed streams	Insufficient/no data	<20%	<20%	<p>Light green: < 20% protects stream biodiversity and fish (native and trout) habitat.</p> <p>Russet: ≥ 20% doesn't meet protection of stream biodiversity and fish (native and trout) habitat.</p>	Biodiversity	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Kaitiakitanga- ahu whenua mahinga kai, he aha haere, taonga/tohu species habitat and spawning, cultural practices, wetlands and lakes, Māori land, marae/hapū • Natural character • Indigenous biodiversity
Deposited fine sediment (%) NOF Table 16	% fine sediment cover Monthly samples Minimum 5 years				<Kotahi Review>	<Kotahi Review>			

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
				QMCI 2.5 D	Improving trend	QMCI ≥ 4.5 C			
				ASPM 0.09 D	Improving trend	ASPM ≥ 0.3 C			
				MCI 52 D	Improving trend	MCI ≥ 90 C			
			Awanui Stream	QMCI 2.7 D	Improving trend	QMCI ≥ 4.5 C			
				ASPM 0.09 D	Improving trend	ASPM ≥ 0.3 C			
				MCI 56.3 D	Improving trend	MCI ≥ 90 C			
			Poukawa Stream	QMCI 3.2 D	Improving trend	QMCI ≥ 4.5 C			
				ASPM 0.09 D	Improving trend	ASPM ≥ 0.3 C			
				MCI 60.7 D	Improving trend	MCI ≥ 90 C			
			Herehere Stream	QMCI 2.4 D	Improving trend	QMCI ≥ 4.5 C			
				ASPM 0.12 D	Improving trend	ASPM ≥ 0.3 C			
				MCI Not available	MCI ≥ 90 C	MCI ≥ 90 C			
			Mangarau Stream (Te Aute)	QMCI not available	Improving trend	QMCI ≥ 4.5 C			
				ASPM not available	Improving trend	ASPM ≥ 0.3 C			

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
			Clive River	MCI 51.4 D	MCI ≥90 C	MCI ≥90 C			
			Clive River	QMCI 2.5 D	Improving trend	QMCI ≥ 4.5 C			
				ASPM 0.09 D	Improving trend	ASPM ≥ 0.3 C			
				Insufficient/no data	≤ 50 %	≤ 50 %			
Macrophytes (max % CAV)	Monthly All year observations	Karamū (Lowland)					<p>Light Green ≤ 50 % maintains ecological condition / flow conveyance / recreation values.</p> <p>Russet > 50% doesn't meet ecological condition / flow conveyance / recreation values.</p>	Ecosystem health	<ul style="list-style-type: none"> • Uu • Wai Māori • Mauri • Kaitiakitanga, he aha haere, taonga/tohu species, mahinga kai, nohoanga, cultural practices, tauranga wak • Natural character • Indigenous biodiversity • Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use

TABLE 26.4.1c: Ecosystem Health (ecological processes)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Dissolved Oxygen (mg/L) NOF Table 7	Below point source 7-day mean min Summer 1 Nov – 30 Apr		Consent related		No change from background levels	No change from background levels	No increased risk from point source.	Ecosystem health	<ul style="list-style-type: none"> Wai Māori Mauri Kaitiakitanga, whakapapa, indigenous, toanga/tohu species Natural character Indigenous biodiversity
Dissolved Oxygen (mg/L or %) NOF Table 17	Continuous data 7-day mean minimum 1-day minimum Summer period (Nov-April)	Karamū (Lowland)	Default	No/Insufficient data	≥ 5 (7-d mean min) ≥ 4 (1-d min) ≥ 80% saturation C	≥ 7 (7-d mean min) ≥ 5 (1-d min) ≥ 80% saturation B	<p>A band (blue): (7-day mean minimum ≥ 8.0; 1-day min ≥ 7.5) No stress caused by low dissolved oxygen on any aquatic organisms that are present at matched reference (near-pristine) sites.</p> <p>B band (green): (7-day mean minimum ≥ 7.0 and < 8.0; 1-day min ≥ 5.0 and < 7.5) Occasional minor stress on sensitive organisms caused by short periods (a few hours a day) of lower dissolved oxygen. Risk of reduced abundance of sensitive fish and macroinvertebrate species.</p> <p>C band (orange): (7-day mean minimum ≥ 5.0 and < 7.0; 1-day min ≥ 4.0 and < 5.0) Moderate stress on a number of aquatic organisms caused by dissolved oxygen levels exceeding preference levels for periods of several hours each day. Risk of sensitive fish and macroinvertebrates being lost.</p> <p>D band (red, below national bottom line) (7-day mean minimum < 5; 1-day min < 4.0) Significant persistent stress on a range of aquatic organisms caused by dissolved oxygen exceeding tolerance levels. Likelihood of local extinctions of keystone species and loss of ecological integrity.</p>	Ecosystem health	<ul style="list-style-type: none"> Wai Māori Natural character Mauri Kaitiakitanga, whakapapa, indigenous taonga/tohu species Indigenous biodiversity Trout
BOD (ScBOD ₅)	Below median flow		Consent related		<2 mg/l	<2 mg/l	Aquatic organisms are not subject to risk from low dissolved oxygen conditions.	Ecosystem health	<ul style="list-style-type: none"> Wai Māori Mauri Kaitiakitanga, whakapapa, indigenous taonga/tohu species Natural character Indigenous biodiversity
Ecosystem Metabolism (gO ₂ m ⁻² d ⁻¹) NOF Table 21	7-day min (Dec-Mar) Young et al method	Karamū (Lowland)			<Kotahi review>	<Kotahi review>			
Temperature regime (°C) 5-day CRI	Continuous measurement Cox-Rutherford-Index Averaged over 5 hottest days of summer period	Karamū (Lowland)		No/Insufficient data	<Kotahi Review>	≤ 2° C increment from reference state B	<p>A band (blue): (≤ 1°C increment compared to reference site) No thermal stress on any aquatic organisms that are present at matched reference (near-pristine) sites.</p> <p>B band (green): (≤ 2°C increment compared to reference site) Minor thermal stress on occasion (clear days in summer) on particularly sensitive aquatic organisms such as certain insects or fish.</p> <p>C band (orange): (≤ 3°C increment compared to reference site)</p>	Ecosystem health	<ul style="list-style-type: none"> Wai Māori Mauri Kaitiakitanga, whakapapa, taonga/tohu species, ahumoana, ahuhwhenua mahinga kai Natural character Indigenous biodiversity

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
							Some thermal stress on occasion, with elimination of certain sensitive insects and absence of certain sensitive fish. D band (red): (> 3°C increment compared to reference site) Significant thermal stress on a range of aquatic organisms. Risk of local elimination of keystone species with loss of ecological integrity.		
pH	At all times, 95 th %ile	Karamū (Lowland)			<Kotahi review>				
Heavy metals & metalloids, pesticides & organic contaminants, radioactive contaminants	As required		As required		99% species protection at all times	99% species protection at all times	Greater than 99% of species are protected.	Ecosystem health	

TABLE 26.4.2: Human Contact

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
<i>Escherichia coli (E.coli)</i> (cfu/100 mL) NOF Table 9	All year All flows Overall band determined over 4 numeric attribute states – details see NOF Table 9	Karamū (Lowland)	Raupare Stream	E	C	C	A band (Blue) For at least half the time, the estimated risk is <1 in 1,000 (0.1% risk). The predicted average infection risk is 1%. B band (Green) For at least half the time, the estimated risk is <1 in 1,000 (0.1% risk). The predicted average infection risk is 2%. C band (Yellow) For at least half the time, the estimated risk is <1 in 1,000 (0.1% risk). The predicted average infection risk is 3%. D band (Orange) 20-30% of the time the estimated risk is ≥50 in 1000 (>5% risk). The predicted average infection risk is >3%. E band (Red) For more than 30% of the time the estimated risk is ≥50 in 1000 (>5% risk). The predicted average infection risk is >7%.	Uu Recreation Human health	<ul style="list-style-type: none"> Wai Māori Mauri Kaitiakitanga, he aha haere Ahu moana, ahuhenua mahinga kai, nohoanga, cultural practices, tauranga waka, Māori land, marae/hapū connections Aquifer recharge Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use
			Ruahapia Stream	No/Insufficient data	C	C			
			Irongate Stream	No/Insufficient data	C	C			
			Karewarewa Stream	E	C	C			
			Awanui Stream	E	C	C			
			Poukawa Stream	B	Maintain	Maintain			
			Herehere Stream	E	C	C			
			Mangarau Stream (Te Aute)	No/Insufficient data	C	C			
			Clive River	D	C	C			
			Other river reaches	E	C	C			
<i>Escherichia coli (E.coli)</i> (cfu/100 mL) NOF Table 22	95 th percentile of <i>E.coli</i> per 100 mL	Karamū	Clive River at Boat Ramp	576 D	<Kotahi Review>		Excellent < 130 Estimated risk of <i>Campylobacter</i> infection has a <0.1% occurrence, 95% of the time. Good >130 and < 260 Estimated risk of <i>Campylobacter</i> infection has a 0.1 – 10% occurrence, 95% of the time. Fair >260 and < 540 Estimated risk of <i>Campylobacter</i> infection has a 1 - 5% occurrence, 95% of the time. Poor >540 (below national bottom line) Estimated risk of <i>Campylobacter</i> infection has a >5% occurrence, 95% of the time.	Uu Recreation Human health	<ul style="list-style-type: none"> Wai Māori Mauri Kaitiakitanga, he aha haere Ahu moana, ahuhenua mahinga kai, nohoanga, cultural practices, tauranga waka, Māori land, marae/hapū connections Aquifer recharge Abstractive uses including for domestic, farm and community water supply, primary production and food production, industrial and commercial use

TABLE 26.4.3: Groundwater (Water Use)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ATTRIBUTE STATE 2040	LONG TERM TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Any aesthetic determinand (Drinking Water Standards for New Zealand)	As required	Groundwater – all areas	<Kotahi review>	<Kotahi review>	Within guidelines specified in the Drinking Water Standards for New Zealand	Within guidelines specified in the Drinking Water Standards for New Zealand		Human Health	
E. coli (cfu / 100ml)	Maximum concentration As required	Groundwater – all areas	<Kotahi review>	<Kotahi review>	< 1	< 1		Human Health	
Nitrate-nitrogen (mg N-NO ₃ /l)	95 th percentile 5 years	Groundwater – all areas	<Kotahi review>	<Kotahi review>	< 1	< 1		Ecosystem health	
All other determinands (Drinking Water Standards for New Zealand)	As required	Groundwater – all areas	<Kotahi review>	<Kotahi review>	Within guidelines specified in the Drinking Water Standards for New Zealand	Within guidelines specified in the Drinking Water Standards for New Zealand		Human Health	
Notes: <ul style="list-style-type: none"> The attributes are as measured in groundwater at 10m below ground level. Some aesthetic determinands including iron, manganese and hardness are affected by geological conditions and will affect natural water quality. 									

TABLE 26.4.4: Threatened Species

<Insert through Kotahi process>

TABLE 26.4.5: Mahinga Kai

<Insert through Kotahi process>

TABLE 26.4.6: Mātauranga Māori

<Insert through Kotahi process>

TABLE 26.4.7: Wetlands and Lakes

<Insert through Kotahi process>

SCHEDULE 26.5: AHURIRI ESTUARY / TE WHANGANUI-A-OROTŪ & WAITANGI ESTUARY

Refer to Schedule 26 Map 5

Vision

<to be drafted through Kotahi Review process>

Outcomes

This sits in the body of the Plan. Refer to TANK Objectives 10-13 and Kotahi Review

TABLE 26.5.1 AHURIRI ESTUARY/TE WHANGANUI-A-OROTŪ Ecosystem Health (Water quality)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ¹ ATTRIBUTE STATE 2040	LONG TERM ¹ TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Water column dissolved oxygen (mg/L)	Summer monitoring data for discrete specified periods: 1. 7-day mean 2. 7-day min 3. 1-day min	Ahuriri Estuary	Ahuriri Estuary on Woolshed Road	No/Insufficient data	<Kotahi Review>	7 day mean ≥ 7.0	Dissolved oxygen in the water column is sufficient to support ecosystem health and life supporting capacity	Kaitiakitanga Ecosystem Health	<ul style="list-style-type: none"> Mauri Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
					<Kotahi Review>	7 day minimum ≥ 6.0			
					<Kotahi Review>	1 day minimum ≥ 5.0			
Enterococci (cfu/100 mL)	Summer bathing season	Ahuriri Estuary	Pandora Pond at Waka Ama	95 th percentile 44	<Kotahi Review>	95 th percentile 41-200	1-5% gastrointestinal illness risk 0.3- <1.9% acute febrile respiratory illness risk MAC B grade – Mfe/MoH, 2003	Kaitiakitanga Recreation Mahinga kai	<ul style="list-style-type: none"> Uu Mauri Taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Esherichia coli (E. coli) (cfu/100 mL)	Summer bathing season	Ahuriri Estuary	Pandora Pond at Waka Ama	95 th percentile 540	<Kotahi Review>	95 th percentile 260-540	Estimated risk of Campylobacter infection has a 1-5% occurrence, 95% of the time MAC C grade – Mfe/MoH, 2003	Kaitiakitanga Recreation Mahinga kai	<ul style="list-style-type: none"> Uu Mauri Taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Water Temperature (°C)	Summer maxima	Ahuriri Estuary	Ahuriri Estuary on Woolshed Road	No/Insufficient data	Not more than 3°C difference compared to reference site	Not more than 3°C difference compared to reference site	Water temperature is maintained for ecosystem health	Kaitiakitanga Ecosystem Health	<ul style="list-style-type: none"> Mauri Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
pH	Daily summer maxima	Ahuriri Estuary	Ahuriri Estuary on Woolshed Road	No/Insufficient data	pH is greater than 7.0 and less than 8.5	pH is greater than 7.0 and less than 8.5	pH range is maintained for ecosystem health and life-supporting capacity	Kaitiakitanga Ecosystem Health	<ul style="list-style-type: none"> Mauri Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Nitrate toxicity (mg/L)	Annual median Annual 95 th percentile (Hazen)	Ahuriri Estuary	Ahuriri Estuary on Woolshed Road	Median 0.007	Maintain	Maintain	Low risk: (Median < 2.4 mg/L; and 95 th % ile < 3.5 mg/L) High risk: (Median >2.4 mg/L; and 95 th % ile >3.5 mg/L)	Kaitiakitanga Ecosystem health	<ul style="list-style-type: none"> Mauri Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
				95 th percentile 0.45					
Ammonia toxicity (mg/L)	Annual maxima for a 12-month period when corrected for pH and temperature	Ahuriri Estuary	Ahuriri Estuary on Woolshed Road	TBC	95% species protection	95% species protection	99% of species protection: (<0.16 mg/L) 95% of species protection: (<0.46 mg/L)	Kaitiakitanga Ecosystem health	<ul style="list-style-type: none"> Mauri Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Toxicants in water (as described in ANZG)	As required	Ahuriri Estuary		No/Insufficient data	Does not exceed 95% level of protection in ANZG, 2018.	Does not exceed 95% level of protection in ANZG, 2018		Kaitiakitanga Ecosystem health Mahinga kai	<ul style="list-style-type: none"> Mauri Taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Nitrogen in water (mg/L)	Annual median of no less than 8 samples in a 12-month period	Ahuriri Estuary	Ahuriri Estuary on Woolshed Road	Nitrate - Nitrogen 0.007	Where nutrient levels exceed trigger values there is an improving trend by 2040	<Kotahi Review>	Trigger values Nitrate-Nitrogen 0.05 Total Nitrogen 0.11	Kaitiakitanga Ecosystem health	<ul style="list-style-type: none"> Mauri Ecosystem health Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
				Total Nitrogen: 0.41	Where nutrient levels exceed trigger values there is an improving trend by 2040	<Kotahi Review>			
Phosphorus in water (mg/L)	Annual median of no less than 8 samples in a 12-month period	Ahuriri Estuary	Ahuriri Estuary on Woolshed Road	Dissolved Reactive Phosphorus: 0.10	Where nutrient levels exceed trigger values there is an improving trend by 2040	<Kotahi Review>	Trigger Values Dissolved Reactive Phosphorus 0.015 Total Phosphorus 0.05	Kaitiakitanga Ecosystem health	<ul style="list-style-type: none"> Mauri Ecosystem health Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
				Total Phosphorus: 0.14	Where nutrient levels trigger values there is an improving trend by 2040	<Kotahi Review>			

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ¹ ATTRIBUTE STATE 2040	LONG TERM ¹ TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Nuisance macroalgae cover	TBC	Ahuriri Estuary	TBC	No/Insufficient data		<Kotahi Review>		Kaitiakitanga Ecosystem health	<ul style="list-style-type: none"> • Uu • Mauri • Recreation • Natural Character • Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Water column Chlorophyll a (mg/L)	Annual median of no less than 8 samples in a 12-month period	Ahuriri Estuary	Ahuriri Estuary on Woolshed Road	0.002	Maintain	Maintain	Low risk: (0.004 mg/L) The risk of excessive phytoplankton growth is low	Kaitiakitanga Ecosystem health	<ul style="list-style-type: none"> • Mauri • Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Sediment Mud content (% composition)	Spatial analysis of estuary grain size	Ahuriri Estuary	Estuary to Taipo confluence	TBC	The areal extent of soft mud ² substrate in the estuary should not increase from its current extent	The areal extent of soft mud ² substrate in the estuary should not increase from its current extent	No increase in areas where sediment stress may be impacting the health of the estuary	Kaitiakitanga Ecosystem health Mahinga kai	<ul style="list-style-type: none"> • Mauri • Taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana • Natural character
Toxicants in sediments (mg/kg)	Annual median of site replicates at Estuarine Ecology Monitoring Sites	Ahuriri Estuary	Estuarine Ecology Monitoring Sites	TBC	Does not exceed interim sediment quality guidelines (ISQG) - High	Does not exceed interim sediment quality guidelines (ISQG) - Low	Rare adverse effects: (< ISQG – Low) Occasional adverse effects: (< ISQG – High) Frequent adverse effects: (>ISQG - High)	Kaitiakitanga Ecosystem health Mahinga Kai	<ul style="list-style-type: none"> • Mauri • Taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Notes									
1. The 2040 target and long term outcome are applicable to all estuary waters and are monitored at the specified sites.									
2. Soft mud refers to the proportion of the substrate that is less than 63 microns.									

TABLE 26.5.2: WAITANGI ESTUARY Ecosystem Health (Water quality)

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ¹ ATTRIBUTE STATE 2040	LONG TERM ¹ TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Water column dissolved oxygen (mg/L)	Summer monitoring data for discrete specified periods	Waitangi Estuary	Waitangi Estuary	No/Insufficient data	<Kotahi Review>	7 day mean ≥ 7.0	Dissolved oxygen in the water column is sufficient to support ecosystem health and life supporting capacity	Kaitiakitanga Ecosystem Health	<ul style="list-style-type: none"> Mauri Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana Natural character
					<Kotahi Review>	7 day minimum ≥ 6.0			
					<Kotahi Review>	1 day minimum ≥ 5.0			
Water Temperature (°C)	Summer maxima	Waitangi Estuary	Waitangi Estuary	No/Insufficient data	Not more than 3°C difference compared to reference site	Not more than 3°C difference compared to reference site	Water temperature is maintained for ecosystem health	Kaitiakitanga Ecosystem Health	<ul style="list-style-type: none"> Mauri Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
pH	Daily summer maxima	Waitangi Estuary	Waitangi Estuary	No/Insufficient data	pH is greater than 7.0 and less than 8.5	pH is greater than 7.0 and less than 8.5	pH range is maintained for ecosystem health and life-supporting capacity	Kaitiakitanga Ecosystem Health	<ul style="list-style-type: none"> Mauri Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Nitrate toxicity (mg/L)	Annual median Annual 95 th percentile (Hazen)	Waitangi Estuary	Waitangi Estuary	Median 0.26	Maintain	Maintain	Low risk: (Median < 2.4 mg/L; and 95 th % ile < 3.5 mg/L) High risk: (Median > 2.4 mg/L; and 95 th % ile > 3.5 mg/L)	Kaitiakitanga Ecosystem health	<ul style="list-style-type: none"> Mauri Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
				95 th percentile 0.57					
Ammonia toxicity (mg/L)	Annual maxima for a 12-month period when corrected for pH and temperature	Waitangi Estuary	Waitangi Estuary	No/Insufficient data	95% species protection	95% species protection	99% of species protection: (< 0.16 mg/L) 95% of species protection: (< 0.46 mg/L)	Kaitiakitanga Ecosystem health	<ul style="list-style-type: none"> Mauri Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Toxicants in water (as described in ANZG)	As required	Waitangi Estuary	Waitangi Estuary	No/Insufficient data	Does not exceed 95% level of protection in ANZG, 2018.	Does not exceed 95% level of protection in ANZG, 2018	Does not exceed 95% level of protection in ANZG, 2018	Kaitiakitanga Ecosystem health Mahinga kai	<ul style="list-style-type: none"> Mauri Taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Nitrogen in water (mg/L)	Annual median of no less than 8 samples in a 12-month period	Ahuriri Estuary	Ahuriri Estuary on Woolshed Road	Nitrate - Nitrogen 0.26	Where nutrient levels exceed trigger values there is an improving trend by 2040	<Kotahi Review>	Trigger values Nitrate-Nitrogen 0.05 Total Nitrogen 0.11	Kaitiakitanga Ecosystem health	<ul style="list-style-type: none"> Mauri Ecosystem health Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
				Total Nitrogen: 0.45	Where nutrient levels exceed trigger values there is an improving trend by 2040	<Kotahi Review>			
Phosphorus in water (mg/L)	Annual median of no less than 8 samples in a 12-month period	Ahuriri Estuary	Ahuriri Estuary on Woolshed Road	Dissolved Reactive Phosphorus 0.02	Where nutrient levels exceed trigger values there is an improving trend by 2040	<Kotahi Review>	Trigger Values Dissolved Reactive Phosphorus 0.015 Total Phosphorus 0.05	Kaitiakitanga Ecosystem health	<ul style="list-style-type: none"> Mauri Ecosystem health Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
				Total Phosphorus 0.04	Where nutrient levels exceed trigger values there is an improving trend by 2040	<Kotahi Review>			
Nuisance macroalgae cover	TBC	Waitangi Estuary	TBC	No/Insufficient data	<Kotahi Review>	<Kotahi Review>		Kaitiakitanga Ecosystem health	<ul style="list-style-type: none"> Uu Mauri Recreation Natural Character Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Water column Chlorophyll a (mg/L)	Annual median of no less than 8 samples in a 12-month period	Waitangi Estuary	Waitangi Estuary	0.001	Maintain	Maintain	Low risk: (0.004 mg/L) The risk of excessive phytoplankton growth is low	Kaitiakitanga Ecosystem health	<ul style="list-style-type: none"> Mauri Mahinga kai, taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Sediment Mud content (% composition)	Spatial analysis of estuary grain size	Waitangi Estuary	TBC	TBC	The areal extent of soft mud ² substrate in the estuary should not increase from its current extent	The areal extent of soft mud ² substrate in the estuary should not increase from its current extent	No increase in areas where sediment stress may be impacting the health of the estuary	Kaitiakitanga Ecosystem health Mahinga kai	<ul style="list-style-type: none"> Mauri Taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana Natural character

ATTRIBUTE	MEASURING SYSTEM	WATER QUALITY AREA	MONITORING SITE	BASELINE ATTRIBUTE STATE	TARGET ¹ ATTRIBUTE STATE 2040	LONG TERM ¹ TARGET ATTRIBUTE STATE	OUTCOME DESCRIPTION	CRITICAL VALUE	CRITICAL VALUE ALSO PROVIDES FOR
Toxicants in sediments (mg/kg)	Annual median of site replicates at Estuarine Ecology Monitoring Sites	Waitangi Estuary	Estuarine Ecology Monitoring Sites	TBC	Does not exceed interim sediment quality guidelines (ISQG) - High	Does not exceed interim sediment quality guidelines (ISQG) - Low	Rare adverse effects: (< ISQG – Low) Occasional adverse effects: (< ISQG – High) Frequent adverse effects: (>ISQG - High)	Kaitiakitanga Ecosystem health Mahinga Kai	<ul style="list-style-type: none"> Mauri Taonga/tohu species, indigenous taonga/tohu species habitat and spawning, ahu moana
Notes 1. The 2040 target and long term outcome are applicable to all estuary waters and are monitored at the specified sites. 2. Soft mud refers to the proportion of the substrate that is less than 63 microns.									

Schedule 27: Priority Catchments

Refer to Rule TANK 1.

This schedule sets out the thresholds used to determine the priority catchments or places. The priority catchments identified using these thresholds are shown on the Schedule 27 Maps 1 - 4 and Schedule 34 Maps 1 - 2.

The priority catchments are determined according to the following water quality attributes and risks:

1. Risk of sediment loss in t/km²/year (as modelled by SedNet)
2. Nitrogen concentrations based on SOE data and modelling
3. Risk of significant contribution of high nitrogen loads (as modelled by SOURCE and using Overseer data)
4. The level of dissolved oxygen (specific for lowland streams with slope <2 m/km)
5. Risk of significant contribution to high phosphorous levels
6. Source water areas for municipal drinking water supply.

The priority order assigned in relation to each of these water quality issues is as follows:

	High priority	Medium priority	Low priority	Long term
Sediment yield (SedNet)	>450 t/km ² /year	350 - 450 t/km ² /year	250 - 350 t/km ² /year	<250 t/km ² /year
TN yield (modelled) (all flows, average per catchment)	> 10kg/ha/yr	> 3.5 kg/ha/yr	> 1.2 kg/ha/yr	<1.2 kg/ha/yr
Dissolved Oxygen levels Class A streams (and /or where stream gradient <2m/km)	anoxia (periods of little or no oxygen)	< 3 mg/L daily minimum and/or DO saturation <30%	< 4mg/L daily minimum and/or DO saturation < 40%	< 6 mg/L daily minimum and/or DO saturation <60%
TP yield (modelled) (all flows, average per catchment)	>1.2kg/ha/yr	>0.6kg/ha/yr	>0.3kg/ha/yr	<0.3kg/ha/yr
Drinking Water Supply	Production land in SPZs (See Schedule 34 Maps 1 - 2)			

Schedule 28 Maps 1 – 4 and Schedule 34 Maps 1 – 2 show the spatial extent and location of the priority areas.


Farm Environment and Catchment Collective Plans and Industry Programmes are to be completed in the following priority order; High, Medium and Low Priority over the first 3, 6 and 9 years respectively following <the operative date> of the plan (although work can commence at any time and farmers will be encouraged to start with their own programme as soon as possible).

Schedule 28: Land Use Change

If the use of production land on farm properties or farming enterprises in the TANK catchments changes more than the amounts specified in Rule TANK 3, a consent will be required according to Rules TANK 4 and TANK 5.

Table 1 of this Schedule describes production land use activities according to the level of potential nitrogen loss risk.

Table 1: Land Use Types and Nitrogen Leaching risk

Level	Land use activity or type	Incorporating	N Leaching risk	Direction of increasing risk
6	Any change from un-irrigated to Irrigated land	Any irrigation	High leaching risk Variable leaching risk ¹	
5	Commercial Vegetable Growing	Vegetable growing for human consumption		
4	Dairy, dairy support or arable cropping	Dairy cattle and dairy support cattle, Arable as defined in RMA		
3	Pastoral land use	Sheep, beef, deer, goats,		
2	Horticulture	As defined in the RMA The use of land to grow food or beverage crops for human consumption (other than arable crops), or flowers for commercial supply.		
1	Scrub land/ Forestry	Scrub or Forestry	Low leaching risk	
Note 1; Changes to irrigation may not result in higher N loss, but any change above the specified threshold from un-irrigated land use to irrigated land use is subject to assessment				

Schedule 29: Catchment Collective, Industry Programme and Freshwater Farm Plan

The TANK Plan provides for an **Industry Programme** or a **Catchment Collective** to work on behalf of their members to meet local water quality and environmental objectives.

Alternatively, landowners may also prepare an individual **Freshwater Farm Plan**.

This schedule sets out the requirements for:

- a) The establishment of a Catchment Collective, their operation and the preparation of their Catchment Collective Plan in order for them to be approved by the Hawke's Bay Regional Council
- b) Freshwater Farm Plans
- c) Industry Programmes.

Catchment Collective Plans and Industry Programmes must identify the key water quality and water quantity management issues identified in this Plan that are relevant to:

1. The existing water quality in the catchment as indicated by
 - the modelled or measured water quality as indicated in Schedule 26
 - the Council's SOE reports
 - local water quality measured using comparable water quality monitoring methods in the applicable catchment(s) and
 - other water quality monitoring used as a guide to measure progress towards water quality targets
2. The priorities for water quality management, as shown in Schedule 27 and Schedule 27 Maps 1 - 4
3. the nature of the land and water use activities carried out within that catchment
4. the scale of the effects on water quality or water quantity from the land and water use activities in that catchment.

Any Catchment Collective Plan prepared in accordance with Schedule 29 may include or contribute to other initiatives or objectives (such as in relation to farm production, pest control, biodiversity or other land management issue) as desired by the Catchment Collective or Industry Programme. These aspects are not subject to the Council's approval but may be a means of enabling integrated land and water management for a wider range of management objectives.

Catchment Collectives

A Catchment Collective must meet the requirements set out below:

The properties within a Catchment Collective will contribute water (by overland or groundwater flow) to a waterbody common to all Catchment Collective members. Where a property straddles a catchment, a property owner may choose to belong to both groups, but if joining only one Collective, is required to join the one where the property has the greatest area. Neighbouring groups are encouraged to work collaboratively in these situations.

The relevant catchment in relation to Section A of the Schedule is the catchment of the river or stream common to all of the member properties.

Section A: Catchment Collectives Governance and Management

This section sets out the requirements for each TANK Catchment Collective.

The Catchment Collective summary report will be made publicly available through the Council website.

1. Governance and Management

- 1.1 Each Catchment Collective must address the following governance and management arrangements of the Catchment Collective including:
 - a) How decisions are to be made and how the requirements of Section B will be carried out including obligations by members to carry out the property specific requirements
 - b) Conditions of membership of the Catchment Collective by individual land managers (the 'Members' who commit to the Catchment Collective), including the circumstances and terms of membership, the conflict resolution process that will be used in the event of any disputes and the circumstances under which sanctions or removal from the

Collective including in relation to unreasonable non- performance of actions identified in clause 2 below

- c) The process for assessing performance at an individual property level compared to agreed actions at the catchment scale.

Note 1: The Catchment Collective may prepare its own terms of reference as well as manage their own decision-making processes and administration. This may include appointing a spokesperson or secretary to ensure recording and reporting work is completed as necessary.

Note 2: The Council will support the governance and management of Catchment Collectives through the provision of a conflict resolution service should this be necessary.

1.2 Information and management systems and processes to ensure:

- a) Competent and consistent performance in meeting the requirements of this Schedule
- b) Robust data management, including up-to-date registers of Catchment Collective Members
- c) Timely provision of suitable quality data and information required under clause 5 to Hawke's Bay Regional Council
- d) Conditions of membership of the Catchment Collective Plan individual land managers (the 'Members') who commit to the Catchment Collective Plan including provision of information to enable reporting requirements to be met.

1.3 A description of the Catchment Collective Plan area including:

- a) locations and maps
- b) land uses
- c) locations of:
 - (i) drains (including subsurface drains), streams, rivers, wetlands and other water bodies,
 - (ii) any Source Protection Zone or Extent for any Registered Drinking Water Supply that any properties in the programme area are located in, plus the contact details of the water supply manager (Note – Maps included with this plan show the locations of the SPZs and Extent for any Registered Drinking Water Supplies. Contact information for the supply manager is available on the Council website)
- d) activities at particular risk of nutrient loss
- e) property boundaries
- f) up-to-date details about ownership and property managers
- g) up-to-date contact details of individual land managers and landowners within the Catchment Collective (the 'Members').

2. Environmental Outcomes

2.1 The Catchment Collective Plan must include statements about the:

- a) specified target attribute states in Schedule 26 of this Plan relevant to the location of Members' properties
- b) measures or practices needed to minimise and mitigating the cumulative environmental effects of land use that will enable the specified water quality objectives to be met
- c) timeframes for when each of the actions or mitigations at a property or catchment scale are to be implemented and which are consistent with milestones specified in POL TANK 25.

2.2 The Plan must address where appropriate:

- a) managing contaminant losses (especially sediment, nitrogen and phosphorous and bacteria) to waterways including efficient use of nutrients and good management practice including when carrying out land disturbance activities and in relation to management of critical contaminant source areas
- b) where water quality does not meet 2040 target attribute states in Schedule 26, identifying how there will be reductions in losses that contribute to meeting the specified water quality including, where appropriate, reference to:
 - (i) industry specified benchmarks or good practice for nitrogen and phosphorus management
 - (ii) LUC (Land Use Capability) and soil types
 - (iii) Olsen P levels in soil
 - (iv) Stock management including stocking rates for different types of stock
 - (v) Application of fertilisers
 - (vi) Application of collected animal effluent
 - (vii) Cultivation, soil disturbance or vegetation clearance activities
- c) Management of riparian margins, including to meet the outcomes specified in POL TANK 12

- d) Maintaining or improving the physical and biological condition of soils in a manner consistent with POL TANK 19 and RRMP Rule 7 in order to avoid, remedy or mitigate problems arising from:
 - (i) Loss of topsoil by wind or water erosion
 - (ii) Movement of soils and contaminants into waterways
 - (iii) Damage to soil structure and health
 - (iv) Mass movements of soil where this can be managed by landowner mitigation
- e) Wetland management including to meet the outcomes specified in POLs TANK 15 and 25
- f) Management of animal effluent to avoid contamination of ground and surface waters
- g) Measures required to reduce risk of contamination of the source water for any Registered Drinking Water Supply
- h) Management of stock, including in relation to river or stream crossings and exclusion from waterways in a manner that complies with the Resource Management (Stock Exclusion) Regulations (2020)
- i) **in the Karamū and Poukawa Catchments:** the identification of opportunities to provide shading of the adjacent waterway or improvements to riparian margin values as specified in POLs TANK 3 and 12.

2.3 A Catchment Collective member may adopt or integrate a plan or documentation developed as part of an Industry Good Agricultural Practice programme, provided that the plan or documentation is consistent with the requirements of the Catchment Collective Plan.

3. Approval

3.1 The Catchment Collective Plan will be submitted for approval by the HBRC no later than by the end of the earliest relevant year specified for that catchment in Schedule 27. In making decisions to approve the Plan the Council will take into account:

- a) whether the requirements of this Schedule are met
- b) whether the Catchment Collective Plan is consistent with the policies, water quality objectives and milestones that are relevant for that Catchment Collective
- c) whether the Catchment Collective Plan was appropriately informed by person(s) with the necessary knowledge to make assessments about the contaminant loss risk and mitigation measures
- d) whether the governance and management systems are in place to enable the implementation of the Catchment Collective Plan.

3.2 Where approval is not given, it means the requirements of Rule TANK 1 are not able to be met and land use is therefore subject to either Rule TANK 1 (b)2 or Rule TANK 2.

4. Information Requirements

4.1 The Catchment Collective must prepare a statement of the data and information that will be collected in order to monitor implementation and report to Council.

4.2 Information will be required where appropriate about:

- a) changes to Catchment Collective area and membership
- b) nature and significance of any land use change in accordance with TANK POL 20 and Rule TANK 4 or 5 and based on land uses at 2 May 2020
- c) the results of any environmental monitoring carried out by the Catchment Collective
- d) the mitigation measures or practices carried out to reduce contaminant loss (consistent with what is industry good management practice) that will be adopted by the property owners or managers and as detailed in clause 2.1.

5. Reporting and Review

5.1 A summary report on the implementation of the Catchment Collective Plan shall be submitted annually to the Hawke's Bay Regional Council or less frequently as determined by Council if all agreed mitigations have been completed, 2040 target attribute states in Schedule 26 are being met and all land use change is authorised under Rules TANK 3, 4 or 5.

5.2 The summary report will be supplied in the format specified by Council.

5.3 The summary report will include:

- a) information collected under section 4
- b) any amendments to the programmed mitigation measures in response to any areas where the Catchment

Collective Plan is not achieving the outcomes determined in Clauses 2.1 and 2.2 of this Schedule and the timeframes for implementation, plus any changes made to them and reasons for them (including any adverse events such as severe weather, earthquakes etc.)

- c) issues or matters that require input or direction from the Council, including the management of activities outside the Catchment Collective which may be adversely affecting the achievement of the of programme objectives, including identification of additional information/support from HBRC that would assist in the achievement of the objectives of the programme.

5.4 Every 5 years the summary report shall also provide information about:

- a) adoption of any new mitigation or good practice measures identified by industry
- b) identification of opportunities for improvements to the Catchment Collective Plan including, where necessary, amending performance standards where the Catchment Collective Plan is not achieving the outcomes sought as determined in Clauses 2.1 and 2.2 of this Schedule.

6. Auditing

6.1 Auditing will be carried out as described in Section D.

Section B: Freshwater Farm Plans

If a property is not subject to a Catchment Collective Plan prepared under Section A or a TANK Industry Programme prepared under Section C of this Schedule, a Farm Freshwater Plan must be prepared in accordance with Section B.

Freshwater Farm Plan Requirements

1. Requirements for Freshwater Farm Plans

1.1 A Freshwater Farm Plan must:

- a) Be submitted to the Council no later than by the end of the earliest relevant year specified for that catchment in Schedule 27 to ensure it complies with the requirements of this Schedule and Schedule 27 including:
 - (i) in relation to the requirements of the policies, water quality objectives and milestone that are relevant for the catchment in which the farm operation is located
 - (ii) Whether the Plan was appropriately informed by a person with the necessary knowledge to make assessments about the contaminant loss risk and mitigation measures
 - (iii) Where the Plan does not meet the requirements of this Schedule or Schedule 27, the requirements of Rule TANK 1 are not able to be met and land use is therefore subject to either Rule TANK 1(b)(ii) or Rule TANK 2
- b) Contain the following information:
 - (i) physical address
 - (ii) details about ownership and property managers including contact details for the person responsible for the implementation of the Plan
- c) Be accompanied by maps or aerial photograph at a scale to clearly show:
 - (i) property boundaries
 - (ii) locations or activities likely to result in contaminant loss or at risk from contaminant loss including:
 - i. areas at risk of sediment loss
 - ii. the location of drains (including subsurface drains), streams, rivers, wetlands and other water bodies
 - iii. the location of any Source Protection Zone or Extent for any Registered Drinking Water Supply that any properties in the programme area are located in, plus the contact details of the water supply manager (*Note: Maps included with this plan show the locations of the SPZs and Extents for any Registered Drinking Water Supplies. Contact information for the water supply manager is available on the Council website*)
 - iv. activities at particular risk of nutrient loss
 - v. where contaminant discharge activities are taking place
- d) meet the requirements of Clauses 2 and 4 in Section A of this Schedule as applicable for the property, its location and the land use activities being carried out.

2. Reporting and Review

- 2.1 A report is submitted annually or less frequently as determined by Council if all agreed mitigations have been completed and target attribute states are being met.
- 2.2 The report will be in the format specified by Council.
- 2.3 The report will include:
 - a) information collected under Clause 4.2 (a) (b) (d) and (e) of Section A
 - b) any amendments to the programmed mitigation measures in response to any areas where the Freshwater Farm Plan is not achieving the outcomes sought as determined under the process described in Section A2.1 and 2.2 of this Schedule and the timeframes for implementation plus any changes made to them and reasons for them (including any adverse events such as severe weather, earthquakes etc).
- 2.4 Every 5 years the annual report shall also provide information about:
 - a) adoption of any new mitigation or good practice measures identified by industry
 - b) identification of opportunities for improvements to the programme including, where necessary, amending performance standards, and in relation to nutrient management in clause 2.3 of Section A where the Freshwater Farm Plan is not achieving the outcomes sought as determined under the process described in Section A2.1 and 2.2 of this Schedule.

3. Auditing

- 3.1 Auditing will be carried out as described in Section D.

Section C: Industry Programmes

The purpose of this schedule is to set out the minimum standards for Industry Programmes.

Applications for approval of an Industry Programme shall be lodged with the Hawke's Bay Regional Council, and shall include information that demonstrates how the following requirements are met. The Hawke's Bay Regional Council may request further information or clarification on the application as it sees fit.

Approval will be at the discretion of the Chief Executive of the Hawke's Bay Regional Council subject to the Chief Executive being satisfied that the programme will meet the standards set out below.

1. Governance and management

- 1.1 Industry Programmes must include:
 - a) A description of the governance arrangements of the programme
 - b) The contractual arrangements between the programme and its members
 - c) A description of the process for gaining and ceasing membership
 - d) A description of the programme area, including:
 - i. land uses
 - ii. key environmental issues and measures to address them
 - iii. property boundaries
 - iv. ownership details of members' properties
 - e) A procedure for keeping records including up-to-date registers of programme members and provision of data to the HBRC
 - f) Procedures agreed with the HBRC about how requirements of this Section are to be met.

2 Preparation of Freshwater Farm Plans

2.2 Industry Programmes must include:

- a) A statement of the programme's capability and capacity to deliver Freshwater Farm Plans meet the requirements of this Schedule, including:
 - i. The requirements of Section A2.1 and 2.2 of this Schedule.

3 Implementation of Freshwater Farm Plans

3.1 Industry Programmes must include:

- a) A statement of the programme's capability and capacity for monitoring and assessing the implementation of Freshwater Farm Plans, including the qualifications and experience of any personnel employed by or otherwise contracted to the programme to monitor or assess implementation of Freshwater Farm Plans
- b) A description of the expectations and agreements around landowner and property record-keeping
- c) A strategy for identifying and managing poor performance in implementing Freshwater Farm Plans.

4 Information and Reporting

- 4.1 The Industry Programme must prepare a statement of the data and information that will be collected in order to monitor implementation and report to Council.
- 4.2 Information will be required where appropriate about:
 - a) changes to programme area and membership
 - b) the results of any environmental monitoring carried out by the Industry Programme
 - c) the mitigation measures or practices carried out to reduce contaminant loss (consistent with what is industry good management practice) that will be adopted by the property owners or managers.
- 4.3 A summary report on the implementation of the Industry Programme shall be submitted annually to the Hawke's Bay Regional Council or less frequently as determined by Council if all agreed mitigations have been completed and target attribute states are being met.
- 4.4 The report will be supplied in the format specified by Council in consultation with the relevant industry group.

5 Audit

- 5.1 Industry Programmes must include a description of an-audit process to be conducted by an independent body, including:
 - a) A process for assessing the accreditation of the programme and any personnel employed by or otherwise contracted to the scheme to prepare, and audit the implementation of Freshwater Farm Plans
 - b) A process for auditing Freshwater Farm Plans
 - c) A statement of how audit results will be shared with the programme's members and the wider community
 - d) A summary audit report must be submitted to the Hawke's Bay Regional Council annually.

Section D Council Auditing and Reporting

1. The HBRC will:
 - a) Publicly report on the implementation of requirements for Freshwater Farm Plans and Catchment Collective Plans
 - b) Undertake audits of Catchment Collective Planss including on member properties in relation to individual and programme implementation of programmed works, adoption of identified good management practices, including nutrient management budgets where required
 - c) Undertake audits of properties in relation the Freshwater Farm Plan implementation of programmed works, adoption of identified good management practices, including nutrient management budgets where required.

Schedule 30: Flows, Levels and Allocation Limits

Minimum and Trigger Flows and Allocation Limits

Refer to Rules TANK 8-11. This Schedule specifies the amount of water that may be authorised for abstraction from the specified water quantity areas and the flows at which water abstraction is subject to restrictions or requirements.

The minimum flow is the flow at which surface water and Zone 1 Groundwater, groundwater takes must cease where there is no

appropriate stream flow maintenance scheme, or a water user does not participate in a stream flow maintenance scheme.

The flow maintenance trigger is the flow which stream flow maintenance schemes must maintain for participating water users to continue taking water.

The allocation limits do not apply to water abstraction that is enabled by the release of water taken at times of high flow and stored for later release but otherwise apply all year

The location and spatial extent of the water quantity areas are shown on Schedule 30 Maps 1 - 5.

Water Quantity Area (and includes any tributaries of the named river)	Water bodies (includes sub area)	Flow management site	Minimum Flow (litres/second)	Flow maintenance trigger (litres/second)	Allocation limit (litres/second for surface water and Zone 1 Groundwater; and cubic metres ³ /per year for groundwater)
Ahuriri	All surface water	n/a	n/a	n/a	Existing use only ¹
	All groundwater	n/a	n/a	n/a	Existing use only ¹
Karamū/ Clive River	Awanui Kawerawera-Paritua	The Flume	120	120	Total not to exceed 30 l/s
		Pakipaki		75	
	Irongate	Clarks Weir ²	100	100	
	Louisa Stream	Te Aute Rd	30	30	
	Mangateretere Stream	Napier Rd	100	100	
	Karamū River	Floodgates	1100	1100	
	Raupare Stream	Ormond Rd	300	300	70 l/sec
	Poukawa incl Lake Poukawa Groundwater	n/a	n/a	n/a	Existing use only ¹
	Poukawa incl Lake Poukawa Surface water	At Douglas Rd ²	20	n/a	Existing use only ¹
Ngaruroro River s/w and g/w	Maraekakaho River	Tait Rd	109	n/a	36 l/sec
	Tūtaekurī -Waimate	Goods Bridge	1200	n/a	607 l/sec
	Ngaruroro River (surface and Zone 1 Groundwater)	Fernhill ²	2400		1300 l/sec
	Ngaruroro Groundwater	N/a	n/a	n/a	Existing use only ¹

Water Quantity Area (and includes any tributaries of the named river)	Water bodies (includes sub area)	Flow management site	Minimum Flow (litres/second)	Flow maintenance trigger (litres/second)	Allocation limit (litres/second for surface water and Zone 1 Groundwater; and cubic metres ³ /per year for groundwater)
Tūtaekurī River s/w and g/w	Mangatutu Stream	Puketapu	3800		120 l/sec
	Mangaone River	Puketapu	2500		140 l/sec
	Tūtaekurī (surface plus Zone 1 Groundwater)	Puketapu	2500		1140 l/sec
	Tūtaekurī groundwater	n/a	n/a		Existing use only ¹
Heretaunga Plains Groundwater Quantity Area	Heretaunga Plains groundwater	n/a	n/a		Existing use only ¹

Note 1: Allocation limit is the total amount allocated to consents granted prior to 2 May 2020 or a lesser amount where water is allocated subject to Actual and Reasonable use

Schedule 31: High Flow Allocation

Refer to Rules TANK 13-18. 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. They apply to water abstraction that is enabled by the damming and release of water taken or dammed at times of high flow and stored for later release.

(a) River Name	(B) Flow Management Site	(C) Flow Trigger	(D) High Flow Allocation	(E) Amount reserved to give effect to Policy 57	(F) Limits for Damming
Ngaruroro	Fernhill	20 m ³ /sec	8,000litres per second* This includes; the 2 m ³ /sec allocation allocated in consents existing at 2 May 2020: <ul style="list-style-type: none"> the amount taken from high flow in any tributary of the Ngaruroro the amount specified in column (E) 	1,200 litres per second	Damming on mainstem of Ngaruroro River is prohibited
		All Trigger flows above 5000 l/sec	Abstraction of up to 1 m ³ /sec authorised in consents existing as at 2 May 2020. Included in the 1m ³ /sec is abstraction of up to 400l/sec which is solely available to be discharged into the Paritua Stream to provide for stream enhancement		n/a
		Trigger flows above 2400l/sec	200 l/sec which is solely available to be discharged into the Paritua Stream to provide for stream enhancement.		
Ngaruroro and Tūtaekurī Tributaries		Median flow	The high flow allocation from the tributary is proportional to its contribution to the mainstem. It is part of the total allocation for the mainstem high flow allocation	20% of any high flow allocation from any tributary	No change of more than 10% to FRE ₃ in the mainstem of the applicable River. Damming on the mainstem of the Taruarau Omahaki, Mangaone and Mangatutu is prohibited
Tūtaekurī	Puketapu	8,000 litres per second	2,500 litres per second This includes: <ul style="list-style-type: none"> the amount taken from high flow in any tributary of the Tūtaekurī the amount specified in column (E). 	500 litres per second	Damming on the mainstem of the Tūtaekurī River is prohibited

Schedule 32: Water Permit Expiry Dates

Refer to POL TANK 46 and Rules TANK 8 - 11. The Council will consider the following Schedule when determining the duration of any permit to take and use water.

Where appropriate, the duration of the consent will be consistent with the next common expiry date for the relevant water management as shown in this Schedule. If an application is made up to three years before the next due date for the relevant zone, the Council may issue the permit for the following expiry date.

For applications in an area for which no expiry date is specified, the duration of the consent will be a matter for Council's discretion.

Current common expiry date	Management Area	Next common expiry dates	
		1 st due date	2 nd due date
Groundwater (Heretaunga Plains Groundwater Quantity Area)			
2018 + 2019	Poraiti	2033	2047
2028 + 2029		2047	2059
2019 + 2018	Ahuriri	2033	2048
2019	Unconfined Aquifer & Unconfined part of Twyford	2035	2050
2020	Twyford Confined	2035	2050
2021	St George	2036	2051
2022	Te Mata	2037	2052
2023	Longlands/Pakipaki, Hastings	2038	2053
2024	Haumoana, Whakatu/Clive,	2039	2054
2024	Twyford	2040	2055
2025		2040	2055
2025	Pakowhai, Omarunui,	2040	2055
2026	Moteo	2041	2056
2027	Napier/Meeanee	2042	2057
2023	Karamū Catchment	2040	2058
2028		2043	2058
Groundwater (not including Zone 1 Groundwater or Heretaunga Plains Groundwater Quantity Area)			
2019	Ahuriri	2039	2059
2029		2044	2059
2023	Karamū Catchment	2040	2058
2028		2043	2058
2028	Tūtaekurī Catchment	2043	2058
2025	Ngaruroro Catchment	2040	2055
Surface Water (including Zone 1 Groundwater)			
2023	Karamū (and all tribs except Raupare)	2040	2058
2028		2043	2058
2025	Raupare	2040	2055
2026	Tūtaekurī-Waimate	2041	2056
2028	Tūtaekurī (Whole Catchment)	2043	2058
2025	Ngaruroro (Whole Catchment)	2040	2055
2019	Ahuriri	2039	2059
2028		2043	2059

Schedule 33: Stormwater Management

Section A: Stormwater Management Plan

Refer to Rules TANK 23 - 25. A Stormwater Management Plan (SMP) is required to outline the methods by which the site manager or owner will address the risk posed by usage and storage of contaminants of concern associated with the industrial or retail activity. The SMP will specifically include the following information as a minimum:

1. Name and description of Company and location of site

Full description of the entity and the physical location of the site.

2. Site activities and stores

What activities are on site? What facilities are on site? Attach maps/diagrams if necessary.

3 Site layout and drainage plan(s)

Written summary and maps and plans. Boundaries, location of proposed activities and location of water features on property (streams, drains, ponds etc.).

4 Site receiving environments

Insert information about the discharge areas into receiving environments and attach maps/plans if necessary.

5 Identification of risks with the activities on the property and how they will be managed

Descriptions of:

Management of contaminants of concern: how the consent holder will ensure contaminants of concern and hazardous substances are not discharged

Methods of protecting and where possible improving receiving water quality environments

Source control: methods of good site management, including contingency measures in event of a spill or hazardous event.

6 Management of stormwater treatment devices

Insert full descriptions of all your stormwater treatment devices and reasoning for use. If you need to install devices but have not yet done so explain here including the timeframe for doing so.

7 Maintenance programme

Written summary of how stormwater devices will be monitored over time.

Section B: Integrated Catchment Management Plan

Refer to Rule TANK 23. An application for resource consent for network discharges must include an integrated catchment management plan that includes:

1. A monitoring programme to assess existing stormwater discharge quality and level of impact on receiving water quality standards
2. Identification of the spatial extent of the stormwater network to which the application for consent relates
3. Identification of the priority streams or catchments where stormwater discharges currently result in receiving water quality below the standards specified in Schedule 26
4. A programme of mitigation measures including timeframes and milestones for the enhancement of streams identified in (3)
5. Identification of any industrial or trade sites, that use, store or produce the discharge of any contaminant of concern (as defined in Table 3.1 of Hawke's Bay Waterway Guidelines Industrial Stormwater Design)
6. Identification of sites within catchments that have a high risk of contaminants entering the stormwater network or land where it might enter surface or groundwater, including industrial and trade premises and areas subject to new urban development
7. For sites identified in (6), a programme to ensure Urban Site Specific Stormwater Management Plans are prepared and implemented so that stormwater quality risks are managed. (Schedule 33 Section A)
8. Identification of areas at risk of flooding, and where levels of service to protect communities from flooding are not being met provide information about how this will be managed
9. The potential effects of climate change on infrastructure capacity and a description of any planned mitigation measures including the identification of secondary flow paths and the capacity of the receiving environment
10. Identification of measures to demonstrate how discharges shall not cause scouring or erosion of land or any water course beyond the point of discharge
11. Where the stormwater network (or part thereof) or discharge locations are situated within a Source Protection Zone of a registered drinking water supply, a description of measures to prevent or minimise adverse effects on the quality of the source water for the registered drinking water supply or any increase in the risk of unsafe drinking water being provided to persons and communities from the drinking water supply
12. Description of measures to demonstrate how the discharge shall not contain hazardous substances or contaminants (including wastewater) and shall not cause any of the following to occur after reasonable mixing:
 - i. production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials
 - ii. any emission of objectionable odour
 - iii. Any conspicuous change in colour or visual clarity of the receiving water
 - iv. any freshwater becoming unsuitable for consumption by farm animals
 - v. the destruction or degradation of any habitat, mahinga kai, plant or animal in any water body or coastal water.

Schedule 34: Source Protection for Drinking Water Supplies

Refer to POLs TANK 7 – 9 and Rules TANK 2-25 and RRMP Rules 1 – 4, 12 -15, 37, 62, 62B. The location and details of groundwater wells (including water infiltration galleries) and surface water intakes used as the source of a Registered Drinking Water Supply can be found on the Registered Drinking Water Supply Protection Zone map layers on the HBRC website. For the avoidance of doubt, the term “Source Protection Zone” or “SPZ” in this Plan includes provisional SPZs and SPZs defined in accordance with this Schedule.

Source Protection Zones

Existing Registered Drinking Water Supplies that provide drinking water to no fewer than 501 people for not less than 60 days per year will have provisional Source Protection Zones determined according to the provisions of Table 1 until the relevant resource consent requires replacement or until an application for resource consent to amend a Source Protection Zone is made. The maps showing the spatial extent of these areas are shown on Schedule 34 Maps 1 - 2.

Table 1: Method for calculating provisional SPZ

Registered Drinking Water supply	Method for calculating SPZ
Hastings District Council Municipal Supply	Hawke’s Bay Regional Council Heretaunga Plains Groundwater Model
Napier City Council Municipal Supply	Analytical Element Model meeting artesian head criterion

Where the holder of a water permit for an existing Registered Drinking Water Supply considers the Source Protection Zone is not adequate for the level of protection required for that supply or where new information significantly amends the modelling output, an application may be made to amend the resource consent conditions of the water permit and establish an amended Source Protection Zone

The dimensions of a Source Protection Zone shall form part of any application for resource consent to take or use water for a new Registered Drinking Water Supply or the replacement of an existing permit for that purpose.

The location and extent of a Source Protection Zone around a Registered Drinking Water Supply are to be determined using appropriate technical guidance provided by any relevant National Environmental Standard, National Policy Statement or technical guidance document endorsed by the Ministry for the Environment using site specific information listed in Table 2 below and according to the minimum requirements for the relevant population in Table 3.

Table 2: Site Specific Information

Site Specific Information
1. the topography, geography and geology of the site;
2. the depth of the well;
3. the construction of the well;
4. pumping rates;
5. the type of aquifer;
6. the rate of flow in the surface waterbody;
7. the types of actual or potential contaminants;
8. the level of treatment that the abstracted water will receive;
9. any potential risk to water quality

Table 3: Methodology for Determining Source Protection

Population served class	Microbial Treatment?	Meets Artesian Head criterion	Method	Uncertainty assessment approach
25 – 100	Yes	Yes or No	Manual	None
	No	Yes	Manual	None
	No	No	Manual	Sensitivity analysis
100-500	Yes	Yes	Manual	None
	Yes	No	Manual	Sensitivity analysis
	No	Yes	Manual	Sensitivity analysis
	No	No	Analytical Element Model	Sensitivity analysis

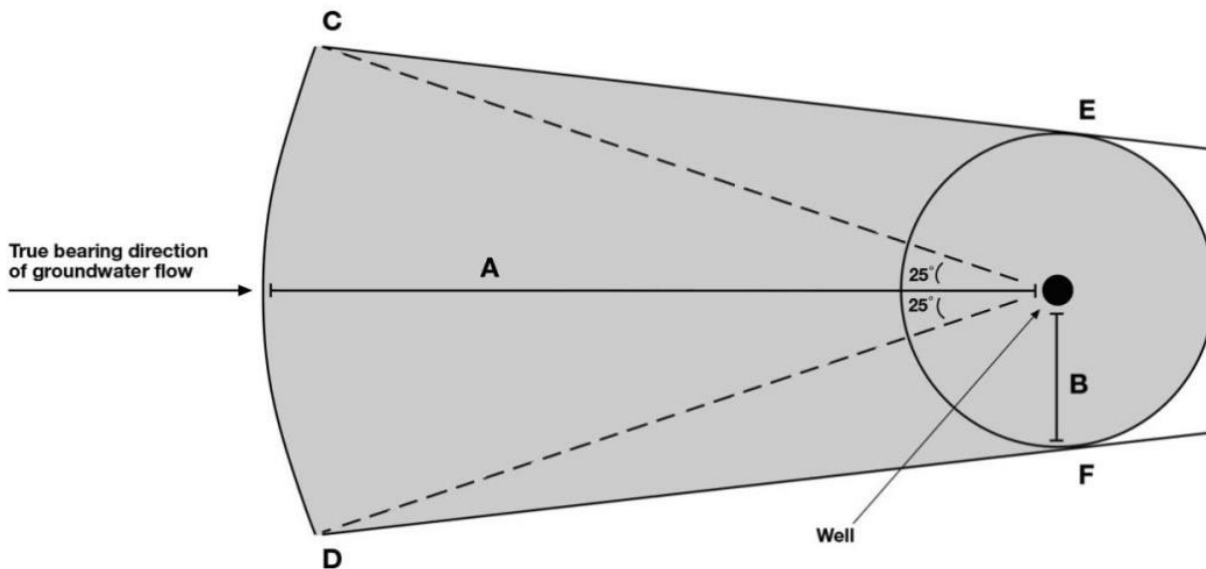
Population served class	Microbial Treatment?	Meets Artesian Head criterion	Method	Uncertainty assessment approach
501-5,000	Yes	Yes	Manual	Sensitivity analysis
	Yes	No	Analytical Element Model	Sensitivity analysis
	No	Yes	Analytical Element Model	Sensitivity analysis
	No	No	Analytical Element Model	Stochastic Uncertainty Analysis
>5000	Yes	Yes	Analytical Element Model	Stochastic Uncertainty Analysis
	Yes	No	Numerical Model	Sensitivity analysis
	No	Yes	Numerical Model	Sensitivity analysis
	No	No	Numerical Model	Stochastic Uncertainty Analysis

Source Protection Extent

Method for calculating the area of a provisional Registered Drinking Water Supply Protection Extent.

Existing groundwater Registered Drinking Water Supplies that provide drinking water to between 25 and 500 people for not less than 60 days per year will be protected for the distances specified in Figure 1 and Table 4 below. This provisional protection extent applies until the relevant resource consent requires replacement or until an application to amend the protection extent is made in accordance with the requirements of Tables 2 and 3.

Figure 1 Method for calculating the area of a provisional registered drinking water supply extent



The area of the source protection extent is determined by selecting from the Table 4 below depending on the screen depth (or well depth if no screen depth is recorded) and aquifer type.

Table 4; Provisional Protection Extent

Screen Depth (or well depth if no screen depth is recorded)	Aquifer Type	Protection Distances (m)	
		Up-gradient from bore (A)	Radius around bore
<10m	All	2,000	200
10 - <30 m	Unconfined or semi-confined	1,000	200
	Confined	100	100
30 – 70 m	Unconfined or semi-confined	500	200
	Confined	100	100
>70 m	Unconfined or semi-confined	100	100
	Confined	100	100

Public Information

All existing and new Registered Drinking Water Supplies and their Source Protection Zones or extent will be added to the Registered Drinking Water Supply Source Protection map layers on Hawke’s Bay Regional Council GIS mapping website.

Appendix D – names and address of persons to be served with the appeal

No	Name	Organisation	Address	Email
1	Ben Goodwin		372 Te Ranga Road, Te Onepu, New Zealand, 4174	bgoo022@gmail.com
2	Angus Wall		307 Knight Street, Hastings, New Zealand, 4122	flynnwall@gmail.com
3	Gavin Yort	Limestone Properties Limited	PO Box 14065, Mayfair, Hastings, New Zealand, 4159	toni@squawkingmagpie.co.nz
4	Des Ratima	Takitimu District Maori Council	PO Box 51, Whakatu, Hastings, New Zealand, 4172	desratima52@gmail.com
6	Daniel Soltau		41 Waipatu Settlement Road, RD 2, Karamu, Hastings, New Zealand,	soltau@gmail.com
7	Neil Eagles		30 Trigg Cres, Taradale, Napier, New Zealand, 4112	nandgeagles@outlook.com
8	Rengasamy Balasubramaniam	Delegat Limited	PO Box 305, Blenheim, New Zealand, 7240	bala@delegat.com
9	Lynette Blackburn		155 Thompson Road, RD10, Havelock North, New Zealand, 4180	glmblackburn@gmail.com
10	David Renouf		603A Ballantyne Street, Frimley, Hastings, New Zealand, 4120	
11	Matt Edwards		246 Waverley Road, Meeanee, Napier, New Zealand, 4112	
12	Alec Duncan	Ministry of Education	PO Box 448, Hamilton, New Zealand, 3240	alec.duncan@beca.com
13	Alec Duncan	Fire and Emergency New Zealand	PO Box 448, Hamilton, New Zealand, 3240	alec.duncan@beca.com
14	Ryan Fraser		2112 Mareakakaho, Hastings, Hastings, New Zealand, 4120	ryan.fraser@paritua.com
15	Andrea and Phil Cranswick	Meridiem Trust	195 Ngatarawa Road, RD5, Hastings, New Zealand	andrea.cranswick@xtra.co.nz
16	Bernadette Hamlin		802 Collinge Road, Mayfair, Hastings, New Zealand, 4122	baebham@hotmail.co.nz
17	Richard Riddell	Olrig Limited	1233 Kereru Road, Maraekakaho, Hastings, New Zealand, 4171	richard1riddell@gmail.com
18	Mark Cairns	MD Cairns & AR Wright Partnership	PO Box 8718, Havelock North, Hastings, New Zealand, 4157	mark@magnitudewines.co.nz
19	John Palmer		80 Aorangi Road, RD1, Hastings, New Zealand	jpalmer.awarua@xtra.co.nz
20	Bruce Nimon		680 Ohiti Road, Crownthorpe, New Zealand, 4179	Bruce@kokakofarms.co.nz
21	Robert & Helen Patullo	Newstead Farm Ltd	1192 Puketitiri Road, RD4, Napier, New Zealand, 4184	newstead@ruralinzone.net
22	Peter Clayton	PB & BG Clayton	214 Swamp Road, RD3 , Napier, New Zealand, 4183	pbclayton@xtra.co.nz
23	Kerry Sixtus	Pattullo's Nurseries Limited	1023 Links Road, RD3 , Napier, New Zealand, 4183	kerry@appletrees.co.nz
24	Jim Watt	Saint Columba's Havelock North Environment Group (SCHNEG)	PO Box 8487, Havelock North, Hastings, New Zealand, 4157	jpc.watt@gmail.com
26	Robin Back	Dunvegan Estate	20 Dunvegan Road, RD5, Hastings, New Zealand	randmback@gmail.com
27	Richmond Beetham		Te Wharau Road, Kourarau Hill, Kourarau Hill, New Zealand, Unknow	rsbeetham@hotmail.com
28	Hamish Clark	Saint Clair Family Estate Ltd	PO Box 970 , Blenheim, New Zealand	hamish@saintclair.co.nz
29	Adele Fitzgerald	Hawke's Bay Winegrowers' Association Inc.	PO Box 1174, Hastings, New Zealand, 4156	adele@hawkesbaywine.co.nz
30	Anthea Yule	Paranui Farming Trust	759 Otamaru Road, RD 9, Hastings, New Zealand, 4179	farming@paranui.co.nz
31	Bernie Kelly	Hawke's Bay Canoe Club	47 Ferry Road , Clive, Hastings, New Zealand, 4102	berniekelly47@gmail.com
32	Kent Griffiths		361 Twyford Road, RD5, Hastings, New Zealand	kentokid@xtra.co.nz
33	Bruce McGregor		1707 Pakaututu Road, R D 4, Napier, New Zealand, 4184	mcg@mcgfarming.co.nz
34	Jonathan Hamlet	Craggy Range Vineyards Limited	PO Box 8749, Havelock North, Hastings, New Zealand	jonathan.hamlet@craggyrange.com
35	Colin Campbell		118 Waihau Road, RD6, Napier, New Zealand, 4186	colin.campbell117@gmail.com
36	Karen Morrish	Mr Apple New Zealand Ltd	2 Station Road, Whakatu, Hawke's Bay, New Zealand, 4172	Karen.Morrish@mrapple.com
37	Greg Evans	Dartmoor Estate Ltd	643 Dartmoor Road, DR6, Napier, New Zealand, 4183	greg@grochem.com
38	Roger Brownlie		PO Box 41, Bay View, Napier, New Zealand, 4149	the.orchard@xtra.co.nz
39	Bridget Wilton	MbandSons	387 Ngatarawa Road, Hastings, Hawke's Bay, New Zealand	MBandSons76@gmail.com
40	Jeremy White	J and S White Contracting Ltd	1262 Waihau Rd, RD 6, Napier, New Zealand	sharron.jwhite@xtra.co.nz
41	Jonathan Milmine	Milmine Holdings Limited	1904 Maraekakaho Road, RD1, Hastings, New Zealand, 4171	johnny@primelimes.co.nz
42	Glenn Riddell	Glenmore Orchard	37 Twyford Road, RD 5 , Hastings, New Zealand, 4175	glenmore@xtra.co.nz
43	CA & GW Wilson	Meiros Orchard Ltd	380 Dartmoor Road, Puketapu, RD6, Napier, New Zealand, 4186	meiros@xtra.co.nz

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