

## **Evidence Received**

Proposed Plan Change 9

Tūtaekurī Ahuriri Ngaruroro Karamū  
Catchment Area

### **PART 2**

May 2021

## List of Evidence Received in Numeric order

Original Sub #	Evidence #	Organisation Name – Individuals Name
<b>PART 1</b>		
12	1	Ministry of Education - Alec Duncan
13	1	Fire and Emergency New Zealand – Alec Duncan
29, 194, 208, & 238	1	Hawke’s Bay Winegrowers Association, Gimblett Gravels Winegrowers Association, Villa Maria Estate Limited, Pernod Ricard Winemakers New Zealand Limited (collectively ‘The Winegrowers’) - Andrew Laughton Dark
	2	Hawke’s Bay Winegrowers Association, Gimblett Gravels Winegrowers Association, Villa Maria Estate Limited, Pernod Ricard Winemakers New Zealand Limited (collectively ‘The Winegrowers’) – Edwin John Massey
	3	Hawke’s Bay Winegrowers Association, Gimblett Gravels Winegrowers Association, Villa Maria Estate Limited, Pernod Ricard Winemakers New Zealand Limited (collectively ‘The Winegrowers’) – Emma Taylor
	4	Hawke’s Bay Winegrowers Association, Gimblett Gravels Winegrowers Association, Villa Maria Estate Limited, Pernod Ricard Winemakers New Zealand Limited (collectively ‘The Winegrowers’) – Fabin Yukich
	5	Hawke’s Bay Winegrowers Association, Gimblett Gravels Winegrowers Association, Villa Maria Estate Limited, Pernod Ricard Winemakers New Zealand Limited (collectively ‘The Winegrowers’) – Mark St Clair
54	1	Apatu Farms Ltd – Anthony Davoren
63 & 207	1	Hastings District Council & Napier City Council – Annette Sweeney
	2	Hastings District Council & Napier City Council – Annette Sweeney (Appendix A)
	3	Hastings District Council & Napier City Council – Brent Chapman
	4	Hastings District Council & Napier City Council – Cameron Drury
	5	Hastings District Council & Napier City Council – Mark Clews
	6	Hastings District Council & Napier City Council – Paulina Wilhelm
	7	Hastings District Council & Napier City Council – Russell Bond

Original Sub #	Evidence #	Organisation Name – Individuals Name
<b>PART 2</b>		
66	1	Ngaruroro Irrigation Society – Anthony Davoren
82	1	Lowe Corporation – Andy Lowe
	2	Lowe Corporation – Gerard Willis
120	1	Ngāti Kahungunu Iwi Incorporated – Grey Wilson
	2	Ngāti Kahungunu Iwi Incorporated – Peter Fraser
<b>PART 3</b>		
132	1	Te Taiwhenua o Heretaunga – Marei Boston Apatu
	2	Te Taiwhenua o Heretaunga – Tank Hearings Presentation
	3	Te Taiwhenua o Heretaunga – Maurice Wayne Black
	4	Te Taiwhenua o Heretaunga – Maurice Wayne Black (Appendix 1)
	5	Te Taiwhenua o Heretaunga – Maurice Wayne Black (Appendix 2)
	6	Te Taiwhenua o Heretaunga – Maurice Wayne Black (Appendix 3)
	7	Te Taiwhenua o Heretaunga – Maurice Wayne Black (Appendix 4)
	8	Te Taiwhenua o Heretaunga – Maurice Wayne Black (Appendix 5)
	9	Te Taiwhenua o Heretaunga – Maurice Wayne Black (Appendix 6)
	10	Te Taiwhenua o Heretaunga – Maurice Wayne Black (Appendix 7)
	11	Te Taiwhenua o Heretaunga – Maurice Wayne Black (Appendix 8)
	12	Te Taiwhenua o Heretaunga – Maurice Wayne Black (Appendix 9)
	13	Te Taiwhenua o Heretaunga – Maurice Wayne Black (Appendix 10)
	14	Te Taiwhenua o Heretaunga – Maurice Wayne Black (Appendix 11)

Original Sub #	Evidence #	Organisation Name – Individuals Name
	15	Te Taiwhenua o Heretaunga – Maurice Wayne Black (Appendix 12)
<b>PART 4</b>		
135	1	Ravensdown – Anna Wilkes
	2	Ravensdown – Carmen Taylor
180	1	Horticulture New Zealand – Andrew Dooney
	2	Horticulture New Zealand – Catherine Sturgeon
	3	Horticulture New Zealand – Damien Farrelly
	4	Horticulture New Zealand – Gill Holmes
	5	Horticulture New Zealand – Michelle Sands
	6	Horticulture New Zealand – Stuart Ford
193	1	Heinz Watties Ltd – Anthony Davoren
195	1	Federated Farmers New Zealand – Rhea Dasent
197	1	Beef + Lamb New Zealand – Gerry Kessels
	2	Beef + Lamb New Zealand – Dr Michael Greer
	3	Beef + Lamb New Zealand – Tom Orchiston
203	1	The Oil Companies – Philip Brown
	2	The Oil Companies – Annexure 1
	3	The Oil Companies - Annexure 2
	4	The Oil Companies - Annexure 3

Original Sub #	Evidence #	Organisation Name – Individuals Name
201	1	Royal Forest and Bird Protection Society of New Zealand Incorporated – Thomas Kay
	2	Royal Forest and Bird Protection Society of New Zealand Incorporated – Thomas Kay (Appendix 1)
	3	Royal Forest and Bird Protection Society of New Zealand Incorporated – Thomas Kay (Appendix 2)
	4	Royal Forest and Bird Protection Society of New Zealand Incorporated – Thomas Kay (Appendix 3)

**BEFORE THE INDEPENDENT HEARING PANEL  
APPOINTED BY HAWKE'S BAY REGIONAL COUNCIL**

**IN THE MATTER** of the Resource Management Act  
1991

**AND**

**IN THE MATTER** of the hearing of submissions on  
Proposed Plan Change 9 (PPC9)  
– Tūtaekurī, Ahuriri, Ngaruroro  
and Karamū Catchments (TANK)

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**EVIDENCE OF ANTHONY DAVOREN  
FOR NGARURORO IRRIGATION SOCIETY INCORPORATED**

**11 MAY 2021**

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## **INTRODUCTION**

### **Qualifications and Experience**

1. My name is Anthony Davoren.
2. I am currently a private consultant to applicants and submitters as an expert witness, orchard management companies, consulting companies and grower co-operatives (e.g. Zespri). Prior to my current position I was employed as an Irrigation Management Consultant, Aqualinc Research Ltd. I owned HydroServices Ltd, a company specialising in soil moisture measurement and irrigation management from 1983 to 2016.
3. I hold a Bachelor and Masters (1<sup>st</sup> Class) in Science from University of Waikato, majoring in Earth Sciences; and a PhD in Engineering Science from Washington State University.
4. I have 38 years professional experience measuring soil moisture, irrigation management and acting as an expert witness at resource consent hearings. I have been an expert witness at resource consent and Environment Court hearings for:
  - 4.1. Canterbury Groundwater Zones;
  - 4.2. Irrigation of industrial and urban wastewater hearings for Canterbury Meat Packers and Selwyn District Council (Leeston);
  - 4.3. Selwyn District Council Rolleston urban wastewater discharge (resource consent hearing only);
  - 4.4. Manawatu District Council for the Feilding wastewater treatment plant discharge consent;
  - 4.5. Southland District Council in respect of the Te Anau wastewater discharge consent;
  - 4.6. Ngaruroro Water Conservation Order; and
  - 4.7. Otago Regional Council Plan Change 7.

### **Code of Conduct**

5. While this is not a hearing before the Environment Court I confirm that I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note. This evidence has been prepared in accordance with the Code and I agree to comply with it. I confirm that the evidence and opinions I have expressed in my evidence are within

my areas of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

### **Scope and purpose of evidence**

6. My evidence addresses the following matters:
  - 6.1. Policy 21; TANK 5 and 6; and Schedule 29 Table 1 regarding land use change and nutrient loss.
  - 6.2. Policy 37 and TANK 10 regarding restriction on re-allocation of water;
  - 6.3. Policy 45 regarding water meter installation;
  - 6.4. Policy 47 regarding efficient allocation of water;
  - 6.5. Glossary of Terms
7. In preparing this evidence I have relied on the following reports and presentations prepared for the TANK process, and:
  - 7.1. Hearing Report on Proposed Plan Change 9 (including Appendices) - Tūtaekurī Ahuriri Ngaruroro Karamū Catchment Area. Hawke's Bay Regional Council Publication No.5550, 15 April 2021.
  - 7.2. Proposed Plan Change 9 Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchment, Publication Number: 5456, Notification date: 2 May 2020.
  - 7.3. TANK presentation reports of 22 March 2017, 27 July 2017, 2 August 2017 and 14-15 August 2018.
  - 7.4. Hawke's Bay Regional Council Section 32 Evaluation Report March 2020. TANK Catchments Plan Change to Regional Resource Management Plan – Change 9.

### **NISI Stated Position**

8. Ngaruroro Irrigation Association Incorporated (NISI) submitted in support of the overall framework of Plan Change 9 (PC9) and sought amendments to ensure future sustainability of the TANK catchments, and agriculture and horticulture which are critically important to the region.
9. NISI consider changes are required to ensure there is sufficient reliable water to provide for this sustainability.

10. NISI recognises that “real freshwater improvements” are delivered through their farming practices, especially their water use and nutrient management. NISI supports the requirement for growers to follow best management practice.”

**Policy 21; TANK 5 and 6; and Schedules 28 and 29**

11. NISI submitted against Policy 21 regarding any change in land use and the nutrient loss.
12. I do not support the Policy 21 (c) and (d) which associates “potential impact of increases in diffuse discharge of nitrogen to freshwater quality objectives”.
13. I do not support Policy 21 (c) where mitigation measures are discussed “(including those where model results are not available)”. This is an “open-ended” statement with no details of what is to be modelled, what model is to be used or the catchment(s) where the modelling is taking place.
14. Greater definition of this loose futuristic inclusion is sought.
15. I disagree with the direct association of land use change and nutrient concentrations in rivers and streams in (d) “potential impact of increases in diffuse discharge of nitrogen on freshwater quality objectives”.
16. The Policy assumes there is a robust scientific relationship between an on-farm nutrient loss assessment and nutrient concentration in streams and rivers. This is not the case; for example, a farming enterprise with a loss of 25kgN/ha/year (as assessed by OverseerFM) cannot be directly related to the N (DIN, Ammonia or Nitrate) concentration or an increase in the concentration in a stream or river.
17. I do not support the changes made to Schedule 29 with the inclusion of Table 1: Land Use Types and Nitrogen Leaching Risk. This is a new table that defines land use types and the nitrogen leaching risk. It is not an improvement and is not a sensible or robust alternative.
18. Schedule 29 is highly subjective, does not consider differences in farm systems within any risk category, does not encourage mitigation measures to reduce nutrient leaching, and assumes all farm systems in a particular risk category have the same leaching loss and risk of leaching.
19. Schedule 29 addresses only N leaching risk. Enterprises such as hill country sheep and beef or deer will have a much greater risk of P loss than N; whereas an arable enterprise adjacent to a stream or river will have a much greater risk of N loss than P.

20. Each Level assumes every farming enterprise in the Land Use type will have the same N loss or falls within a range of unspecified N loss. This is not the case. Every enterprise in a category will have a different nutrient loss depending on soil type, location, topography and farming systems. An enterprise may then have a lower level of risk than categorised or may have a greater level of risk. Without any limits an enterprise cannot determine which category their operation fits.
21. I am not aware of any NISI enterprise that is solely “intensive winter grazing”. There will be an area of winter forage crop(s) that is part of a farming enterprise.
22. To consider dairy and arable to have the same leaching risk is not correct and is not supported by any nutrient modelling. My experience from review of Overseer modelling, dairy will in almost every location have a higher N loss than arable.
23. Any land that is irrigated is identified as the highest N leaching risk. This is not correct and in my experience horticulture (excepting fresh vegetables), even if irrigated, generally leaches less Nitrogen than many of the listed ‘higher risk’ land uses.
24. TANK 6 is contingent on the outcome of the test for TANK 5(a) which states “A change in land use types means a change from one leaching level to a higher leaching level as shown in Table 1 of Schedule 29”. The Schedule will be easily contested with nutrient modelling and result in protracted debate with HBRC that an applicant has not met the condition(s) or standard(s) of Table 1.
25. TANK 5 provides that a change of land use from (say) a low leaching activity to a higher leaching activity requires consent as a controlled activity. TANK 6 applies if the activity does not meet the conditions of TANK 5 – so it captures land uses that go from high leaching (e.g. dairy) to low leaching (e.g. arable) because that would not meet TANK 5(a). Restricted discretionary consent would be required.
26. I do not think that was what was intended. The only sensible reason for defaulting from Rule 5 to Rule 6 would be if the landowner does not comply with condition (d) of Rule 5 – i.e. is not a member of a Catchment Collective.
27. Unless Schedule 29 is changed to something more meaningful and certain, it:
- 27.1. will be easily contested with nutrient modelling; and
  - 27.2. -will result in protracted debate about whether an applicant has not met the condition(s) or standard(s) and so which activity status applies.

28. Schedule 29 should at the very least, given the objective is to manage nutrient loss to water, directly address nutrient limits and targets. For example:
- 28.1. A farming enterprise(s) must achieve a reduction of nitrogen or phosphorous loss (e.g. 10% or 15%) from a good management baseline as determined by OverseerFM (or other approved model) by “year” (e.g. 2025).
  - 28.2. Such an approach would firstly provide knowledge of the potential (N and/or P) loss and secondly give HBRC time to develop nutrient limits for catchments and sub-catchments. This would put an onus on both the enterprise(s) to “know” their impact and demonstrate improvement, and the council to improve their monitoring of surface water to inform the establishment of limits.
  - 28.3. The recent Mayfield Hinds Valetta Irrigation Scheme consent application decision<sup>1</sup> provides an example of such an approach;  
  
“This consent is granted on the basis that the significant adverse effects on the receiving water will be reduced and there will be measurable environmental improvements” and “also gives the Applicant (substitute farming enterprise) sufficient time to demonstrate that land use practices can change to significantly reduce nutrient inputs and to address environmental degradation”.
- And the decision sets nutrient loss reductions to be achieved by 2025 and 2030.
29. Freshwater Farm Plans (FFP) are outlined in Schedule 30 and are to be completed 3, 6 or 9 years after the Plan’s operative date. A key component of the FFP is a nutrient budget. However, there are no on-farm limits or targets to provide growers with certainty and clarity they are meeting any Plan requirement.
30. The Plan should provide for assessment of nutrient loss modelling to demonstrate that moving from one risk category to another avoids or can mitigate changes. This would avoid the potential for debate regarding activity status.

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<sup>1</sup> Mayfield Hinds Valetta Irrigation Scheme consent application decision, 21 April 2021.

**Policy 37**

31. NISI submitted on Policy 37 (a) – (d), either opposing clauses or suggesting amendments.
32. I agree with the deletion of the date August 2017 and agree with the date recommended (2 May 2020) for determining Actual and Reasonable Use *and renewal of permits*.
33. My expert evidence for Heinz Watties (HW) and Apatu Farming Limited (AFL)<sup>2</sup> addresses the enabling of the transfer of permits (groundwater and surface water) that have already been used; the effects of the take are existing and already in the “environment”, although nutrient losses must be no greater than from the current location.

**Policy 45 and 47(a) (iii)**

34. NISI submitted in support of Policy 45 and 47 (a)(iii) because accurate water use records are of high importance for resource and on-farm management.
35. The amendments to Policy 45 are now mostly consistent with the Resource Management (Measurement and Reporting of Water Takes) Regulations as amended September 2020. The exclusion of alternative data collection technology is inconsistent with 7A(5) of the regulations; i.e. where telemetry may not be possible because there is no cellular connectivity.

**Policy 47 and Glossary of Terms**

36. NISI submitted in support of Policy 47 (a, b, e and f) but opposed 47(c). Policy 47 addresses the efficient allocation of water
37. The s42A Officer recommended “submitters provide further information regarding:
  - the difference between application efficiency and distribution uniformity;
  - and why distribution uniformity might be a more appropriate term to use in this context; and
  - should ‘application efficiency’, ‘distribution uniformity’ or some other term be included in POL TANK 47”.

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<sup>2</sup> Evidence of Anthony Davoren for Heinz Watties, 7 May 2021; and Evidence of Anthony Davoren for Apatu Farms Ltd., 7 May 2021.

38. AE and Du relate to two entirely different aspects of irrigation and must not be confused or used interchangeably; i.e.
- AE is a “measure” of how well a system is managed. Was irrigation timely? Was the application depth too much or too little? Did the irrigation event result in drainage beyond the crop root zone? Was there ponding and/or runoff? It is widely accepted that irrigation should retain 80% of water applied within the crop root zone after an irrigation event and/or for the irrigation season. This can only be determined from soil moisture monitoring and soil moisture that measures at multiple depth.
  - Du on the other hand relates to the irrigation system and its design. Du measures how uniformly water is applied or the spatial variability of application. Codes of Practice<sup>3,4</sup> describe the assessment of Du and define the standards a system should attain.
39. AE is the most important and relevant term for the Plan Change. AE has relevance to environmental impact(s) because it assesses losses of water to drainage from the crop root zone. Du can not be used as a measure of environmental impact, is an irrigation design matter and should not be specified in the Plan.
40. An appropriate definition of AE is:

*“The percentage of applied water that is retained in the crop root zone following an irrigation event over the irrigation season. Or in the target area, after an irrigation event. To meet good irrigation management practice, 80% of water applied must retained in the crop root zone.”*

Irrigation New Zealand has a similar definition *“the percentage of applied water that is retained in the root zone or in the target area after an irrigation event”* but does not specify a good management percentage.

### **Glossary of Terms – Actual and Reasonable**

41. NISI submitted for the term “Actual and Reasonable” be amended.
42. I agree with HBRC amending the date defining the 10-year period of water use data to the period preceding 2 May 2020.
43. I do not support the amended meaning for Actual and Reasonable (b) in Chapter 9, Glossary of Terms Used; i.e. “the average annual

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<sup>3</sup> Bloomer, D 2005. Code of Practice for Irrigation Evaluation.

<sup>4</sup> Irrigation New Zealand. The New Zealand Piped Irrigation Systems Evaluation Code of Practice.

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)”.

44. My expert witness evidence presented on behalf of Heinz Watties and Apatu Farms Ltd., presented examples to demonstrate the use of average use for the water meter period of record.
45. These results show that the average allocation is always less than the 95<sup>th</sup> percentile.
46. While allocating the average use might be consistent with Policy TANK 37(d)(ii)], it is not consistent with Policy TANK 47(d) or the definition in “Actual and Reasonable” allocating water for irrigation with a “95% reliability of supply”.
47. Allocating the average use will severely compromise the ability of irrigators to meet crop demand.

#### **Glossary of Terms – Accurate Water Meter Data**

48. In the absence of a definition, NISI suggested a definition of accurate water meter data.
  49. The definition requested by submitters would define Accurate Water Meter Data as “...*water use data that has been assessed against the National Environmental Monitoring Standard (NEMS) for Water Metering: 258 Measurement, Processing and Archiving of Water Meter Data and assigned a Quality Code of QC600*”.
- A quality code of QC600 requires telemetry, 5-yearly verification and an annual site visit, among other criteria.
50. Most data held by HBRC is QC400 (a water meter is installed and monthly data is sent to Council); or QC500 (a water meter and telemetry is installed, and verification occurs every 5 years). Little or none of the water meter data held by Council meets the QC600 criteria (a water meter and telemetry is installed, 5-yearly verification and an annual site visit).
  51. Water meter data to be used in the Actual and Reasonable assessment must at least meet QC400 and QC500 for monthly and annual use, and QC500 for determination of take (QC500 because the telemetered data will have been recorded at 15 minute or similar interval).

52. Section 1.7.2 of the National Environmental Monitoring Standard (NEMS) for Water Meter Data<sup>5</sup> defines accurate water meter data. Adopting this definition will be consistent with data quality in other regions; i.e.
- 52.1. Verification that a water meter meets the accuracy standard required in the Regulations
- 52.2. The determination of water volume shall have a maximum permissible uncertainty of  $\pm 5\%$  of measurement for the entire rated flow rate range under rated operating conditions.
- 52.3. The water meter is to be verified as suitably accurate within the first water year of it being installed, and at a maximum period of no greater than 5 years thereafter.
53. The above definition would ensure QC500 is met and except for an annual site visit, QC600 is met.
54. As I understand the Water Measurement Regulations<sup>6</sup> do not require failed water meter verifications to be filed with Council and therefore they do not always know if a meter has failed and by what percentage. It is recommended this become a requirement of “accurate water meter data” in the Plan.

#### **CONCLUDING COMMENTS**

55. I do not support the amended meaning for Actual and Reasonable Use in Chapter 9, Glossary of Terms (b). Adopting the average annual volume will not provide for the demand in the 95<sup>th</sup> percentile season. This has been demonstrated by the examples from water meter records.
56. I do not support the changes in land use and the nutrient provisions of Table 1 of Schedule 29 and, by inference TANK 5 and 6, and Policy 21 need to be amended.
57. I have provided industry accepted definitions for application efficiency and distribution uniformity. I do not support the inclusion of reference to distribution uniformity in the Plan.
58. I agree with other submitters regarding accuracy of water meter data going forward.

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<sup>5</sup> National Environmental Monitoring Standards Water Meter Data Acquisition of Electronic Data from Water Meters for Water Resource Management Version: 1.0 Date of Issue: June 2013

<sup>6</sup> Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 (Reprint as at 3 September 2020)

59. I would support a requirement for all water meter verifications to be filed with the HBRC.

A handwritten signature in black ink, appearing to read 'Anthony Davoren', with a flourish at the end.

**Anthony Davoren**

11 May 2021

**IN THE MATTER**

of the Resource Management Act  
1991

**AND**

**IN THE MATTER**

of submissions on Proposed Plan  
Change 9 to the Hawkes Bay  
Regional Resource Management  
Plan

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**EVIDENCE OF ANDY LOWE FOR LOWE CORPORATION LIMITED**

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## **Introduction**

1. My name is **ANDREW GRAEME LOWE**.
2. I am the owner and Managing Director of Lowe Corporation Limited (LCL). I have had more than 30 years' experience in the meat and by-product industry, starting work as a factory worker. I was appointed to the Board of Directors of LCL in 2003, and became its Managing Director in 2008. I am also a director of Blue Sky Pastoral Limited.
3. LCL is a privately owned meat by-products business based in Hawke's Bay that processes hides, skins and rendering material at plants throughout New Zealand and markets the finished products internationally. The company is also involved in farming, property development and investment. Both the company and I personally are involved in a number of conservation interests, both in Hawkes Bay and further afield.
4. I have been awarded the honour of MNZN for services to conservation.
5. The purpose of my evidence is to provide factual background on LCL and the relevance of Proposed Plan Change 9 to its ongoing operations.

## **Executive Summary**

6. LCL operates regionally significant industrial production facilities at Tomoana and Whakatu.
7. Availability of process water within existing consent limits is a critical element in LCL's existing Hawke's Bay operations. It will also be essential if the industrial zoned land LCL currently owns at Whakatu is to be developed for wet industry, as I understand is provided for in the relevant RMA Plans and Strategies.
8. LCL's existing GLH plant is within the Hastings urban area. I do not understand why Plan Change 9 restricts its staged expansion when industrial plants supplied with water by Hastings District Council and Napier City Council are able to expand.

9. LCL has pursued a deliberate policy of consolidation of production capacity to its GLH plant, both from outside the Region, from its now mothballed plant at Pandora in Napier, and from the TPP plant at Whakatu. The result locally has been a reduced water take at Whakatu and reduction in demand on Napier City supply at Pandora to site maintenance levels, along with a staged increase in GLH water demand.
10. The amendments recommended by Council Staff to the Plan Change provisions around “*actual and reasonable use*”, specifically limitation of future use to the average water use in the 10 years to May 2020, would significantly constrain GLH’s operation at current actual levels, and provide a perverse incentive to reverse that consolidation process.
11. LCL already strives to use water efficiently. It is an area of continuous improvement in plant operation.

#### **Overview of LCL Operations**

12. LCL has been a significant player in the New Zealand meat industry for over fifty years and I believe it is one of the largest privately-owned by-products processors in the country. Around 95% of the products LCL produces are exported.
13. LCL’s submission in August 2020 recorded that the company has a turnover of well in excess of \$100 million per annum and employs approximately 190 people in Hawkes Bay. Since then, our local workforce has reduced in response to challenging trading conditions, but I believe that it will recover to those levels when international demand for our products rebounds post Covid.
14. LCL’s principal processing plants are in Hawkes Bay and over recent years it has consolidated operations, shifting production capacity from elsewhere in the country to its Hastings Tannery in Coventry Road. This has been a deliberate strategy prompted, among other things, by the ready availability (until now) of onsite process water and effective disposal of wastewater via Hastings District Council’s ocean outfall.
15. In Hawkes Bay, LCL now operates two plants. The first is what we refer to as the GLH Plant at 501 Coventry Road, Tomoana, on the outskirts of the

Hastings urban area. The GLH Plant is a tannery and processes hides and skins received from meat processors around New Zealand.

16. The second plant we operate is what we refer to as the Hawkes Bay Pelts plant leased from Tomoana Pelt Processors (TPP) (jointly owned by LCL and Taylor Preston Ltd) and located on Johnston Way at Whakatu. It is a fellmongery and processes mainly ovine skins and wool.
17. LCL also has a minority (49.9%) share in a meat rendering plant at Awatoto owned by Hawkes Bay Protein Limited. Taranaki By-Products Limited holds the majority ownership interest in the company.
18. LCL previously operated a tannery at Pandora, in Napier. That plant was mothballed in 2019 and its production shifted to GLH in Hastings.
19. Lastly, of relevance to this process, LCL owns a 7.4 hectare Industrial Zoned block of land on Johnston Way in Whakatu. Currently that land is not developed. I will explain why that is shortly.

#### **Consented Water Use**

20. As above, ready availability of process water is a vital component in LCL's operations. LCL holds three resource consents to take groundwater from the Heretaunga Aquifer. The first (WP110491T<sup>1</sup>) authorizes the take of up to 725,000 cubic metres per annum from two wells on the site. The consent is in the name of Graeme Lowe Tannery Limited, a wholly owned subsidiary of LCL. It was originally granted in 2013 (replacing a previous consent) and expires 31 May 2023. Amendments to the consent conditions in 2019 and 2020 allow water taken under this consent to be supplemented by water from a second consent permitting take of groundwater at Whakatu that I describe below.
21. The second relevant resource consent LCL holds relates to the TPP site at Whakatu (WP040553Ta). It authorises an annual take of up to 978,000 cubic metres for use at the Pelt Processing factory on the site. The consent was originally granted in 2005 and expires 31 May 2025.

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<sup>1</sup> Renamed AUTH119919-04

22. The third consent we hold (WP090079T<sup>2</sup>) relates to our development land at Whakatu. It authorises a take of up to 1,225,750 cubic metres annually from a well on the site. The consent is described as being “*to provide water to a ‘wet industrial’ type activity, and for irrigation of landscape and plantings*” on the site. The consent was originally granted in 2009. The reference in the consent purpose to potential use for water bottling was removed by an amendment in 2020. The consent expires 31 May 2025. It is this consent that is able to be used to supply water to the GLH plant.
23. The Awatoto rendering plant we have an interest in, as above, draws water from the Napier City Council municipal supply.
24. When it operated the Pandora plant also drew water from the Napier City supply. Mothballing the plant meant that water use has reduced to that required to maintain the effluent system and equipment (a rate of approximately 10,000m<sup>3</sup>/year), compared to a little over 22,000m<sup>3</sup> in the previous 12 months, and approximately 46,000m<sup>3</sup> in 2018.

#### **Details of Water Use**

25. I attach to this brief of evidence a summary of month-by-month water use for each of the three water permits I have described above since 2007.
26. The data for GLH shows water use in the last few years until January 2013 (under the previous consent) either at or below around 200,000m<sup>3</sup>/year.
27. The data for the current consent shows a progressive increase, from 226,628 cubic metres in the 2013/2014 year to 404,687 cubic metres in 2019/2020, as production from plants and other parts of the property has been shifted to Coventry Road. Production from two Auckland plants was shifted in 2016 for instance. The most recent increment in production levels (and therefore water use) was in December 2019 when the Pandora processing plant in Napier owned by LCL was mothballed, and its production shifted to Coventry Road. GLH water use data was also affected from 31 October 2019 by our shifting salting and selection of skins from the TPP Plant to GLH.

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<sup>2</sup> Renamed AUTH117938-04

28. The TPP data attached shows greater variation in water use year to year with an apparent significant increase from 2010-2014, to the 2015-2018 years. However, the email from HBRC we received providing data from the Council records (copy attached) advises that in September 2014, HBRC discovered that the water meter was set up incorrectly and was only measuring half of the actual take.
29. As above, more recent data shows the effect of the shift in production to GLH combined with a strong emphasis on increasing efficiency of water that I will discuss shortly.
30. Data for water use under our second Whakatu water permit shows a significant variation in water use reflecting the fact that for reasons that I will outline, we have been unable to develop the site. Our water use has therefore been effectively restricted to that associated with earthworks on the site, preparing it for development.
31. Our inability to utilise this consent has been the subject of much frustration for LCL. In summary, we obtained the consent following agreement with Hastings District on a stormwater management scheme designed to manage localised flood risk and enable industrial development of the Whakatu area in accordance with its industrial zoning and long-standing earmarking as the site for development of wet industry. LCL contributed \$149,441.00 (GST inclusive) to stage 1 of the scheme as a lump sum. Other ratepayers elected to pay their shares over 10 years as a targeted rate contribution.
32. The Council proceeded with Stage 1 of stormwater management scheme involving construction of a gravity pipeline, thereby enabling development of the Whakatu area. However, the District Council took the view that as the lowest lying site, LCL's land ought to be reserved for use (by Council) as the stormwater sink for the surrounding sites which had been developed, and therefore put an effective embargo on our development of our land.
33. Notwithstanding significant development in the area, and our repeatedly protesting the inequity of the Council's approach, Hastings District Council delayed installation of a pump station representing Stage 2 of the Scheme for a number of years. However, I was advised (finally) on 22 April 2021 by the District Council's CEO that a commitment has now been made by the

Council to progress the second stage of the stormwater management scheme, having allocated funding in the 2021/2022 financial year. I am therefore hopeful that the site may finally be able to be developed for wet industry, as envisaged in the District Plan. I note that that may not be by LCL. We have currently listed the site for sale.

### **Implications of Proposed Council Staff Recommendations**

34. I understand that Council staff have recommended amendments to Plan Change 9 that would result in our future water use (under replacement consents for those already held) being held to the average of water use in the ten years to May 2020, when the Plan Change was notified.
35. From my perspective, this approach will have a significant adverse effect on LCL's ability both to maintain production at its existing plants, and to expand/intensify our industrial use of our sites.
36. Firstly, at GLH, the progressive increase in production over that ten-year period means that the average is significantly lower than the peak use: 262,981.9m<sup>3</sup> compared to 404,687m<sup>3</sup> over the 10 complete years to 30 June 2020. It would call into question the viability of the consolidation of production at Coventry Road. In particular, the now mothballed Pandora Plant was supplied from the Napier municipal water supply. I understand that that would not be the subject of the same constraints as Regional Council staff suggest would apply at Coventry Road. It is fair to say that I do not understand why that should be the case. The source of the water is the same and if anything, the result of consolidating production at Coventry Road is an improved environmental outcome given that that we mothballed Pandora in part to respond to Napier City concerns about stormwater run off from the industrial area at Pandora into the Ahuriri Estuary, as well as issues relating to the integrity of the trade waste reticulation scheme there.
37. The effect of restricting future water use to the average of the ten years to May 2020 is marginally more significant (on a percentage basis) for the TPP plant, whose usage figures are skewed by the issue Council have advised regarding water metering prior to 2014.

38. Lastly, for the reasons I have discussed, our ability to use our second Whakatu take consent has been constrained by the actions and inactions of Hastings District Council, preventing us from developing the land for the wet industry use it is zoned for to date. This would be an issue even if the reference point were the peak use.
39. Current trading conditions for our products are challenging, due to Covid having caused a significant reduction in international demand for them. Our projections are, however, that demand should increase to enable full production within 18 months, and that the longer-term position is favourable as the European market in particular hardens against petroleum-based alternatives to natural leather and skins on climate change grounds. Our ability to meet that demand is directly dependent on the availability of process water.

#### **Efficient Water Use**

40. TPP is a member of the Leather Working Group, an international industry body that sets standards, among things, for efficiency of water use. The Working Group has approved our Hawkes Bay set up generally and we are working towards achieving a position of water use in line with international standards. As above, this has already resulted in reductions in our water use at the TPP plant.
41. While not benchmarked to international standards yet (that process has been held up by Covid), we believe we also manage water well at GLH. It is fair to say that this is an area of continuous improvement for both plants, as we become aware of alternative more water-efficient modes of operation.

**Andy Lowe**

**GLH Water Use (m<sup>3</sup>)**

Year	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
<b>2007</b>	450.1	9334.8	9225.4	8219.8	12763.3	15309	17220	16873	15193.9	17556.7	18453.4	18392	<b>158991</b>
<b>2008</b>	16820.6	14296.3	10040.9	7430.8	20117.6	15330.8	14452.2	16734.6	21826.4	20672.5	21817.1	22512	<b>202052</b>
<b>2009</b>	18568.9	9706.2	9670.1	10180.8	12589.1	14496.8	17549.6	19874.8	21674.9	19759.6	19438.7	14029.1	<b>187539</b>
<b>2010</b>	10342	10342	10008.4	6649	13578.3	14283.7	12521.9	6987.7	13191.8	19660.3	21074.4	18763.3	<b>157403</b>
<b>2011</b>	18606.4	9636.3	3171.7	15463.3	19909.2	17607	15053	17018	19676.3	18847.1	21246.1	21332.4	<b>197567</b>
<b>2012</b>	14265.4	12755.8	12089.2	13270.6	14799.4	21274.7	18613	17811.6	16074.9	0	25020.3	0	<b>165975</b>
<b>2013</b>	23221.6	21541.4	10379.9	20439.3	19378.5	14713.7	17180.5	15235.4	17113.8	17220.4	23775.1	26428.4	<b>226628</b>
<b>2014</b>	21274.6	22187.9	17711.9	18934.6	23900	22524.2	23105.1	20232.9	27341.1	51504.7	17316.2	8913.8	<b>274947</b>
<b>2015</b>	17621.7	18673.9	17993.6	16943.1	19729.2	18374.7	18910.3	21143.7	26316.9	26773.1	28939	23436.7	<b>254856</b>
<b>2016</b>	19919.2	19353.4	17372.4	19065	20005	20948.3	22505.9	22666	22982.1	26866	32959.1	28141.5	<b>272784</b>
<b>2017</b>	12152.2	27224.8	10268.2	34365.1	23430.4	26437	23742.4	20866	27203.7	29732.6	39033.2	36722.6	<b>311178</b>
<b>2018</b>	26965.5	28863.9	22005.5	25703.5	30242.4	27116.9	27764.1	31115.1	36847.9	28007.7	41616.6	33555.3	<b>359804</b>
<b>2019</b>	28738.6	31506.5	27075.9	29896.5	33190.8	36522.2	35765.2	35186	45896.6	32508.5	34558.9	33840.8	<b>404687</b>
<b>2020</b>	29633.2	28309.4	29701.5	30967.1	37605.4	37138.6	35476.9	34615.6					<b>263448</b>

Peak Annual Use 2010-2020 July to June complete years- 404,687m<sup>3</sup>  
 Mean Annual Use 2010-2020 July to June complete years- 262,582.9m<sup>3</sup>

**TPP Water Use (m<sup>3</sup>)**

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Totals
<b>2007</b>	34326.6	22703.7	24792.9	28158.7	28154.7	21959	30133.9	26552.9	36774.1	29378.4	28106.8	23072.4	<b>334114.1</b>
<b>2008</b>	26348.4	19539.8	15793.9	18778.2	26709.1	23005.4	22174.7	29255.3	22184.9	17300.7	19345.3	17094.9	<b>257530.6</b>
<b>2009</b>	13517.5	15899.4	16559.4	19978.9	24278.4	23583.9	23919.5	26639.9	28979.4	29388.3	29265.8	18911.2	<b>270921.6</b>
<b>2010</b>	17411.1	14310.7	15408.4	17134.9	22321.1	21733.4	21188.8	17398.4	18057.9	15007.1	14981.8	15083.1	<b>210036.8</b>
<b>2011</b>	16915.9	14562.7	14889.6	16853.9	18144.1	17664	16518.2	14250.4	15496	14995.5	14763.1	15833.1	<b>190886.5</b>
<b>2012</b>	17396.4	16253.7	15284.3	15132.4	15310.5	14530.3	17504.4	17640.6	19494.5	15175.4	18353.4	16208.4	<b>198284.2</b>
<b>2013</b>	17622	13880.6	13116.1	14477	17328.5	19679	27380	26522.9	29056.9	19470.5	19411.4	23380.6	<b>241325.4</b>
<b>2014</b>	23125.4	19780.8	35511.1	32373.1	30992.3	17845	49969.4	50647.9	50331.5	45179.5	48214	46072	<b>450041.9</b>
<b>2015</b>	50026.4	37893.9	32413.1	39552.6	40354.2	35769.1	43609.2	47896.4	52110.1	43417.2	46528.9	45281.5	<b>514852.6</b>
<b>2016</b>	47709.6	42254.1	25051.6	29742.8	34911.2	36897.4	31836.1	45365.4	39139.2	15546.6	39322.8	44889.6	<b>432666.3</b>
<b>2017</b>	38129.8	35696.4	30704.6	25811.4	33158	33391.4	39102.9	37352.5	40974.4	34162.6	34910	28409.9	<b>411803.9</b>
<b>2018</b>	29268.7	25779.4	32543.9	33491.1	30976.4	32972.4	32409.1	29899.4	27355.1	18231.4	17908.4	19936.4	<b>330771.6</b>
<b>2019</b>	22807.9	22494.4	20967	17815.6	14681.4	10141.8	10669.1	8876.6	7110	7392	8428	12843	<b>164226.9</b>
<b>2020</b>	119543	21160.5	18921	24453.5	24804	19752.5	17941.5	18672.5					<b>157658.5</b>

Note: HBRC advises metre reading prior to September 2014 50% of actual

Peak Annual Use 2010-2020 July to June complete years- 514,852.6m<sup>3</sup>

Mean Annual Use 2010-2020 July to June complete years- 314,489.6m<sup>3</sup>

**Whakatu Water Use (m<sup>3</sup>)**

Year	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
<b>2010</b>						0	0	3	5	0	1.8	21	<b>30.7</b>
<b>2011</b>	12.1	5.4	6	23.3	1.3	6	6.9	31.8	97.1	83	105.9	92.4	<b>471.3</b>
<b>2012</b>	0	3071.8	9323.9	30070.5	63503.9	45936.4	30402.3	3245.8	3058	3426.9	3983.3	5391.3	<b>201414.1</b>
<b>2013</b>	6222.9	7441.1	3980.7	7725	1096.7	2385.9	2206.1	5638.8	5259.4	6083	7220.6	8707.7	<b>63967.9</b>
<b>2014</b>	10519	9140.4	7591.1	17933.4	13730.1	33849.6	14423.8	10062.2	7326.8	14576.6	16887.4	12458.8	<b>168499.2</b>
<b>2015</b>	36719.2	38091.5	0	0	0	0	0	0	0	0	0	0	<b>74810.8</b>
<b>2016</b>	0	0	0	0	0	0	0	0	0	0	4	0	<b>4</b>
<b>2017</b>	0	0.5	3107	4970.5	4810.1	4970.5	4970.5	4489.4	4970.5	4810.1	4970.5	4810.1	<b>46879.6</b>
<b>2018</b>	4970.5	4970.5	4810.1	4970.5	4810.1	4970.5	4970.5	4489.4	11045.6	14116.7	14587.3	14116.7	<b>92828.3</b>
<b>2019</b>	14587.3	14587.3	1666.6	0	19356	0	0	0	3127.2	2797.8	2.6	2.4	<b>56127.1</b>
<b>2020</b>	0	0	0	0	0	6434.1	4279.4	579.5					<b>11293</b>
<b>Mean</b>	7303.1	7730.9	3048.6	6569.3	10730.8	8959.4	5569	2594.5	3489	4589.4	4776.3	4560	<b>78333.6</b>
<b>Max</b>	36719.2	38091.5	9323.9	30070.5	63503.9	45936.4	30402.3	10062.2	11045.6	14576.6	16887.4	14116.7	<b>201414.1</b>

The Min Mean and Max of Annual values are for complete years only.

## Trevor Robinson

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**From:** Johanna Rodgers <rodgers@hbrc.govt.nz>  
**Sent:** Monday, 6 April 2020 3:40 PM  
**To:** Stuart Berry  
**Subject:** RE: Water Take at 499 Coventry Road, Hastings  
**Attachments:** Tomoana Pelt Processors.xlsx

Hi Stuart

Here is the data for Tomoana Pelt Processors for 2005 forwards. However, there is a comment that says that Andrew Carmichael found that after the verification of the meter done by Waterforce in September 2014, it was discovered that the meter was set up incorrectly and they were only measuring half of the actual take. They reset the counter to 0 at that time. Because I am not sure how far back the incorrect set up went, I have included all the data that I could find on a second tab and this goes back as far as we have data.

Regards  
Jo Rodgers



**Johanna Rodgers**

Water Information Coordinator  
06 833 8043

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

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**From:** Stuart Berry <SIB@lowecorp.co.nz>  
**Sent:** Monday, 6 April 2020 3:01 PM  
**To:** Johanna Rodgers <rodgers@hbrc.govt.nz>; Amber K. Davies <amber.davies@lowecorp.co.nz>  
**Subject:** RE: Water Take at 499 Coventry Road, Hastings

Thanks Johanna,

That data is exactly what we were after.  
Do you have similar data available for Tomoana Pelt Processors. I can only find data going back to 2011 and am looking for 2007 onwards.

Regards,  
Stuart

**Stuart Berry** | Company Accountant



**Lowecorp LTD** | *Animal By-Product Processors & Exporters*  
499 Coventry Road, Tomoana, Hastings 4120, NZ | PO Box 444, Hastings 4156, NZ  
**PH** 06 872 7775 **MOB** 021 0297 3567 | [www.lowecorp.co.nz](http://www.lowecorp.co.nz)

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**From:** Johanna Rodgers <rodgers@hbrc.govt.nz>  
**Sent:** Monday, 6 April 2020 2:02 PM  
**To:** Amber K. Davies <amber.davies@lowecorp.co.nz>  
**Cc:** Stuart Berry <SIB@lowecorp.co.nz>  
**Subject:** RE: Water Take at 499 Coventry Road, Hastings

Hi Amber

I have attached the data for your previous consent. The first tab is the combined take from all wells in monthly totals with a graph of the take. The next tab is the water used from the combined wells 15629 and 15630 and the last tab is the water used from well 4376. The data starts in September 2002 and from 2002 to August 2007 we only had the combined take from all wells but after 2007 we had 2 meters and data for each. If you need anything else, just get back to me.

Regards  
Jo Rodgers



**Johanna Rodgers**

Water Information Coordinator  
06 833 8043

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**From:** Amber K. Davies <[amber.davies@lowecorp.co.nz](mailto:amber.davies@lowecorp.co.nz)>  
**Sent:** Monday, 6 April 2020 1:43 PM  
**To:** Johanna Rodgers <[rodgers@hbrc.govt.nz](mailto:rodgers@hbrc.govt.nz)>  
**Cc:** Stuart Berry <[SIB@lowecorp.co.nz](mailto:SIB@lowecorp.co.nz)>  
**Subject:** Water Take at 499 Coventry Road, Hastings

Hi Johanna

Graeme Lowe Tannery has been operating from its current site at 499 Coventry Road, Hastings for some time. We are seeking some historical water take consumption data for the years 2007-2011. Our current water take consent for the site is WP110491T granted in April 2013 – we can log in to the HBRC website and see the data for this consent.

Our previous water take consent WP010364T. Is there any way you could give us access to the take data for this consent?

Thanks

Thanks and regards

Amber Davies | Commercial | Lowe Corporation | 64 (6) 872 7767 | [akd@lowecorp.co.nz](mailto:akd@lowecorp.co.nz) | [www.lowecorp.co.nz](http://www.lowecorp.co.nz)

Please note I am in the office Monday, Wednesday and Thursday 9am-2pm

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*In the matter of:* the Resource Management Act 1991

*And*

*In the matter of:* Proposed Plan Change 9 to the Hawkes Bay Regional Resource Management Plan.

Statement of evidence of Gerard Matthew Willis (Planning) for  
Lowe Corporation Ltd

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Dated: 7 May 2021

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## STATEMENT OF EVIDENCE OF GERARD MATTHEW WILLIS

- 1 My full name is Gerard Matthew Willis.
  - 2 I am a director of Enfocus Ltd, a resource management consultancy based in Auckland. I have practiced as a planner and resource management specialist for the past 32 years.
- Qualifications and experience**
- 3 I hold a Bachelor of Regional Planning (Hons) degree from Massey University and am a full member of the New Zealand Planning Institute (**NZPI**).
  - 4 I am an accredited decision-maker under the Ministry for the Environment's Making Good Decisions Programme. In 2017 I was awarded the NZPI national award for Best Regional or District Plan. In 2018 I received the Commonwealth Association of Planners' award of Excellence for Outstanding Planning Achievement in the Commonwealth.
  - 5 My previous experience includes working in policy and regulatory planning roles in local government both in New Zealand and in the United Kingdom. I also spent a considerable part of my early career in central government roles including as a senior policy analyst at Ministry for the Environment (**MfE**) and environment adviser to the Minister for the Environment.
  - 6 Since 2001, I have been a planning and environmental consultant, establishing my own practice in 2002. In that capacity I have acted for a number of district and regional councils on planning issues and provided advice to companies, iwi trusts and government agencies. Of note, over recent years, I have advised five different regional councils on the development of regional policy statements and/or regional plans (in whole or part).
  - 7 I have also been, and continue to be, involved in reform of freshwater management at the national level:
    - 7.1 I was previously engaged by MfE under the Sustainable Water Programme of Action to advise on alternatives to first-in-first served allocation regimes and on barriers to tradable permits.
    - 7.2 In 2010 I was engaged by MfE to assist in the New Start for Freshwater Programme with specific involvement in water governance issues.
    - 7.3 In 2013 I was engaged by MfE to draft amendments to the National Policy Statement for Freshwater Management (**NPSFM**), including the incorporation of the National Objectives Framework.
    - 7.4 In 2016 I was engaged by MfE to provide independent comment on the workability of the proposed changes to the NPSFM.
    - 7.5 In 2018 I was contracted to MfE on a, part time basis as a member of the cross-agency Water Taskforce, established to implement the

Government's water reform programme. Since that time, I have been engaged on a number of NPSFM and National Environment Standard for Freshwater (**NESF**) implementation issues.

- 8 My relevant experience also involves the preparation of planning evidence for hearings in relation to water quantity and/or quality matters in respect of Horizons One Plan, Variation 6 and Plan Change 1 to Environment Waikato's Regional Plan, Proposed Change 6A to the Otago Regional Plan, the Gisborne Regional Freshwater Plan, the Southland Regional Water and Land Plan, Plan Changes 9 and 10 to the Bay of Plenty Natural Resources Plan, the Northland Regional Plan, the Wellington Natural Resources Plan and, in Canterbury, the Proposed Hurunui and Waiau Rivers Regional Plan, the Canterbury Land and Water Regional Plan (CLWRP), including Variations (now Plan Changes) 1 and 2 and Plan Changes 3, 5 and 7 to the CLWRP
- 9 I am familiar with proposed Plan Change 9 (**PPC9**) to the Hawkes Bay Regional Resource Management Plan (**HBRRMP**) to which these proceedings relate.

#### **SCOPE OF EVIDENCE**

- 10 This evidence addresses the water take provisions of PPC9 as they affect the operations of Lowe Corporation Limited's (**LCL**) animal by-product processing sites, being:
- 10.1 Graeme Lowe Hastings (GLH), Tomoana, 501 Coventry Road, Hastings;
- 10.2 Tomoana Pelt Processors (TPP), Whakatu, Hastings;
- 10.3 Whakatu, Hastings [not currently used for processing]; and
- 10.4 Pandora (not currently used for processing) and Awatoto sites within Napier City (both connected to the Napier municipal water supply network).
- 11 In particular, it addresses the provisions governing the take and use of groundwater from the Heretaunga Plains aquifer which either directly or indirectly supplies all LCL's sites. Those PPC9 provisions include:
- 11.1 Objective 16
- 11.2 Policies 36, 37, 39, 50 and 52
- 11.3 Rule 9
- 12 I have included a marked-up version of the proposed amendments to PPC9 that are relevant to LCL's submissions with the body of my evidence. This mark-up shows the proposed PPC9 provisions in underlined font with my suggested amendments in underlined blue font. Any text in underlined red font is that proposed by the section 42A report (s42A Report) that I support.

- 13 Although this is not a Court hearing, I have read the Environment Court's Code of Conduct for Expert Witnesses, and I agree to comply with it. My qualifications as an expert are set out above. I confirm that the issues addressed in this brief of evidence are within my area of expertise, except where I state I am relying on what I have been told by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

#### **EXECUTIVE SUMMARY**

- 14 My evidence addresses those provisions of PPC9 that would prevent LCL gaining replacement consents for its three self-supplying industrial sites on conditions that would enable the continuation and further development of those sites for their efficient use.
- 15 I support a planning response that would phase-out groundwater over-allocation in the Heretaunga Plains in accordance with the NPSFM. However, I do not consider that to be necessarily inconsistent with allowing for LCL to take and use water in quantities that exceed current use. The NPSFM's obligation is to avoid (and phase out) overallocation at the water body scale, not to stop any existing user increasing water take.
- 16 I consider that the differentiated approach whereby industry supplied with water from municipal water supply networks may be able to grow their water take but industry not so supplied may not, is not justifiable in resource management terms. That is especially so where there is a common source of water. I also note the requirement under Policy 3.3 of the NPSUD for the regional council to provide development capacity to meet industrial demand. That requirement does not distinguish between providing new industrial land served by municipal water supply networks, and allowing for the expansion of existing sites and/or sites that are self-supplied with water.
- 17 While I accept that a replacement take above actual and reasonable levels is a discretionary activity and not prohibited, I consider that the policy framework is such that it would be very difficult to secure consent for such a take.
- 18 Accordingly, my evidence supports amendment to Policy 50 that would allow for growth in water take provided:
- 18.1 Any growth is within previously consented quantities
- 18.2 The abstractor is a regionally significant industry (which I define)
- 18.3 Good industry practice in water use efficiency is demonstrated
- 19 Further I think it relevant to consider patterns of water use of the applicant across the Heretaunga Plains and not simply at the single application site.

- 20 I also propose a change to the definition of 'actual and reasonable' use so that it applies to the maximum (rather than average) use over the period May 2010 to May 2020.
- 21 I support recommendations of the s42A Report that:
- 21.1 Remove the presumption in Policy 52 that efficiency gains will always be possible; and
- 21.2 The proposal to delete Policy 39 (flow maintenance) as notified and replace it with a new policy that describes the process the Regional Council will go through to design and implement a stream augmentation scheme.

### **RELEVANT PLANNING INSTRUMENTS AND OTHER PRELIMINARY MATTERS**

- 22 The key planning instruments relevant to the consideration of PPC9 are listed in Section 8 of the Section 42A (**s42A**) Report. My assessment of the relevant instruments accords with that set out in the s42A report. My interpretation of those planning instruments and their application to PPC9 also accords with that of the s42A report unless otherwise stated in this evidence.
- 23 Of direct relevance to LCL's interests, PPC9 must "give effect" to the NPSFM<sup>1</sup> and the National Policy Statement on Urban Development (**NPSUD**). The Hawkes Bay Regional Council must also give effect to the Hawkes Bay Regional Policy Statement, which is incorporated within the HBRRMP. For those reasons, I consider those instruments the most relevant to the planning assessment and hence they feature most in the planning analysis that follows.

### **LCL'S GROUNDWATER TAKES**

- 24 LCL's Tomoana and Whakatu sites hold various resource consents to take groundwater. These are:

- 24.1 GLH Tomoana - Consent WP110491T (renamed AUTH-119919-04). Granted April 2013. Expires 31 May 2023.

*Take and use of water from well no. 4376 (100 diameter) and from two coupled together wells, being well Nos 125629 (100mm diameter) and 15908 (150mm diameter), to use in a tannery/hide processing plant and for the irrigation of 2.2 hectares.*

*Maximum rate 80 l/s*

*Maximum 28 day volume is 73,965m<sup>3</sup>*

*Maximum yearly volume 725,000m<sup>3</sup>*

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<sup>1</sup> Note that the question of which NPSFM (2020 or 2017) must be given effect to is addressed in legal submissions. My planning approach to apply the NPSFM 2020 where it is within scope of submissions to do so and the necessary processes (as set out in the NPSFM) have been followed and the necessary information is available.

The actual annual water take under this consent is shown in figure 1 below

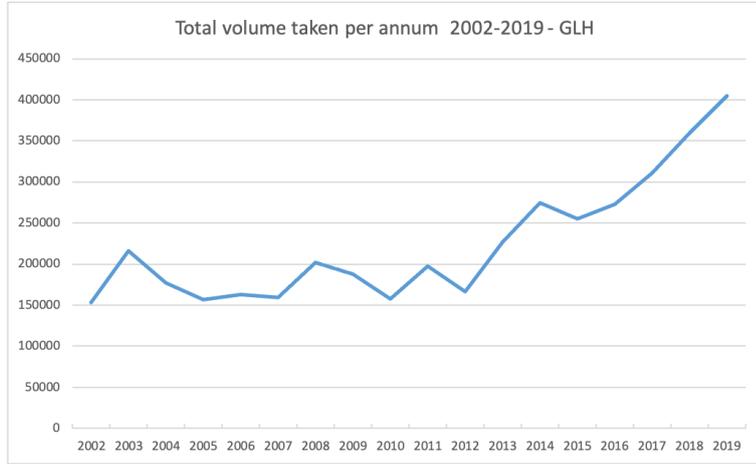


Figure 1 – Water take from the GLH processing site

24.2 TPP Johnston Way, Whakatu – Consent WP040553Ta. Granted 22 September 2005. Expires 31 May 2025

Take and use water from well No. 1022 (200mm diameter) to use in a pelt processing factory.

Maximum rate 48 l/s  
Maximum 28 day volume is 80,000m<sup>3</sup>  
Maximum yearly volume 978,000m<sup>3</sup>

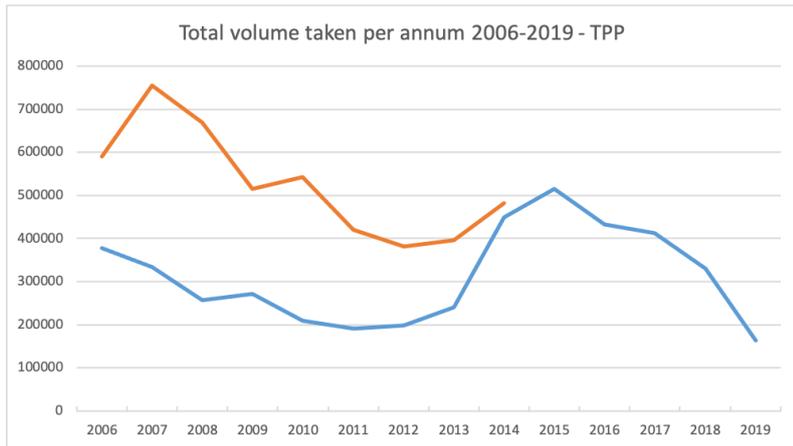


Figure 2 – Water take from the TPP processing site

Note orange line is the adjustment made to recognise metering installation fault that was not detected until 2014

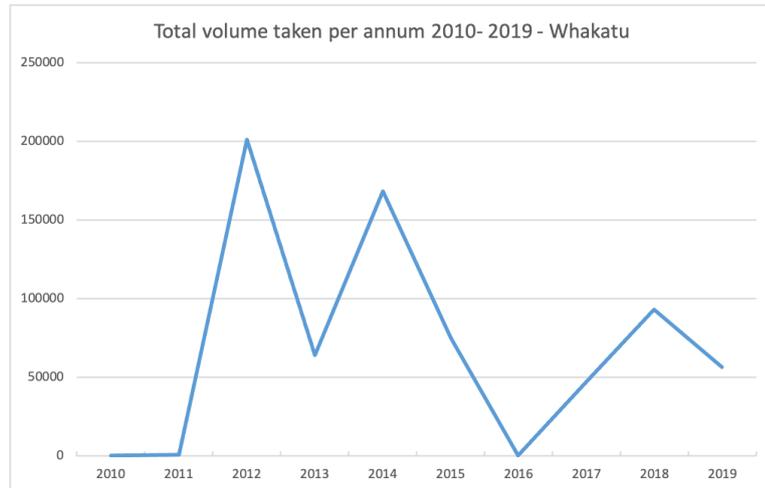
24.3 Whakatu – Consent WP090079T (renamed AUTH117938-04). Granted 20 April 2009. Expires 31 May 2025.

Take and use of water from well no.5848 (200mm diameter) to provide to for a 'wet industry' type activity, and for irrigation of landscaping and plantings.

Maximum rate 40 l/s

Maximum 7 day volume is 24,150m<sup>3</sup>

Maximum yearly volume 1,225,750m<sup>3</sup>



**Figure 3 – Water take from the Whakatu site (for site preparation)**

- 25 The Whakatu site is currently vacant. The water use indicated in Figure 3 above has been associated with the preparation of the site for future industrial development.
- 26 LCL's Pandora processing is within the Napier municipal water supply network area and has previously been supplied with such water. I understand that this tannery plant was acquired by LCL around 8 years ago but was 'mothballed' in 2019 as part of LCL's strategy of consolidating hide processing at its GLH site. Accordingly, water use on this site has reduced to site maintenance levels. The facility is maintained as a "back up" option if needed to support the Hastings tannery.
- 27 The Awatoto site operates a tannery as a joint venture between LCL and Taranaki By-Products. It is supplied by the Napier City Municipal water supply network.

### **LCL's primary concerns with PCC9**

- 28 I understand that LCL's fundamental concerns with PPC9 are that:
- 28.1 It should be able to replace the groundwater take consents upon their expiry to allow for the continued operation of the regionally significant by-product processing sites.
- 28.2 The replacement consents should provide for *increases* in water take from recent usage (but should not exceed previously consented volumes).

- 29 The rationale for this request is that:
- 29.1 The approach of limiting existing abstractors to recent past usage is only rational and fair if you assume industrial water use across the aquifer reflects 'steady state' business mode. It disadvantages industries that are part way through strategic realignment of processing capacity for production efficiency/business optimisation reasons that was enabled by existing consents but would be curtailed by the provisions now proposed. That is the situation LCL faces; and
- 29.2 It is inconsistent and irrational to provide for water consumption growth by industries connected to municipal water supply but constrain water use by industries that supply their own water ('self-supplied' users). This is particularly true when there is a common source of both municipal water and water taken by self-supplied industry. That is the situation with the Heretaunga Plains aquifer.
- 29.3 Imposing the constraints proposed by PPC9 on groundwater take by self-supplied industry will likely lead to perverse outcomes. Incentivising concentration of processing capacity at Pandora, or some other new municipally supplied site might, for example, result in greater overall water use, exacerbate risk to water quality outcomes in the Ahuriri estuary (in the case of Pandora), and would not capture the economic/efficiency advantages that LCL's strategy seeks to achieve.
- 30 From Mr Lowe's evidence, I understand that LCL has very low confidence that further water use efficiencies can be found at its Tomoana and Whakatu sites sufficient to provide the necessary headroom for growth. I understand that the TPP site is a member of the international industry body, the Leather Working Group, and has already made efficiency gains to meet the water efficiency standards required by that Group. While the GLH site is not yet a member of the Leather Working Group I note Mr Lowe's evidence that LCL believes that the site has a good level of water use efficiency.

### **POLICY FRAMEWORK GOVERNING REPLACING CONSENTING OF LCL SITES**

- 31 The water quantity objectives are set out in Objectives 16-19.
- Objective 16**
- 32 The priorities to be met by the water allocation regime are described in Objective 16. This priority list places essential needs of people first (after providing for the needs of the water body itself), followed by domestic, marae and papakāinga and "*municipal supply so that existing future demand as described in HPU DS (2017) can be met*".
- 33 I understand this to mean that industrial activities (current or future) supplied with water from a municipal water supply network will continue to get access to water for current and future needs ahead of existing industrial and

commercial uses not connected to municipal water supply networks (and primary production).

*LCL Submission on Objective 16*

- 34 The LCL submissions opposed this objective for the reasons set out paragraph 29 above.
- 35 I agree that the objective is inappropriate. In my opinion, the prioritisation of industries connected to municipal supplies over industries not connected, appears based on convenience rather than any compelling resource management reasoning<sup>2</sup>. In my opinion, an industry providing employment and contributing significantly to the well-being of the community is equally valuable and deserving of priority whether it is municipally connected or not. The distinction made in Objective 16 favours some on the basis of historical happenstance (decades-old site selection and public infrastructure investment decisions) not on current resource management considerations.
- 36 Accordingly, the LCL submission sought an amendment to Objective 16 to provide self-supplied regionally significant industry with equal priority to industry supplied by a municipal water supply network.
- 37 The Section 42A Report does not specifically address this submission point.
- 38 I discuss this matter more fully by reference to the relevant planning framework from paragraph 0.

**Policies 36 and 37**

- 39 Policy 36 addresses groundwater abstraction from the Heretaunga Plains. Amongst other things, it records a strategy of not allowing any new use and reducing the level of existing use.
- 40 Similarly, Policy 37 refers to managing the Heretaunga Plains as “an over-allocated management unit and preventing any new groundwater allocation”.
- 41 Policy 37 also adopts an interim allocation limit of 90Mm<sup>3</sup> per year “based on actual and reasonable water use prior to 2017”. It states that when considering consent applications it will:
- “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)”.*
- 42 I understand this to mean that 90Mm<sup>3</sup> is the cumulative groundwater volume estimated to have been taken prior to 2017 and that “interim allocation” will be achieved by ensuring that existing individual abstractors have their allocations reduced to the pre 2017 levels when those consents are replaced

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<sup>2</sup> In previous regional plan processes I have been involved in, this has been justified by reference to the difficulty (conceptually and practically) in separating water for domestic use (with human needs being a clear and agreed priority) from industrial use when supplied by a municipal supply network.

or reviewed. An exception is made for municipal and papakāinga water supply.

- 43 I address the question of how the actual and reasonable test should apply from paragraph 86 of this evidence.

### **Policy 50**

- 44 Policy 50 states that:

*“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 for the area according to estimates provided by the HPUDS (2017) to 2045; ...”*

- 45 This policy appears to mean that not just is municipally supplied industry not required to be clawed back to reflect the 2007-2017 take level, but the municipally-supplied industrial sector as a whole can expand its water use if that is accordance with Heretaunga Plains Urban Development Strategy (HPUDS) projections. In other words, the policy implies that future community growth is dependent entirely on growth within the areas identified by HPUDS.

- 46 It also implies that ‘headroom’ will be created by the self-supplied industrial and agricultural sector to allow growth by the municipally-supplied users<sup>3</sup>.

*LCL submission on the Heretaunga Plains groundwater policy framework*

- 47 LCL submission sought to amend Policy 50 by adding a new part (aa) 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.*

- 48 The limiting of the provision to ‘regional significant industry’ (which the submission sought be defined) was aimed at providing maximum economic benefit without opening the provision up to more than a small number of existing large users who are particularly important to the health and well-being of the Heretaunga Plains community.

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<sup>3</sup> Although I acknowledge that Policy 50 also requires management plans and industry good practice targets will be used to manage demand within reticulated areas – something that in theory at least could contribute to the creation of ‘headroom’. I have not seen any evidence of the expected reductions that are expected from such measures.

### ***The Section 42A Report***

- 49 The s42A Report notes but does not specifically address the LCL submission point.
- 50 The issues are generally discussed at paras 1233 - 1240 and 1634 – 1640 of the s42A Report. It is not entirely clear to me from reading those parts of the s42A report what the rationale is for providing for the continuance and growth some industry, but not for others.
- 51 The s42A report refers to the NPSFM integrated management policy and the NPSUD noting territorial authorities' obligations to provide for future growth and that "*reallocating [water take] consents based on actual historical water use could impede Hastings District Council and Napier City Council in fulfilling these obligations*".
- 52 It goes on to suggest that Objective 16 "*largely aligns with the NPSFM2020 hierarchy of obligations and specifically prioritises water for domestic supply after the essential needs of people*".

### **PLANNING EVALUATION: PROVIDING SELF SUPPLIED INDUSTRIAL WATER USERS LESSER ACCESS TO WATER THAN MUNICIPALLY CONNECTED INDUSTRIAL WATER USERS**

- 53 In my opinion the s42A report has not given full and proper consideration to the relevant planning instruments on the question of water supply to existing regionally significant industries. I provide my own analysis as follows.

#### ***Applicability of the national policy framework***

##### *NPSFM and TMOTW*

- 54 The hierarchy of obligations is a part of the NPSFM's overriding concept of Te Mana o te Wai and is repeated as the objective of the NPSFM. It prioritises:
- 54.1 First, the health and well-being of the water bodies and freshwater ecosystems;
- 54.2 Second, the health needs of people (such as drinking water); and
- 54.3 Third, the ability of people and communities to provide for the social, economic and cultural well-being now and in the future.
- 55 I do not read anything into that hierarchy that suggests that some industry should, in effect, be accorded a *fourth* priority by virtue of being self-supplied by water.
- 56 In short, I do not think TMOTW is of great assistance in resolving this matter. But it certainly does not support the approach proposed. If anything, because of the potential consequences arising from spatially differentiated access to water, the outcomes for the health and wellbeing of water and the environment generally could in fact be more at risk as discussed in paragraph 62.

- Integrated management under the NPSFM and the NPSUD*
- 57 As noted above, the s42A report refers (at para 1234) to the NPSFM's policy on integrated management. As I understand it, it reaches the conclusion that PPC9 should not impede district councils' fulfilling their obligations to provide for future growth under the NPSUD.
- 58 That conclusion is used to, in effect, support PPC9's differentiated treatment of industrial activities as described earlier.
- 59 The s42A Report (paragraph 1389) also characterises municipal consents as enabling staged development. This is given as a reason some form of exception should be made for those consents. However, I consider that consents held for the GLH and Whakatu sites are of precisely the same nature. That is, they were sought as granted enabling the long-term restructuring of LCL's processing capability which could only occur over time in a staged manner. That has been occurring over recent years as previously discussed.
- 60 In my opinion, the s42A report evaluation represents an over simplification of the higher order planning policy direction.
- 61 Two issues are relevant. First, Policy 3.5 of the NPSFM does not prefer one form of growth (expansion of municipally supplied industry) over another (growth of existing self-supplying industry). Accordingly, it is a very "long bow" to draw to suggest that its reference to encouraging "*the coordination and sequencing of regional or urban growth*" supports providing access to water for municipally supplied industrial growth but not for the continuance and growth of existing industry.
- 62 More fundamentally, the concept of integrated management requires the broad assessment of downstream (both spatially and temporally) effects. As discussed by Mr Lowe, the medium to long term consequences of the allocation preference to municipally supplied industry might well be the relocation of existing processing activity into existing or new sites within the urban reticulated area. The consequence of this for the environment cannot be known but I note from the evidence of Mr Lowe that Napier City Council has previously expressed concern about the discharge of stormwater from the Pandora site and the effects on the Ahuriri estuary. This was a contributing factor in the decision to mothball the plant and relocate and operations elsewhere. I also agree with the LCL submission that self-supplying water (ie. from an on-site bore) is can be expected to be a more efficient (ie. less wasteful) way to supply water due to the tendency of municipal water supply networks to leak.
- 63 Secondly, I agree that territorial authorities do have duties under the NPSUD to provide for growth including, relevantly, land for business growth. This is specifically provided for in Policy 3.3 of the NPSUD which states that local authorities "*must provide sufficient development capacity in its region or district to meeting the expected demand for business land*".
- 64 However, two matters are relevant to understanding this section fully.

- 64.1 The NPSUD's reference to 'local authorities' includes the Hawkes Bay Regional Council (as a 'tier 2' council). In other words, the NPSUD requires the HBRC to provide sufficient 'development capacity' as much as it does the territorial authorities.
- 64.2 The obligation to provide development capacity does not support the differentiating approach proposed. If PPC9 impedes access to water by self-supplied industry, it is "*impeding district councils' [and itself] fulfilling their obligations under the NPSUD*" just as much as it would do by not allowing growth in municipally supplied industry.
- 65 In short, in my opinion, there is nothing in the national policy framework that necessitates or justifies the differentiated approach PPC9 proposes for industrial water users. Moreover, there is an express requirement in the NPSUD for the regional council to provide 'development capacity'. The critical point that I do agree with is that the level of overall groundwater allocation must, over time, return to sustainable limits. The NPSFM is clear on that and my evidence certainly does not suggest such limits should be exceeded.

***Why the LCL proposal is not contrary to the NPSFM***

- 66 A significant part of s42A Report analysis properly focuses on policy 11 of the NPSFM and its requirement that:

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

- 67 It is important to note, however, that Policy 11 most sensibly applies at the waterbody (catchment or aquifer) scale. It does not require that there can be no increase in take from current use for particular activities in any over-allocated waterbody. That would be 'freeze' allocation at the status quo. It would be highly unlikely to be efficient over time.
- 68 Nor does it mean that reductions in allocation (to return a waterbody to a state of full, but not over, allocation) need to be uniform across all abstractors. Again, such an approach is unlikely to be efficient (in an allocative sense) since the cost of making reductions will vary across abstractors. In the same way, it does not require that all abstractors should give up all consented but previously unused water or that such a strategy is the most efficient. It is likely that some existing consent holders can forego previously consented by unused water without significant cost while for others the cost is significant. Of course, the loss of access to water across existing users will also not have uniform implications for wider social and economic community well-being. The loss of growth potential of some industries/users will have more significant implications for the community than from other industries/users.
- 69 Accordingly, while the Council must avoid over-allocation and phase out existing over-allocation, it has ample scope (indeed an express responsibility) to do that in a way that is most allocatively efficient. That may well mean that some users take a bigger 'hit' than others to allow for modest increases by some users (all within the defined interim allocation limit).

70 For those reasons, I do not agree with the s42A Report when it states (at paragraph 167):

*To make these changes [to allow allocation, transfer and use of freshwater above actual and reasonable use] would not allow Council to meet its obligations to avoid and phase out over-allocation and would not align with the NPSFM2020.*

71 Whether that is true and correct depends entirely on whether PPC9 would achieve compensating reductions in allocation across other users/sectors.

72 Here I consider it instructive to note that Figure 1 of the technical memo attached to the s42A report (Appendix 11) very clearly shows industrial use (as a whole) has been static over the past two decades while irrigation use has grown significantly. Similarly, Figure 12 of that memo shows that over the past decade, municipal take has grown markedly while industry has remained static. In other words, now that PCC9 requires allocation to be phased out, industry is bearing a considerable burden of that reduction. It is, in effect being penalised for not using more of its consented allocation when it could have, in order to now address an over-allocation problem caused by significant growth by other sectors.

73 I am not aware of evidence that suggests that allocation decision offers the best socio-economic well-being for the Hawkes Bay community.

### **Regional Policy framework**

#### *HPUDS*

74 As noted above, Policy 50 of the notified PPC9 includes reference to the HPUDS. The HPUDS development process considered urban land (residential, commercial and industrial) needs for the period to 2045. In considering those needs it took into account existing land use. In other words, it assumed existing large, self-supplied industrial activities will remain and identified only a modest need for further industrial land (281 ha). There was also a clear preference for optimising existing zoned industrial land before expanding onto greenfield land. In other words, continued and efficient use of existing large sites/activities (such as LCL's) remain part of the HPUDS approach.

75 Indeed, the appropriateness of wet industry in the Tomoana and Whakatu areas was underlined by a 60ha additional industrial land allocation for 'wet industry' in those locations.

76 Key elements of the HPUDS are incorporated into the RPS as discussed below.

#### *Regional Policy Statement*

77 The Hawke's Bay RPS contains a section on managing the Built Environment (Section 31B). It contains a suite of objectives and policies that address urban growth and implement the HPUDS.

78 Of some relevance to the issues addressed in this evidence are RPS Objective UD3 and Policies UD4.5 and UD13. These are set out in full in Attachment 1.

- 79 In summary, these provisions require the identification and provision of land for the growth of business activities in the Heretaunga Plains sub region. The explanation refers to HPUDS identifying a limited number of areas appropriate for additional expansion. Policy UD4.5 specifies these new areas. Consistent with HPUDS, these include areas in Whakatu, Tomoana and Awatoto. The ‘indicative’ sites are nearby (but do not include) the existing LCL sites.
- 80 To be clear, consistent with HPUDS, the Built Environment section of the RPS does not seek to eliminate or reduce existing industrial areas either inside or outside urban areas, but rather seeks to add to them.
- 81 RPS Policy UD13 directs territorial authorities to ensure ‘development’ (which must include the new industrial development to be provided for) is appropriately and efficiently serviced with potable water (see specific wording provided in Attachment 1).
- 82 Accordingly, the way PC9 interacts with the RPS establishes a highly inequitable situation. New and additional water-serviced industrial sites for “wet industry” must be provided near LCL’s existing sites. At the same time, the water necessary to maintain and grow existing wet industry in the same locality (ie. LCL’s established sites) is being curtailed by the provisions of PPC9.
- 83 The logic of that strategy in terms of efficient resource management (taking into account the physical resource and existing capital investment of LCL’s sites) is difficult to detect. In my opinion, it is not consistent with the HPUDS direction to support greenfield development in preference to intensification on existing self-supplied sites. Nor is it consistent with Objective LW1 of the RPS which is (amongst other things) to ensure “*efficient allocation and use of water*”. It is highly unlikely to be efficient to take water from an existing established industrial user and make it available for some future, currently unspecified industrial user in the same or similar location.
- 84 For all those reasons I propose that Policy 50 be amended, to state:
- “In making decisions about resource consent applications for municipal, ~~and~~ papakāinga and existing regionally significant industry 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 for the area according to estimates provided by the HPUDS (2017) to 2045; and*
- aa) Provide for the continued efficient operation of existing regionally significant industry, and for the expansion of that existing industry where:
- (i) The quantity of take and use does not exceed the annual volume consented for the activity at the time the application for replacement take is made; and

(ii) Good industry practices for water use efficiency are demonstrated to be adopted; and

(iii) Such take and use would promote sustainable management of groundwater resources having regard to the applicant's overall water use in the Heretaunga Plains.

85 I also propose that a definition of “regionally significant industry” be included in the Glossary as follows:

means an economic activity based on the use of natural and physical resources in the region which has been shown to have benefits that are significant at a regional or national scale. These may include social, economic or cultural benefits.

### **PLANNING ASSESSMENT: APPLYING AN ACTUAL AND REASONABLE USE TEST**

86 As noted above, Policy 37, requires that replacement consents be assessed and granted on the basis of actual and reasonable use.

87 Similarly, Policy 52 (phasing out over-allocation) prevents any new allocation of water and only provides that replacement takes must demonstrate that the take represents the actual and reasonable need<sup>4</sup>.

88 Actual and reasonable is defined in the Glossary of Terms as:

**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 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;

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<sup>4</sup> This translates in the rules framework as Rules 9 and 10 which limit the quantity of water taken that may be taken as a restricted discretionary consent to the 'actual and reasonable'. Taking water above the actual and reasonable would, in the case of a replacement take, be a discretionary activity under Rule 11. A new take would be prohibited under Rule 12.

- (i) 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 1 August 2017 and
- (ii) evidence is supplied to demonstrate that the area has, and can continue to be, irrigated and the permit substantially given effect to.

*The LCL submission the actual and reasonable use test*

89 The LCL submission opposed the retrospective nature of the test and the lack of clarity about whether the reference to year meant calendar year or some other period. Accordingly, it sought that the period be specified as any 12 month period preceding the date of PPC9 notification (2 May 2020)

***S42A Report on actual and reasonable***

90 The s42A Report addresses the point at paragraph 1370 and from paragraph 2062. In summary, it recommends amendment of the date to 2 May 2020 as sought by the LCL submission but, as a consequential amendment, proposed to change the key metric from the 'maximum' take in the 2010 to 2020 period to the 'average' take over that period.

91 The change to an average is justified on the basis that the 2019-2020 was a drought year and water use (for irrigation) was abnormally high for that year. It is suggested that this is a consequential change. Whether that is correct is a legal issue that should be addressed in legal submissions. I address the planning merits of the recommended change.

***Planning evaluation***

92 As noted earlier, I propose an amendment to Policy 50 that would mean that the limitation of actual and reasonable use would not necessarily apply to regionally significant industry under Policies 37 and 52.

93 Accordingly, on the face of it, how the 'actual and reasonable' test applies, would not affect LCL sites under my proposal.

94 However, the event that the hearing panel does not accept that proposal, the actual and reasonable test becomes of critical importance.

95 For those reasons, I address the s42A Report recommendations here. I agree with the change to the 2 May 2020 date for the reasons given in that report and for the simple reason that a retrospective date disadvantages those abstractors who, for legitimate reasons, increased water use after 2017.

96 A retrospective date does not take account of complex, multi-site industries that are in the process of rationalising production across the region and its wider national processing capacity. It is wrong to assume that any increases after 2017 were to "capture" future abstraction rights. For LCL, the increase simply reflected a rationalisation in processing capacity.

97 As can be seen from Figure 1 on page 6 of this evidence, the GLH site increased its take from approximately 310,000m<sup>3</sup>/yr to 404,000 m<sup>3</sup>/yr between 2017/18 and 2019/20 (23%). However, at the same time, water

use at its TPP site reduced from approximately 411,000 m<sup>3</sup>/yr to 164,000m<sup>3</sup>/yr over the same 3-year period. Water use at the Pandora site has reduced by approximately 35,000 m<sup>3</sup>/yr over a similar period. By choosing a 2017 date LCL would be penalised in terms of the water that could be reconvented at its GLH site even though, overall, it reduced its water take from the Heretaunga aquifer in the 3 years leading up to PPC9 notification.

- 98 The remaining issue is whether the actual and reasonable test should apply as the maximum take of the period or the average take. In my opinion it should remain as a maximum take as per the notified version.
- 99 The justification given in the s42A report for using an average rather than maximum take (2019-2020 being a drought year and water takes were unusually high) relates solely to irrigation takes. From LCL's perspective it took 568,913m<sup>3</sup> for its GLH and TPP sites (combined) in the 2019-2020 July to June year but 690,575m<sup>3</sup> in the previous 2018-2019 year. That is, from a by-products processing perspective 2019-2020 was not an abnormally high water use year at all. While the atypical irrigation take in 2019/20 is a valid concern, it should not affect the regime applying to non irrigation takes. For that reason, I distinguish, in my suggested redrafting of the definition, between irrigation takes and other takes.
- 100 Using a maximum annual take is important where there has been a clear and continuous water use growth path over the 2010-2020 period reflecting genuine growth in processing capacity in a plant (coupled with an equally obvious reduction in use in other plants on the Heretaunga Plains). Figures 1 and 2 on pages 5 and 6 clearly indicate that the GLH plant has experienced a steady growth path that started before the regional council declared over-allocation and signalled the need for clawing back unused allocation.
- 101 Equally clear is the reduction in water use from the TPP plant. Here the issue of faulty metering at the TPP site in the period before 2014 has a material bearing on the average water use record since the definition does not provide for 'adjustments' where the data record is partially unreliable. Using a maximum take metric overcomes this issue for the TPP site.
- 102 Table 1 below illustrates the significant disadvantage that using an average 2010-2020 take would mean for LCL.

**Table 1 – Returned water by LCL under different claw back options**

Site	Consent volume (m <sup>3</sup> /yr)	Max annual take 2010-2020	% water reduction from consented volume	Average annual take 2010-2020	% water reduction from consented volume
GLH	725,000	404,687	44%	262,583	64%
TPP	978,000	514,852	47%	314,489	68%
Whakatu	1,225,750	201,414	84%	70,503	94%

<b>Total</b>	<b>2,806,130</b>	<b>1,120,953</b>	<b>61%</b>	<b>647,575</b>	<b>77%</b>
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\*Note, maximums and averages are based on a July to June years. If they were based on a 2 May to 1 May year they would be slightly different.

103 In summary, over all three self-supplying LCL sites an 'maximum annual' approach to actual and reasonable would mean a 61% reduction from previously consented volumes. An average annual approach would mean a 77% reduction from previously consented volumes. All this in the context of the aquifer needing a 50%<sup>5</sup> reduction from currently consented allocations.

104 The approach is most disadvantageous for the GLH site which under an average approach would need to make a 142,000m<sup>3</sup>/yr (35%) reduction from *current* use.

105 For those reasons, I propose that the definition of actual and reasonable be amended as follows;

**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 irrigation takes the maximum average annual amount of water taken in any 12 month period over the 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~~ 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)

For all other takes, the maximum amount of water taken in any 12 month period 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 clause a) will apply.

106 If the Panel concludes that the change from 'maximum' to 'average' is not a consequential change then part b) of the definition should read as follows:

b) For irrigation takes the maximum amount of water taken in any 12 month period over the as measured by accurate water meter data in the ten years preceding 2 May 2020 ~~2019~~ ~~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~~ 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)

For all other takes, the maximum amount of water taken in any 12 month period 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 clause a) will apply.

<sup>5</sup> See Appendix 11 Technical Memo Water Quantity which indicates that current consented volume of groundwater is 180Mm<sup>3</sup>/yr (against the proposed interim allocation of 90Mm<sup>3</sup>/yr).

## OTHER MATTERS

- 107 Two other matters were raised by the LCL submission and have been, in my opinion, appropriately addressed by the 42A Report. These are discussed briefly below.

### **No presumption of efficiency reductions**

- 108 As noted in the LCL submission, Policy 52 assumes that efficiency gains are always possible and seeks that such gain be made. However, in practice, efficiency gains may not always be possible. This will be true for example, for uses that are operating at good industry practice and already employing best available practices and technologies. Mr Lowe points out, as an example that TPP plant has already achieved water use reductions as it works towards meeting international standards.
- 109 The LCL submission accordingly sought that Policy 52(b) (ii) be amended to recognise the efficiency gains should be required *where necessary* to shift a user to good industry practice.

### ***The s42A report on efficiency***

- 110 The S42A supports the point made in the LCL submission and proposes an amendment to Policy 52 (b) (ii).
- (ii) impose conditions that require implementation of industry good management practice for efficiency of water use ~~gains to be made~~, including through altering the volume, rate or timing of the take, and requesting providing information to verify efficiency of water use relative to industry good practice standards;
- 111 In my opinion, the solution of proposed in the s42A report is appropriate and should be adopted.

### **Flow maintenance (stream augmentation)**

- 112 Policy 39 of PPC proposed that applicants would need to cease groundwater abstraction when a stream maintenance trigger was reached or engage in stream augmentation.
- 113 The LCL submission pointed out a wide range of practical issues with Policy 39 including that matter of lags and the potential that ceasing groundwater abstraction would have no material bearing on surface water flows when the groundwater takes were not directly connected to surface water.
- 114 In relation to the augmentation scheme, the LCL submission points out that the Policy 39 proposal lacks clarity on a range of key matters such as how much augmentation is required, where the water for augmentation might come from, where the augmentation must occur, how it could be practically delivered within the time required and, in particular, the inefficiency of individual groundwater take consent holders developing individual augmentation projects when what is clearly required is collective action led by the regional council.

- 115 I agree that the issues set out in the LCL submission mean that the scheme as proposed in Policy 39 of the notified version of PPC9 is fatally flawed.
- 116 I note that the s42A Report, supports the Council's own submission on this matter that the Policy 39 be deleted and replaced. The replacement policy essentially sets out a process by which council develops (in consultation with iwi and other relevant parties) and implements a 'solution' to address flow maintenance (with funding shared across permit holders).
- 117 I support this policy. In my opinion, it is likely to be both more efficient and more effective than Policy 39 as notified.

Dated: 7 May 2021



Gerard Willis

### **PROVISION FOR BUSINESS LAND (HERETAUNGA PLAINS SUB-REGION)**

**OBJ UD3** Identify and provide for the land requirements for the growth of business activities in the Heretaunga Plains sub-region in a manner that supports the settlement pattern promoted in OBJ UD1.

#### **Principal reasons and explanation**

The provision of adequate land for future business activities is important for long term economic growth and the provision of both employment and services to the sub-region's existing and future communities. HPUDS2010 identified that there is already an adequate supply of commercial land within the Heretaunga Plains sub-region to accommodate projected demand and growth. In relation to industrial land, HPUDS2010 identified a limited number of areas appropriate for additional industrial land expansion and growth. These additional areas (identified in Policy UD4.5) are expected to accommodate projected growth and demand for industrially-zoned land out to 2045, and any additional growth in the event that the projections change from what was anticipated in HPUDS2010.

### **APPROPRIATE INDUSTRIAL GREENFIELD GROWTH AREAS (HERETAUNGA PLAINS SUB-REGION)**

**POL UD4.5** Within the Heretaunga Plains sub-region, areas where future industrial greenfield growth for the 2015-2045 period have been identified as appropriate, subject to further assessment referred to in POL UD10.1, POL UD10.3, POL UD10.4 and POL UD12, are :

- a) Irongate industrial area
- b) Omahu industrial area
- c) Whakatu industrial area
- d) Tomoana industrial area
- e) Awatoto industrial area

The indicative locations of the above areas are shown in Schedule XIVb

### **SERVICING OF DEVELOPMENTS (REGION)**

**POL UD13** Within the region, territorial authorities shall ensure development is appropriately and efficiently serviced for the collection, treatment, disposal or re-use of sewage and stormwater, and the provision of potable water by:

- a) Avoiding development which will not be serviced in a timely manner to avoid or mitigate adverse effects on the environment and human health; and
- b) Requiring these services to be designed, built, managed or upgraded to maximise their ongoing effectiveness.

**Before an Independent Hearing Panel of the Hawke's Bay Regional Council**

**In the matter of            the Resource Management Act 1991 (the Act)**

**And**

**In the matter of            Proposed Plan Change 9 (PPC9) to the Regional Resource  
Management Plan**

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**Statement of Evidence of Grey Wilson on behalf of  
Ngāti Kahungunu Iwi Incorporated  
Submitter Reference No.120**

**Dated 11 May 2021**

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**Introduction**

1. My full name is Grey Lewis Bireh Wilson. I hold the position of Principal Planner at Good Earth Matters Consulting Limited based in Palmerston North. I work from my home office in Te Kapu/Frasertown, Wairoa in northern Hawke's Bay. Along with my husband and children, I also maintain and operate a small commercial lime orchard on our property.
2. I hold a Bachelor of Resource and Environmental Planning (Hons) from Massey University and have over 14 years of experience as a planning consultant and have worked at Good Earth Matters for the entirety of my career. I am a full member of the New Zealand Planning Institute and a Certified Independent Commissioner under the Making Good Decisions Programme.
3. I have experience across the resource management sector and have worked extensively in both consenting and policy development.
4. I regularly work with three waters managers and operators, regional council rivers managers, and gravel extractors in developing strategic and holistic approaches to consenting. I am currently the lead planner responsible for consenting of Hastings District Council's drinking improvement programme including installation of treatment plants and reservoirs for six of the district's smaller supplies as well as large scale installations at Frimley Park and

Eastbourne (Waiaroha) for the main Hastings drinking water supply. I also provide planning support and advice in respect of the Council's water take permits, including renewals and variations.

5. I have acted on behalf of several district councils as a section 42A RMA reporting officer for small scale applications through to large, contentious coastal subdivisions and wind farm proposals, as well as for a district plan review. I was part of the team that provided planning advice to the territorial authority collective in making submissions on the Manawatū-Whanganui Regional Council's One Plan when it was first proposed.
6. I was part of the team that provided policy and plan provision advice to the Hawke's Bay Drinking Water Joint Working Group (JWG) when it was requested by the TANK Group to develop provisions around drinking water source protection for inclusion in Proposed Plan Change 9 (PPC9). As part of this work, my colleague Annette Sweeney and I presented at TANK Meeting 40 31 May 2018 and Meeting 42 29 July 2018.
7. Good Earth Matters is currently engaged by the Ministry for the Environment to provide advice and input into its review of the National Environmental Standard for Source of Human Drinking Water and I have been involved in developing and assessing options for revised provisions, and reporting to and appearing at Technical Advisory Group meetings as part of that process.
8. I have been engaged by **Ngāti Kahungunu Iwi Incorporated** (Submitter No.120/NKII) to provide planning evidence in relation to its submission on PPC9.
9. I have familiarity with the waterbodies within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū (TANK) catchments through my work within the region over the last decade and particularly through workshops, discussions and site visits with NKII over the last two years.
10. I provided NKII high level planning advice with regard to its First Schedule RMA pre-notification submission, and assistance in the development and drafting of its formal submission on PPC9 as notified.

11. In preparing this statement of evidence I have read the section 42A RMA Officers' report and the recommendations of Officers in respect of submissions and the Section 32 RMA Report, as well as relevant background reports.

### **Code of Conduct**

12. I confirm that I have read the Expert Witnesses Code of Conduct contained in the Environment Court of New Zealand Practice Note 2014. My evidence has been prepared in compliance with that Code in the same way as I would if giving evidence in the Environment Court. In particular, unless I state otherwise, this evidence is within my sphere of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

### **Summary of Evidence**

13. My evidence addresses the following matters:
  - A summary of the key issues arising from Ngāti Kahungunu Iwi Incorporated's submission, and my recommendations arising from the relevant statutory and planning considerations that apply;
  - Suggested amendments to PPC9 provisions to provide relief sought by NKII and comments on/responses to Officer Recommendations set out in the section 42A RMA Hearings Report;
  - Scope and Section 32AA RMA Considerations.

### **Key Issues Arising from NKII's Submission**

14. Ngāti Kahungunu Iwi Incorporated's concerns regarding PPC9 are numerous and far reaching. NKII has stated and made clear throughout the TANK process, its opposition to many of the provisions within PPC9 and the resource management approaches underpinning these provisions. Most recently, NKII's formal submission provided a high level of detail as to the changes sought to the PPC9 provisions and the reasons for these changes. However, the majority of those changes have not been recommended to be accepted or have been recommended to be 'accepted in part', generally on the basis that the Plan

already does what the various submission points seek and therefore no substantial changes are required.

15. In considering the s42A RMA Hearing Report and assessing the Officers' recommended changes against NKII's submission, my assessment overall is that the relief sought by NKII has largely not been provided by way of the recommended changes.
16. I consider that there is significant opportunity, via a series of changes to the provisions of PPC9, to address the concerns raised by NKII in its submission in a more direct and fundamental manner than is being recommended. To this end, I have developed a 'tracked changes' version of PPC9 for the purpose of assisting the Commissioners in making their decisions. This version is included in my evidence at **Attachment 1**. I understand that an updated version of Attachment 1 will be provided through Counsel, following completion of the cultural effects evidence.
17. I have developed the amendments shown in Attachment 1 based on NKII's primary submission and the key concerns and issues raised therein, various hui that I have attended with NKII, and consideration of draft cultural effects evidence intended to be presented at the Hearing; whilst also having regard to the s42A RMA Report and the s32 RMA Report. Taking these into account, I have formed the following views which underpin the changes shown in Attachment 1:
  - a) Amendments to objectives and policies are able to be made to PPC9 that will provide relief as sought in NKII's submission and that will also significantly improve the interpretation and implementation of the Plan and achieve better alignment with Part 2 RMA, and the higher order planning documents and national direction for freshwater management;
  - b) The addition of a new tangata whenua objective and policies will ensure that the Plan effectively recognises and provides for the relationship of Māori and their culture and traditions with their ancestral lands, waters, sites, waahi tapu and other taonga within the TANK catchments;

- c) A precautionary approach to addressing and managing water quality, water quantity and the effects of land use is appropriate given both the known and unknown sensitivities of the TANK catchments, the effects currently being experienced, the high level of connectivity between groundwater and surface water and the reliance of the Region on these water bodies as taonga and resources;
- d) It is not appropriate to rely on mitigation measures to deal with the effects of over-abstraction without requiring a reduction in water abstraction over a defined timeframe;
- e) The approach to water allocation with the TANK catchments must shift from a reasonable and actual use test (ie status quo) to a sustainable yield or similar bottom line test, paired with a revised allocation regime, in order to give effect to the NPSFM 2020 (within the scope of PPC9) and achieve the objectives of the Plan;
- f) The limits and targets for water quality within the catchments require refinement in order to ensure that the objectives of the Plan are able to be met within specified timeframes;
- g) The generally non-regulatory and collaborative approach to managing the effects of productive land uses within the TANK catchments is not sufficiently robust to achieve the objectives of PPC9 and therefore changes to the land use rules and methods are required;
- h) The costs associated with implementing these measures are outweighed by the water quantity and water quality benefits that will accrue to the waterbodies within the TANK catchments and which will have flow on benefits for tangata whenua and all resource users.

#### **Suggested Amendments to PPC9**

18. Upon request via the Hearings Administrator, Council Officers provided a word version of Appendix 1A and 1B of the section 42A RMA Hearings Report to me and I wish to extend my gratitude again for this, as it has assisted with the logistics of preparing my evidence. Attachment 1 uses the Officers' recommended changes as a result of submissions and further submissions as

the base document. I have created further tracked changes over those (in a different colour) to illustrate the amendments that I consider would be appropriate to make in order to provide the relief sought to NKII's submission and to address the key issues outlined above.

19. My initial assessment of PPC9 as notified was that it contained some drafting issues that were problematic and served to undermine what I understood the intent of the plan change to be, as stated within the background and discussion documents, and within the plan change itself.
20. My focus has therefore been to assist the Commissioners by presenting alternative wording that provides, at least to some extent, the relief sought by NKII and also improves clarity of provisions and will assist with interpretation and implementation of the Plan.
21. The following sections provide a discussion of the changes shown in Attachment 1, including comments on/responses to the section 42A RMA Hearings Report where relevant.
22. The discussion is organised in the order that the provisions appear in PPC9 unless otherwise stated. For brevity, I have generally not repeated the provisions (proposed or suggested changes) of PPC9 herein and my evidence statement should be read in tandem with Attachment 1 where the detailed wording of all provisions can be found.

## **Discussion of Suggested Amendments**

### ***Introductory Section***

23. NKII's submission sought that the introductory sections to the plan be significantly amended, or deleted, and this included the introductory section to the Plan. Reporting Officer's have recommended that the submission be accepted in part and some of the 'front end' text of PPC9 as notified has been deleted in the recommendations version but the Introduction section has been retained. I find this section problematic because I consider it to be potentially unclear as to the way in which the values have been identified and provided for.

24. Both the section 32 RMA Report and the section 42A Report are predicated on a conclusion that because a collaborative process was used for TANK, the values stated therein are inherently sound. I consider this problematic given the views of mana whenua (represented by NKII) as to the outcomes of the collaborative process and I consider great caution is required in terms of assuming that a collaborative process results in outcomes that are fair, equitable and appropriate. Mr Tiuka will provide evidence as to the prolonged and consistent nature of NKII and tangata whenua's discord with the proposals being promulgated in TANK.
25. The statement in the Introduction that the Plan, as notified, "*acknowledges the wider Māori perspectives of kawa, kaupapa and tikanga that support Māori values for water ensures the outcomes that are being sought are consistent with those cultural principles and approaches*" is questionable, given the consistent lack of support for the Plan provisions as proposed by the mandated Iwi Authority and the submissions provided both by NKII and other local Māori. Additionally, the Introduction refers to recognising Te Mana o Te Wai, which renders it out of alignment with national direction already (because we now must give effect to Te Mana o Te Wai). If the relief sought by NKII and tangata whenua is provided via changes to the substantive parts of PPC9, there is the potential that the Introduction section may be appropriate but it would likely require significant redrafting in order to accurately capture value statements as defined by mana whenua. In its current form, I do not consider that the potential problems with the Introduction are outweighed by any benefit it provides in terms of plan interpretation and implementation and therefore consider that it should be deleted or significantly redrafted, after due consideration of all other changes to be made to PPC9.

### **Objectives**

#### **General Objectives (OBK TANK 1 and OBJ TANK 2)**

26. As currently drafted, OBJ TANK 1 is a policy or a method rather than an objective as it sets out the collaborative way in which the Council seeks to undertake various activities. The objective of a Regional Plan should not be that people work together. It should specifically relate to a future state of the natural and physical environment which the Council seeks to achieve, deriving

from a section 30 RMA or other statutory function. OBJ TANK 1 as currently drafted also places significant onus on parties other than the Regional Council and to an extent devolves Regional Council responsibilities to those parties. Whilst in principle I support a collaborative approach to resource management issues where appropriate, the experience for NKII has been that the collaborative experience thus far in the TANK process has not resulted in an agreed set of provisions within PPC9. Taking into account the evidence and submissions from NKII and its experts, I cannot support a section 32 RMA assessment conclusion that the provisions of PPC9 which rely on a collaborative approach with mana whenua, without also establishing a strong regulatory framework, are the most appropriate way to achieve the purpose of the Act or the objectives of PPC9.

27. I consider it would be appropriate to reframe OBJ TANK 1 as a policy which retains what I understand the intent of the provision to be and revise it to ensure that the functions and responsibilities of the Regional Council are not unintentionally devolved to other parties. To this end, I have shown an amendment which deletes OBJ TANK 1 from its current location and creates a new POL TANK 1A with amended wording.
28. OBJ TANK 2 as currently worded mixes an objective statement with policies and methods. I have suggested wording that I consider more appropriate in terms of stating a clear objective with regard to matters for which Regional Council has responsibility. Some elements of Objective 2 as currently drafted are better provided for within the new Objective sought by NKII (refer below) Hence, I have suggested a new separate NEW OBJ TANK 2A to encompass the matters addressed in that provision.
29. NEW OBJ TANK 2B is as sought by NKII in its formal submission on PPC9 and states:

*To restore and revitalise the mauri and te mana o te wai of all waters within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments and in particular the Heretaunga muriwahou; and*

*To recognise and provide for Ngāti Kahungunu's relationships, tikanga and beliefs with their ancestral waters and taonga including rangatiratanga and kaitiakitanga; and*

*To repatriate and protect tangata whenua values, customs, culture and relationships with these waters.*

30. I do not agree with the reasoning set out in Section 13.10 of the s42A RMA Report in respect of NKII's submission point which seeks this new objective. The Officer's view is that matters of concern to tangata whenua are addressed adequately elsewhere in the Plan. In coming to this view, there is again a reliance on the consultation and engagement with tangata whenua to date with respect to the appropriateness of these provisions and the conclusion is that the submission seeking this new objective (along with that seeking a revised water allocation model be introduced within the life of the Plan) should be rejected.
31. As per the earlier discussion regarding the Introduction section, I do not consider that the process to date should be relied upon as a test or measure of the appropriateness of the Plan provisions being proposed. Further, I consider that the new objective (and policies) sought by NKII in its submission will better achieve the purpose of the Act by clearly articulating how section 6(e) is to be recognised and provided for within PPC9. Subsequent suggested changes to the policies aim to achieve this objective.

#### **Water Quality General Objectives (OBJ TANK 4 – OBJ TANK 8)**

32. The suggested wording changes to OBJ TANK 4 are subject to changes sought to Schedule 26 by NKII in its submission at **Attachment 2** of my evidence and I have not included a track changes version of that Schedule herein (discussed below).
33. The suggested deletion of (b) is because it is contradictory to the primary objective of meeting the attribute states by a specified time. Further, the collective management approach (which can, without the need for specification, include both regulatory and non-regulatory provisions in the Plan) is already covered in OBJ TANK 5.
34. With regard to OBJ TANK 7 it is not the role of the Regional Council in this context to undertake land uses and hence the suggested amendment to refer to the *management* of land use activities. Further, the *reduction* of contaminants, including soil loss, is not a particularly high test and could mean

only very small improvements to the scale of existing effects. Hence, the objective should be to manage land use activities such that contaminant losses are avoided where possible and where this is not possible, the effects of those losses are mitigated. It is my view that this would also help to give effect to Te Mana o Te Wai, by ensuring that the avoidance of effects is the focus in the first instance rather than accepting contaminant losses, and their inevitable effects on water quality and mauri. This would, in my view, go some way towards assisting the behaviour change sought by NKII with regard to the way in which land use activities are managed within the TANK catchments.

#### **Catchment Objectives (OBJ TANK 10 – OBJ TANK 14)**

35. As currently drafted, the catchment objectives do not, in my view, provide a plan user with a really clear sense of what PPC9 is trying to achieve in each of the catchments. The objectives provide for a wide range of values and do not appear to provide any policy position in terms of which values have primacy or priority. The objectives seem to be an attempt to encompass all activities that are currently undertaken in each catchment, rather than setting a future vision as an objective should do. It is my view that OBJ TANK 10-14 would benefit from revisions to set a clearer hierarchy that reflects the values of the waterbodies first and foremost.
36. I understand, however, the Reporting Officer's reluctance to change the values for each catchment given that they were identified via the TANK stakeholders process, but signal again that reliance on this process as a test of the robustness of provisions is in my view problematic. I consider it would not be appropriate for me (at this stage<sup>1</sup>) to significantly change the objectives. I have however attempted to at least partially address NKII's concerns relating to wording and lack of clarity within the objectives.
37. I also note that PPC9 proposes the amendment of OBJ 42 of the Regional Resource Management Plan as follows:

*"No degradation of existing groundwater quality in aquifers ~~in the Heretaunga Plains aquifer system~~".*

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<sup>1</sup> The drafting exercise will need to be done, but requires substantial time and resource, preferably following review of the evidence being provided to the Hearing.

This is to reflect the fact that the TANK catchments are excluded from that section of the RRMP by way of PPC9. However, I consider that as proposed, OBJ TANK 4 does not clearly enough provide the same level of protection to the Heretaunga Plains aquifer system as provided by OBJ 42 of the RRMP. PPC9 must give effect to the Regional Policy Statement and in particular to OBJ 21 of the RPS which is:

*“No degradation of existing groundwater quality in the Heretaunga Plains and Ruataniwha Plains aquifer systems.”*

38. For the avoidance of doubt, and to ensure that PPC9 properly gives effect to the RPS, I consider a new objective is required to address the potential gap created by the amendment to OBJ 42 of the RRMP as proposed in PPC9. I have drafted a new OBJ 3A for inclusion in PPC9 for this purpose.

#### **Water Quantity**

39. NKII is fundamentally opposed to the way in which water quantity within the TANK catchments is being addressed via PPC9 and I share the concern that the proposed framework is not adequate to achieve the objectives of PPC9 and indeed the sustainable management purpose of the Act

40. Within the ‘water quantity overview’ discussion at section 15.1, the section 42A RMA report states:

*“Science developed to support the development of PPC9 identified that the Heretaunga Plains Aquifer and some surface water bodies in the TANK Catchments are over-allocated. In order to meet obligations under the RMA and the RPS, PPC9 proposed a pathway to avoid and phase-out over-allocation within the TANK catchments.”*

41. My assessment of PPC9 as currently drafted is that the combined effect of OBJ TANK 16-18, and POL TANK 36-38, along with the associated rules and schedules is that it does not in fact provide a pathway to avoid and phase out overallocation. Rather, it simply provides a pathway by which, in the life of the Plan, consented abstractions will match current levels of abstraction (by applying the actual and reasonable use test in the re-consenting of existing takes). In other words, that the status quo will be generally continued.

42. The section 42A further states at para 1213 that:

*“many submitters request that hard limits and clawbacks on consented allocations be required. The Council does not yet have enough information to know whether such an approach would effectively and efficiently phase-out over-allocation, or to implement such an approach. The Council does not have a clear understanding of total demand, total actual use, or the actual limit of the groundwater resource due to the incomplete actual water use data. Without these three factors, the Council cannot determine the extent of clawbacks required or confidently set a firm total allocation to the groundwater resource. The process of re-allocation consents and the POL TANK 42 review will help answer the questions and better prepare the Council in developing future freshwater management plans. I also note that the national regulations have required more wide-spread use of water meter data and will require increased telemetry which will also help inform future reviews.”*

43. As proposed, the focus over the life of PPC9 is essentially information gathering, and review will occur 10 years after the Plan becomes operative<sup>2</sup> to determine the need or otherwise for a new/changed allocation regime will be considered. In the meantime, stream flow enhancement and water harvesting will be enabled to mitigate the adverse effects occurring as a result of current rates of abstractions.

44. I agree that there is an information gathering phase that is critical in determining the details for a new allocation regime. However, the timeframe proposed (POL TANK 42) is not the most efficient way of achieving the objectives of PPC9 because it essentially defers the substantive review for another decade. Given the extent of the effects of current abstraction levels, and the lack of clear understanding of water use and the sustainable yield of the water resource (ie supply and demand), I consider it appropriate that a precautionary approach should be utilised within PPC9 in the form of a review at five rather than ten years.

45. It is also appropriate in my view that a priority hierarchy be better established within the Plan in order to give effect to Te Mana o Te Wai (within the scope

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<sup>2</sup> Recognising that a separate plan review may be required to give effect to the NPSFM 2020 by 2024 – but it is not clear whether, and how, this may affect the PC9 provisions.

of PPC9). This is ultimately a legal issue, and I understand from Counsel that this is a legal requirement under section 67(3) RMA, if not from the date of notification of PPC9, then from the date that the NPSFM 2020 has legal effect (3 Sept 2020). There are additional considerations of equity that must be accounted for with a new regime and rather than providing a high flow allocation for tangata whenua within the existing regime, I consider that the establishment of a tangata whenua allocation at the 5 year review to be appropriate to ensure that the objects of PPC9 are able to be met.

46. The proposed shortening of the review period would have multiple benefits by allowing some continuation of the status quo whilst also providing a clear signal to plan users that a different regime is to be introduced. To that extent, PPC9 would play the role of a 'transitional' regime.
47. I have therefore suggested revisions to this framework by way of changes to OBJ TANK 16-18 as well as POL TANK 36-38 to implement a framework that enables a continuation of the status quo but introduces a shorter timeframe for a review and outlines more specifically the requirements for a new allocation regime. I provide the following comment in respect of these suggested changes.

#### **OBJ TANK 16 – 18**

48. OBJ TANK 16 as currently drafted is a better suited as a policy rather than an objective, as it sets out the way in which water will be allocated. I have therefore suggested it be moved to the appropriate policy section within the plan, and have added the core allocation and a tangata whenua allocation.
49. New OBJ TANK 16A brings in a natural flow goal for the TANK catchments. This serves to give effect to Te Mana o Te Wai by restoring at least some of the 'naturalness' of the water bodies. Without this Objective, the water quantity provisions lack a clear statement that the water bodies themselves must be protected in order to achieve all the values set out within the catchment objectives. This is further achieved by the core allocation and tangata whenua allocation. New OBJ TANK 16B does the same for groundwater.

50. I have also suggested amendments to OBJ TANK 17 to cross reference to two new objectives sought by NKII in order to bring clarity as to the purpose of the allocation regime being introduced.
51. Changes suggested to OBJ TANK 18 reflect NKII's opposition to the use of aquifer recharge, flow enhancement, water harvesting and water storage as methods to offset the effects of water abstraction. Whilst such activities may be appropriate in some instances, this should be considered on a case by case basis by way of resource consent and their use should not be an objective of the Plan. I have also suggested amendments to the corresponding policies.

### ***Policies***

#### **Priority Management Approach (POL TANK 1 – POL TANK 5)**

52. Policies TANK 1 – 5 as proposed contain a mix of regulatory and non-regulatory methods, with more emphasis on the latter. They impose requirements on third parties including mana whenua, the district councils and landowners which I consider to be a problematic approach as I have discussed with regard to OBJ TANK 1. I have suggested changes to these policies in order to remove the current significant onus on other parties. I consider these changes to accord with the approach of Policy TT5(f) of the Tukituki chapter of the RRMP which clearly provides for a collaborative approach within that catchment but retains Regional Council as the primary actor.
53. I also note that NKII's position is that there are significant flaws with Schedule 26 as currently drafted. I agree with that criticism, in particular the use of 'targets' and 'values', and the lack of clarity as to what these terms mean. The issues with Schedule 26 permeate throughout the objectives and policies of PPC9 and are particularly problematic for POL TANK 1 – 5. This is exacerbated by the issues identified above with devolving responsibilities to other parties.
54. In considering alternative wording options for these policies, I have had particular regard to the submission from the Director General of Conservation (**DoC**), given the alignment of that submitter and NKII on changes sought to Schedule 26, and the inherent issues with the drafting of objectives within PPC9 that should be policies and with POL TANK 1 -5.

55. In addition to new POL TANK 1A (which comprises a revised version of OBJ TANK 1 as proposed and serves to retain an element of the collaborative approach Council wishes to implement through PPC9), I have suggested a substantial redraft of POL TANK 1 which I consider addresses the concerns of NKII with regard to the onus placed on non-council parties. It also provides a much clearer statement of intent as to how the quality objectives of PPC9 will be met. This redraft is based on the suggested wording from DoC (refer pages 23-24 of submission No.123) with some minor variations from them that I consider assist with clarity of intent of the policy.
56. I note that I do not consider that the suggested wording changes the intent or scope of the policy. Rather, it brings a layer of clarity and certainty as to what aspects of land uses will be regulated by the Regional Council and the role of collaboration as a non regulatory method to support the regulatory provisions of PPC9. I consider the suggested wording is better aligned with the intent of Policy LW4 (role of non-regulatory methods) of the RPS and will improve certainty and clarity in implementation as compared to current wording. I have also suggested changes which shift the focus of the policies to the implementation of POL TANK 1 and reduce the onus on non-Council parties.

#### **Managing Point Source Discharges (POL TANK 10)**

57. POL TANK 10 as currently drafted, is in my view, potentially contrary to the objectives of PPC9, particularly OBJ TANK 4 (with or without the changes suggested in my evidence to that objective). As worded, POL TANK 10 allows 'pollution up to a point' for waterbodies where attribute objectives are already being met, that point being when the target attribute states in Schedule 26 are exceeded. It is arguable whether this approach is consistent with an objective to 'maintain' water quality in these water bodies. I am aware that this is a common problem/tension in regional plans and can be a problematic side effect of setting limits.
58. An additional problem with POL TANK 10 as worded is that it fails to address the situation where Schedule 26 attributes are currently not being met, unless the intention is that any discharge permit in degraded water bodies would be declined.

59. I consider that the policy should be explicit as to how the consideration is to occur where the receiving water body is already degraded to the extent that the objectives of Schedule 26 are not being met.
60. I consider the suggested changes would go some way to addressing NKII's concerns regarding the management of point source discharges as expressed in its submission. However, the matter of how 'drainage water' (as it is referred to in TANK Rule 33) potentially affects water quantity within the TANK catchments is not addressed within PPC9 other than in POL TANK 28 regarding urban stormwater where the effects of water quantity on ecosystems is accounted for.
61. Within the provisions as proposed, I have been unable to determine a pathway by which the potential effects of drainage of land on water quantity, or alternatively the hydrogeological benefits of retaining water within the land but wish to note this as a key area of concern of NKII that has not to date been addressed.

**Effects from Land Use on Water Quality (Diffuse Discharges) and Adaptive Approach to Nutrient and Contaminant Management and Timeframes (POL TANK 17 – POL TANK 26)**

62. 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 adverse effects of productive land uses being experienced in the catchments and the sensitivities of these catchments.
63. 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.

64. 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.
65. I defer to the intended evidence to be presented by NKII experts before me regarding the biophysical and cultural risks of not regulating nutrient losses, as well as to the DoC submission on this matter (page 28 of that submission).
66. It is my view that policies POL TANK 17 – POL TANK 27 require changes to ensure that they meet the objectives of PPC9 and provide the clarity and direction necessary to do so. I agree with NKII’s position that Farm Environment Plans within the catchments must be mandatory in order to establish a framework through which land use activities can be managed with certainty and regulations are able to be enforced.
67. I have suggested changes to activity status classification, as well as changes to the requirement for Farm Environment Plans within the Rules TANK 1 and 2.
68. POL TANK 21 addresses the management of nutrient losses where land use change is proposed, although I suggest some changes for clarification and strengthening. Rules TANK 5 and 6 also require strengthening to help give effect to the overall objective of meeting the targets in Schedule 26 and this policy should also refer directly to the priority catchments as set out in Schedule 28.
69. In addition to changes proposed to Rules 5 and 6, I consider that the use of a nitrogen cap may be appropriate in order to ensure that productive land uses are controlled to an extent that will have a demonstrable effect in terms of improving water quality and in order to ensure that the ambitious objectives of PPC9 are able to be achieved, while giving effect to the NPSFM 2020.

70. The limit for nitrogen caps, which could be imposed according to land use type, is outside the area of my expertise and I have deferred to the submission of Te Taiwhenua o Heretaunga in this regard.
71. I do not agree with the section 42A report starting at para 677 where it contends that a nutrient budget regime is too difficult and costly to develop and impose within PPC9.
72. Whilst it may be the case that further information and data is necessary to develop a more fulsome nutrient load regulatory regime, a nitrogen loading cap is a simple and straightforward way to assist in achieving the objectives of PPC9. I do not consider that this matter needs to be over complicated by suggestions that significant amounts of modelling are required to impose such rules, noting that the use of a nitrogen cap (190kg/ha/yr) for the application of synthetic nitrogen on pastoral land comes into effect in July 2021 under the National Environmental Standard for Freshwater.
73. A new rule imposing a nitrogen cap would act as a complementary measure to bringing productive land uses into a consenting regime by way of mandatory Farm Environment Plans and would provide an added layer of protection to and prevention of adverse effects on the TANK waterbodies. I have suggested this could be achieved via a new rule [RULE TANK 6A], noting the relief sought by Te Taiwhenua o Heretaunga in this regard.
74. POL TANK 20 is largely non regulatory and does not appear to take account of the priority management approach. I have suggested wording I consider is appropriate and more effective in achieving the priority management approach and objectives of PPC9 with regard to water quality. Note that the regulation of land uses is to occur by way of making farm plans mandatory, and changing the activity status of activities as per my suggested changes in the rules.
75. I note that there is an option that the Catchment Collectives and Industry Programmes could be retained in the Plan as optional non regulatory activities to be undertaken by resource users. However, for the purpose of my evidence, I have suggested deleting all relevant provisions in order that the focus of PPC9 is on the regulation of land use activities via Farm Environment Plans and that

resources available to the Regional Council are able to be directed to the implementation of this statutory instrument.

76. I consider that the intent of POL TANK 21 fits within the policy framework of PPC9 and will achieve the objectives, subject to some wording changes to ensure that the intended priority catchment approach is implemented and to reflect the changes to previous policies outline above.
77. I note that NKII seeks that a number of amendments to Schedule 26 be made in association with the necessary changes to the quality related objectives and policies discussed above. The specific nature of the changes sought to Schedule 26 is outside my area of expertise and I address this later in the discussion of suggested changes to the Schedules of PPC9.

#### **IMPLEMENTATION PLAN (POL TANK 27)**

78. The Implementation Plan currently sits outside PPC9 but it is relied on as a primary method by which the objectives of PPC9 will be achieved and the policies implemented. My view is that any Implementation Plan for PPC9, whilst enabling stakeholder engagement and collaboration, needs to ensure that primary responsibility is retained by the Council and be clear as to how that engagement and collaboration will be facilitated, including funding mechanisms. I consider that the Implementation Plan approach in the Tukituki Chapter of the Regional Resource Management Plan (RRMP) as set out in POL TT16 does this. That Policy includes monitoring and feedback loops, includes timeframes, and is explicit in how the Plan will be developed and includes a funding mechanism.
79. If the changes to the preceding policies as discussed above are adopted, it follows that POL TANK 27 requires reframing so as not to focus on the Catchment Collectives and Industry Programmes
80. I consider that a policy very similar to the POL TT16 would, in combination with the move to mandatory Farm Environment Plans, provide the relief sought by NKII in its submission to move away from a non-regulatory approach to land use and nutrient management, whilst also achieving consistency with the approach for the Implementation Plan used in the Tukituki section of the RRMP

which could be beneficial for the remainder of the catchments to be subject to Plan reviews and new catchment planning frameworks.

81. Suggested changes therefore include deleting POL TANK 27, POL TANK 33, 34, and 35 and replacing them with a new Policy generally matching the wording of POL TANK 116 and I have included the wording of that policy at **Attachment 2** of my evidence rather than providing it in the track changes text. I note that the milestones set out in POL TANK 27 are important for achieving the objectives of PPC9 and should be retained, and could be explicitly stated within the new Implementation Plan Policy or, alternatively, each milestone could be stated within the policy to which it relates.

### **Water Quantity Policies**

#### **Groundwater (POL TANK 36 – POL TANK 42)**

82. The changes to the above policies suggested in Attachment 1 demonstrate that the relief sought by NKII (and other submitters) with regard to implementing a precautionary approach within the Heretaunga Plains Groundwater Quantity Area is able to be achieved within PPC9 by reducing the current volume of water abstracted in the unit via the rule framework, setting an appropriate allocation limit and introducing a new allocation regime within the life of the plan that does not 'grandparent' existing takes other than those for community supply purposes as per POL TANK 50. These proposals may require further refinement and testing but are an attempt to put in place provisions which address the concerns of NKII within the scope of existing PPC9.
83. New POL TANK 35A, which is an adapted form of proposed OBJ TANK 16 as discussed previously, provides overarching direction as to how the allocation of ground and surface water will occur within the TANK catchments in order to achieve the objectives of PPC9 and in a way that gives effect to Te Mana o Te Wai.
84. Change to POL TANK 36 – 38 reflect the changes to OBJ TANK 16 -18 as discussed above and include the adopting an interim limit which is necessary in order to effectively manage the Heretaunga Plains Groundwater Quantity Areas as over allocated. I note that I have shown, in Attachment 1, that limit at 70 rather than 90 million cubic metres per year given that this is sought by NKII in its submission. My understanding is that best estimates are that the 90

million figure reflects current use. It would therefore, in my view be appropriate to implement a more conservative number in order to reflect a precautionary approach, noting that the exact figure that is appropriate is outside the area of my expertise.

85. NKII is opposed to the use of flow maintenance schemes as a mitigation measure to address over abstraction within the Heretaunga Plains aquifer and recharge areas. I consider the deletion of POL TANK 39 as proposed (and the amended version proposed by Regional Council in its submission) is appropriate given NKII's position. The changes I have suggested to the water quantity provisions seek to address over abstraction as the fundamental problem, rather than to mitigate the effects of this activity. The determination of whether or not stream flow maintenance schemes are appropriate should, in my view, be on a case by case basis via the resource consent process set out in the TANK rules as proposed (subject to more stringent activity status classifications that currently proposed) and in accordance with POL TANK 40.
86. The changes to POL TANK 42 introduce the five rather than 10 year review and reflect the changes to OBJ TANK 16-18 as discussed previously.

#### **Surface Water Flows and Allocation Limits (POL TANK 43 and POL TANK 44)**

87. The approach underpinning POL TANK 43-44 is similar to that utilised for the Heretaunga Plains Groundwater Quantity Area in that existing consent holders will be able to renew consents for water takes, subject to an actual and reasonable use test. This approach is not a precautionary one in my opinion, and effectively enables the status quo to continue and provides little to no certainty that actual water use in these catchments will be reduced.
88. NKII (and others) seek that minimum low flows are established for all water bodies to which POL TANK 43 applies and also require takes to cease at low flows.
89. NKII's submissions, and intended evidence, address the cultural and other impacts that the effects of existing water takes are having in all catchments, and the Paritua and Karewarewa Streams are particularly stark examples.

90. The s42A Report states that Council does not have sufficient information and monitoring processes to enable cease takes according to groundwater levels and relies on POL TANK 44 as the mechanism by which further work will be undertaken in this regard.
91. It is my view that if that is the case, the response should be to implement a precautionary approach by way of increasing monitoring sites and requiring takes to cease at low flows. This would provide increased protections for the water bodies by way of bottom lines.
92. In terms of mechanics of the Plan, as currently drafted POL TANK 43 implies, by way of the words 'maintaining, reducing and establishing', that future changes to the allocation regimes, based on minimum flows, will occur. I have referred to various references within the section 32 RMA Report and understand from the statement at page 289 that in fact 'maintaining' and 'reducing' is as compared to the minimum flows and allocations set out in the RRMP. If I have interpreted this meaning correctly, I would suggest that POL TANK 43 simply refer to the flows and limits set out in Schedule 31 to avoid confusion.
93. Furthermore, POL TANK 43 should include a timeframe by which the allocation limits being set for the Ngaruroro River, the upper Tūtaekurī Catchment and the Ahuriri Catchment Freshwater Streams will be reviewed in order to ensure that this occurs within the life of the Plan and to assist in achieving the Objectives of PPC9.
94. I have suggested changes to POL TANK 43 within Attachment 1 to this effect and note that NKII seeks specific changes to Schedule 31. The specific nature of these changes is outside my area of expertise and include irrigation season minimum flows and allocation limits increasing minimum flow levels to account for a cultural or 'in stream' allocation and new minimum flow monitoring sites and managing the Paritua and Karewarewa Streams and their tributaries as separate management units. These are as set out in NKII's submission at Attachment 2 to that submission, and included in **Attachment 3** of my evidence for reference (which also includes the specific changes sought to Schedule 26).

## **POL TANK 45 – POL TANK 52**

95. I have suggested changes to these Policies to give effect to changes to Objectives and Policies as already discussed.

## **High Flow Allocation (POL TANK 56 – 58)**

96. I understand NKII's position to be that the process by which the high flow allocation provisions were developed and placed into the Plan was offensive and inadequate. 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. Hence, I consider it appropriate that POL TANK 56 – 58 be deleted from the Plan, in combination with all other changes required to provide relief to NKII's submission points.

## **Rules**

97. I have suggested changes to the rule to give effect to and implement the suggested changes to objectives and policies of PPC9. The key changes to the rules include:
- TANK RULES 1 and 2 establish a mandatory requirement for Farm Environment Plans as a controlled activity within the TANK catchments and as a restricted discretionary activity within High Priority Catchments in order to bring productive land uses into a consenting framework that can be monitored and enforced and retaining discretion by the Council as the appropriateness or otherwise of a productive land use activity within High Priority Catchments;
  - Combining Rules TANK 5 and 6 into one rule, including the matters for discretion, which provides for land use change provided for as a restricted discretionary activity in order retain Council's discretion as to the appropriateness or otherwise of a change in land use type from one leaching level to a higher leaching level, and because RULE TANK 6 becomes unnecessary with the deletion of Catchment Collective provisions;

- New TANK RULE 6A introducing a nitrogen cap and making exceedances of that cap a restricted discretionary activity;
- Changes to the TANK Rules 7 – 12 to reflect the changes to objective and policies as discussed previously, noting that these aim to enable some continuation of the status quo for existing consents whilst signalling and committed to a review of the allocation regime for the TANK catchments within the life of the Plan;

### **Schedules**

98. There are changes to the Schedules of PPC9 that are consequential to the suggested changes in Attachment 1 of my evidence. I address these below
99. In its submission, NKII has sought a number of changes to Schedule 26 and these have not been recommended to be accepted by the Reporting Officers. These specific changes relating to water quality attribute objectives and targets are outside my area of expertise and I have therefore not considered these further in my evidence. The same is true for changes to Schedule 31 as discussed previously. For reference, I have attached the relevant parts of NKII's submission to my evidence as Attachment 3. I consider that the changes sought therein form an important part of the package of amendments necessary to ensure that the objectives of PPC9 are able to met.
100. Schedule 30 requires removal of the Catchment Collective provisions and consequential changes to align with the primary changes to TANK Rules 1 and 2.
101. Schedule 32 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 operative.

## **Freshwater Management Units**

102. At para 124 of the section 42A RMA Report it states that officers are taking/took a paper to council in April 2021 to confirm a Freshwater Management Unit approach for the Region. I undertook a brief search of Council Meeting agendas and papers for April 2021 meetings and was unable to find the paper referred to. I consider it would be helpful for Officers to provide further comment on this matter at the PPC9 Hearing if possible because it would be significantly beneficial to achieve alignment with that region-wide approach within PPC9 by way of decisions on submissions and this would be to the benefit of the mechanics of the Plan.

## **Scope and Section 32AA RMA Considerations**

### **Scope**

103. In creating a separate chapter within the RRMP for the TANK catchments, the Council establishes a particular planning regime to apply within these catchments for the way in which water quality, water quantity and productive land uses are managed. NKII's submission overall is supportive of the new regime but it considers that PPC9 does not go far enough in terms of setting clear objectives and a regulatory framework to achieved these and therefore seeks amendments to PPC9 as proposed. All aspects of NKII's submission discussed herein relate directly to the approach and provisions proposed within PPC9 and does not seek new provisions or approaches that are outside the scope of PPC. I therefore that all aspects of the submission as discussed in this evidence are 'on' PPC9 and do not consider there to be any particular scope issues in terms amendments shown in Attachment 1. I acknowledge that this is ultimately a legal issue, to be addressed by Counsel for NKII.

## **Section 32AA RMA**

104. In my discussion of the suggested changes to PPC9, I have attempted to demonstrate the ways in which the amendments to objectives serve to better articulate what PPC9 is trying to achieve through the provision of clarity and certainty. I do not consider that the suggested changes fundamentally alter the intent of PPC9 which is to (refer page 12 section 32 RMA Report):

- *Sustain the freshwater resource of the TANK catchments to meet the reasonably foreseeable need of future generations;*
- *Safeguard the life supporting capacity of the freshwater resource of the TANK catchments and the soil and ecosystems within those catchments; and*
- *Avoid, remedy or mitigate adverse effects of activities on the environment within the TANK catchments.*

105. The new and amended provisions reposition the particular matters of importance for tangata whenua to elevate their visibility within the plan rather than weaving these matters into other provisions and present a reasonably practicable option for better achieving the sustainable management purpose of the Act, particularly with regard to Section 6(e).

106. Taking into account the evidence and submissions from NKII and other mana whenua, I consider that the costs of not making these changes in terms of cultural effects may be significant. The status quo is currently leading to poor outcomes for tangata whenua in terms of their relationship with and experience of the water ways within the TANK Catchments.

107. With regard to the suggested changes in relation to water quality, the most significant change is the move away from the Catchment Collective option to mandatory Farm Environment Plans. I do not consider that the cost of this shift to productive land users within the TANK catchments is substantial as compared to the provisions as proposed.<sup>3</sup> The revised provisions change the way the activities will be managed in terms of a consenting framework and enforceability but the intention to improve the way in which land uses are undertaken and accounted for remains as proposed.

108. With regard to the suggested changes in relation to water quantity, I accept that the proposed revised timeline for review at 5 years rather than 10 years will have cost implications for the Council and the implementation of a new allocation regime will have economic implications for existing consent holders. I cannot provide a detailed costs benefit analysis in this regard within the ambit

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<sup>3</sup> In making this comment, I note there is a lack of direct information on costs – and I refer to Peter Fraser’s evidence on this.

of my evidence for the purpose of the Hearing and would expect this to a matter for further consideration for the Commissioners should they be accepting of the shortened timeframe. I note however that the intention of the revised provisions is to enable some continuation of the existing abstraction, and provide a clear intention that this will be significantly reviewed within the 5 year timeframe.

109. This will enable land users to re-consider and re-evaluate current land use practices and may in fact drive changes to the way in which those land uses are undertaken which would be beneficial.
110. To maintain the status quo for a ten year timeframe whilst information is gathered as to the extent of water abstraction (and the nature of discharges from productive land uses) would not achieve the objectives of PPC9 nor the RPS and NPSFM 2020. I do not consider that weighing up the risks of not providing a higher level of regulatory protection for the water bodies against increased consenting costs aligns with a precautionary approach nor to the sustainable management purpose of the Act.
111. I consider that the benefits to be accrued within the TANK catchments from an increased level of certainty and protection warrant the costs associated with implementing such measures and that they are necessary in order to ensure that the objectives of PPC9 are able to be met.

## **Conclusion**

112. I consider that there is significant opportunity to address the concerns raised by NKII in its submission in a more direct and fundamental manner than is being recommended. A series of changes to PPC9 are available that will improve the mechanics of the Plan and will facilitate and enable better environmental outcomes, and outcomes for tangata whenua in particular, than the provisions as proposed. It will also reflect the statutory imperatives and higher order planning instruments.



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**Grey Wilson**  
**11 May 2021**



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Background deleted – 120.80, 123.19 and 132.33

IS NOT PART OF PPC9 HEARING REPORT

## **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 – 36 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.

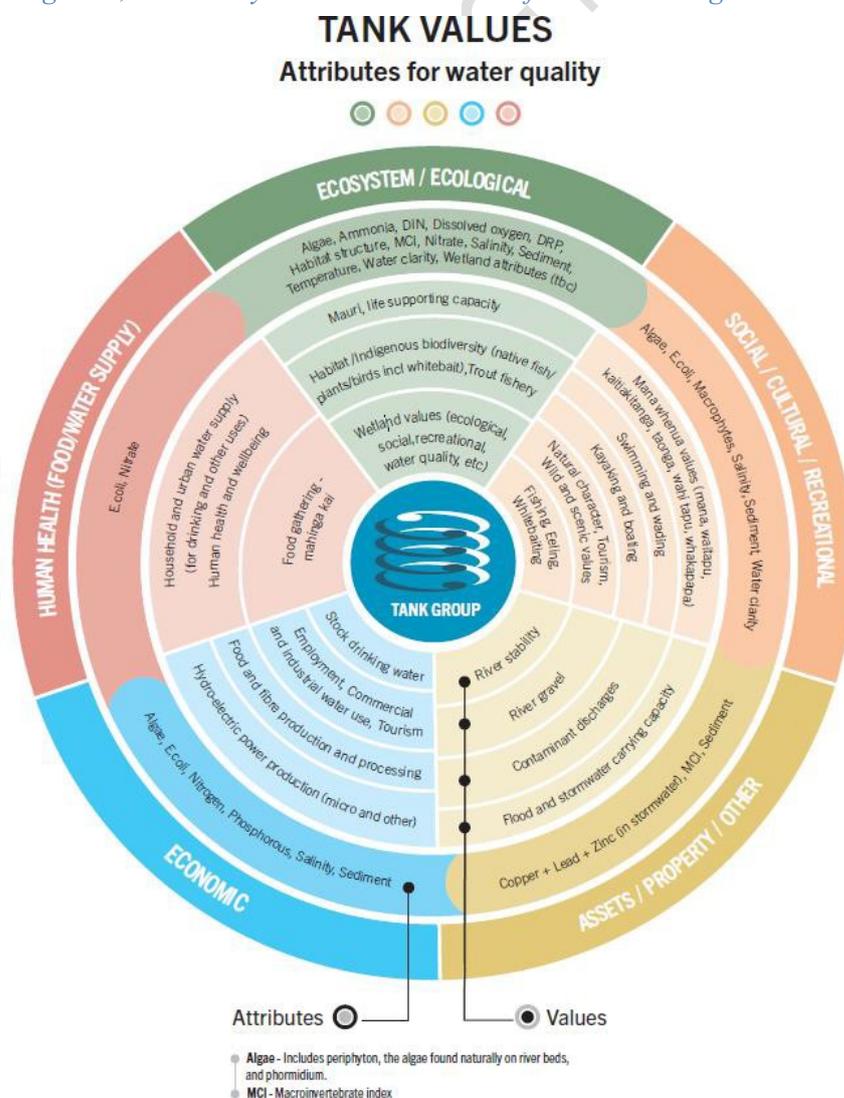
This Plan also recognises Te Mana o te Wai, which puts the mauri of the waterbody and its ability to provide for te hauora o te tangata (the health of the people), te hauora o te taiao (health of the environment) and te hauora o te wai (the health of the waterbody) to the forefront of freshwater management.

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.

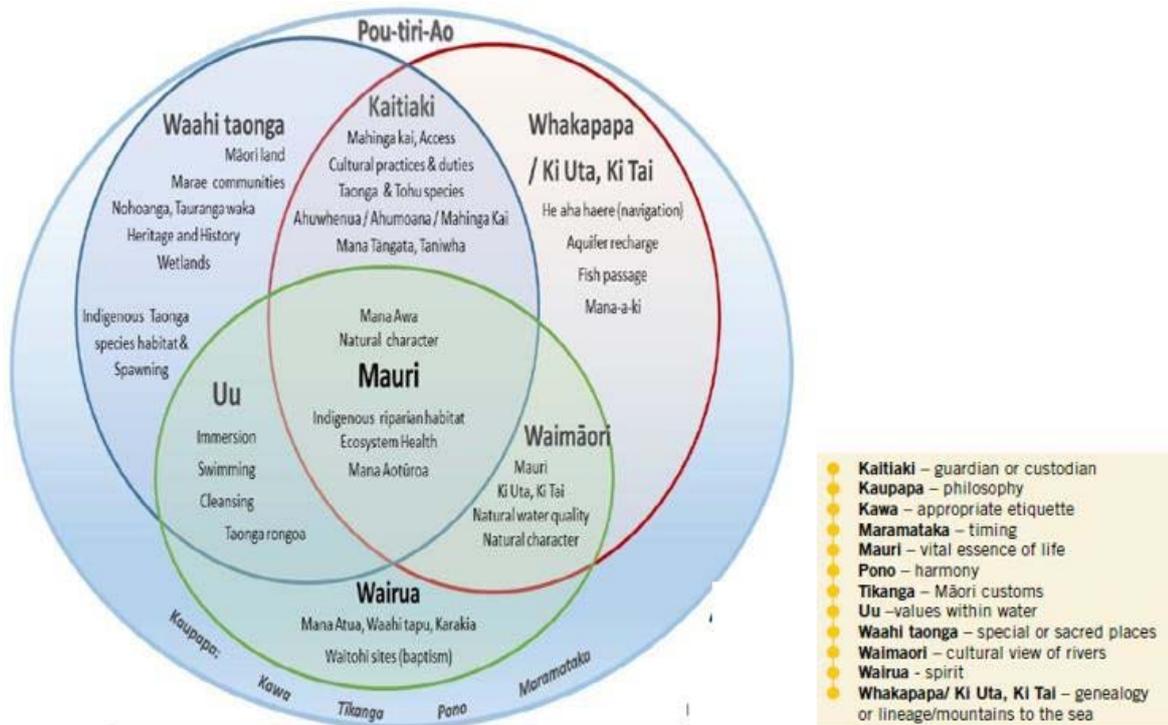
The two expressions of the values for freshwater complement and build on each other. They enable the directions of the National Policy Statement for Freshwater Management to be given effect to and ensure the Plan provides for all of the community’s values.

Figure 1; community values and attributes for water management



Recommended changes to Proposed Plan Change 9  
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Figure 2; Wāriū (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 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.

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.

[\[Significantly amend, or delete, this section\]](#)

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5.10.1 TANK Objectives

General Objectives

~~OBJ TANK 1 Freshwater management in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments will be achieved by Tthe Council, tangata whenua and the urban and rural community working together in a way that:~~<sup>194.18, 210.2, 132.83</sup>

- ~~a) recognises the kaitiaki and guardianship roles they each play in freshwater management and;~~
- ~~b) recognises the importance of monitoring, resource investigations and the use of mātauranga Māori to inform decision making and limit setting for sustainable management;~~
- ~~c) ensures good land and water management practices are followed and where necessary, mitigation or restoration measures adopted; and~~
- ~~d) supports 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.~~<sup>201.16</sup>

**OBJ TANK 2** Land and freshwater in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments are sustainably managed as integrated natural resources in a way that:

- a) gives effect to Te Mana o Te Wai and ki uta ki tai; and
- b) recognises the interconnectedness of land and water, and the particular connections between groundwater and surface water in these catchments; and
- c) And safe guards the life supporting capacity and ecosystem processes, particularly for indigenous species, within these catchments.

so that; ~~When setting objectives, limits and targets;~~

- ~~a) Te Mana o te Wai<sup>1</sup> and integrated mountains to the sea the connection between freshwater, land and the coast, ki uta ki tai principles, and the connection between surface water and groundwater are upheld and recognised;~~<sup>126.6</sup>
- ~~b) A continuous improvement approach to the use and development of natural resources and the protection of indigenous biodiversity and the habitat of trout and salmon<sup>58.4</sup> is adopted and life supporting capacity and the aquatic ecosystem processes are safeguarded<sup>126.6</sup>~~
- ~~c) b)the collective management of sustainable<sup>135.5</sup> freshwater is enabled;~~<sup>120.78</sup>
- ~~d) e)The kaitiakitanga role of tangata whenua and their whakapapa, customs<sup>120.12</sup> and cultural connection with water are recognised and provided for;~~
- ~~e) d)The responsibilities of people and communities for sustainable resource use and development is recognised and supported; and~~
- ~~f) e)The significant values of wetlands,<sup>126.6</sup> the outstanding water bodies in Schedule 25 and the values in the plan objectives are appropriately protected and provided for.~~

NEW OBJ TANK 2A The significant values of wetlands, the Outstanding Water Bodies identified in Schedule 25 and the values identified for each catchment in OBJ10-15 are appropriately provided for and protected from inappropriate use and development.

NEW OBJ TANK 2B To restore and revitalise the mauri and te mana o te wai of all waters within the Tūtaekurī,

<sup>1</sup>From Objective AA and Policy AA in NPSFM 2017

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Ahuriri, Ngaruroro and Karamū catchments and in particular the Heretaunga muriwahou; and

To recognise and provide for Ngāti Kahungunu's relationships, tikanga and beliefs with their ancestral waters and taonga including rangatiratanga and kaitiakitanga; and

To repatriate and protect tangata whenua values, customs, culture and relationships with these waters.

Climate change

**OBJ TANK 3** ~~Particular regard is had to t~~The effects of climate change ~~are taken into account when in respect of each of the following are taken into account in~~ making decisions about land and water management within the TANK catchments;

- ~~a) The effects on aquatic ecosystems, including indigenous biodiversity, freshwater bodies, water supply and 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 and the scale and probability of adverse effects, particularly irreversible effects, as a consequence of acting or not acting;~~
- ~~c) The timeframes relevant to the activity;~~
- ~~d) Opportunities to improve community resilience for changes occurring as a result of (a)(i) to (iv).~~

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Water Quality General

**OBJ TANK 3A** ~~That there is no degradation of existing groundwater quality in aquifers in the Heretaunga Plains aquifer system.~~

**OBJ TANK 4** ~~Land and water use, contaminant discharge and nutrient loss activities are carried out so that~~<sup>201.19</sup>  
In addition to OBJ TANK 3A, 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:

- a) ~~For any specific water body where the attribute state is found to be higher than the target attribute state that~~ given in Schedule 26, the higher state is to be maintained; ~~and~~
- a)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. Maintenance of a state is at the measured state<sup>2</sup>.~~

**OBJ TANK 5**—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.

~~**OBJ TANK 6**—The quality of the TANK freshwater bodies set out in Schedule 27 will be achieved through future plan changes.~~<sup>203.4</sup>

**OBJ TANK 7** Land use activities are managed in a way that avoids where practicable and otherwise reduces and minimises ~~is carried out in a manner that reduces~~ contaminant loss including soil loss and consequential sedimentation in freshwater bodies, estuaries and coastal environment and requires mitigation of the effects of such losses where they occur.

**OBJ TANK 8** Riparian margins are protected and/or improved where necessary to provide for Aquatic ecosystem health and mauri of water bodies in the TANK catchment ~~is improved by appropriate management of riparian margins and~~ to:<sup>23.30, 180.16, 195.24, 210.22</sup>

- 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 9** Activities in source protection areas for Registered Drinking Water Supplies are managed to ensure that they do not cause source<sup>203.4</sup> water in these zones to degrade or become unsuitable for human consumption, and that risks to the supply of safe drinking water are appropriately managed.

Catchment Objectives

**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~~

<sup>2</sup>The state is as measured according to the method specified for each attribute. It does not allow for decline to a lower state within any band specified in the NPSFM:2014 (as amended 2017)

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~~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 in the Ahuriri freshwater catchments to enable:

- 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;
- f) contribution to the healthy functioning of the Te Whanganui a Orotū (Ahuriri)<sup>126.15</sup> 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 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,~~<sup>29.53</sup> ~~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 where necessary in the tributaries and lower reaches ~~where necessary~~ of the Ngaruroro River catchment 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 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 12** 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 of the Tūtaekurī River 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;

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- 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 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 13** 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 in the Karamū and Clive River catchments to enable;

- a) healthy ecosystems;
- b) healthy and diverse indigenous aquatic and bird populations, especially black patiki, 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) the safe collection and consumption of mahinga kai to provide for social and cultural well-being;
- e) people and communities to safely meet their domestic water needs;
- f) primary production water needs and water required for associated processing and other urban activities to provide for community social and economic well-being;

and provide for;

- g) contribution to the healthy functioning of the Waitangi Estuary ecosystem and to enable people to safely carry out a wide range of social, cultural and recreational activities and the collection of mahinga kai in the estuary.

**OBJ TANK 14** In combination with meeting the water quality states specified in Schedule 26, ~~the use and development of land, the discharge of contaminants and nutrients, and the taking and using of freshwater is carried out so that~~ the mauri, water quality, water quantity and groundwater levels are maintained or improved 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 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 over-abstraction and long term decline or seawater intrusion;
- d) contribution to water flows and water quality in connected surface waterbodies.

**OBJ TANK 15** ~~In combination with meeting the water quality states specified in Schedule 26, the use and~~

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~~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 ~~are is~~ managed so that mauri, water quality and flows, and levels are maintained and improved to enable; <sup>58.12, 123.36, 201.28</sup>

- a) healthy and diverse indigenous and valued introduced <sup>58.16</sup> 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 <sup>58.9</sup> and cultural activities;
- d) collection of mahinga kai and the abstraction of water to provide for human or animal health and social and cultural well-being; <sup>124.21</sup>
- e) contribution to improved water quality in connected surface waters;
- f) the protection of the outstanding values and significant values of the Kaweka Lakes, Lake Poukawa and Pekapeka Swamp and the Ngamatea East Swamp;

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.

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Water quantity

NEW OBJ TANK 16A By 2035, restoration of at least 70% of the Natural Flow within the surface waters within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments.

NEW OBJ TANK 16B Maintain existing groundwater quantity including level and flows in aquifers in the Heretaunga Plains aquifer system.

**OBJ TANK 16** ~~Subject to limits, targets and flow regimes established to meet the needs of the values for the water body, water quantity allocation management and processes ensure water allocation~~ 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,<sup>210.2, 132.83</sup> in the following priority order:

- ~~a) Water for the essential reasonable domestic needs of people, livestock drinking and fire-fighting supply<sup>13.8, 35.76, 195.28</sup>;~~
- ~~b) The allocation and reservation of water for existing and future demand for domestic supply including marae and papakāinga, and municipal uses supply as described in HPUDS (2017) can be met within the specified limits;~~
- ~~c) Primary production on versatile soils;~~
- ~~d) Other primary production;<sup>30.1</sup> food processing, industrial and commercial end uses;~~
- ~~e) Other non-commercial end uses.~~

**OBJ TANK 17** The allocation and use of water results in;

- ~~a) The achievement of OBJ TANK 16A and 16B, and OBJ TANK 2, 2A and~~
- ~~b) 2B;~~
- ~~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)c) water being available for abstraction at agreed reliability of supply standards taking into account Te Mana o Te Wai;~~
- ~~e)d) efficient water use;<sup>5</sup>~~
- ~~d)e) Allocation regimes that are flexible and responsive, allowing water users to make efficient use of this finite resource;<sup>132.84</sup>~~

**OBJ TANK 18** The current and foreseeable water needs for mauri and ecosystem health and of future generations and for mauri and ecosystem health<sup>58.12</sup> are secured through;

- ~~a) avoiding future over-allocation abstraction and phasing out existing over-allocation<sup>123.39, 233.9</sup>~~
- ~~b) a) water conservation, water use efficiency, and innovations in technology and management;~~
- ~~c) b) flexible water allocation and management regimes;~~
- ~~d) e) water reticulation;~~
- ~~e) d) aquifer recharge and flow enhancement;~~
- ~~e) water harvesting and storage.~~

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5.10.2 Policies: Surface Water and Groundwater Quality Management

~~**OBJ TANK 1**~~ ~~**POL TANK 1A**~~ The Council will work together with tangata whenua and the urban and rural community to manage 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:<sup>194.18, 210.2, 132.83</sup>

- ~~a) recognises the kaitiaki and guardianship roles they each play in freshwater management and;~~
- ~~b) recognises the importance of monitoring, resource investigations and the use of mātauranga Māori to inform decision making and limit setting for sustainable management;~~
- ~~c) ensures good land and water management practices are followed and where necessary, mitigation or restoration measures adopted; and~~
- ~~d) supports 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.~~<sup>201.16</sup>

Priority Management Approach

**POL TANK 1** The quality of surface water and groundwater bodies will be maintained where objectives of Schedule 26 are currently met, and will be improved where necessary to meet the targets of Schedule 26 by 2040 by the Council undertaking the following:

- a) Working with mana whenua, land owners, local authorities, industry and community groups to manage the effects of land use activities being undertaken in the TANK catchments with particular focus on the matters in (b) through (i) and POL TANK 2 – POL TANK 5;
- b) Managing and regulating productive land use activities to improve water quality;
- c) Where phosphorous and microbial pathogens are not meeting the objectives of Schedule 26, regulating and managing 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 Te Whanganui ā Orotu (Ahuriri) Estuaries;
- f) Enabling the establishment of new riparian margin management areas and maintenance of existing riparian margin management areas to meet OBJ TANK 8;
- g) Managing and regulating stormwater networks and reducing contaminants in stormwater;
- h) Managing and regulating point source discharges to reduce contaminants in water; and
- i) Protecting the quality of water for drinking water supplies.
- j) Managing and regulating land use activities on a property and catchment scale

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to reduce cumulative adverse effects.

~~The Council will regulate land use activities and will work with mana whenua, with landowners, local authorities, industry and community groups, mana whenua and other stakeholders will regulate or to manage land use activities and surface and groundwater bodies so that the 2040 target water quality attribute states described in Schedule 26. 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:~~

- ~~a) water quality improvement in priority sub-catchments (as described in Schedule 28) where water quality is not meeting specified freshwater quality targets;~~
- ~~a) sediment management as a key contaminant pathway to also address phosphorus and bacteria losses;~~
- ~~b) the significant environmental stressors of excessive sedimentation and macrophyte growth in lowland rivers and nutrient loads entering the Te Whanganui ā Orotu (Ahuriri) and Waitangi estuaries;~~
- ~~c) the management of riparian margins;~~
- ~~d) the management of urban stormwater networks and the reduction of contaminants in urban stormwater;~~
- ~~e) the protection of water quality for domestic use and registered drinking water supplies. and municipal water supply.~~<sup>201.32, 135.18, 195.31, 233.10</sup>

**POL TANK 2** In the Clive/Karamū Rivers and their tributaries, the particular focus in implementing POL TANK 1 and giving effect to Te Mana o Te Wai, in addition to Policy POL TANK 1 ~~the Council will work with mana whenua, landowners and the Hastings District Council shall be to:~~

- a) reducinge water temperature and increase the level of dissolved oxygen by;
  - (i) the establishment of riparian vegetation to shade the water and reduce macrophyte growth (excluding watercress – as a mahinga kai) while accounting for flooding and drainage objectives ;
  - (ii) reducing excessive macrophyte growth by physical removal of aquatic plants in the short term;
- ~~b) adopt flow management regimes to remedy or mitigate the effects of surface and ground-water abstraction;~~
- ~~e)b) reducinge the amount of sediment and nutrients entering the freshwater from adjacent land;~~
- c) improvinge stormwater and drainage water quality and the ecosystem health of urban waterways and reducinge contamination of stormwater associated with poor site management practices, spills and accidents in urban areas (refer also to Policies POL TANK 28 -31).
- d) Working with mana whenua, landowners and the Hastings District Council to achieve the outcomes in (a) – (c).

**POL TANK 3** In lakes and wetlands in the TANK Catchments, the particular focus in implementing POL TANK 1 and giving effect to Te Mana o Te Wai in addition to Policy POL TANK 1 ~~the Council will work at a catchment scale with land owners in the wetland or lake catchments (refer also to Policies POL TANK 23 to 25) shall be to:~~

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- a) reducinge sediment and nutrient inputs into the waterbody;
- b) improvinge water quality by increasing macrophyte plant growth in shallow lakes;
- c) improvinge ecosystem health and water quality by excluding stock and improving riparian management;
- d) meeting water quality target attribute states objectives in Schedule 26 for water bodies downstream of the lake or wetland;
- ~~d~~e) working with mana whenua and landowners to achieve the outcomes in (a)-(d).
- ~~e~~f) supporting and assisting landowners to protect, increase or restore existing wetlands or create new wetlands including for the management of urban stormwater.

**POL TANK 4** In the **lower Ngaruroro and Tūtaekurī Rivers** and their tributaries, the particular focus in implementing POL TANK 1 and giving effect to Te Mana o Te Wai, shall be in addition to Policy POL TANK 1 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.
- ~~e~~d) Working with mana whenua and landowners to achieve the outcomes in (a) – (c).

**POL TANK 5** In the tributaries of **Te Whanganui ā Orotu (the Ahuriri Estuary)<sup>126.15</sup>**, the particular focus in implementing POL TANK 1 and giving effect to Te Mana o Te wai, in addition to Policy POL TANK 1 the Council will work with mana whenua, landowners and the Napier City Council shall be:

- a) improvinge water clarity and reduce deposited sediment by reducinge the amount of sediment being lost from land and river banks;
- b) reducinge risk of proliferation of algae by reducing nutrient losses from land, including through management of phosphorous loss associated with sediment;
- c) improvinge 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) carrying out further investigations to understand the estuary hydrology, functioning and environmental stressors.
- e) working with mana whenua, landowners and Napier City Council to achieve the outcomes in (a) – (d).

#### Protection of Source Water

**POL TANK 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 POL TANK 1, 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 35; and
- 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;

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- (i) direct or indirect discharge of a contaminant to the source water including by overland flow and/ <sup>207.39</sup> 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, <sup>207.39</sup>;
- (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 7** When considering applications to take water for a Registered Drinking Water Supply, the Council will:

- 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;
- b) provide for the amendment of a Source Protection Zone where new information changes the outputs from the method specified in Schedule 35;
- c) require applications to include an assessment of the Source Protection Zone required, taking into account the factors set out in Schedule 35;
- d) have regard to:
  - (i) the extent to which the application reflects the factors and methodology in Schedule 35 when establishing the Source Protection Zone; and
  - (ii) the impacts, including any costs and benefits, of any additional restrictions in the Source Protection Zone;
  - (iii) the level of consultation with land owners and occupiers <sup>203.9</sup> in the Source Protection Zone.

**POL TANK 8** The Council will, when considering applications to discharge contaminants or carry out land or water use activities within:

- e) 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,
- f) 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 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 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;
  - (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 with regard to relevant codes of practice or guidelines;

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- (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 <sup>180.25, 195.36, 203.10, 2017.41</sup>

**POL TANK 9** 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 ~~Napier City Council, Hastings-District Council, Hawkes Bay District Health Board and Drinking Water Assessors and~~ through multi-agency collaboration to: <sup>119.7</sup>

- 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;
- 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.~~ <sup>29.56, 129.1, 207.42, 203.11</sup>

### Managing point source discharges

**POL TANK 10** The Council will ~~manage~~ require the following for point source discharges, other than stormwater discharges so that (that are not stormwater discharges) so that after reasonable mixing, the discharge contaminants discharged will not either by themselves ~~itself~~ or in combination with other discharges, ~~do not~~ cause the 2040 target attribute states objectives for water quality in Schedule 26 to be exceeded. Where the discharge is to a waterbody in which the objectives are already being exceeded consent will not be granted unless it can be demonstrated that, taking into account the matters in (a) through (f), the effects of the discharge will be less than minor.

~~When and when~~ considering applications for point source discharge permits, to ~~discharge contaminants~~ the Council will take into account:

- a) measurement uncertainties associated with variables such as location, flows, seasonal variation and climatic events;
- 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 target attribute

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- ~~states quality objectives~~
- d) ~~The extent to which the discharge activity complies with industry good management standards best practice~~
  - e) ~~The necessity for requiring best practicable option to prevent or minimise any actual or likely adverse effect on the environment of any discharge of a contaminant.~~ <sup>126.16, 120.106, 201.34</sup>
  - e)f) ~~Compliance history, if any, of the Applicant.~~

### Riparian Land Management

**POL TANK 11** 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)~~ assists in weed control;
- ~~h)i)~~ improves natural character and mauri-

**POL TANK 12** When making decisions about riparian land management in accordance with ~~Policy POL TANK 11~~, 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 mahinga kai, taonga raranga and taonga rongoa and the mauri of the river. <sup>180.21, 99.104, 99.7</sup>

**POL TANK 13** The Council will support improvement of riparian management to meet the specified timeframes (in ~~Policy POL TANK 27~~) consistent with to provide for the values in Policies POL TANK 11 and 12 by; <sup>123.49, 210.134</sup>

- 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 values;
  - c) regulating cultivation, ~~stock access~~ <sup>consequential</sup> 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 values in ~~Policy POL TANK 11~~ and 12 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; and

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2. the activity is not a requirement of any other resource consent.

Wetland and Lake Management

~~**POL TANK 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:~~

- ~~a) biodiversity and as a habitat for indigenous flora and fauna species;~~
- ~~b) recreation (where appropriate);~~
- ~~e) 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.~~ <sup>123.5, 210.35, 210.36</sup>

**POL TANK 15** The Council will regulate and manage 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 and will: (a) — (f) in Policy 14 by working with mana whenua, industry and community groups, land owners, 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 15 Policy 14 as a result of the activity;
  - (ii) consider whether to waive the fees and charges required to process ~~the 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. <sup>123.5, 210.35, 210.36, 58.17, 145.5</sup>

and

(g) working with mana 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 achieve the outcomes in (a)-(f).

Phormidium Management

**POL TANK 16** The Council will address the risks to human health and dogs from toxic phormidium by;

- a) regular monitoring and reporting on the incidence of algae, including toxic phormidium and nutrient concentrations and ratios of nutrients in freshwater related to phormidium

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- establishment;
- b) adopting applicable national guidelines for the monitoring and management of toxic algae;<sup>210.37</sup>
  - c) supporting national investigations into the incidence of toxic phormidium, the reasons for its establishment and measures to reduce the incidence;
  - d) reducing nutrient and sediment inputs in accordance with ~~Polices~~ POL TANK 17 and 20;
  - e) maintain~~ing~~ 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.

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5.10.3 Policies: Managing Adverse Effects From Land Use on Water Quality (Diffuse Discharges)

Adaptive Approach to Nutrient and Contaminant Management

Priority Management Approach

**POL TANK 17** In implementing POL TANK 1 and to ensure that the freshwater quality objectives in Schedule 26 will be achieved and targets met by 2040, Council will manage activities and priorities resources in accordance with the priority hierarchy set out in Schedule 28.

The Council will achieve or maintain the 2040 freshwater attribute targets or freshwater objectives in Schedule 26 with landowners, industry groups, and other stakeholders and will implement the following measures;

- a) establish programmes and processes through Farm Environment Plans, Catchment Collectives and Industry Programmes to ensure land managers;
- b) adopt industry good practice;
  - (i) identify critical source areas of contaminants at both property and catchment scale;
  - (ii) adopt effective measures to mitigate or reduce contaminant loss;
  - (iii)(i) ensuring prepare nutrient management plans are prepared in catchments not meeting targets for dissolved nitrogen according to the priority order specified in Schedule 28, the farm plan required for the property shall include the nitrogen loss rate and nitrogen loss target.<sup>124,54, 126,20, 135,25, 210,40</sup>

**POL TANK 18** In addition to POL TANK 17, the Council will undertake the following to The Council will achieve or maintain the 2040 freshwater attribute targets or freshwater objectives in Schedule 26 by;

- a) Require Farm Environment Plans for productive land uses within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments gathering information to determine sustainable nutrient loads
- b) Collate, analyse and report on contaminant loss data provided within the Farm Environment Plans;
- a)c) Regulate land use intensification within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments
- d) developing a nitrogen allocation regime nutrient limits and a nutrient allocation regime if the management framework in Policy POL TANK 17 is not leading to improved nutrient attribute states by the time this plan is reviewed in priority catchments;
- b)e) manage adverse cumulative effects by controlling land use at a property and catchment scale.
- e) regulating land use change to manage where there is a significant risk of increased nitrogen loss;
- d)f) 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 investigate additional mitigations and actions to meet targets at a property and catchment scale. and investigation into;
  - (i) contaminant nutrient 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 nutrient losses at a property as well as catchment

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~~scale including those delivered through industry programmes.~~<sup>180.29</sup>

~~**POL TANK 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 according to the priority order in Schedule 28.~~<sup>124.54, 126.20, 135.25, 210.40</sup>

### Sediment Management

**POL TANK 20** Sediment loss, erosion, and effects on freshwater and coastal ecosystems will be mitigated and reduced to maintain or achieve the objectives and meet the targets in Schedule 26 by 2040 by:

~~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;<sup>35.83, 124.32, 88.13, 140.5</sup>  
~~consequential~~
- a)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;
- b)c) 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;
- e)d) 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;
- e)e) 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;
- f) Supporting and encouraging improved riparian management across all TANK catchments.<sup>195.45</sup>

### Land Use Change and Nutrient Losses

**POL TANK 21** The Council will regulate production land use change (including intensification of existing land use) to manage and reduce the ~~remedy or mitigate~~ the potential impact of ~~increases in~~ 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 or collective 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 ~~as a result of modelled nitrogen losses from the land use change;~~
- b) ~~where any 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;~~
- e)b) any mitigation measures required, (including those where model results are not available) and timeframes by which they are to be implemented that are necessary to ensure the actual or potential nitrogen contaminant loss occurring from the property, in combination with other nitrogen contamination losses in the catchment will be consistent with meeting 2040

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freshwater ~~quality target attribute states in Schedule 26 objectives~~<sup>consequential</sup>, including performance in relation to industry good practice, efficient use of nutrients and minimisation of nutrient losses;

and will;

~~d)c)~~ avoid land use change that will result in increased actual or modelled nitrogen loss that contributes to water quality ~~objectives and target attribute states~~ in Schedule 26 for dissolved nitrogen not being met.<sup>210.37, 210.42, 180.31, 135.27, 195.46, 54.73 et al consequential</sup>

Stock Exclusion

~~**POL TANK 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:~~

- ~~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:
  - ~~(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.~~<sup>35.83, 124.32, 88.13, 140.5.</sup>~~

~~Industry Programmes and Catchment Management Collectives~~<sup>29.14, 194.41, 58.22</sup>

~~**POL TANK 23** The Council will support the establishment and operation of Industry Programmes and Catchment Collectives and:~~

- ~~a) support development of industry good practice by industry groups and support provision of ensure any relevant information or expertise for making sustainable land management decisions is available to farm operators land managers;~~<sup>consequential</sup>
- ~~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 collective catchment and farm scale decision making to meet freshwater objectives and encourage local solutions and innovative and flexible responses to water quality issues;~~<sup>58.22, 194.41, 29.14, 129.15 and 129.16 et al</sup>
- ~~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.~~<sup>210.140 and 216, 222</sup>

~~**POL TANK 24** The Council will continue to work with farm operators landowners, industry groups and other stakeholders to manage land and water use activities so that they meet 2040 objectives for freshwater/aquatic ecosystems by:~~<sup>194.41, 58.22, consequential</sup>

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- a) ~~further supporting the development of **Industry Programmes** that contribute to meeting applicable freshwater objectives and that;~~
- ~~(i) identify practices that contribute to meeting applicable freshwater objectives;~~
  - ~~(ii) specify timeframes for completion or adoption of measures to reduce mitigate contaminant losses;~~
  - ~~(iii) ensure individual performance under an Industry Programme is monitored audited;~~
  - ~~(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 management practice;~~
  - ~~(vi) ensure that Industry Programmes are consistent with the requirements of Schedule 30;~~
- b) ~~supporting farm operators landowners 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 land managers, identify and adopt measures at a catchment scale 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 reduce mitigate contaminant losses;<sup>135.29</sup>~~
  - ~~(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 30 and progress towards meeting applicable objectives for water quality;~~
  - ~~(v) promote adoption of good management agricultural practice;~~
  - ~~(vi) ensure programmes prepared by a Catchment Collective are consistent with the requirements of Schedule 30;~~
- c) ~~Approving any Landowner Catchment Collective or Industry Programme developed under Schedule 30;~~
- d) ~~Auditing Catchment Landowner Collective or Industry Programmes prepared and approved under Schedule 30 including auditing of member properties.~~<sup>Consequential, 180.135.29 et al</sup>

**POL TANK 25** ~~Where a farm operator landowner is not part of an Industry Programme or Catchment Collective, the Council will require development and implementation of a Freshwater Farm Environment Plan for the farm.~~<sup>194.41, 58.22</sup>

~~Management and compliance.~~

**POL TANK 26** ~~Where farm operators 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 Schedules 28 or 30, 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 n individual is no longer, or is deemed through conflict resolution processes not to be, a member the Council will;~~
- ~~c) require the development of a Freshwater Farm Plan for that property within 6 months or;~~
- ~~d) require an application for a land use consent to be made;~~
- ~~e)d) take appropriate enforcement action.~~<sup>194.41, 58.22</sup>

Timeframes; Water and Ecosystem Quality

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**POL TANK 27** [Amend to generally match the Tukituki Implementation Plan Provisions as set out in POL TT16 and retain the milestones or place them into the policies to which they relate.] 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~~land owners and lease holders~~ are engaged in industry or landowner-Catchment Collective programmes or have prepared freshwater farm plans~~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. 120.102, 180.35, 126.21, 135.32, 123.61, 120.117, 124.32, 195.51 consequential

Table 1: Milestones and Timeframes

Action	Activity	Milestone	Output to be reported on
<b>Stock and Riparian Land Management</b>			
1; <del>Stock exclusion and Riparian</del> planting	<del>Stock excluded from rivers in flat and rolling-hill country</del> Riparian margins planted	<del>Stock excluded by-2023</del>	<del>Km of stream with stock exclusion-</del> Km of riparian margins planted
2; <del>Stock exclusion and</del> sediment mitigation	<del>Stock access and</del> sediment mitigation in hill country managed through environmental programme or farm plan	According to priority set out in Schedule 28 <del>9</del>	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
<b>Wetlands</b>			
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
<b>Nutrient Management</b>			
5; Nutrient management	Nutrient management plans	<u>Farms have plans</u> according to priority set out in Schedule 28	Number of <u>farms</u> <del>properties</del> subject to nutrient plan

Amendments to table - 35.83, 124.32, 88.13, 140.5. consequential

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5.10.4 Policies: Stormwater Management

Urban Stormwater Infrastructure

**POL TANK 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 ~~or and~~ trade premises and associated infrastructure, will be reduced or mitigated no later than 1 January 2025, by: <sup>203.13</sup>

- a) Requiring, through consent conditions, measures to help achieve the target attribute states in Schedule 26; <sup>120.137, 127.22, 123.16, 210.49</sup>
- b) ~~a)~~ Local Authorities adopting an integrated catchment management approach to the collection, treatment and discharge of stormwater; <sup>63.33, 207.53</sup>
- c) ~~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;
- d) ~~b)~~ requiring ~~increased~~ retention or detention of stormwater, while not exacerbating flood hazards; <sup>63.35, 207.53</sup>
- e) ~~b)~~ having particular regard to significant values of the receiving environment being either a TANK estuarine system, outstanding waterbody or wetland; <sup>126.22</sup>
- f) ~~b)~~ taking into account site specific constraints including areas with high groundwater and, source protection zones; ~~and/or an outstanding water body~~
- g) ~~b)~~ 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;
- h) ~~b)~~ taking into account the effects of climate change when providing for new and upgrading existing infrastructure;
- i) ~~b)~~ adopting, ~~where practicable~~, a good practice approach to stormwater management including adoption of Low Impact Design for stormwater systems; <sup>123.62</sup>
- j) ~~b)~~ 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;
- k) ~~b)~~ developing and making available to the public advice about good stormwater management options (including through HBRC's guidelines);
- l) ~~b)~~ encouraging, through education and public awareness programmes, greater uptake and installation of measures that reduce risk of stormwater contamination;
- m) ~~b)~~ requiring, no later than 1 January 2025, the preparation and implementation of a site management plan and good site management practices on industrial ~~and or~~ trade premises with a high risk of stormwater contamination in the TANK catchments and those in the high priority areas: <sup>10.4</sup>
  - (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.

Source Control

**POL TANK 29** 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;

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- 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;<sup>233.16</sup>
- 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 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<sup>3</sup> of species protection by 31 December 2040.~~<sup>10.5, 123.64, 132.92, 162.23, 135.35, 210.51</sup>

~~and~~

- a) ~~b) except as in (a) above, the 2040 target attribute states 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) to avoid solid contaminants and debris entering stormwater;<sup>233.18</sup>
  - (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, after reasonable mixing;<sup>63.36</sup>
  - (i) the 80th percentile level of species protection in receiving waters by 1 January 2025; and
  - (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.

- a) To assist in achieving the ~~freshwater quality objectives 2040 target attribute states~~ in ~~this Plan Schedule 26A~~<sup>consequential</sup>, 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:
  - b) good practice engineering standards;
  - c) consistent plan rules and bylaws;
  - d) shared information and approaches to education and advocacy;
  - e) shared information and processes for monitoring and auditing individual site management on sites at high risk of stormwater contamination;
  - f) consistent levels of service for stormwater management and infrastructure design;
  - g) an integrated stormwater catchment management approach;
  - h) undertaking a programme of mapping the stormwater networks and recording their capacity;
  - i) aligning resource consent processes and having joint hearings to achieve integrated management of proposals for urban activities particularly in respect of stormwater, water

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supply and wastewater provisions and implementation of the Heretaunga Plains Urban Development Strategy (2017).

**Ahuriri Catchment**

- a) The Council will support the development of an ~~an~~ Te Whanganui a Orotū (Ahuriri Estuary) consequential Integrated Catchment Management Plan by;
- b) improving the quality of freshwater entering ~~the~~ Te Whanganui a Orotū (Ahuriri Estuary) consequential through the measures included in this plan; and
- c) carrying out investigations to help better understand processes and functions occurring within the estuary and its connected freshwater bodies.

~~3 ANZECC Guidelines 2018 (Australia and New Zealand Guidelines for Fresh and Marine Water Quality)~~

**5.10.5 — Policies: Monitoring and Review**

~~**POL TANK 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.~~

~~**POL TANK 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.~~

~~**POL TANK 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 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 Policy POL TANK 27, according to timeframes specified in Schedule 28 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 Farm Plans;~~
- ~~e) the establishment of Catchment Collectives and assess progress in implementing the measures specified in their environment plans;~~
- ~~f) the preparation of Farm Environment Plans and assess progress in implementing the~~

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~~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;~~

~~And~~

- ~~i) commence a review of these provisions within ten years of <operative date> in accordance with section 79 of the RMA.~~<sup>-195.59, 135.38</sup>

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5.10.6—Policies: Heretaunga Plains Groundwater Levels and Allocation Limits

Heretaunga Plains Aquifer Management

NEW POL TANK 35A (adapted from OBJ TANK 16 and moved to here)

~~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~~ Ground and surface water in the TANK Catchment is allocated, subject to ~~limits, levels, targets and flow regimes which provide for the values of each water body,~~<sup>210.2, 132.83</sup> in the following priority order:

- ~~a) Core allocation for the health and well being of the waterbody itself~~
- ~~b) Tangata whenua allocation~~
- ~~c) Water for the essential reasonable domestic needs of people, livestock drinking and fire-fighting supply~~<sup>13.8, 35.76, 195.28</sup>
- ~~d) The allocation and reservation of water for existing and future demand for domestic supply including marae and papakāinga, and municipal uses supply as described in HPUDS (2017) can be met within the specified limits;~~
- ~~e) Primary production on versatile soils;~~
- ~~f) Other primary production,~~<sup>30.1</sup> food processing, industrial and commercial end uses;
- ~~g) Other non-commercial end uses.~~

**POL TANK 36** The Council recognises the actual and potential adverse effects of groundwater abstraction in the Heretaunga Plains Groundwater Quantity Area Water Management Unit on:

- a) groundwater levels ~~and aquifer depletion~~ ~~and aquifer depletion~~<sup>123.72</sup>;
- b) flows in connected surface waterbodies;
- c) flows of the Ngaruroro River;
- d) groundwater quality through risks of sea water intrusion ~~and water abstraction~~ ~~and water abstraction~~<sup>123.72</sup>;
- e) tikanga and mātauranga Māori;

and will adopt a staged approach to groundwater management that includes ~~phase out over allocation and over abstraction of groundwater by;~~

- f) ~~Adopting, within a maximum of five years of this Plan becoming operative, a new allocation regime based on an identified sustainable maximum yield for the Groundwater Quantity Area and a mixed allocative model that gives effect to POL TANK 35A and in accordance with POL TANK 42;~~
- f)g) ~~avoiding further adverse effects by not allowing granting new consents to take and use groundwater until a new allocation regime is implemented as per POL TANK 36(f) new water use~~<sup>63.4, 99.12</sup>
- g)h) ~~requiring a reduction in~~ existing levels of water use where appropriate, including through use of section 126 RMA reviews;
- h)i) ~~investigate appropriate measures to mitigate~~ mitigating the adverse effects of groundwater abstraction on flows in connected water bodies;

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- ~~h) gathering information about actual water use and its effects on stream depletion;~~
- ~~j) monitoring the effectiveness of stream flow maintenance and habitat enhancement schemes;~~
- ~~k) including plan review directions to assess effectiveness of these measures as appropriate.~~

**POL TANK 37** In managing the allocation and use of groundwater in the Heretaunga Plains

~~Groundwater Quantity Area until a new regime is implemented as per POL TANK 36(f) Water Management Unit, the Council will manage the Area as an over-allocated unit and will;~~

- ~~a) adopt an interim allocation limit 90 of 70 million cubic meters per year based on the actual and reasonable water use prior to 2017;<sup>99.105</sup>~~
- ~~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;~~
- ~~e) manage the Heretaunga Plains Groundwater Quantity Area Water Management Unit as an over-allocated management unit and prevent any new allocations of groundwater;~~
- ~~d) c) when considering applications in respect of existing consents due for expiry, other than those provided for in POL TANK 50, or when reviewing consents, to;~~
  - ~~(i) allocate groundwater on 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 that reflects land use and water use authorised in the ten years up to August 2017<sup>194.50</sup> (except as provided by Policy POL TANK 50);~~
  - ~~(iii) Require a 12.5% reduction in the consented volume or the volume determined in POL TANK 37 (c)(ii) (whichever is the lesser) for takes for irrigation or productive land uses, or a 15% reduction in such takes water short areas as identified in Schedule VI.~~
- ~~e) mitigate stream depletion effects on lowland streams by providing for stream flow maintenance and habitat enhancement schemes.~~

**POL TANK 38** The Council will restrict the re-allocation of groundwater<sup>29,24</sup> 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:

- ~~a) upon expiry of the consent; or~~  
~~in accordance with a review of all applicable permits within ten years of <the operative date>;~~  
~~whichever is the sooner.~~

~~Flow maintenance~~

**POL TANK 39** ~~When assessing applications to take groundwater in the Heretaunga Plains Water Management Unit the Council will:~~

- ~~a) either;~~
  - ~~(i) require abstraction to cease when an applicable stream flow maintenance scheme trigger is reached;~~
  - ~~or~~
  - ~~(ii) enable consent applicants to develop or contribute to stream flow maintenance and habitat enhancement schemes that;~~
    - ~~1. contribute flow to lowland rivers where groundwater abstraction is depleting stream flows; and~~

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- ~~2. improve oxygen levels and reduce water temperatures;~~
- 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~~
- 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.~~

To mitigate the stream depletion effects of groundwater takes in the Heretaunga Plains Groundwater Quantity Area the Council will:-

- a) consult with iwi and other relevant parties to investigate the environmental, technical, cultural, social<sup>180.42</sup> 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, and
  - (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 and
  - (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)d) review as per POL TANK 42 if no schemes are found to be feasible. 129.2. 194.53

**POL TANK 40** 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

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- ~~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 mana whenua;~~
  - ~~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.~~<sup>Consequential to POL TANK 39</sup>

~~**POL TANK 41** The Council will remediate<sup>99.16</sup> 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, social,<sup>180.42</sup> 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, to 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, to reviewing alternative methods and examine the costs and benefits of those.~~

**Groundwater management review**

~~**POL TANK 42** After water has been re-allocated and consents reviewed in accordance with Policies POL TANK 36–38, the The Council will commence a review of these provisions within five 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 Water Management Unit during the ten-five 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;~~
  - ~~(i) the extent of any stream flow maintenance, augmentation, or and<sup>194.58</sup> habitat enhancement schemes including in relation to;~~
  - ~~(ii) the length of stream subject to flow maintenance;~~
  - ~~(iii) the extent of habitat enhancement including length of riparian margin improvements, and new or improved wetlands;~~
  - ~~(iv) the magnitude and duration of stream flow maintenance scheme operation;~~
  - ~~(v) trends oxygen and temperature levels in affected streams.~~

And will;

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- ~~d)c) In relation to plan objectives and adverse effects listed in Policy POL TANK 36, assess;~~
- ~~(i) the effects of the groundwater takes on stream flows;~~
  - ~~(ii) effectiveness of any<sup>29.27</sup> stream flow maintenance, augmentation, or habitat enhancement<sup>194.58</sup> schemes in maintaining water flows, groundwater levels<sup>29.27</sup> and improving water quality;~~
  - ~~(iii) effectiveness of habitat enhancement including through improved riparian management and wetland creation in meeting freshwater objectives;~~
- ~~d) Review the appropriateness of the allocation limit in relation to the freshwater objectives;~~
- ~~e) Identify if any changes in the relationship between groundwater abstraction and the flows of rivers and groundwater levels have occurred;~~
- ~~e)f)~~
- ~~f)g) develop a plan change to ensure any over allocation is phased out. Implement, by way of a Plan Change, a new allocation model based on the maximum sustainable yield for Management Unit and in accordance with POL TANK 35A.~~

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5.10.75.10.5 Policies: Surface Water Low Flow Management

Flow Management Regimes; Tūtaekurī, Ahuriri, Ngaruroro and Karamū

**POL TANK 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 Te Mana o Te Wai, aquatic ecosystem health, mauri, tikanga Māori values, and other instream values by applying the flows, level and limits set out in Schedule 31 to the authorisation of water quantity areas, requiring takes to cease at minimum flows and reviewing the ‘essential use only’ allocation limits within 5 years of the date this Plan becomes operative;

For the Ngaruroro River; [This text could be reworded slightly and added to Schedule 31 if it were considered to assist in providing background to how Schedule 31 was developed and to assist in interpretation/implementation.]

- ~~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 consumptive use at times of low flow<sup>129.3</sup> for the Ngaruroro River;~~
- ~~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 reliability of supply;~~
- ~~d) establishing a limit for groundwater abstraction in the upper Ngaruroro Catchment based on existing aActual and rReasonable use until more information about the nature and extent of that resource is available.~~

**For the Tūtaekurī River;**

- ~~e) increasing the minimum flow for the Tūtaekurī River and the Mangaone tributary and maintaining the minimum flow for the Mangatutu tributary;~~
- ~~f) reducing the effects of abstraction from the mainstem and connected groundwater in Zone 1 by reducing the allocation limit for consumptive use at times of low flow<sup>129.3</sup> for the Tūtaekurī River;~~
- ~~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 reliability of supply;~~
- ~~h) establishing a limit for groundwater abstraction in the upper Tūtaekurī Catchment based on existing aActual and rReasonable use until more information about the nature and extent of that resource is available.~~

**For the Karamū River;**

- ~~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;~~
- ~~j) establishing allocation limits for all abstraction year round<sup>129.4</sup> for the river and tributaries to account for the cumulative effects of all abstraction and provide water for abstraction at a reasonable security reliability of supply.~~

**For the Ahuriri Catchment Freshwater Streams;**

- ~~k) establishing limits for ground and surface water abstraction based on existing aActual and rReasonable use until more information about the nature and extent of that resource is available.~~

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Paritua/ and Karewarewa Streams

**POL TANK 44** The Council ~~will~~ 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 Water Management Unit, and their importance to local marae and will require takes to cease at minimum flows in accordance with POL TANK 43 and work with water permit holders, landowners and tangata whenua to; <sup>120.49, 123.79, 195.66</sup>

- 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;
  - (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.~~

General Water Allocation Policies

**POL TANK 45** When assessing applications to take water the Council will;

- a) provide that the ~~taking and use abstraction~~ of water that has been taken and impounded or stored at times of high flow ~~and stored~~ and released for subsequent use, is not subject to allocation limits; <sup>58.26</sup>
- 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~~; <sup>123.80, 203.19</sup>
- 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 Groundwater Quantity Area 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 POL TANK 39;~~
  - or
  - ~~(ii)(i) 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)(ii) requiring where necessary allow further technical assessments to determine the~~

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extent of stream depletion effect.

Water Use and Allocation – Efficiency

**POL TANK 46** 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-~~security-reliability~~ of supply;
- b) ~~ensuring water is allocated to meet Aactual and Rreasonable requirements use~~<sup>29.61, 194.64</sup>;
- 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 47** When considering applications for resource consent, the Council will ensure water is allocated and used sustainably and efficiently by:

- a) ensuring that the ~~technical means of using use of~~ water ~~is are physically~~ efficient through:
  - (i) allocation of water for irrigation end-uses based on soil, climate and plant crop needs;
  - (ii) requiring the adoption of good practice water use technology and processes that minimise the amount of water lost from the soil profile wasted; and<sup>59.11, 60.10, 118.2</sup>
  - (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<sup>192.13</sup> that utilises crop type, soil type and climatic conditions<sup>8.44</sup> to determine efficient water allocations for irrigation uses;
- c) allocating water for irrigation on the basis of ~~an 80% minimum water~~ application efficiency, ~~standard of 80% and 95% reliability of supply on a reliability standard that meets demand 95% of the time~~;<sup>59.14, 66.12, 118.3, 58.27, 201.43</sup>
- d) requiring all non-irrigation water takes (except as provided by ~~POL TANK 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~~<sup>29.30</sup> applicable industry codes of practice.

Water Use Change/Transfer

**POL TANK 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~~ the Council will take into account:

- a) changes to the nature, location, scale and intensity of effects on:
  - (i) Te Mana o Te Wai values
  - (+)(ii) total water use
  - (+)(iii) specified minimum flows and levels or other water users' access to water
  - (+)(iv) the water body values listed in Schedule 25 and in the objectives 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<sup>132.77, 132.109, 195.69</sup>

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and will consider declining-applications:

- b) ~~declining applications~~ where the transfer is to another water quantity area management zone unless;
  - (i) new information provides more accurate specification of applicable zone 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)<sup>3,19</sup>

and will decline applications in over-allocated quantity areas, to transfer allocated but unused water or

for a change of use from frost protection to any other end use.<sup>210.69</sup>

- ~~a) 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;~~
- ~~b) 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;~~
- ~~c) 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;~~
- ~~d) 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;~~
- ~~e) 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;~~
- ~~f) declining applications for a change of use from frost protection to any other end use;~~
- ~~g) 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 15m<sup>3</sup>/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).~~

#### Water Allocation - Permit Duration

**POL TANK 49** When ~~considering 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:

- 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;

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- f) ~~efficacy of flow enhancement and aquifer recharge~~<sup>29.32</sup> ~~schemes and~~ any riparian margin upgrades;  
and the Council;
- g) will impose consent durations of ~~15-5 to 10~~ years according to specified water quantity area Management Unit expiry dates. ~~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 ~~consistent with the most recent HPUDS~~<sup>63.13, 207.13</sup> and will impose consent review requirements that align with the expiry of all other consents in the applicable quantity area management unit;
- i) will impose a consent duration for significant water storage infrastructure that is consistent with the scale of infrastructure;<sup>99.17, 99.107, 180.45, 193.8</sup>
- j) 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).

Water Allocation – Priority for Some Uses

**POL TANK 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;

- a) allocate water for population and urban development projections for the area according to estimates provided by the HPUDS (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)<sup>63.14, 207.14</sup> demand within the expected reticulation areas; and
- (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;
- (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 ~~thorough HPUDS~~ 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 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 Council, and Hastings District Councils, Fire and Emergency New Zealand ~~NZ Fire Service~~, Hawke's Bay District Health Board, iwi authorities and Ministry of Primary Industries<sup>13.12</sup>, to make decisions about providing for water uses in the following priority order;

- a) water for the maintenance of public health;

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- b) water necessary for the maintenance of animal welfare;
  - c) water essential for community well-being and health;
  - ~~e) water essential for survival of horticultural tree crops;~~
  - ~~e) uses where water is subject to seasonal demand for primary production or processing;~~
  - ~~f)d) uses for which water is essential for the continued operation of a business, not provided for by (e) except where water is subject to seasonal demand for primary production or processing.~~<sup>135.48</sup>
  - g)e) The following uses will not be authorised under a water shortage direction:
  - h)f) use of water not associated with the continued operation of a business or community well-being;
  - h)g) non-essential amenity uses such as private swimming pools and car washing.
- Takes not subject to any restrictions are:
- h)h) firefighting uses;
  - k)i) non-consumptive uses;

**Over-Allocation**

**POL TANK 52** 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),<sup>29.34, 99.19, 180.47, 193.9, 194.72</sup>
- 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 demonstrated actual and reasonable need~~<sup>194.72</sup> (except as provided for by POL TANK Policy 50)
  - ~~(ii)~~(i) impose conditions that require implementation of industry good management practice for efficiency of water use gains to be made, including through altering the volume, rate or timing of the take, and requesting providing information to verify efficiency of water use relative to industry good practice standards;<sup>82.12,</sup>
- 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 ~~a~~Actual and ~~R~~R 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**Particular Considerations for Certain Activities

**POL TANK 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;

- a) from groundwater in the Heretaunga Plains Groundwater Quantity Area ~~Water Management~~

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~~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) requiring applicants to demonstrate non-water reliant alternatives have been investigated and provide evidence as to why they are not appropriate,<sup>8.45</sup>
- d) ~~e~~taking into account any stream depletion effects of groundwater takes;
- e) ~~d~~imposing limits in relation to minimum flows or groundwater levels;
- f) ~~f~~requiring water metering, monitoring and reporting use of water for frost protection.

[These policies have been moved from previous sections and amended by way of additions shown in highlight]

POL TANK 53A [40] 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 mana whenua, and the acceptability or otherwise of the scheme in terms of Te Mana o Te Wai and tikanga practices;
- 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. Consequential to POL TANK 39

POL TANK 53B [41] The Council will ~~remedy~~ identify potential options to mitigate<sup>99.16</sup> 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, social,<sup>180.42</sup> and economic feasibility appropriateness of a water storage and release scheme to off-set the cumulative stream depletion effect of groundwater takes; and

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- b) if such a scheme is ~~feasible~~ appropriate and gives effect to Te Mana o Te Wai, ~~to~~ 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~~ appropriate, ~~to~~ reviewing alternative methods and examine the costs and benefits of those.

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5.10.8 — Policies: ~~High Flow Allocation~~

Adverse Effects - Water Damming

**POL TANK 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)d) 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)e) 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;
- f) whether there are practicable appropriate alternatives;
- g) impacts on landscape, natural character, mauri, tangata whenua values and tikanga effects.

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.

Adverse Effects - Water Take and Storage

**POL TANK 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;

- 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;

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- (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 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;

- 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.
- h)i) impacts on tangata whenua values and exercise of Rangitiratanga by Ngāti Kahungunu Iwi Authority.

**POL TANK 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 prior to the review of the planning provisions as per POL TANK 42<sup>63.17, 207.17</sup>. It will consider water storage options according to the criteria in Policy POL TANK 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.

**POL TANK 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,

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Omahaki, Mangatutu and Mangaone Rivers by prohibiting the construction of dams on the mainstem of those rivers.

High Flow Reservation

~~**POL TANK 59** 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 32<sup>108.5</sup> 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 by 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 mana whenua; and~~
  - ~~(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 60** 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 61** The Council will require decisions on land and water management to consider:

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- a) The effects on climate change on aquatic ecosystems, indigenous biodiversity, trout and salmon,<sup>58.5</sup> 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: and
- e) how to improve community resilience for changes.<sup>201.2, 132.83, 120.78</sup>

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## Chapter 6 New Regional Rules

*Amend; Summary of Existing Rules to insert a new Section 6.10*

<b>6.10 TANK Catchments specific rules</b>	<b>Classification</b>	<b>Page (to come)</b>
<b>6.10.1 Use of Production Land</b>		
Rule TANK 1 Use of Production Land	Permitted	
Rule TANK 2 Use of Production Land	Controlled	
Rule TANK 3 Stock Access	Permitted	
Rule TANK 4 Stock Access	Restricted Discretionary	
Rule TANK 5 Use of Production Land (land use change)	Controlled	
Rule TANK 6 Use of Production Land (land use change)	Restricted Discretionary	
<b>6.10.2 Take and Use of Water</b>		
Rule TANK 7 Take and use of surface water	Permitted	
Rule TANK 8 Take and use of groundwater	Permitted	
Rule TANK 9 Take and use groundwater (Heretaunga Plains)	Restricted Discretionary	
Rule TANK 10 Take and use ground or surface water	Restricted Discretionary	
Rule TANK 11 Take and use water	Discretionary	
Rule Tank 12 Take and use water	Prohibited	
Rule Tank 13 Take and use water (high flow)	Discretionary	
Rule Tank 14 Damming water	Discretionary	
Rule Tank 15 Take and use water (from an impoundment)	Discretionary	
Rule Tank 16 Take and use water (from an impoundment)	Non-complying	
Rule Tank 17 Damming water	Prohibited	
Rule TANK 18 Stream flow maintenance	Discretionary	
<b>6.10.3 Discharge of Stormwater</b>		
Rule Tank 19 Stormwater	Permitted	
Rule Tank 20 Stormwater	Restricted Discretionary	
Rule Tank 21 Stormwater	Controlled	
Rule Tank 22 Stormwater	Restricted Discretionary	
Rule Tank 23 Stormwater	Discretionary	

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*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
TANK 1 Use of Producti on Land	<b>The use of <del>production-farm</del> land <u>where:</u> <u>(a) 20 or more hectares of the farm is arable land use; or</u> <u>(b) 5 or more hectares of the farm is horticultural land use; or</u> <u>(c) 20 or more hectares of the farm is pastoral land use; or</u> <u>(d) 20 or more hectares of the farm is a combination of any 2 or more of the land uses described above on farm-</u></b>	<b><u>PermittedCo</u> <u>ntrolled</u></b>	a) The <del>farm property or farming enterprise-</del> land area has less than 75% plantation forest cover <sup>3</sup> . b) <del>Either;</del> (i) <del>The owner or manager of the farm operator 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;</del> <del>Or;</del> (ii) <del>The farm operator property or enterprise-owner or manager of the property shall prepare and submit a Freshwater Farm Environment Plan in accordance with the requirements of Schedule 30 and within the timeframes specified in Schedule 28 for certification by the Council. ; and the Freshwater Farm Environment Plan is being implemented and;</del> (iii) <del>the Council shall be provided with the Freshwater Farm Environment Plan upon request;</del> (iv)(i) <del>information about the</del>	<u>As per Rule TANK 2</u>

<sup>3</sup> 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

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	<p><del>properties or farming enterprises in the TANK catchments that are greater than 10 hectares pursuant to Section 9(2) RMA and associated non-point source discharges pursuant to Section 15 of the RMA</del> 135.50,29.37, 180.53</p>		<p>implementation of the mitigation measures identified for the <del>property farm</del> shall be supplied to the Council on request.</p> <p>e) <del>Where a farm is in a high priority catchment for total nitrogen concentration or nitrogen yield as shown on the Planning Maps for Schedule 28 the freshwater farm plan shall include in accordance with Schedule 30 the:</del></p> <p><del>(i) nitrogen loss rate (kg/ha/year) and</del> <del>(ii) nitrogen loss rate target</del><sup>110, 123, 210, 126, et al</sup> <del>(iii)(i)</del></p>	
<p><b>TANK 2</b> <b>Use of</b> <b>Producti</b> <b>on Land</b></p>	<p><b>The use of <u>farm production land within a High Priority Catchment as shown on the Planning Maps for Schedule 28</u> where:</b> <b><u>(a) 20 or more hectares of the farm is arable land use; or</u></b> <b><u>(b) 5 or more hectares of the farm is horticultural</u></b></p>	<p><b><u>Controlled Restricted Discretionary</u></b></p>	<p>b) <del>The farm operator property or enterprise owner or manager of the property shall prepare and submit a Freshwater Farm Environment Plan in accordance with the requirements of Schedule 30 and within the timeframes specified in Schedule 28 for certification by the Council.</del></p> <p>c) <del>The activity does not meet the conditions (b) of Rule TANK 1. The freshwater farm plan shall include in accordance with Schedule 30 the:</del></p> <p><del>(ii) nitrogen loss rate (kg/ha/year) and</del> <del>(iii) nitrogen loss rate target</del><sup>110, 123, 210, 126, et al</sup></p>	<p>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;</p> <p>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</p>

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	<p><u>land use; or</u>  <u>(c) 20 or more hectares of the farm is pastoral land use; or</u>  <u>(d) 20 or more hectares of the farm is a combination of any 2 or more of the land uses described above</u>  <del>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</del>  35.50,29.37, 180.53</p>			<p>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  Consent applications will generally be considered without notification and without the need to obtain written approval of affected persons</p>
<p><b>TANK 3 Stock Access</b>  124.32, 129</p>	<p><del>Stock Access to rivers lakes and wetlands</del></p>	<p><b>Permitted</b></p>	<p><del>(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;</del>  <del>(i) — stock are at a stocking rate less than 18su/ha</del></p>	

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			<p>in the paddock adjacent to the river the stock have access to; and</p> <p>(ii) The slope over 60% or more of the paddock is greater than 15 degrees of slope.</p> <p>(b) Rivers that are crossed by formed stock races are bridged or culverted by 31 May 2023.</p> <p>(c) The entry into or over the bed of any river, lake or wetland by cattle, deer and pigs <b>not</b> permitted by condition</p> <p>(a) is a permitted activity until 31 May 2023.</p> <p>(d) For rivers, conditions (a) to (c) apply only to rivers with an active formed channel.</p>	
<b>TANK 4 Stock Access</b>	<b>Stock Access to rivers lakes and wetlands</b>	<b>Restricted- Discretionary</b>	<p>The activity does not meet any one of the conditions (a)–(d) of Rule TANK 3.</p>	<p>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</p> <p>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;</p> <p>3. Whether stock exclusion is practicable in the circumstances including in relation to;</p> <p>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</p> <p>b) technical or practical challenges of any works required for stock exclusion to be effective</p> <p>c) potential costs and benefits provided by alternative measures compared to stock exclusion</p> <p>4. Measures to prevent or minimise any adverse effects on the quality of the source water used for a</p>

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				<p>Registered Drinking Water Supply</p> <p><del>5. Timeframes for any alternative mitigation measures</del></p> <p><del>6. Duration of consent</del></p> <p><del>7. Lapsing of consent</del></p> <p><del>8. Review of consent conditions;</del></p> <p><del>9. The collection, recording, monitoring and provision of information concerning the exercising of the consent</del></p>
<p><b>TANK 5</b> <b>Use of</b> <b>Producti</b> <b>on Land</b></p>	<p><b><u>A change in land use</u></b> <b><u>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</u></b></p>	<p><b><u>Controlled</u></b> <b><u>Restricted</u></b> <b><u>Discretionary</u></b></p>	<p>a) <u>A change in land use types means a change from one leaching level to a higher leaching level as shown in Table 1 of Schedule 29</u></p> <p>b) <u>a) A change in land use is a Any change to the production land use activity from what existed commencing after on 2 May 2020</u></p> <p>c) <u>The change in land use is over more than 10ha 40% of the property or farming enterprise area.</u></p> <p>d) <u>The owner of the production land subject to the changed land use is a member of subject to a Catchment Collective which has a Catchment Collective Plan Programme meeting the requirements of Schedule 30AB by a TANK Catchment Collective which meets the requirements of Schedule and 30BA.</u></p> <p>e) <u>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</u></p>	<p>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 <u>Policy POL TANK 21.</u></p> <p>2. <u>The measures being undertaken by the TANK Landowner Catchment Collective in undertaking measures to meet water quality objectives, including measures required as a result of the proposed land use change.</u><sup>37, 131.8, 122.68</sup></p> <p>2. <u>Whether water quality limits and targets in Schedule 26 are being met in the catchment where the new activity is to be undertaken.</u></p> <p>3. <u>The extent to which the land use change will affect the ability to meet water quality objectives.</u></p> <p>3.4. <u>2. Measures to be undertaken on the property which contribute to meeting , including how the effect of the new land use activity on contributing to the water quality objectives is being collectively addressed</u> including by;</p> <p>a) Efficient use of nutrients and minimisation of nutrient losses,</p> <p>b) Wetland management</p> <p>c) Riparian management</p> <p>d) Management of farm wastes</p> <p>e) Management of stock including in relation to waterways and contaminant losses to ground and</p>

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				<p>surface water</p> <p>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> <p><del>g) Measures to prevent or minimise any adverse effects on the quality of the source water used for a Registered Drinking Water Supply</del></p> <p>a) <u>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<sup>207.45</sup></u></p> <p><u>2. Timeframes for any alternative mitigation measures</u></p> <p><u>3. Duration of consent</u></p> <p><u>4. Lapsing of consent</u></p> <p><u>5. Review of consent conditions</u></p> <p><u>6. The collection, recording, monitoring and provision of information including Overseer or alternative model files</u></p> <p><del>4.5. 3. Timeframes for any alternative mitigation measures</del></p> <p><del>5.6. 4. Duration of consent</del></p> <p><del>6.7. 5. Lapsing of consent</del></p> <p><del>7.8. 6. Review of consent conditions</del></p> <p><del>8.9. 7. The collection, recording, monitoring and provision of information including Overseer or alternative model files,</del></p> <p><u>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. Consent applications will generally be considered without notification and without the need to obtain written approval of affected persons.</u></p>
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<p><b>TANK 6 Use of Producti on Land</b></p>	<p><u><b>A change in land use type</b></u> <del>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</del></p>	<p><del>Restricted- Discretionary</del></p>	<p>a) The activity does not meet the conditions of TANK 5.  <del>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.</del>                  b) <u>The change in land use type is a change to the activity from what existed on 2 May 2020.</u>                  c) <u>The change in land use type is over more than 10ha of the property or farming enterprise area.</u></p>	<p><del>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 POL TANK 21;</del>  <del>2. The measures being undertaken by any relevant Catchment Collective to meet water quality objectives, including measures required as a result of the proposed land use change.</del>  <del>3. Whether water quality limits and targets in Schedule 26 are being met in the catchment where the new activity is to be undertaken.</del>  <del>4. The extent to which the land use change will affect the ability to meet water quality objectives.</del>  <del>5. 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;</del>  <del>6. Efficient use of nutrients and minimisation of nutrient losses;</del>  <del>7. Wetland management</del>  <del>8. Riparian management</del>  <del>9. Management of farm wastes</del>  <del>10.7. Management of stock including in relation to waterways and contaminant losses to ground and surface water</del>  <del>a) 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</del>  <del>b) 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</del></p>
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				<p><u>for the Registered Drinking Water Supply</u> <sup>207.45</sup></p> <p><del>11. — Timeframes for any alternative mitigation measures</del></p> <p><del>12. — Duration of consent</del></p> <p><del>13. — Lapsing of consent</del></p> <p><del>14. — Review of consent conditions</del></p> <p><del>15. — The collection, recording, monitoring and provision of information including Overseer or alternative model files</del></p> <p><del>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.</del></p>
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INSERT new Rule TANK 6A introducing synthetic nitrogen loading cap, making exceedance of appropriate limits a restricted discretionary activity.

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6.10.2 Water – Take and Use

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion
TANK 7 Surface Water take	The take and use of surface water in the TANK water <u>quantity areas</u> <del>Management Zones</del> including under Section 14(3)(b) of the RMA <u>and from a dam or water impoundment</u> <sup>194.83</sup>	Permitted	<p>a) Any take first commencing after 2 May 2020 is not from any of the following:</p> <p>Maraekakaho Water <del>Management Unit</del> <u>Quantity Areas</u></p> <p>Ahuriri Water <del>Management Unit</del> <u>Quantity Areas</u></p> <p>Awanui Stream <u>Water Quantity Area and its tributaries</u></p> <p>Poukawa Water <del>Management Unit</del> <u>Quantity Areas</u></p> <p>Louisa Stream <u>Water Quantity Area and its tributaries</u></p> <p><u>Paritua-Karewarewa Water Quantity Area</u> <sup>132.21</sup></p> <p>b) The take <del>does</del> <u>shall</u> not exceed 5 cubic metres per day per <del>any one</del> property except:</p> <p>(i) Takes existing as at 2 May 2020 <del>may continue to take up to 20 cubic metres per property per day and to meet the reasonable needs of animals for drinking water;</del></p> <p>(ii) <u>Takes to meet reasonable domestic needs</u> <sup>4 17.7</sup></p> <p>(iii) <u>Takes for stock drinking water</u> <sup>129.8</sup></p> <p>(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 metre per 7 day period.</p> <p>c) The taking of water <del>does</del> <u>shall</u> not cause any stream or river flow to cease.</p> <p>d) Fish, including eels, shall be prevented from entering the reticulation system.</p>	

<sup>4</sup> Refer to Glossary for definition of “reasonable domestic needs”.

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			<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) <u>The rate of take shall not exceed 10% of the instantaneous flow<sup>5</sup> at the point of take.</u><sup>123.102</sup></p> <p><b>A Means of Compliance for Condition d)</b></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><u>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).</u><sup>13.13</sup></p>	
<p><b>TANK 8</b> Groundwater take.</p>	<p><b>The take and use of groundwater in the TANK Water Management Zones including under Section 14(3)(b) of the RMA</b></p>	<p><b>Permitted</b></p>	<p>a) Any take first commencing after 2 May 2020 is not from the Poukawa <del>Water Quantity Area Freshwater-Management Unit (quantity)</del></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 <del>may continue to take up to 20 cubic metres per property per day and to meet the reasonable</del></p>	

<sup>5</sup> The taking of water for an individual's reasonable domestic needs and the reasonable needs of an individual's animals drinking water is not restricted by this rule.

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			<p><del>needs of animals for drinking water</del><sup>129.9</sup></p> <p>(ii) <del>Takes to meet reasonable individual domestic needs</del><sup>6 17.7</sup></p> <p>(iii) <del>Takes for stock drinking water needs</del><sup>129.9</sup></p> <p>(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 metre per 7 day period.</p> <p>(v) The taking of water for <u>non-consumptive uses including</u> aquifer testing is <del>not restricted</del> <u>limited to 20 cubic metres per day</u><sup>203.17, 203.18, 203.22, 210.89</sup></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><u>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).</u><sup>13.13</sup></p>		
<p><b>TANK 9</b> Groundwater r Take –</p>	<p><b><u>Replacement of an existing Resource Consent to Take of water</u></b></p>	<p><b>Restricted Discretionary</b></p>	<p>a) The activity does not comply with the conditions of Rule TANK 8.</p> <p>b) 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 <del>a</del><b>A</b>ctual and <del>r</del><b>R</b>easonable provided that the quantities assessed or calculated may be</p>	<p><del>Applications may be considered without notification and without the need</del></p>

<sup>6</sup> Refer to Glossary for definition of “reasonable domestic needs”.

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<p>Heretaunga Plains</p>	<p><b>from the Heretaunga Plains Groundwater Quantity Area Management Unit where Section 124 of the RMA applies (applies to existing consents)</b> <sup>63.20</sup>  207.22.</p>		<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><b>Actual and Reasonable Re-allocation</b></p> <p>c) The quantity taken and used <del>for irrigation, other than provided for under d),</del> is the <del>Actual and Reasonable</del> amount. <sup>194.85</sup></p> <p>d) The quantity taken and used for municipal, community and papakāinga water supply is:</p> <ul style="list-style-type: none"> <li>(i) the quantity specified on the permit being renewed; or</li> <li>(ii) any lesser quantity applied for.</li> </ul> <p><del>e) Other than as provided in (c) or (d) the quantity taken and used is the least of:</del></p> <ul style="list-style-type: none"> <li><del>(i) the quantity specified on the permit due for renewal or</del></li> <li><del>(ii) any lesser quantity applied for</del></li> <li><del>(iii) the maximum annual water use in any one year within the 10 years preceding 1 August 2017 (including as demonstrated by accurate water meter records).</del> <sup>194.85</sup></li> </ul> <p><b>Stream Flow Maintenance Scheme</b></p> <p>f) <del>The take is subject to a stream depletion calculation. The water permit holder either:</del></p> <ul style="list-style-type: none"> <li><del>(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.</del></li> </ul>	<p>amended after taking account of:</p> <ul style="list-style-type: none"> <li>a. the completeness of the water permit and watermeter data record;</li> <li>b. the climate record for the same period as held by the Council (note: these records will be kept by the Council and publically available) and whether that resulted in water use restrictions or bans being imposed;</li> <li>c. effects of water sharing arrangements</li> <li>d. crop rotation/development phases</li> </ul> <p>2. The extent to which the application was subject to programmed or staged completion of authorised major infrastructure developments over time.</p> <p>3. Previous history of exercising the previous consent.</p> <p>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.</p> <p>5. Where the take is in a Source Protection Zone <b>Source Protection Extent</b> <sup>63.22, 207.24</sup>, the actual or</p>	<p><del>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. In considering whether or not special circumstances exist and to notify upon review, the Council will include consideration of whether an applicable stream flow maintenance scheme exists.</del></p> <p>29.31, 194.70, 208.15, 238.17</p>
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			<p style="text-align: center;"><del>or</del></p> <p><del>(ii) The water take ceases when the flow in the affected stream fall below the specified trigger level in Schedule 31.<sup>429,10</sup></del></p> <p><del>(iii) 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.</del></p> <p><b>General Conditions</b></p> <p><del>g)f) A water meter is installed.</del></p> <p><del>h)g) Back flow of water or contaminant entry into the bore shall be prevented.</del></p> <p><b>Advisory Note:</b></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>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>6. 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. <del>Rate and volumes of take limited to the projected demand for the urban area provided in the HPUDS 2017.</del></p> <p>c. water demand based on residential and non-residential use <del>including for schools, rest homes, hospitals commercial and industrial demand</del><sup>63,23, 207,25</sup> within the planned reticulation areas</p> <p>d. any Source Protection Zone</p>	
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				<p>or extent (as specified in Schedule 35) and</p> <ul style="list-style-type: none"><li>i. any proposed changes to provisional protection areas and</li><li>ii. the impacts of any changes to restrictions on land or water use activities in the protection area.</li></ul> <p>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.</p> <p>8. The effects of any water take and use for frost protection on the flows in connected surface water bodies.</p> <p>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%</p> <p>10. Management of bores including means of backflow prevention and ensuring well security.</p> <p>11. Information to be supplied and monitoring requirements including</p>	
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				<p>timing and nature of water metering data reporting and the installation of telemetered recording and reporting</p> <p>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) <u>Add provisions for reviews within the life of the plan as per changes to policies.</u></p> <p>14. Lapsing of the consent (Section 125(1) of the RMA).</p> <p>15. Stream flow depletion amount in litres per second calculated using the Stream Depletion Calculator</p> <p><u>Review of permit and new conditions to be imposed in respect of contribution to a Stream flow maintenance and habitat enhancement scheme, when applicable.</u><sup>129.11</sup></p>	
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<p><b>TANK 10</b> Surface and groundwater takes (abstraction at low flows)</p>	<p><u>Replacement of an existing Resource Consent to take and use water where Section 124 applies (applies to existing consents). 63.24, 207.26</u></p>	<p><b>Restricted Discretionary</b></p>	<p>a) The take is not from the Heretaunga Plains Groundwater Quantity Areas Management Unit (quantity).</p> <p>b) The taking and use of water from surface or groundwater water bodies does not 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. <u>For all other takes, the flows specified in Schedule 31 apply.</u><sup>129.13</sup></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><b>Actual and Reasonable Re-allocation</b></p> <p>e) The quantity taken and used <u>for irrigation, other than provided for by f),</u> is the <b>A</b>ctual and <b>R</b>easonable amount.<sup>194.88</sup></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><u>g) Other than as provided in (e) or (f), the quantity taken and used is the least of:</u></p> <p>(i) <u>the quantity specified on the permit due for renewal;</u> or</p> <p>(ii) <u>any lesser quantity applied for;</u></p> <p>(iii) <u>the maximum annual water use in any-</u></p>	<p>1. The extent to which the need for water has been demonstrated and is <del>a</del>Actual and <del>r</del>Reasonable provided that the quantities assessed or calculated may be amended after taking account of:</p> <p>a. the completeness of the water permit and water meter data record;</p> <p>b. the climate record for the same period as held by the Council (note: these records will be kept by the Council and publically available) and whether that resulted in water use restrictions or bans being imposed;</p> <p>c. effects of water sharing arrangements</p> <p>d. 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 31.</p> <p>4. Where the take is in a Source Protection Zone Source Protection Zone <u>or Source Protection Extent</u><sup>63.25, 207.27</sup>, the actual or potential effects of the rate of take and volume abstracted on the</p>	<p><u>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.</u></p> <p><u>Applications may be notified if special circumstances exist in terms of section 95B(10) of the RMA or upon review of a consent. In considering whether or not special circumstances exist and to notify upon review, the Council will include consideration of whether an applicable stream flow maintenance scheme exists.</u></p> <p><small>29.31, 194.70, 208.15, 238.17</small></p>
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			<p><del>one year within the 10 years preceding 2 May 2020 (including as demonstrated by accurate water meter records).</del><sup>194.88</sup></p> <p><b>Surface Water Quantity Area Management (quantity)</b></p> <p><del>h) Any take from groundwater in Zone 1 authorised as at 2 May 2020 in any surface Water Quantity Area Management Unit (quantity) is subject to a stream depletion calculation. either;</del></p> <p><del>(iv) a restriction in water flow when the applicable minimum flow is reached in the relevant zone (as shown in Schedule 31);</del></p> <p><del>Or</del></p> <p><del>(v) the take complies with conditions (f) and (g) of rule TANK 9 where there is an applicable scheme.</del><sup>129.14</sup></p> <p><b>General Conditions</b></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><b>Advisory Note:</b></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><b>Means of Compliance for Condition (j)</b></p> <p>Installation of a screen or screens on the river intake that has a screen mesh size not greater than</p>	<p>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 <del>including for schools, rest homes, hospitals commercial and industrial demand</del><sup>63.26, 207.28</sup> 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</p>	
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			<p>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>and use for frost fighting on the natural flow regime of the river.</p> <ol style="list-style-type: none"> <li>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.</li> <li>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%</li> <li>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.</li> <li>11. Management of bores and other water take infrastructure including means of backflow prevention.</li> <li>12. Measures to prevent fish from entering the reticulation system.</li> <li>13. The duration of the consent (Section 123 of the RMA) as provided for in Schedule 33 timing of reviews and purposes of</li> </ol>	
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				<p>reviews (Section 128 of the RMA)<u>[Add provisions for reviews within the life of the plan as per changes to policies]</u>.</p> <p>14. Lapsing of the consent (Section 125(1) of the RMA).</p> <p>15. <del>For takes from Zone 1 in the Ngaruroro and Tūtaekurī Water Quantity Areas Management Zones review of permit and new conditions to be imposed in respect of contribution to a Sstream flow maintenance and habitat enhancement scheme, when applicable. 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).</del><sup>129,14</sup></p>	
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<p>TANK 11 Groundwater and Surface water take (low flow)</p>	<p>The take and use of surface (low flow allocations) or groundwater</p>	<p><del>Discretionary</del> <del>Non-complying</del></p>	<p>a) The activity does not comply with the conditions of Rules <del>TANK 7, TANK 8,</del><sup>203.23</sup> TANK 9 or TANK 10 <del>where relevant.</del><sup>129.15</sup></p> <p>b) Either</p> <p>(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 <del>in the following Management Units (quantity);</del></p> <p style="margin-left: 40px;"><del>i. Ahuriri</del> <del>ii. Poukawa</del> <del>iii. Ngaruroro groundwater</del> <del>iv. Tūtaekurī groundwater</del> <del>v. Heretaunga Plains</del></p> <p>or</p> <p>(ii) The total amount taken, either by itself or in combination with other authorised takes in the same water <del>quantity area management unit</del> does not cause the total allocation limit in the relevant <del>quantity area management unit</del> as specified in Schedule 31 to be exceeded. <del>except this clause does not apply to takes for:</del></p> <p><del>or</del></p> <p>(iii) <u>The take is for:</u></p> <p style="margin-left: 40px;"><u>i. Municipal or papakainga purposes;</u> <del>ii.</del> <u>frost protection; or</u><sup>194.74</sup> <del>iii.</del> <u>takes of water associated with and from or</u><sup>123.106</sup> dependant on release of water from a water storage</p>	<p>Refer also to RRMP Rule 31, <del>which is amended as part of this Plan Change</del> and Rule TANK 18.</p>	
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			<p>impoundment, <u>or managed aquifer recharge scheme</u><sup>29,42</sup>; or  <del>iii</del>iv. <u>Water takes that are non-consumptive.</u><sup>129.16, 203.23</sup></p>		
<p><b>TANK 12</b> Groundwater and Surface water take</p>	<p><b>The take and use of surface or groundwater</b></p>	<p><b>Prohibited</b></p>	<p>a) The activity does not comply with the conditions of Rule TANK 11                      No application may be made for this activity</p>		

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<p><b>TANK 13</b> Taking water – high flows</p>	<p><b>The taking and use of surface water at times of high flow</b> (including for storage in an impoundment)</p>	<p><b>Discretionary</b></p>	<p>a) <del>The activity does not comply with the conditions of RRMP 67 and 68.</del><sup>129.17</sup>  a) <del>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</del>  b)a) <del>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.</del></p>	<p>Note: The construction of dams greater than 4 metres in height and holding more than 20,000 m<sup>3</sup> will also need a Building Consent. Dams smaller than this are exempt from the Building Act provisions.</p>	
<p><b>TANK 14</b> Damming water</p>	<p><b>The erection or placement of any dam or weir or other barrier structure.</b> <del>D</del>damming of surface waters and discharge from dams except as prohibited by Rule TANK 17<sup>129.18</sup></p>	<p><b>Discretionary Non complying</b></p>	<p>i. <del>The activity does not comply with the conditions of RRMP 67 or RRMP 68.</del><sup>129.19</sup>  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 <u>quantity area management zone</u> does not cause the flow regime of the river to be altered by more than the amount specified in Schedule 32.</p>		
<p><b>TANK 15</b> Take and use from storage</p>	<p><b>Take and use from a dam or water impoundment</b></p>	<p><b><del>Restricted</del> Discretionary</b></p>	<p>a) The activity does not comply with <u>the conditions of Rule TANK 7.</u><sup>63.32, 207.34</sup>  b) <del>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</del><u>The activity will not result in a change of land use that requires consent under Rules TANK 5 or 6.</u>  c)</p>	<ol style="list-style-type: none"> <li>1. <u>The location, quantity, rate and timing of the take.</u></li> <li>2. <u>Measures to avoid adverse water quality effects.</u></li> <li>3. <u>Measures to ensure that the take and use of water meets an efficiency of use of at least 80%.</u></li> <li>4. <u>Information to be supplied and monitoring requirements including timing and nature of water metering data reporting and the installation of telemetered recording and reporting.</u></li> <li>5. <u>The duration of the consent having regard to POL TANK 49.</u></li> </ol>	

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				<p>6. <u>Lapsing of the consent.</u></p> <p>7. <u>Review of consent conditions.</u></p>	
<b>TANK 15a</b> <u>Take and use from storage</u>	<u>Take and use from a dam or water impoundment</u>	<u>Discretionary</u>	a) <u>The activity does not comply with the conditions of Rule TANK 15.</u>		
<b>TANK 16</b>	<b>Damming, take and use at high flow or take from a dam or water impoundment</b>	<b>Non-complying</b>	a) The activity does not comply with the conditions of Rules TANK 13- 15.		
<b>TANK 17</b> <b>Damming water</b>	<b>Construction of dams or the damming of water</b>	<b>Prohibited</b>	<p>b) The construction of dams or the damming of water on the mainstem of the following rivers</p> <p>(i) Ngaruroro River</p> <p>(ii) Taruarau River</p> <p>(iii) Omahaki River</p> <p>(iv) Tūtaekurī River:</p> <p>(v) Mangaone River</p> <p>(vi) Mangatutu River</p> <p>No application may be made for these activities.</p>		
<b>TANK 18</b> <b>Stream Flow Maintenance and Habitat Enhancement Scheme</b>	<del>Transfer and Discharge of groundwater into surface water in the Heretaunga Plains Water</del> <b>Quantity Area Management unit (quantity)</b>	<del>Restricted</del> <sup>99.27, 180.61</sup> <u>Discretionary</u> <u>Non Complying</u>	<p>a) <del>The transfer and discharge of water is managed according to the applicable requirements of Schedule 36. The activity does not comply with the conditions of RRMP Rule 31.</del><sup>63.34, 207.36</sup> <u>The activity will not result in a change of land use that triggers Rules TANK 5 or 6.</u><sup>123.113</sup></p>	<p>1. <u>Location, quantity, rate, duration and timing of discharge.</u></p> <p>2. <u>Flood mitigation measures.</u></p> <p>3. <u>Compliance monitoring including monitoring for water quality.</u></p> <p>4. <u>Measures or methods required for meeting the receiving water quality targets in Schedule 26.</u><sup>123.113</sup></p>	

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				<p>5. <u>The duration of the consent having regard to POL TANK 49.</u></p> <p>6. <u>Lapsing of the consent.</u></p> <p>7. <u>Review of consent conditions.</u></p>	
<p><b><u>TANK 18a</u></b></p> <p><b><u>Stream Flow Maintenance and Habitat Enhancement Scheme</u></b></p>	<p><b><u>Discharge of groundwater into surface water in the Heretaunga Plains Water Quantity Area</u></b></p>	<p><b><u>Discretionary Non complying</u></b></p>	<p><u>The activity does not comply with the conditions of TANK Rule 18.</u></p>		

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## 6.10.3 Stormwater

Rule	Activity	Status	Conditions/Standards/Terms	Matters for Control/Discretion
<b>TANK 19</b> <b>Small</b> <b>scale</b> <b>stormwater</b> <b>diversion</b> <b>and</b> <b>discharge</b> <b>activities</b> 129.21	<b>The diversion and discharge of stormwater into water, or onto land where it may enter water from any new or existing and lawfully established:</b> <b><u>(a) any activity with less than 1000 m<sup>2</sup> impervious areas residential activities;</u></b> <b><u>(b) non-industrial or trade premise;</u></b> <b><u>(c) industrial or trade premise with less than 1,000 m<sup>2</sup> of impervious areas;</u></b> <b><u>(d) rural building.</u></b>	<b>Permitted</b>	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 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	

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			<p>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>	
<p><b>TANK 20</b>  <b>Small scale stormwater diversion and discharge activities</b>  <small>129.21</small></p>	<p><b>The diversion and discharge of stormwater into water, or onto land where it may enter water from any new or existing and lawfully established:</b>  <u><b>any activity with less than 1000 m2 impervious area residential</b></u></p>	<p><b>Restricted Discretionary</b></p>	<p>a) The activity does not comply with the conditions of Rule TANK 19: <u>and</u></p> <p>b) <u>the activity is not from an industrial or trade premise.</u></p>	<ol style="list-style-type: none"> <li>1. Location of the point of diversion and discharge including its catchment area.</li> <li>2. Volume, rate, timing and duration of the discharge, in relation to a specified design rainfall event.</li> <li>3. Effects of the activity on downstream flooding.</li> <li>4. Contingency measures in the event of pipe capacity exceedance.</li> <li>5. Actual or likely adverse effects on fisheries, wildlife, habitat or amenity values of any surface water body.</li> <li>6. Actual or likely adverse effects on the potability of any ground water.</li> <li>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.</li> </ol>

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	<p><del>activities; non-industrial or trade premise; industrial or trade premise with less than 1,000 m<sup>2</sup> of impervious areas; rural building.</del></p>			<p>8. <u>The timing of future planned reticulated networks.</u> 207.58, 63.40</p> <p>9. <del>7.</del> The actual of potential effects of the activity on the water quality objectives set out in Schedule 26.</p> <p>10. <u>Compliance with any relevant industry codes of practice or guidelines</u><sup>203.26</sup></p> <p>11. <u>When required, the efficacy of a Stormwater Management Plan (Schedule 34) including measures adopted to minimise the risk of contaminants of concern entering stormwater to assist in meeting Schedule 26 targets including:</u></p> <p>a. <u>Installation of stormwater management devices including as detailed in table 3.1 of the Hawke’s Bay Regional Council Industrial Stormwater Waterway Design Guidelines.</u></p> <p>b. <u>Alignment with relevant industry guidelines and best practice standards.</u></p> <p>12. <del>9.</del> Duration of the consent.</p> <p>13. <del>10.</del> A compliance monitoring programme.</p> <p>14. <del>11.</del> Bonds or Administrative charges.</p>
<p><b>TANK 21 Stormwater activities</b> <u>Diversion and discharge from local authority networks</u></p>	<p><b>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</b></p>	<p><b>Controlled</b></p>	<p>a) The diversion and discharge shall not;</p> <p>(i) cause any permanent bed scouring or bank erosion of land or any water course at or beyond that point of discharge</p> <p>(ii) cause or contribute to flooding of any property</p> <p>(iii) cause any permanent reduction in the ability of the receiving environment to convey flood flows</p> <p>(iv) contain hazardous substances or, be from a site used for the storage, use or transfer of hazardous substances</p> <p>(v) Contain drainage from a stockyard</p>	<p>1. The efficacy of the Integrated Catchment Management Plan including, but not limited to:</p> <p>a. Its contribution to achieving water quality objectives</p> <p>b. its implementation programme and milestones,</p> <p>c. The comprehensiveness and reliability of the monitoring regime</p> <p>d. The use of low impact stormwater design methods</p> <p>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 recreation and Māori customary use.</p> <p>3. The characteristics of the proposed discharge and its effects on the receiving environment</p>

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			<p>(vi) cause to occur or contribute to any of the following after reasonable mixing:</p> <ul style="list-style-type: none"> <li>i. production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials</li> <li>ii. any emission of objectionable odour</li> <li>iii. any conspicuous change in colour or the visual clarity of the receiving water body (including the runoff from bulk earthworks)</li> <li>iv. any freshwater becoming unsuitable for consumption by farm animals</li> <li>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</li> <li>vi. cause to occur or contribute to the discharge of microbiological contaminants including sewage, blackwater, greywater or animal effluent.</li> </ul> <p><del>b) An application for resource consent must include an Integrated Catchment Management plan that includes;</del></p> <p><del>c) A monitoring programme to assess existing stormwater discharge quality and level of impact on receiving water quality standards</del></p> <ul style="list-style-type: none"> <li><del>(ii) Identification of the spatial extent of the stormwater network to which the application for consent relates</del></li> <li><del>(iii) Identification of the priority streams or catchments where stormwater discharges currently result in receiving water quality</del></li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>5. Duration of the consent</li> <li>6. Review of consent conditions</li> <li>7. Compliance monitoring</li> <li>8. Administrative charges</li> </ul>
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			<p><del>below the standards specified in Schedule 26</del></p> <p><del>(iv) A programme of mitigation measures including timeframes and milestones for the enhancement of streams identified in (b)(iii);</del></p> <p><del>(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);</del></p> <p><del>(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.</del></p> <p><del>(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)</del></p> <p><del>(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.</del></p> <p><del>(ix) The potential effects of climate change on infrastructure capacity and a description of any planned mitigation measures including the identification of</del></p>	
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			<p><del>secondary flow paths and the capacity of the receiving environment.</del></p> <p><del>(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</del></p> <p><del>(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</del></p> <p><del>(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:</del></p> <ul style="list-style-type: none"> <li><del>i. production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials;</del></li> <li><del>ii. any emission of objectionable odour;</del></li> <li><del>iii. Any conspicuous change in colour or visual clarity of the receiving water;</del></li> <li><del>iv. any freshwater becoming unsuitable for consumption by farm animals;</del></li> <li><del>v. the destruction or degradation of any habitat, mahinga kai, plant or animal in any water body or coastal water.</del></li> </ul>	
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<p><b>TANK 22 Stormwater discharge from industrial and trade premises</b> 129.21</p>	<p><b>Discharge of stormwater to water or onto land where it may enter water from any industrial or trade premises with 1,000 m<sup>2</sup> or more of impervious areas</b></p>	<p><b>Restricted discretionary</b></p>	<p style="text-align: center;">129.24</p> <p>a) An application for resource consent must include an <del>Urban Site Specific</del> Stormwater Management Plan (Schedule 34) <sup>207.60, 63.43</sup></p> <p>b) The diversion and discharge;</p> <p>(i) shall not cause permanent bed scouring or bank erosion of land or alter the natural course of any water body</p> <p>(ii) shall not cause or contribute to flooding of any property,</p> <p>(iii) shall not cause any permanent reduction in the ability of the receiving environment to convey flood flows</p> <p>(iv) shall not contain hazardous substances</p> <p>c) The diversion and discharge shall not cause any of the following to occur after reasonable mixing:</p> <p>(i) production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials</p> <p>(ii) any emission of objectionable odour</p> <p>(iii) any conspicuous change in colour or the visual clarity</p> <p>(iv) result in any freshwater becoming unsuitable for consumption by farm animals</p> <p>d) the diversion and discharge shall not cause to occur or contribute to:</p> <p>(i) the destruction or degradation of any habitat, mahinga kai, plant or animal in any water body or coastal water</p> <p>(ii) the discharge of microbiological contaminants, including sewage, blackwater, greywater or animal effluent.</p>	<p>1. The efficacy of the <del>Urban Site Specific</del><sup>207.61</sup> Stormwater Management Plan (Schedule 34) including measures adopted to minimise the risk of contaminants of concern entering stormwater <u>to assist in meeting Schedule 26 targets</u> including:<sup>210.103</sup></p> <p>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.</p> <p>b. Alignment with relevant industry guidelines and best practice standards.</p> <p>2. Water quality standards in the discharge in relation to any contaminants being used on site and specific methods for treating these.</p> <p>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</p> <p>4. The characteristics of the proposed discharge and its effects on the receiving environment</p> <p>5. Duration of the consent</p> <p>6. Review of consent conditions</p> <p>7. Compliance monitoring.</p>
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			<p>e) There is no reticulated stormwater network at the property boundary</p> <p>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.</p>	
<b>TANK 23 Stormwater activities</b>	<b>The diversion and discharge of stormwater into water, or onto land where it may enter water.</b>	<b>Discretionary</b>	The activity does not comply with Rules TANK 19 to TANK 22	<del>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.</del>

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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. (Note Only the text shown **underlined** and in **bold** can be the subject of submissions)

6.3.1 Bore Drilling & Bore Sealing

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p><b>1</b> <b>Bore drilling</b> <i>Refer POL 17, 21, 27, 75</i></p>	<p>The drilling, construction, and alteration of bores.<sup>5</sup></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.</p> <p>b. <b><u>The bore is not located within a Source Protection Zone</u></b></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>

<sup>5</sup> 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
- iv. is created for the purpose of exploring water, oil or gas resources.

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Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p><b>2</b> <b>Bore drilling that does not comply with Rule 1</b> 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. <b>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 advising any affected notification requirements to the 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></b> <b>g. In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, information to confirm compliance with conditions (a) to (f) shall be provided to the Council.</b> <sup>129,28</sup> h. <del>g.</del> Duration of consent. i. <del>h.</del> Lapsing of consent. j. <del>i.</del> Review of consent conditions. k. <del>j.</del> Compliance monitoring.</p>	

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Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<b>3</b> <b>Unwanted or leaking bores</b> Refer <i>POL 21</i>	The existence of any bore that is no longer wanted or is leaking water, oil or gas.	Non-complying			
<b>4</b> <b>Decommissioning of bores</b> Refer <i>POL 75</i>	The decommissioning or sealing of bores.	Permitted	<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. <b><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></b><sup>119,12</sup></p>		

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6.3.2 Feedlots & Feedpads

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<b>5 Feedlots &amp; feedpads<sup>6</sup></b> <i>Refer POL 71</i>	The use of land for the purposes of operating a feedlot <sup>7</sup> or feedpad <sup>8</sup> .	Permitted	<p>a. The land used for the feedlot or feedpad shall be managed in a manner that prevents any seepage of contaminants into groundwater<sup>9,10</sup>.</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"> <li>i. 150 metres from a residential building or any other building being part of a place of assembly on another site</li> <li>ii. 50 metres from a property boundary, and</li> <li>iii. 20 metres from a public road.</li> </ul> <p>d. Runoff from the surrounding catchment area is prevented from entering the feedlot or feedpad.</p> <p><b><u>e. The feedpad or feedlot is not located in a Source Protection Zone</u></b></p>		

<sup>6</sup> 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.

<sup>7</sup> 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.

<sup>8</sup> 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.

<sup>9</sup> 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<sup>-9</sup> m/s (0.000000001 m/s).

<sup>10</sup> **Compliance** – At any time Council may request information from the operator of a feedlot or feedpad to confirm compliance with condition (a).

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Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p><b>6 Feedlots &amp; feedpads that do not comply with Rule 5<sup>11</sup></b>  <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.</p>	

<sup>11</sup> 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.

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6.3.3 Vegetation Clearance and Soil Disturbance Activities

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p><b>7</b></p> <p><b>Vegetation clearance and soil disturbance<sup>12</sup></b></p> <p><sup>29a</sup></p> <p><i>Refer to POL 3, 67, 71</i></p>	<p>Vegetation clearance<sup>13</sup> or soil disturbance<sup>14</sup> 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 body<sup>15</sup>.</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>		

<sup>12</sup> 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.

<sup>29a</sup> 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.

<sup>13</sup> “Vegetation clearance” means the cutting, burning, clearing or destruction (including destruction by spraying) of trees, shrubs, or plants.

<sup>14</sup> “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.

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<sup>15</sup> 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/m<sup>2</sup> of dry soil is equivalent to 5 mm depth assuming a specific gravity of 2 kg/litre.

<sup>32a</sup> 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.

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Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
			<ul style="list-style-type: none"> <li>i. the clearance of plantation forestry established prior to the date of this Plan becoming operative, or <sup>32a</sup></li> <li>ii. the areas identified in Schedule X to this Plan.</li> <li>d. Deposition of soil or soil particles across a property boundary shall not be objectionable or offensive, cause property damage or exceed 10 kg/m<sup>2</sup>.</li> <li>e. Where the clearance of vegetation or the disturbance of soil increases the risk of soil loss the land shall be:               <ul style="list-style-type: none"> <li>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</li> <li>ii. retained in a manner which inhibits soil loss.</li> </ul> </li> <li>f. <b><u>In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, there is no clearance of indigenous vegetation within 10m of any rivers except:</u></b> <ul style="list-style-type: none"> <li>i. <b><u>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></b></li> <li>ii. <b><u>where the clearance is necessary for construction of crossings or installation of a reticulated or network service</u></b></li> </ul> </li> <li>g) <b><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></b></li> <li>h) <b><u>In the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, there is no cultivation of land that results in exposure of bare soil within:</u></b> <ul style="list-style-type: none"> <li>i. <b><u>5 m of any river, modified watercourse or drain</u></b></li> </ul> </li> </ul>		

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			<p><b><u>or lake or wetland where the land is flat to gently rolling (0-7 degrees of slope);</u></b></p> <p>ii. <b><u>10 m of any river, modified watercourse or drain or lake or wetland where the land is moderately rolling (&gt;7 – 20 degrees of slope);</u></b></p> <p>iii. <b><u>15 m of any river, modified watercourse or drain or lake or wetland where the land is over 20 degrees of slope;</u></b></p> <p><b><u>i) Except conditions h(i) – (ii) do not apply:</u></b></p> <p>i. <b><u>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></b></p> <p>iv. <b><u>where the cultivation is in relation to activities permitted by Rule 70.</u></b></p>		
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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
<b>12 Stock feed</b> 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 <sup>16</sup> on production land, including silage.	<b>Permitted<sup>17</sup></b>	<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. Where the activity is in a Source Protection Zone, information to confirm compliance with conditions (a) to (g) shall be provided to the Council <del>upon request</del><sup>139, 119.12</sup>.</p>		

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
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<p><b>13</b> <b>Use of compost, biosolids &amp; other soil conditioners<sup>18</sup></b> <i>Refer POL 12, 69, 71, 75</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 conditioning purposes<sup>19</sup> including:</p> <ul style="list-style-type: none"> <li>• paunch grass</li> <li>• apex meal</li> <li>• stockyard scrapings</li> <li>• grape marc</li> <li>• compost (except as regulated by Rule 28<sup>20</sup>) and poultry manure (except as regulated by Rule 11 or 14).</li> </ul>	<p><b>Permitted<sup>21</sup></b></p>	<ol style="list-style-type: none"> <li>c. 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.</li> <li>d. 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.</li> <li>e. 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.</li> <li>f. The discharge shall not result in any airborne liquid contaminant being carried beyond the boundary of the subject property.</li> <li>g. 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.</li> <li>h. There shall be no discharge within 30 m of any bore or well.</li> <li>i. The discharge shall occur no less than 600 mm above the winter ground water table.</li> <li>j. Where material is discharged onto grazed pasture, the application rate shall not exceed 150 kg/ha/y of nitrogen.</li> <li>k. Where material is discharged onto land used for a crop, the application rate shall not exceed the rate of nitrogen uptake by the crop.</li> <li>l. <b><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></b></li> </ol>	
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<sup>16</sup> For the purposes of this Plan, “stock feed” means organic material that can be consumed by farmed animals.

<sup>17</sup> 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.

<sup>21</sup> 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.

<sup>18</sup> 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.

<sup>19</sup> For the purpose of this rule “soil conditioning purposes” means the application of organic material to improve the structure and quality of the soil

<sup>20</sup> The composting of more than 100 m<sup>3</sup> of compost and raw material per premises is regulated by Rule 28.

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<b>Rule</b>	<b>Activity</b>	<b>Classification</b>	<b>Conditions/Standards/Terms</b>	<b>Matters for Control/Discretion</b>	<b>Non-notification</b>
<p><b>14</b> <b>Animal effluent</b> <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 effluent<sup>22</sup>, including dairy shed effluent, piggery effluent, and poultry farm effluent<sup>23</sup>, including associated sludges (except as provided for by Rules 13 &amp; 15).</p>	<p><b>Controlled</b><sup>24</sup></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 waterbody.</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><b>h. <u>The activity is not in a Source Protection Zone</u></b></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>

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<sup>22</sup> 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.

<sup>23</sup> 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.

<sup>24</sup> 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.

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Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
15 Discharge of animal effluent in sensitive catchments <i>Refer POL 8, 17, 19, 20, 47</i>	<p>The discharge of contaminants into air, or onto or into production land, arising from the management of liquid animal effluent<sup>25</sup>, 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"> <li>• Headwaters of Mohaka River</li> <li>• Headwaters of the Ngaruroro River</li> <li>• Maungawhio</li> <li>• Lake Hatuma</li> <li>• Lake Tutira</li> <li>• Heretaunga Plains unconfined aquifer</li> <li>• Ruataniwha Plains unconfined aquifer</li> <li>• Lake Whakaki</li> <li>• Headwaters of the Tutaekuri River</li> <li>• Headwater of the Tukituki River.</li> </ul> <p><b><u>Or in any Source Protection Zone</u></b></p>	Discretionary			

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<sup>25</sup> 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.

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6.5.1 Water - Discharges to Water

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
31 <b>Discharge of water</b> <sup>26</sup> <i>Refer POL, 71, 79</i>	The discharge of water (excluding drainage water) into water <sup>27</sup> .	<b>Permitted</b> <sup>28</sup>	<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 mixing<sup>29</sup>.</p> <p><b>d. <u>The discharge is not a discharge of groundwater into surface water in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchments</u></b></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.

<sup>26</sup> 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.

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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”.

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## 6.6.2 Drainage Water - Discharges to Land/Water

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<b>32</b> <b>Discharge of drainage water (gravity flow systems)</b> <i>Refer</i> <i>POL 71, 72, 79</i>  123.118, 124.30, 129.29, 180.64, 210.106,	The diversion and discharge of drainage <sup>30</sup> water into water or onto or into land, from a gravity flow system (without pumping).	<b>Permitted</b> <sup>31</sup>	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. b. The discharge shall not cause any scouring or erosion of any land or any water course beyond the point of discharge. c. The activity shall not adversely affect any wetland <sup>32</sup> . 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. e. Any discharge of water arising from a drainage system shall be to the same catchment <sup>33</sup> as that to which the water would naturally flow. f. Any suspended solids in the discharge shall comply with Policy 72 <b>except in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments.</b> g. <b><u>10 years after the operative date of PC9, 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></b> <u>i DIN</u> <u>ii DRP</u> <u>iii suspended sediment.</u>		

<sup>30</sup> '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.

<sup>31</sup> If Rule 32 cannot be complied with, then the activity is a discretionary activity under Rule 52.

<sup>32</sup> 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

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- temporary ponded rainfall
- artificial wetlands.

<sup>33</sup> **‘Catchment’** means the total area from which a single water body collects surface and subsurface runoff.

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Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p><del>New RRMP rule 33A Drainage water</del></p> <p>123.118, 124.30, 129.29, 180.64, 210.106,</p>	<p><del>The diversion and discharge of land drainage water from an existing pumped drainage system (small seale)</del></p>	<p><del>Permitted</del></p>	<p><del>a) the discharge is in a Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments</del></p> <p><del>b) The pumped drainage system existed at 2 May 2020</del></p> <p><del>c) The land area being serviced by the drainage network is less than 10ha</del></p> <p><del>d) 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.</del></p> <p><del>e) The discharge shall not cause any scouring or erosion of any land or any watercourse beyond the point of discharge.</del></p> <p><del>f) The activity shall not result in changes to water levels in any connected wetland</del></p> <p><del>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.</del></p> <p><del>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.</del></p> <p><del>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:</del></p> <p><del>— i DIN</del></p> <p><del>— ii DRP</del></p> <p><del>— iii suspended sediment</del></p>		

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Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p><b>33 Discharge of drainage water (pumped systems)</b></p> <p><i>Refer POL 71, 72, 79</i></p> <p>123.118, 124.30, 129.29, 180.64, 210.106,</p>	<p>The diversion and discharge of drainage<sup>34</sup> water into water or onto or into land, from a pumped system<sup>35</sup>.</p>	<p><b>Controlled</b><sup>36</sup></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 catchment<sup>37</sup> as that to which the water would naturally flow.</p> <p>f. Any suspended solids in the discharge shall comply with Policy 72 <b>except in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū water quality management units</b></p> <p><del>g. 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:</del></p> <p><del>i. DIN</del></p> <p><del>ii. DRP</del></p> <p><del>iii. suspended sediment.</del></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. For activities carried out in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments, <u>monitoring water quality to categorise the nature and extent (concentration and loads) of contaminants in the drainage water:</u></p> <p><del>i. measures or methods required for meeting the receiving water quality standards.</del></p> <p><del>ii. Monitoring for water quality</del></p>	<p>Applications will generally be considered without notification or the need to obtain the written approval of affected persons.</p>

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**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.

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6.6.4 Domestic Sewage - Discharges to Land

Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p><b>37</b> <b>New<sup>38</sup></b> <b>sewage</b> <b>systems</b></p> <p><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>	<p>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<sup>2</sup>.</p> <p>aA. Where the wastewater receives more than advanced primary treatment then:</p> <p>i. the discharge shall be onto or into a property with a land area of no less than 1000m<sup>2</sup>; and</p> <p>ii. the net site area to discharge volume ratio shall not be less than 1.5 m<sup>2</sup> per litre per day <sup>39</sup>.</p> <p>b. The rate of discharge of sewage (including greywater) shall not exceed 2 m<sup>3</sup>/d, averaged over any 7 day period.</p> <p>c. The treatment and disposal system shall be designed to cater for the peak daily loading.</p> <p>d. The discharge shall not occur over the Heretaunga Plains or Ruataniwha Plains unconfined aquifer as shown in Schedule IV.</p> <p>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.</p> <p>eA. The system shall be designed and installed in accordance with the requirements specified in Figure 6.</p> <p>f. There shall be no surface ponding as a result of the discharge, or direct discharge into any water body.</p> <p>g. The discharge shall be distributed evenly over the entire disposal area.</p> <p>h. There shall be no increase in the concentration of pathogenic organisms in any surface water body as a result of the discharge.</p> <p>i. At the time of installation and commencement, the discharge shall not occur within 30 m of any bore drawing groundwater</p>		

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			<p>from an unconfined aquifer into which any contaminant may enter as a result of the discharge.</p> <ul style="list-style-type: none"> <li>j. The point of discharge shall be no less than 600 mm above the highest seasonal groundwater table.</li> <li>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.</li> <li>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.</li> <li>m. For discharges using pit privies:             <ul style="list-style-type: none"> <li>i. the privy shall be constructed in soil with an infiltration rate not exceeding 150 mm/h, and</li> <li>ii. the privy shall not be the primary wastewater system for any permanently occupied dwelling.</li> </ul> </li> <li>n. 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.</li> <li>nA. The discharge shall not be into a trench or bed disposal system constructed in category 5 or 6<sup>40</sup> soil except where wastewater receives at least secondary treatment.</li> <li>o. Where the wastewater receives secondary treatment or better, the discharge shall not exceed 20 g/m<sup>3</sup> of BOD, and 30 g/m<sup>3</sup> of suspended solids.</li> <li>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</li> </ul>		
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			<p>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>p. <b><u>The activity is not located in a Source Protection Zone</u></b></p>		
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<sup>38</sup> 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.

<sup>39</sup> 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 m<sup>2</sup> 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.

<sup>40</sup> 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%.

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6.6.5 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.**

6.7.1 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
<b>60</b> <b>Transfer of permits to take &amp; use surface water from a lake</b> <i>Refer POL36</i>	The transfer of a permit to take and use surface water from a lake, to another site.	<b>Permitted</b>	a. The transfer is to another site within the same lake.		
<b>61</b> <b>Transfer of permits to take &amp; use surface water from a river</b> <i>Refer POL 36, 79</i>	The transfer of a permit to take and use surface water from a river, to another site.	<b>Controlled</b>	a. The transfer is to another site within the same stream management zone, <sup>41</sup> 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.	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	Consent applications will generally be considered without notification, without the need to obtain the written approval of affected persons.

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			<p><b>e. The transfer is not in any Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchment</b></p>	<p>regard to POL TT12.</p>	
<p><b>62</b> <b>Transfer of permits to take &amp; use ground-water</b> <i>Refer POL 25, 77</i></p>	<p>The transfer of a permit to take and use groundwater, to another site.</p>	<p><b>Controlled</b></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,<sup>42</sup> 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. <b>The transfer is not in any Tūtaekurī, Ahuriri, Ngaruroro and Karamū Catchment</b></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>

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<sup>41</sup> “Stream Management Zone” refers to the reaches of a river and/or its tributaries governed by a single minimum flow site.

<sup>42</sup> 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.

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<p><u>Insert new RRMP Rule 62a</u> <u>Transfer of permits to take and use water</u></p>	<p><u>Permanent or temporary transfer of water in accordance with S136(2)(b)(i) of the RMA</u></p>	<p><u>Controlled</u></p>	<p><del>i) The transfer is not part of stream flow maintenance provided by Rule TANK 18.</del><sup>Consequential to Section 15.6.10</sup>                  ii) <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>                      <del>i. To any person or occupier of the site in respect of which the permit is granted, or</del><sup>129.30</sup>                      <u>ii. To another person on another site</u>                      <u>iii. To another site</u><sup>195.120</sup>                  iii) <u>The transfer is not between ground and surface water point of take.</u>                  iv) <u>The permit is:-</u>                      <u>i.) within the same catchment to any point downstream (excluding downstream tributaries) of the location to which the permit applies.;</u>                      <del>ii) for groundwater takes in the Heretaunga Plains Water Management Unit (Quantity), the transfer is to any point downstream of any affected stream;</del><sup>14.18, 15.17, 20.17, 29.47, 129.32, 180.66, 208.17, 238.20</sup>                      <u>and</u>                      <u>ii.i) the transfer is within the same Water Quantity Area Freshwater Management Unit (Quantity)</u>                  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 increase in the nature and scale of drawdown effects on neighbouring bores or connected water bodies as a result of the transfer</u><sup>14.18, 15.17, 20.17, 29.47, 129.33, 180.66, 208.17, 238.20</sup>                  f. <u>The transfer does not result in an increase in nitrogen loss exceeding the amounts as specified in Table 2 in Schedule 29</u><sup>29.63</sup>                  g. <u>All parties to the transfer shall have metering and reporting at any applicable recording and reporting level</u> <del>except for temporary transfers of less than five-</del></p>	<p><u>Insert new RRMP Rule 62a</u> <u>a. Transfer of permits to take and use water</u></p>	
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			<p><del>days per annum.</del> <small>Measurement and Reporting Regulations</small></p> <p>h. <u>In fully or over-allocated water quantity areas management units, the transfer shall only be of that part of the permit for which there is <del>Actual and Reasonable use</del>*</u></p> <p>i. <u>The purpose for the water use does not change except:</u></p> <ul style="list-style-type: none"> <li><u>i. that water takes for irrigation use may be transferred for irrigation of different crops subject to conditions (e) and (f)</u></li> <li><u>ii. for transfers that enable the operation of a flow enhancement scheme (ref Policy 38)</u></li> <li><u>iii. the transfer enables efficient delivery of water supply to meet the communities' human health needs.</u></li> </ul> <p><u>Advisory Notes</u></p> <p><del>(iv) 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</del><sup>129.31</sup></p> <p>(v) <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> <p>j. <u>Note that Rules TANK 5, <del>and 6</del> or 18 may be triggered as a result of a transfer activity.</u></p>		
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<p><b><u>Insert new rule 62b</u></b></p>	<p><b><u>Permanent or temporary transfer of water in accordance with S136(2)(b)(i) of the RMA</u></b></p>	<p><b><u>Discretionary</u></b></p>	<p><b><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></b></p>		
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**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.

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## 6.8.2 Erection &amp; Placement of Dams &amp; Other Barrier Structures, &amp; 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
67 <b>Dams, weirs &amp; other barrier structures in rivers, lakes and artificial water – courses</b> <small>150B</small> <i>Refer POL 79</i>	The erection or placement of any dam <sup>43</sup> , weir or other barrier structure in, on, under, or over the bed of a river, lake and artificial watercourse, and: any associated damming or diversion of water, and any associated discharge of sediment; and any associated disturbance of the river or lake bed. <b><u>This permitted activity does not apply to the erection of dams on the mainstem of any river where it is</u></b>	<b>Permitted<sup>44</sup></b>	<ul style="list-style-type: none"> <li>· The catchment area of the <u>new</u> structure shall not exceed 50 hectares.</li> <li>· The volume of water to be stored or retained by the <u>new</u> structure to spill level shall not exceed 20,000 m<sup>3</sup>.</li> <li>· The height of the structure (as measured vertically from the downstream bed to the crest) shall be no greater than 4m.</li> <li>· 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.</li> <li>· 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.</li> <li>· Erection or placement of the structure shall not cause any erosion, scour or deposition beyond the area of erection or placement.</li> <li>· The impounded water shall not cause any erosion or instability of bordering land.</li> <li>· 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</li> </ul>		

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	<p><b><u>prohibited by</u></b> <b><u>Rule TANK 17</u></b></p>		<p>occurred prior to the construction of the structure.</p>		
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<sup>150B</sup> 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

<sup>43</sup> Dams - Include stock water dams, Irrigation dams, fire-fighting dams and dams in artificial water courses.

<sup>44</sup> If Rule 67 cannot be complied with, then the activity is a discretionary activity under Rule 69.

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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 m<sup>3</sup> 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>		
<b>68 Existing</b>	Any existing damming of water	<b>Controlled</b>	a. The impounded water shall not encroach onto any property beyond the subject property, unless agreed to	a. Stability of the land bordering the dam.	Consent applications

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<p><b>damming of water in rivers and lakes</b> <i>Refer POL 79</i></p>	<p>associated with a lawfully established dam<sup>45</sup>, 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>in writing by any affected property owners.</p>	<p>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>will generally be considered without notification without the need to obtain the written approval of affected persons.</p>
<p><b>69 River &amp; lake bed activities that are not expressly regulated by other rules</b> <i>Refer POL 79</i></p>	<p>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. <b><u>This rule does not apply to rivers in the Tūtaekuri, Ahuriri, Ngaruroro and Karamū catchments (refer Rules TANK 13 – 17)</u></b></p>	<p><b>Discretionary</b></p>			

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<sup>45</sup> Dams - Include stock water dams, Irrigation dams, fire-fighting dams and dams in artificial water courses.

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<b>Rule</b>	<b>Activity</b>	<b>Classification</b>	<b>Conditions/Standards/Terms</b>	<b>Matters for Control/Discretion</b>	<b>Non-notification</b>
<p><b>69</b>  <b>River &amp; lake bed activities that are not expressly regulated by other rules</b>  <i>Refer POL 79</i></p>	<p>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.                      This rule does not apply to rivers in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments (refer Rules TANK 13 – 17)</p>	<p><b>Discretionary</b></p>			

Delete RRMP Rule 70 from PPC9 as no amendments have been made. This is a consequential amendment to 210.110

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Rule	Activity	Classification	Conditions/Standards/Terms	Matters for Control/Discretion	Non-notification
<p style="text-align: center;"><b>71</b>  <b>Activities affecting river control &amp; drainage schemes</b><sup>48,49</sup>  <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"> <li>• 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 <b><u>except that this provision does not apply to rivers for riparian vegetation established to provide shade in the Karamū catchments.</u></b></li> <li>• 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.</li> <li>• 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.</li> <li>• The reclamation or drainage of the bed of any river, lake or artificial water course.</li> <li>• The undertaking of any other land disturbance activity which impedes access</li> </ul>	<p><b>Discretionary</b><sup>5</sup></p>			

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	<p>to the bed of any river, lake or artificial water course, or within 6 metres of the bed.</p> <ul style="list-style-type: none"> <li>The erection of any structure and the undertaking of any land disturbance activity which interferes with the integrity of any defence against water.<sup>50</sup></li> </ul>				
<p><u>71A Activities affecting river control &amp; drainage schemes</u><sup>48,49</sup></p>	<p><u>“ 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.</u></p>	<p><u>Permitted</u></p>	<p>f) <u>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)</u></p>		

<sup>47</sup> 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.

<sup>48</sup> 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

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and responsibilities in relation to this land.

<sup>49</sup> Any activity permitted by Rules 64 and 65 is not subject to Rule 71.

<sup>51</sup> The ongoing maintenance or repair of any structure authorized by a resource consent pursuant to Rule 71 is permitted pursuant to Rule 64.

<sup>50</sup> “Defence against water” includes stopbanks and their foundations.

## 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 34A
- Schedule 34B
- Schedule 35
- Schedule 36

*Schedules attached separately.*

## 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 average~~ <sup>consequential</sup> 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~~<sup>82.4</sup> 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 ~~W~~Groundwater Quantity Area Management Unit, is not more than the amount irrigated in the ten years preceding ~~2 May 2020-1 August 2017~~<sup>82.5</sup>; and
  - (ii) evidence is supplied to demonstrate that the area has, and can continue to be, irrigated and the permit substantially given effect to.

~~**Affected stream** is one which the Stream Depletion Calculator identifies the greatest magnitude of stream depletion caused by that take (a take may cause stream depletion in more than one stream). The stream with the largest effect is the “affected stream”.~~<sup>210.52</sup>

**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 ~~sum of weekly maximum water permit allocations for a river, or management zone averaged over one month and includes abstraction in Zone 1.~~<sup>129.40</sup>

**Allocation limit for Ggroundwater** 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 Management Unit groundwater allocation limit will be 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 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.

~~**Applicable stream flow maintenance scheme** is a stream flow maintenance scheme developed to maintain river flows in an affected stream when the trigger flow is reached. If no scheme is feasible, then there is no applicable scheme.~~<sup>210.152</sup>

**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*

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(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)<sup>consequential</sup>.

**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.<sup>129.42</sup>

**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 200l litres per person per day (l/p/d). (Note this is from MfE Guidance being the sum of Drinking 2 l/p/d, Cooking and Food 3 l/p/d, Toilet flushing 80 l/p/d, Bathing and Showering 100l/sec, 23% of washing needs 15 l/p/day, Total 200l/p/d).

**Farm Environment Plan** means a plan that has been prepared in accordance with the requirements of Schedule 30C by a person with the professional qualifications necessary to prepare such a plan 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 made under section 217M(1)(b); or

(e) any combination of the above<sup>consequential</sup>

**Farming Enterprise** – as defined in the RMMP but to include Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments.

**Farm Operator** is as defined by Part 9 of the RMA. The person with ultimate responsibility for the operation of a farm<sup>consequential</sup>.

**Forestry Management Plan** means a harvest plan or management plan as provided for in the National Environmental Standards for Plantation Forestry; 2017.

**Fre<sup>3</sup>** means the frequency of floods that are 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 Maori 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 35

**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<sup>consequential</sup>.

**Indigenous vegetation** for the purposes of rules regulating removal of vegetation means: 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

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Zealand BenchlossNZ manual and which outlines performance indicators for NZ.

**\* PLACEHOLDER\* for an irrigation efficiency definition as per Section 15.6.17 of the Hearing Report.**

**Kaitiakitanga**; add “and in Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments can only be passed down through generations via whakapapa”

**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.

**Mahinga Kai** insert “ and in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments mahinga kai generally refers to indigenous freshwater species that have traditionally been used as food, tools, or other resources. Mahinga kai provide food for the people of the rohe and these species give an indication of the overall health of the catchment. For this value, kai would be safe to harvest and eat and knowledge transfer is present (intergenerational harvest). 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 aboriginal people of New Zealand that migrated from Hawaiki in successive waves of migration settling throughout the Pacific.

**Marae** A marae is a fenced-in complex of carved buildings and grounds that belongs to a particular iwi (tribe), hapū (sub tribe) or whānau (family). Māori people see their marae as tūrangawaewae - their place to stand and belong. Marae are places of refuge for Māori and provide facilities to enable Māori to continue with our own way of life within the total structure of their own terms and values. The marae is an institution from classical Māori society that has survived the impact of western civilisation.

**Matauranga Māori** means cultural knowledge of the natural world.

**Mauri** Insert “and in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū catchments Mauri is a spiritual value that expresses itself within the natural world in a particular manner. 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.”

**Nitrogen loss rate means the modelled nitrogen loss rate for a property using Overseer (or similar alternative nutrient budget model approved by the Hawke's Bay Regional Council)**

**Nitrogen loss target means the modelled nitrogen loss rate using Overseer (or similar alternative nutrient budget model approved by the Hawke's Bay Regional Council) for a property which;**

- a) adopts all industry good practice measures for managing nutrient losses and/or
- b) adopts additional mitigation measures to meet applicable water quality targets or objectives for dissolved nutrients.

The Nitrogen loss rate and the nitrogen loss target may be the same for any property. (The effects of some nutrient mitigation measures cannot be modelled within Overseer. This provision also reflects that some properties are already adopting good industry practice – but that this may change over time) <sup>132.111, 120.111, 132.138, 132.111, 120.111, 132.138, 120.118, 123.146, 210.138, 135.61)</sup>

**Papakāinga** means a group of houses of three or more, developed on Maori land that has multiple-owners.

**Pastoral land use is as defined by Part 9 of the RMA. The use of land for the grazing of livestock.** <sup>consequential</sup>

**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

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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 35 (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 35 (information about the location of these areas can be found on the Council's webpage).

**Stream Depletion Calculator** is a publically available tool that the Haawke'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 30A and which has a Catchment Collective or Industry Programme that has been prepared in accordance with the requirements of Schedule 30B by a person with the professional qualifications necessary to prepare such a Programme

**Waka ama** is a New Zealand term for the traditional sport used in the Pacific of outrigger canoeing.

## 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).

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## 5.4 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
<b>Clive Rivers and tributaries</b>	<b>200</b>	<b>10</b>
Esk River	200	50
Ikanui Stream	200	50
Kopuawhara Stream	200	50
Mangakuri Stream	200	50
Maraetotara River	200	50
Mohaka River	50	10
<b>Ngaruroro River upstream of Fernhill Bridge</b>	<b>50</b>	<b>10</b>
<b>Ngaruroro River between Fernhill Bridge and Expressway Bridge</b>	<b>100</b>	<b>25</b>
<b>Ngaruroro River downstream of the Expressway Bridge</b>	<b>150</b>	<b>25</b>
Opoutama Stream	200	50
Porangahau River	200	50
Puhokio Stream	200	50
Taharua Stream	50	10
<b>Tutaekurī River upstream of Redelyffe Bridge</b>	<b>50</b>	<b>10</b>
<b>Tutaekurī River between Redelyffe Bridge and SH50</b>	<b>100</b>	<b>25</b>
<b>Tutaekurī River downstream of the Expressway Bridge</b>	<b>150</b>	<b>25</b>
Waingonoro Stream	200	50
Waipatiki Stream	200	50

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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.

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**POL 72A DISCHARGE PERMITS – Matters for consideration in catchments other than the Tukituki River catchment**

When considering any application for a discharge the consent authority must have regard to the following matters:

- (a) the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of fresh water including on any ecosystem associated with fresh water and
  - (b) the extent to which it is feasible and dependable that any more than minor adverse effect on fresh water, and on any ecosystem associated with fresh water, resulting from the discharge would be avoided.
- (2) When considering any application for a discharge the consent authority must have regard to the following matters:
- (a) the extent to which the discharge would avoid contamination that will have an adverse effect on the health of the people and communities as affected by their secondary contact with fresh water; and
  - (b) the extent to which it is feasible and dependable that any more than minor adverse effect on the health of the people and communities as affected by their secondary contact with fresh water resulting from the discharge would be avoided.

**Explanation and Reasons**

5.4.7A Policy 72A was inserted in accordance with the direction stated in Policy A4 of the National Policy Statement for Freshwater Management 2014 and took effect on 1 August 2014

**5.5 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**

- (a) **Resource Allocation:** To define the allocatable volume as being the difference between the summer 7- day Q95 and the minimum flow.
- (b) 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.

<sup>54</sup> NOTE 1: Policy 72A applies to the following discharges (including a diffuse discharge by any person or animal):

- (a) a new discharge or
- (b) a change or increase in any discharge –

of any contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water.

NOTE 2: Pol 72A(1) does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2011 took effect on 1 July 2011.

## THIS WORD VERSION IS NOT PART OF THE PPC9 HEARING REPORT

Table 9. Minimum Flow and Allocatable Volumes for Specified Rivers

River name	Minimum Flow Site Name	Minimum Flow (l/s)	Allocatable Volume (m <sup>3</sup> /week)	Map Reference
<b>Awanui Stream</b>	<b>At The Flume</b>	<b>120</b>	<b>0</b>	<b>V21:357613</b>
<b>Awanui Stream</b>	<b>At Paki Paki Culvert</b>	<b>35</b>	<b>0</b>	<b>V21:351608</b>
Esk River	At Shingle Works	1,400	355,018	V20:432945
Esk River	At SH2	1,000		V20:438939
<b>Irongate Stream</b>	<b>At Clarks Weir</b>	<b>100</b>	<b>0</b>	<b>V21:367666</b>
<b>Karamū River</b>	<b>At Floodgates</b>	<b>1,100</b>	<b>18,023</b>	<b>V21:427708</b>
<b>Karewarewa River</b>	<b>At Turamoe Road</b>	<b>75</b>	<b>-</b>	<b>V21:341622</b>
<b>Louisa Stream</b>	<b>At Te Aute Road</b>	<b>30</b>	<b>0</b>	<b>V21:410625</b>
<b>Mangateretere Stream</b>	<b>At Napier Road</b>	<b>100</b>	<b>0</b>	<b>V21:438659</b>
<b>Maraekakaho River</b>	<b>At Taits Road</b>	<b>100</b>	<b>5,443</b>	<b>V21:170668</b>
<b>Maraetotara River</b> <u>Retain – not within the TANK catchments</u>	<b>At Te Awanga Bridge</b>	<b>220</b>	<b>30,971</b>	<b>W21:520661</b>
<b>Ngaruroro River</b>	<b>At Fernhill Bridge</b>	<b>2,400</b>	<b>956,189</b>	<b>V21:330729</b>
Nuhaka River	At Valley Road	80	41,731	X19:225329
<b>Ongaru Drain</b>	<b>Wenley Road</b>	<b>5</b>	<b>0</b>	<b>V21:234653</b>
Pouhokio Stream	At Allens Bridge	80	-	V22:498441
<b>Poukawa Inflow</b>	<b>Site No. 1 (d/s dam)</b>	<b>10</b>	<b>0</b>	<b>V22:282504</b>
<b>Poukawa Inflow</b>	<b>Site No. 1a (u/s dam)</b>	<b>10</b>	<b>0</b>	<b>V22:285502</b>
<b>Poukawa Inflow</b>	<b>Site No. 6</b>	<b>3</b>	<b>0</b>	<b>V22:266478</b>

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<del>Poukawa Stream</del>	<del>At Douglas Road</del>	<del>20</del>	<del>0</del>	<del>V22:298533</del>
<del>Raupare Stream</del>	<del>At Ormond Road</del>	<del>300</del>	<del>83,844</del>	<del>V21:398713</del>
Te Waikaha Stream	At Mutiny Road	25	-	V22:361572
Trib. of Kauhauroa Stream	(Taylors)	5	0	X19:970397
<del>Tutaekuri River</del>	<del>At Puketapu</del>	<del>2,000</del>	<del>928,972</del>	<del>V21:357812</del>
<del>Tutaekuri-Waimate</del>	<del>At Goods Bridge</del>	<del>1,200</del>	<del>367,114</del>	<del>V21:384751</del>
Waimaunu Stream	At Duncans	10	15,304	X19:229300

POL 74A Water Permits – Matters for consideration in catchments other than the Tukituki River catchment **and the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments**

- (1) When considering any application the consent authority must have regard to the following matters:
- (a) the extent to which the change would adversely affect safeguarding the life-supporting capacity of fresh water and of any associated ecosystem and
  - (b) the extent to which it is feasible and dependable that any adverse effect on the life-supporting capacity of fresh water and of any associated ecosystem resulting from the change would be avoided.<sup>55</sup>

<sup>55</sup> NOTE 1: Pol 74A applies to:

(a) any new activity and

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**THIS WORD VERSION IS NOT PART OF THE PPC9 HEARING REPORT**

**Explanation and Reasons**

☐☐ Policy 74A was inserted in accordance with the direction stated in Policy B7 of the National Policy Statement for Freshwater Management 2014 and took effect from 1 August 2014

(b) any change in the character, intensity or scale of any established activity –

that involves any taking, using, damming or diverting of fresh water or draining of any wetland which is likely to result in any more than minor adverse change in the natural variability of flows or level of any fresh water, compared to that which immediately preceded the commencement of the new activity or the change in the established activity (or in the case of a change in an intermittent or seasonal activity, compared to that on the last occasion on which the activity was carried out).

NOTE 2: Pol 74A does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management took effect on 1 July 2011.

**THIS WORD VERSION IS NOT PART OF THE PPC9 HEARING REPORT****5.6 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.~~

[RETAIN this provision as currently worded]

**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**

<del>CONFINED, PRODUCTIVE AQUIFERS IN THE HERETAUNGA-PLAINS AQUIFER SYSTEM (as shown in Schedule IV)</del>	
<b>1. No degradation</b>	There should be no degradation of existing water quality.
<b>OTHER PRODUCTIVE AQUIFERS</b>	
<b>1. Human consumption</b>	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.
<b>2. Irrigation</b>	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.

**THIS WORD VERSION IS NOT PART OF THE PPC9 HEARING REPORT**

**POL 76A Discharge Permits – Matters for consideration in catchments other than the Tukituki River catchment and the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments**<sup>56</sup>

- (1) When considering any application for a discharge the consent authority must have regard to the following matters:
- (a) the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of fresh water including on any ecosystem associated with fresh water and
  - (b) the extent to which it is feasible and dependable that any more than minor adverse effect on fresh water, and on any ecosystem associated with fresh water, resulting from the discharge would be avoided.
- (2) When considering any application for a discharge the consent authority must have regard to the following matters:
- (a) the extent to which the discharge would avoid contamination that will have an adverse effect on the health of the people and communities as affected by their secondary contact with fresh water; and
  - (b) the extent to which it is feasible and dependable that any more than minor adverse effect on the health of the people and communities as affected by their secondary contact with fresh water resulting from the discharge would be avoided.

**Explanation and Reasons**

5.6.5A Policy 76A was inserted in accordance with the direction stated in Policy A4 of the National Policy Statement for Freshwater Management 2014 and took effect on 1 August 2014.

<sup>56</sup> NOTE 1: Policy 76A applies to the following discharges (including a diffuse discharge by any person or animal):

- (a) a new discharge or
- (b) a change or increase in any discharge –

of any contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water.

*NOTE 2: Pol 76A(1) does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2011 took effect on 1 July 2011.*

*NOTE 3: Pol 76A(2) does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2014 took effect on 1 August 2014.*

## 5.7 Groundwater Quantity

Insert after the heading

**The provisions of Chapter 5.7 do not apply within the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River catchments**

**POL 78A Water Permits – Matters for consideration in catchments other than the Tukituki River catchment and the Tūtaekurī, Ahuriri, Ngaruroro and Karamū River Catchments**

- (1) When considering any application the consent authority must have regard to the following matters:
- (a) the extent to which the change would adversely affect safeguarding the life-supporting capacity of fresh water and of any associated ecosystem and
  - (b) the extent to which it is feasible and dependable that any adverse effect on the life-supporting capacity of fresh water and of any associated ecosystem resulting from the change would be avoided.<sup>57</sup>

**Explanation and Reasons**

E 7.4

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<sup>57</sup> NOTE 1: Pol 78A applies to:

- (a) any new activity and
- (b) any change in the character, intensity or scale of any established activity –

that involves any taking, using, damming or diverting of fresh water or draining of any wetland which is likely to result in any more than minor adverse change in the natural variability of flows or level of any fresh water, compared to that which immediately preceded the commencement of the new activity or the change in the established activity (or in the case of a change in an intermittent or seasonal activity, compared to that on the last occasion on which the activity was carried out).

NOTE 2: Pol 78A does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management took effect on 1 July 2011.



#### **5.9.4 TUKITUKI IMPLEMENTATION PLAN**

##### **POL TT16 IMPLEMENTATION PLAN**

1. To give effect to the Regional Resource Management Plan provisions that apply within the Tukituki Catchment Hawke's Bay Regional Council will:
  - (a) By 31 December 2014, develop an overall Implementation Plan in collaboration with iwi and hapū and other affected or interested stakeholders;
  - (b) Report on the achievement of the Implementation Plan outcomes on a 5 yearly basis through the Plan Effectiveness Report; and
  - (c) Support the establishment of a multi-stakeholder group for the Tukituki Catchment for the purpose of developing the Implementation Plan and facilitating input into the development and delivery of specific implementation or monitoring projects and programmes.
2. The Implementation Plan will include (but not be limited to):
  - (a) A Regional Resource Management Plan effectiveness monitoring programme for the Tukituki Catchment;
  - (b) Commissioning the monitoring and assessment of water quality, water quantity and freshwater, estuarine and coastal aquatic habitat environment matters and any other matters that reflect cultural interests and values, including kaitiakitanga and mauri;
  - (c) The Tukituki Catchment Implementation Plan (draft April 2013);
  - (d) The matters addressed in POL TT4(2) and POL TT5(2); and
3. To enable assessment and monitoring of the cultural values and mauri of the Tukituki Catchment the Hawke's Bay Regional Council will:
  - (a) Resource, subject to POLTT16(5), and assist iwi and Tukituki hapū in the development of a mauri monitoring framework, including the use of wānanga with relevant technical experts on at least the following:
    - i. Marine and coastal ecology;
    - ii. River ecology and fish passage;
    - iii. Water quality (e.g. nitrate/nitrogen) and quantity; and
    - iv. Monitoring methodologies (e.g. mauri model, CHI, State of the Takiwa); and
  - (b) Collaborate with iwi and Tukituki hapū to develop and implement a monitoring programme that gives effect to the mauri monitoring framework; and
  - (c) Work with the iwi and Tukituki hapū to jointly report annually on the outcomes of the monitoring and any recommended actions to Hawke's Bay Regional Council; and
  - (d) Incorporate the outcomes in the Plan Effectiveness Report.
4. For the purposes of POL TT16, Hawke's Bay Regional Council collaboration with iwi and Tukituki hapū will be based on tikanga Māori and an Engagement Plan to be developed in consultation with Te Taiwhenua o Tamatea, Te Taiwhenua o Heretaunga, Te Taiwhenua o Te Whanganui Ā Orotu and Ngāti Kahungunu Iwi Incorporated. The Engagement Plan shall be finalised by 30 June 2014 and shall include a collective iwi/hapū management group.
5. Hawke's Bay Regional Council will use its Annual Plan special consultative process to identify and commit the funding necessary to give effect to POL TT16(1) to (4) including the implementation of the Implementation Plan.



TANK PC9 Plan Provision	Position	Reason for position	Relief sought (use <u>underline</u> and <del>strikethrough</del> )
<p><b>Schedule 26 – use of terms and overall structure</b></p>	<p>Support with amendments</p>	<p>Schedule 26 is generally supported as appropriate for PC6 to meet the requirements for water quality in the NPS FM (notwithstanding issues with the overall structure and framework of PC9). Amendments for clarity are included as suggested relief.</p> <p>Schedule 26 is titled: ‘Freshwater Quality Objectives’, although Policy 1 and other provisions of PC9 refer to Schedule 26 as containing water quality ‘targets’ where they are not met. PC9 is not clear as to whether the water quality numeric attribute states in Schedule 26 are objectives, limits, or targets. It should be clear where targets apply (using the most recent assessment of water quality current state).</p> <p>Timeframes should be shortened to be within the life of the Plan.</p> <p>The heading paragraphs to Schedule 26 is unconcise, unclear and should be generally stated elsewhere in the provisions of PC9 (e.g., the objectives and policies).</p> <p>It is not clear whether the management units are FMUs as defined in the NPS FM. They are variously described in the Plan as ‘Surface water quality management units’, ‘Freshwater quality management units’ or ‘management units’, although Schedule 26 also applies to groundwater. This requires clarification throughout PC9, including in Schedule 26. The Schedule 26A – 26D planning maps should sit within PC9 so the location and spatial extent for management is clear to plan users and decision makers. The planning maps should also make clear the boundaries for the Freshwater Quality Management Units. It is not clear from Schedule 26 that the ‘Lowland tributaries’ Freshwater Quality Management Unit in the table is the Karamū catchment or that the Taruarau River and other tributaries in the upper Ngaruroro River are within the upper Ngaruroro ‘FMU’. This is further confused by the use of the term ‘Lowland streams’ for the nitrate (toxicity) attribute.</p>	<p>Delete the first paragraph following the heading Schedule 26: Freshwater Quality Objectives.</p> <p>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 (<u>target</u>)”, i.e. expressly identify which are targets and which are limits.</p> <p>Change timeframes for which targets aim to be achieved to be within the life of PC9.</p> <p>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.</p> <p>Alternatively, 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. Delete all reference to ‘statistical GL’, ‘MCI’, ‘Algal growth’ and ‘Toxicity’ as these are not freshwater values.</p> <p>Amend Schedule 26 to specify a period of record for each attribute which compliance with the attribute state will be measured over.</p> <p>Amend Schedule 26 Freshwater Management Units ‘Lowland streams’ to ‘Lowland tributaries’ for consistency of terms.</p>

TANK PC9 Plan Provision	Position	Reason for position	Relief sought (use <u>underline</u> and <del>strikethrough</del> )
		<p>Schedule 26 column five is titled “Critical Value” with footnote 3 describing this as meaning; <i>“The critical value is the value most sensitive to the attribute state (has the highest water quality demand for that attribute). If the needs of the critical value are met, the needs of other values are also met.”</i></p> <p>While this method of identifying the most stringent attribute state for the values is consistent with the National Objectives Framework (NOF) approach in the NPS FM at Policy CA2(e)(iii), the critical values in Schedule 26 do not apply this method consistently. For example, for turbidity the critical value is stated as ‘statistical GL’, for DIN it is ‘Algal growth’ and for nitrate and ammonia it is ‘Toxicity (NOF)’. Statistical GL is not defined in PC6, algal growth (periphyton) and toxicity attributes in the NOF are applied for the value of Ecosystem Health. The critical value, if retained in Schedule 26, should state the freshwater value for which the most stringent attribute state is applied, using consistent and defined values (which need to be identified in a Schedule within PC6). Alternatively, if a schedule of values and where they apply is included in PC6 as recommended, references to the critical value can be removed from Schedule 26.</p> <p>The column ‘Also relevant for’ simply provides a list of freshwater values. This would be more appropriate to be identified within a separate Schedule within the Plan for ease of use and consideration in decision making. The relationship between the freshwater values in this column and the water quality attributes is unclear. For example, it is not clear how instream DIN is a relevant attribute for abstractive uses for domestic, farm and community water supply or primary production and food production, industrial and commercial use. These are freshwater values and they should be identified in a separate schedule in PC6, noting where they apply (e.g., to an FMU, river reach or site).</p> <p>The period of record used to determine whether a waterbody is meeting or exceeds the attribute state in Schedule 26 also needs to be defined.</p>	<p>Include a hard (expressly stated) limit for attributes that specifically reflect the need to assess cumulative effects.</p> <p>Any and all references in the Schedule need to be clarified as to whether they refer to the attributes stated in the NPSFM 2017 or NPSFM2020. In our submissions we refer to those stated in the NPSFM 2020.</p>

TANK PC9 Plan Provision	Position	Reason for position	Relief sought (use <u>underline</u> and <del>strikethrough</del> )
		For example, MCI specifies an average at flow < median but does not define over what period the average is to be calculated (e.g., 5-years).	
<b>Schedule 26 – attributes and sites</b>	Support	The attributes for surface and ground water quality are appropriate for managing the effects on ecosystem health and human health with the exception of temperature, which only manages temperature change from reference condition and does not set a maximum temperature objective.	<p>Retain all of the listed attributes in Schedule 26 and include Schedule 27 attributes.</p> <p>Amend the temperature attribute to also include the maximum temperature attribute from Schedule 27 in Schedule 26.</p> <p>Include additional river monitoring sites that represent tangata whenua defined attributes (to be developed), in accordance with new tangata whenua objective where ecological and biophysical attributes will also be measured.</p>
<b>Schedule 26 – attribute states: Water clarity (m) and turbidity (NTU)</b>	Support in part	<p>For the Ngaruroro and Tūtaekurī rivers and their tributaries the clarity and turbidity objectives apply at flows less than median in Schedule 26 and the median values of clarity and turbidity measured at these flows will be compared with the objective/target. This means the attribute states will only need to be met in half of the samples, roughly half of the time (depending on flow conditions). Allowance for high flows and elevated sediment (which reduces clarity and increases turbidity) is already included in the attribute states by using the median as the ‘compliance’ statistic. Because of this, limiting the attribute state to apply only at flows less than median is not necessary. It is not clear whether the notified approach will adequately provide for the freshwater values in these waterbodies. Instead, the application of the attribute state should be median values, at all flows (as is the case for the Karamū catchment - Lowland tributaries). It would be clearer if the attribute application simply specified ‘median’ in all cases, although a period of record for determining the medians of each attribute is also needed.</p> <p>Statistical GL (for lower Ngaruroro, Tūtaekurī and tributaries) is not a freshwater value and is not defined in PC9. If ‘statistical GL’ is related to the method for comparing turbidity data with the attribute state it should</p>	<p>Delete reference to flows from the application of the water clarity and turbidity objectives for all management units and apply a period of record:</p> <p><u>E.g., Annual Median</u>, <del>←median</del> <u>Flows</u></p> <p>Delete ‘statistical GL’ from the critical value column.</p> <p>Add Clarity objectives for the Ahuriri catchment of an annual median of ≥ 1.6 m to provide for safe human use.</p>

TANK PC9 Plan Provision	Position	Reason for position	Relief sought (use <u>underline</u> and <del>strikethrough</del> )
		<p>be deleted from the freshwater values column and added as a footnote to interpret the application of the turbidity attribute.</p> <p>There are no clarity or turbidity objectives set for the Ahuriri catchment. It is not clear whether the freshwater values in this catchment will be protected with respect to water clarity or turbidity.</p>	
<b>Schedule 26 – attribute states: Deposited sediment (%)</b>	Support in part	<p>Deposited sediment is a critical factor affecting the ecosystem health of rivers, particularly benthic macroinvertebrate community health and the spawning habitat of salmonids (and indigenous fish). The attribute states for deposited sediment are largely consistent with national guidelines from Clapcott et al. (2011) and are supported. The maximum attribute states are appropriate to provide for the values of Ecosystem health and salmonid spawning. Presumably the more stringent attribute state of 15% cover from May to Oct is to support the salmonid spawning value in the upper Ngaruroro and Tūtaekurī river mainstems.</p> <p>There is no deposited sediment attribute for the Ahuriri catchment. It is not clear whether freshwater values in this catchment will be protected with respect to deposited sediment.</p>	Retain as notified and add attribute states for the Ahuriri catchment.
<b>Schedule 26 – attribute states: periphyton biomass</b>	Support in part	<p>There are only two sites at which periphyton biomass is monitored in the TANK catchments (lower Ngaruroro and upper Tūtaekurī Rivers). The attribute state to provide for ecosystem health at these sites is set at the NPS FM B band of 120mg/m<sup>2</sup> ‘max 1 p.a.’ The application of the attribute is ‘max 8% exceedance over three years of monthly observations’. It is assumed the ‘max 1 p.a.’ means to allow one exceedance of the attribute state in any year. If this is the case it is greater than the 8% exceedance over three years from monthly monitoring (which is 2.6 observations exceeding the attribute state over three years). Having both terms specified in Schedule 26 is confusing as it is unclear which exceedance threshold applies (i.e., 2.6 over 3 years or once per year, or 3). It is unclear whether periphyton biomass at the NPS FM B band will be adequate to protect ecosystem health in the upper Tūtaekurī River. 50 mg/m<sup>2</sup> chlorophyll a is associated with a good state of benthic biodiversity (Biggs 2000), whereas 120 mg/m<sup>2</sup> is more closely aligned with</p>	<p>Delete &gt;50 - &lt;120 mg/m<sup>2</sup> <del>max 1 p.a.</del></p> <p>Amend the periphyton biomass attribute for the upper Tūtaekurī River to &lt;50 mg/m<sup>2</sup>.</p>

TANK PC9 Plan Provision	Position	Reason for position	Relief sought (use <u>underline</u> and <del>strikethrough</del> )
		<p>trout habitat outcomes in the literature. This is better reflected by the 20% periphyton cover attribute for the upper reaches of both rivers, which equates to an excellent state of ecological condition (ecosystem health). Both attribute states for periphyton should be consistent.</p> <p>The two sites for periphyton biomass may not be representative of the 'FMUs' managed for periphyton. However, the risk of this approach is mitigated by the inclusion of a periphyton cover attribute for all rivers in the two catchments (see below). MfE guidance accepts that periphyton cover may be used in place of periphyton biomass and this approach is supported.</p>	
<p><b>Schedule 26 - attribute states: periphyton cover</b></p>	<p>Support in part</p>	<p>Periphyton cover (using the Weighted Composite Cover %PeriWCC) method of Matheson et al. (2012) and (2016) is a useful method to address the adverse effects of periphyton cover on ecosystem health and recreational use of rivers. The annual maximum applied to the upper Ngaruroro and upper Tūtaekurī Rivers is supported as periphyton can form nuisance growths at any time of the year when flow and nutrient conditions are suitable, adversely affecting ecosystem health. 20% cover equates to excellent ecological condition and is appropriate for these waterbodies.</p> <p>It appears the freshwater value with the most stringent periphyton requirements in the lower Ngaruroro and Tūtaekurī rivers and tributaries is either Uu or recreation. The Application column notes that monthly observations all year are required for Uu, however the critical value is stated as recreation and the attribute states 'seasonal max %PeriWCC'. There appears to be some inconsistency as to what the most stringent application of the attribute is and for which value. The NPS FM requires at Policy CA(e)(iii) that the objective must be adopted for the most stringent value. The most stringent value is Uu, which can occur at any time of the year, therefore this is the period when the periphyton cover attribute should apply. This inconsistency between values needs to be resolved in Schedule 26 and Ngāti Kahungunu values and attributes appropriately acknowledged.</p>	<p>Delete 'seasonal max' from the attribute so the value of Uu is provided for year-round:</p> <p>Periphyton cover (<del>seasonal max</del>, %PeriWCC)</p> <p>Delete reference to Uu from the Application column:</p> <p>Monthly observations, all year (<del>for Uu</del>)</p> <p>Delete Recreation as the critical value and amend to replace with Uu (the most stringent value).</p> <p><u>Recreation Uu</u></p>

TANK PC9 Plan Provision	Position	Reason for position	Relief sought (use <u>underline</u> and <del>strikethrough</del> )
<b>Schedule 26 – attribute states: cyanobacteria</b>	Support in part	The attribute is appropriate to manage the adverse effects of potentially toxic benthic cyanobacteria. However, as Uu applies year-round this is the most stringent value and should replace Recreation is the critical value column is retained in Schedule 26.	Delete recreation and replace with Uu.
<b>Schedule 26 – attribute states: macrophytes</b>	Support in part	<p>Not all macrophytes create adverse effects (e.g., indigenous macrophytes can be positive indicators of ecosystem health). Submerged nuisance macrophytes (e.g., invasive weeds) however can adversely affect ecosystem health and dissolved oxygen. This should be clarified in the wording of the attribute.</p> <p>Nuisance macrophytes may also have adverse effects on other lowland streams in the TANK catchments, these streams should be included alongside the Karamū catchment. Macrophytes are not included as attributes for the lowland streams in the Ngaruroro, Tūtaekurī or Ahuriri catchments. Schedule 26 should be amended to include all lowland rivers and streams to reduce the potential effects on ecosystems health from nuisance macrophyte growth.</p>	<p>Amend the attribute to:</p> <p>‘Submerged nuisance macrophytes’.</p> <p>Amend FMU to include all lowland rivers and streams in the TANK catchments, not just the Karamū.</p>
<b>Schedule 26 – attribute states: MCI</b>	Support in part	<p>MCI is the macroinvertebrate index which measures the health of benthic macroinvertebrates and is an important indicator of the aquatic life component of ecosystem health. The attribute states are supported and are appropriate. Use of the soft bottomed (sb) MCI for the Karamū catchment is appropriate. There are no attributes for MCI in the Ahuriri catchment and it is unclear whether freshwater values will be provided for there.</p> <p>It is unclear why MCI is in both Schedule 26 and Schedule 27. All attributes should be included in Schedule 26 as setting attribute states to support values (including ecosystem health) is not optional under the NPS FM.</p>	<p>Amend MCI to remove reference to (index) as this is implicit in MCI.</p> <p>Include a sb MCI for Ahuriri otherwise retain attribute states as notified.</p>

TANK PC9 Plan Provision	Position	Reason for position	Relief sought (use <u>underline</u> and <del>strikethrough</del> )
<b>Schedule 26 - attribute states: DIN and DRP</b>	Support in part	<p>Dissolved inorganic nitrogen (DIN) and dissolved reactive phosphorous (DRP) are key nutrients in managing periphyton, macrophyte, cyanobacteria growth and macroalgae in estuaries. The numeric attribute states for DIN appear to be appropriate to provide for ecosystem health in the Ngaruroro, Tūtaekurī and Karamū catchments. However, DRP in the lower Ngaruroro and Tūtaekurī Rivers and tributaries may not be stringent enough to manage periphyton biomass or cover to meet those attribute states.</p> <p>The critical values should be ecosystem health as algal growth is not a freshwater value, it is an attribute.</p> <p>Although DIN and DRP are attributes for estuarine ecosystem health in the Karamū catchment there are no attributes for the Ahuriri catchment and it is unclear how nitrogen or phosphorous will be managed for ecosystem health in the Ahuriri estuary within Schedule 26. Alternatively, include TN and TP attributes for the Karamū and Ahuriri catchments to provide for estuarine ecosystem health in Schedule 26.</p>	<p>Delete 'algal growth' and amend the critical values for DIN and DRP to ecosystem health.</p> <p>Amend the DRP attribute states for the lower Ngaruroro and Tutaekurī Rivers and tributaries to 0.01 mg/L to achieve the objectives for periphyton in these rivers.</p> <p>Include DIN and DRP (or TN and TP) attributes states for the Ahuriri catchment to provide for estuarine ecosystem health.</p>
<b>Schedule 26 – attribute states: nitrate and ammonia</b>	Support in part	<p>Nitrate nitrogen and ammoniacal nitrogen are managed to avoid toxic effects on aquatic life for ecosystem health. However, the concentrations at which nitrogen has adverse effects on ecosystem health are much more stringent than those for toxicity and in all cases for the TANK catchments nitrate and ammonia attribute states will be overridden by dissolved and total nitrogen needed to manage for periphyton, macrophyte, cyanobacteria and estuarine health. The A band toxicity attribute state from the NPS FM for nitrate in the Ngaruroro and Tūtaekurī catchments, and ammonia in all catchments is supported as an important 'backstop' to ensure nitrate and ammonia do not have toxic effects on sensitive aquatic life.</p> <p>The B band nitrate state for the Karamū catchment is not supported as there are indigenous species which may be sensitive to the effects of nitrate in this catchment and the B band reflects protection of only 95% of species. Ammonia toxicity applies the A band to all waterbodies, this</p>	<p>Amend the critical value for nitrate and ammonia from Toxicity (NOF) to ecosystem health.</p> <p>Amend the nitrate attribute state for the Karamū catchment to the NPS FM A band.</p> <p>Amend 'Lowland stream' to 'Lowland tributaries' for consistent use of terms throughout Schedule 26.</p> <p>Include A band nitrate and ammonia attributes for the Ahuriri catchment.</p>

TANK PC9 Plan Provision	Position	Reason for position	Relief sought (use <u>underline</u> and <del>strikethrough</del> )
		should also apply to nitrate so there is a consistent approach to the species protection levels across both toxins.	
<b>Schedule 26 – attribute states: <i>E. coli</i></b>	Support in part	The <i>E. coli</i> attribute states are generally supported as these attribute states are adequate to provide safety for Uu and the NPS FM value of human health. It would be clearer and consistent with national direction if all four attribute states from the NPS FM applied to all catchments. However, there is no <i>E. coli</i> attribute for the Ahuriri catchment. There is significant recreational and cultural use of the estuary (e.g., waka ama). It is difficult to see how human health or other freshwater values requiring contact with or immersion in water will be provided for or how the objective for estuarine <i>E. coli</i> /Enterococci in Schedule 27 will be achieved. <i>E. coli</i> /Enterococci for Ahuriri must sit in Schedule 26.	Apply all four attribute states for <i>E. coli</i> from the NPS FM to all catchments.  Include an <i>E. coli</i> /Enterococci attribute for Ahuriri to achieve a Microbiological Assessment Category B to provide for safe human use of the estuary.
<b>Schedule 26 – attribute states: dissolved oxygen</b>	Support in part	Dissolved oxygen is critical to aquatic life and therefore ecosystem health. The attribute states for the Ngaruroro and Tūtaekurī and tributaries are consistent with the A band from the NPS FM, are appropriate and are supported. For the Karamū catchment dissolved oxygen reflects the national bottom line in the NPS FM. It is unclear whether this is a target in Schedule 26 and low dissolved oxygen has been documented for streams in the catchment (e.g., Raupare Stream). If the attribute reflects the current state of dissolved oxygen in the Karamū, a target set at a higher state (e.g., NPS FM B band) is more appropriate to protect aquatic life and ecosystem health.  There are no dissolved oxygen attributes for the Ahuriri catchment and these are needed in Schedule 26. Setting freshwater objectives to support values is not optional under the NPS FM. If dissolved oxygen attribute states in Schedule 27 are targets they should be included in Schedule 26 and noted as targets.	Delete reference to the 7-day mean min and 1 day min from the Application column – unnecessary duplication.  Amend the attribute state for the Karamū catchment (lowland tributaries) to the B band state from the NPS FM.  Include an attribute state for the Ahuriri catchment at the B band from the NPS FM.  Alternatively, include dissolved oxygen attributes from Schedule 27 in Schedule 26 for lowland tributaries (C band) and Ahuriri.
<b>Schedule 26 – attribute states: temperature</b>	Support in part	Temperature is a critical stressor of aquatic life and ecosystem health. It is unclear what the reference state in Schedule 26 is for temperature in each 'FMU' so it is difficult to see how the temperature change increments might affect ecosystem health and other freshwater values or how they will be measured over time.	Include maximum temperature attributes from Schedule 27 in Schedule 26.  Add a maximum temperature attribute for Karamū (lowland tributaries) and Ahuriri of ≤ 23°C (B band).

TANK PC9 Plan Provision	Position	Reason for position	Relief sought (use <u>underline</u> and <del>strikethrough</del> )
		<p>Management of maximum water temperatures is needed in Schedule 26 rather than Schedule 27. Both maximum temperature and temperature change (because of activities managed by PC9 such as point source or stormwater discharges) are needed in Schedule 26.</p> <p>Maximum temperature attributes for the Karamū and Ahuriri catchments are needed and a temperature change increment should be included for the Ahuriri.</p>	Add a $\leq 3^{\circ}\text{C}$ increment compared to reference state for the Ahuriri estuary to Schedule 26.
<b>Schedule 26 – attribute states: pH</b>	Support	The attribute states are appropriate and supported.	Retain as notified.
<b>Schedule 26 – attribute states: BOD</b>	Support	The attribute states are appropriate and supported.	Retain as notified.
<b>Schedule 26 – attribute states: Metals, metalloids and toxins</b>	Support	The attribute states are appropriate and supported.	Retain as notified.
<b>Schedule 26 attribute states: Nitrate-nitrogen (groundwater)</b>	Support	Nitrate in groundwater can have adverse effects on ecosystem health and aquatic life when it enters surface water systems (as well as the aquatic life of groundwater dependent ecosystems). Managing groundwater quality to avoid toxic effects when it reaches surface water provides some protection for aquatic life in surface water and groundwater dependent ecosystems. This objective applies to all groundwater in the TANK catchments and is supported. However, the quality of groundwater in the Heretaunga Aquifer must not be allowed to degrade where quality is currently better than the attribute state.	Retain as notified and ensure objectives which do not allow degradation of the Heretaunga Aquifer are included in PC9.

TANK PC9 Plan Provision	Position	Reason for position	Relief sought (use <u>underline</u> and <del>striketrough</del> )
<b>Schedule 26 – where the objectives apply</b>	Oppose in part	<p>Given our position that the Ahuriri and Waitangi Estuaries have their own separate FMU's, attributes need to apply to both the Ahuriri and Waitangi FMU's to provide for ecosystem health and other freshwater values.</p> <p>Clarify which FMU the upper Ngaruroro and Tūtaekurī tributaries apply to. Generally, clarify the FMUs with respect to the NPS FM definitions and requirements.</p>	<p>Clarify whether Freshwater Quality Management Units are FMUs as per the NPS FM.</p> <p>Create separate FMU's for both the Ahuriri and Waitangi estuaries and include objectives and targets for all attributes for both FMU's.</p>
<b>Schedule 27</b>	Oppose in part	<p>The setting of freshwater objectives (and targets where objectives are not being achieved) is not optional under the NPS FM. Where waterbodies are not meeting the objectives in Schedule 26 these should be included and specified as targets to be met within a specified timeframe.</p> <p>Where estuarine ecosystem health is degraded, objectives and targets for freshwater must be set having regard to the outcomes for the coastal environment under the NSP FM and to give effect to the NZCPS.</p>	Delete Schedule 27 and include all attributes as freshwater objectives and/or targets in Schedule 26.

**To be Added to PC9:**

**Irrigation Season – minimum flow limits and targets**

Surface Water Body	Minimum Flow Site	Minimum flow when PC9 Operative (l/s)	Minimum flow 01 July 2026	Minimum flow 01 July 2029	Allocatable Volume (m <sup>3</sup> /wk) At 01 July 2029	Total Allocation Rate Limit# (l/s)
Ngaruroro River	At Fernhill Bridge	2,800 (previously 2,400)	3,400 (70%)	4,200 (90 %)	714,269# (previously 956,189*)	1,581 (3,300)
Ngaruroro River	At Motorway Bridge					
Maraekakaho River	At Taits Road	110 (100)	130	150	5,443	9#
Tutaekuri River	At Puketapu	2,400 (2000)	3,000	3,300	687,052# (928,972*)	1,536
Tutaekuri River	At Motorway Bridge	2,300 (new)	2,800	3,000		
Tutaekuri-Waimate	At Goods Bridge	1,200	1,500	1,500	185,704# (367,144*)	607
Karamu River	At Floodgates	1,100	1,400	1,600	200,000# (18,023*)	331 <sup>x</sup>
Awanui Stream	At The Flume	150	150	150	Part of Karamu (0*)	
Awanui Stream	At Pakipaki Culvert	50	50	50	Part of Karamu (0*)	
Karewarewa River	At Turamoe Road	100	125	150	Part of Karamu (0*)	
Paritua Stream	At Raukawa Road	150 (new)	200	256	Part of Karamu	
Irongate Stream	At Clarks Weir	100	125	125	Part of Karamu (0*)	
Louisa Stream	At Te Aute Road	30	45	45	Part of Karamu (0*)	
Mangateretere Stream	At Napier Road	100	125	125	Part of Karamu (0*)	
Te Waikaha Stream	At Mutiny Road	25	35	35	Part of Karamu (-)	
Poukawa Inflow	At Site No. 1 d/s Dam	10	15	15	Part of Karamu (0*)	
Poukawa Inflow	At Site No. 1a u/s Dam	10	15	15	Part of Karamu (0*)	
Poukawa Stream	At Site No. 6	3	10	10	Part of Karamu (0*)	
Poukawa Stream	At Allens Bridge	20	30	30	Part of Karamu (0*)	
Raupare Stream	At Ormond Road	300	300	300	83,844 (83,844*)	138

### New Minimum Flow Sites

Surface Water Body	Minimum Flow Site	Minimum flow when PC9 Operative (l/s)	Minimum flow 01 July 2026	Minimum flow 01 July 2029	Allocatable Volume (m <sup>3</sup> /wk) At 01 July 2029
Mangaone River	At confluence with Tutaekuri	80% trout habitat at MALF 7 d)	85% habitat	90% habitat	
Mangatutu River	At confluence with Tutaekuri	80% trout habitat at MALF 7 d)	85% habitat	90% habitat	
Taruarau River	At confluence with Ngaruroro	80% trout habitat at MALF 7 d)	85% habitat	90% habitat	
Poporangi Stream	At confluence with Ngaruroro	80% trout habitat at MALF 7 d)	85% habitat	90% habitat	
Otamauri Stream	At confluence with Ngaruroro	80% trout habitat at MALF 7 d)	85% habitat	90% habitat	
Kikowhero Stream	At confluence with Ngaruroro	80% trout habitat at MALF 7 d)	85% habitat	90% habitat	
Mangatahi Stream	At confluence with Ngaruroro	80% trout habitat at MALF 7 d)	85% habitat	90% habitat	
Waitio Stream	At confluence with Ngaruroro	80% trout habitat at MALF 7 d)	85% habitat	90% habitat	
Ohiwia Stream	50 m u/s of confluence with Ngaruroro	80% trout habitat at MALF 7 d)	85% habitat	90% habitat	

Ngāti Kahungunu seek corrections/amendments to operative Schedules Va, VI and VIa, and VIb and their inclusion in, and appropriate consideration for their content and intent, in proposed PC9 Schedules, in particular overlays of these operative schedules in the proposed maps.

**Table 2: Schedules/maps from the operative RRMP**

Schedule in operative RRMP	Current references in Schedule	Correct references – NKII seeks specific relief to amend the operative references
Schedule VI Water Short Areas - Ground Water Management Zones ( <i>Water Quantity</i> )	<b>Delete</b> RPS Policy 46 - non-regulatory methods and point source discharges; <b>Delete</b> Rule 49 – discharges to land that may enter water.	<b>Add</b> - RPS Policy 24 Water Allocation; RPS Policy 33 Groundwater Takes within the Vicinity of Surface Water Bodies; RRMP Policy 77 Environmental Guidelines – Groundwater Quantity;  Rule 53 Minor takes and uses of groundwater
Schedule VIa Surface Water Management Zones ( <i>Water Quantity</i> )	<b>Retain</b> RPS Policy 57 – Policy development and consideration of Māori concepts – Mauri, Noa, Rāhui and Tapu;  <b>Delete</b> Rule 50 – Riverbed and Lakebed disturbance by livestock.	<b>Add</b> RPS Policy 35 Regulation – Water Allocation;  <b>Add</b> RPS Policy 43 Groundwater Takes within the Vicinity of Surface Water Bodies
Schedule VIb Catchments sensitive to animal effluent discharges	RPS Policy 20 – Decision making criteria – Agricultural Effluent Discharges Rule 15 – Discharge of animal effluent in sensitive catchments.	<b>Retain</b> RPS Policy 20  <b>Add</b> Policies 8, 17, 19, and 47 to Schedule VIb  <b>Retain</b> Rule 15.

### **New Tangata Whenua Monitoring Schedule to be inserted into PC9**

The new objective and policy sought to be added to PC9 as set out in the body of our submission is to be given effect in part by a new tangata whenua schedule, enabling removal of the 'placeholder' Schedule 26 through two methods (or provisions to similar effect):

- Mātauranga Māori monitoring as determined by hapū
- Taonga Species monitoring developed and facilitated by Ngāti Kahungunu Iwi Incorporated, implemented with hapū / kaitiaki.

The new schedule would be set out as follows with details to be confirmed:

<b>Tangata whenua Method</b>	<b>Freshwater Management Units and Hapū Management Units</b>	<b>Limit or Target</b>	<b>Application</b>	<b>Critical Value</b>	<b>Also relevant for</b>
Mātauranga Maori Monitoring	All areas	tbc	At all times	tbc	
Taonga Species Monitoring	All areas	tbc	At all times	tbc	

**Before an Independent Hearing Panel of the Hawke's Bay Regional Council**

**In the matter of                    the Resource Management Act 1991 (the Act)**

**Proposed Plan Change 9 (PPC9) to the Regional Resource Management Plan**

**Statement of Evidence of Peter Fraser  
on behalf of Ngāti Kahungunu Iwi Incorporated  
Submitter Reference No.120**

**Dated 11 May 2021**

**Introduction**

1. My full name is Peter James Fraser. I hold a BA from Massey (double major in Economics and History), a BCA from Victoria (Commerce), and an MCA from Victoria (Economic History). I operate as Rōpere Consulting and specialise in microeconomic policy analysis.
2. I have previously worked in policy and economics-related roles at The Treasury (1997-2007), Ministry of Agriculture and Forestry Policy (2007-2010), the Department of Building and Housing (2010-2011), the Department of Labour (2011-12), and the Earthquake Commission (2013-2017).
3. I am currently working for Te Tai Kaha, a Māori Collective comprising the NZ Māori Council, the Federation of Māori Authorities, and Kāhui Wai Māori. Te Tai Kaha's role is to engage with Government regarding resource management reform and Māori freshwater rights and interests.
4. I am also a Senior Research Fellow at the Institute of Governance and Policy Studies at Victoria University of Wellington.
5. In terms of private consultancy:

- a. I have advised three independent dairy companies regarding the legislative changes to permit Fonterra's 'Trading Among Farmers' regime and matters of competition policy and milk pricing methodologies more generally.
- b. I have undertaken extensive work regarding the feasibility of water storage projects, with particular reference to the Ruataniwha, Wairarapa and Waimea schemes.
- c. I provided considerable public commentary throughout 2017 regarding the merits and feasibility of water pricing and the application of a water royalty.
- d. I have provided economic-based evidence to the Waitangi Tribunal (Mokai Patea: Wai 2180, Wai 1705, Wai 647, Wai 588, Wai 385, Wai 581, Wai 1888) on behalf of Ngāti Hauiti regarding omissions and commissions of the Crown with reference to entrepreneurship and institutional design.
- e. I have recently provided research to the Waitangi Tribunal on the economic issues faced by late settling iwi in relation to the Porirua ki Manawatū Inquiry on behalf of Te Hono ki Raukawa.
- f. I have provided expert evidence on the following occasions:
  - i. 2016 – On behalf of the Coal Action Network to the Canterbury Regional Council and the Waimate District Council in the matter of resource consents CRC160871, CRC160872, CRC160873, CRC160874, CRC160875, CRC160876, CRC160940, and RMA150031 related to the expansion of Fonterra's milk processing plant at Studholme
  - ii. 2018 – On behalf of Ngā Kaitiaka o Ngāti Kauwhata Incorporated, ENV-2017-WLG-00017: An Appeal by AFFCO New Zealand Limited under section 120 for an application for resource consent in relation to the discharge of meatworks effluent to land and the Oroua River
  - iii. 2019 – On behalf of CNI Iwi Land Management Limited (and others), ENV-2017-334-000003: An Appeal to proposed Plan Change 10 (Lake Rotorua Nutrient Management) to the Bay of Plenty Regional Water and Land Plan

6. I am frequently called upon to provide commentary relating to agricultural and irrigation issues for Radio New Zealand, Television New Zealand, Newshub, Stuff, and *Al Jazeera*.
7. My primary iwi affiliation is to Ngāti Hauiti ki Rangitīkei, though I have whakapapa links to Ngāti Toa, Ngāti Raukawa, Te Ati Haunui-a-Pāpārangi, Ngāti Kahungunu, and Ngāpuhi.
8. I confirm that I have read the 'Code of Conduct' for expert witnesses contained in the Environment Court Practice Note 2014. My evidence has been prepared in compliance with that Code. In particular, unless I state otherwise, this evidence is within my sphere of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.
9. For clarity, this evidence has been prepared based on limited preparation time, and a relatively narrow brief. The scope of my evidence is identified below, in short, to evaluate the relevance of the PowerPoint presentation by Anthony Cole, produced as a Social Impact Assessment, and relied on by Council in the s42A report to “..*demonstrate that increasing minimum flows would have a negative adverse impact socially and culturally..TANK Catchment communities characterised by high levels of welfare and by high levels of Māori population ethnicity would be at risk..*”<sup>1</sup> I understand from Counsel that “minimum flows” is a key issue in the Plan Change 9 process.
10. I have provided a macro-economic and strategic perspective on Mr Cole’s Social Impact Assessment. My evidence is not a full assessment of the relevant macro-economic dimensions of Plan Change 9, as these affect Ngāti Kahungunu (as the tangata whenua that exercises rangatiratanga and kaitiakitanga over the TANK catchments). In preparing this evidence, I have not reviewed background material, other than Mr Cole’s powerpoint, the s42A report, and the 2018 report prepared on economic impacts for the TANK catchments.<sup>2</sup> I will update my position when presenting evidence.

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<sup>1</sup> Cited in the s42A report at para [189] and footnote 7 in relation to Economic Impacts of Plan Change 9.

<sup>2</sup> Economy-wide Impacts of Proposed Policy Options for the TANK Catchments. Market Economic Research, 20 August 2018, cited in the s42A report at para [185] and footnote 5.

## Discussion

- 11 The primary focus of my evidence is the decision by HBRC to use data provided within a PowerPoint presentation titled "Social and Cultural Assessment - TANK Catchments" by Anthony Cole to argue that reducing the allocation of water to commercial, agricultural and industrial users (such as irrigators) will be detrimental to the cultural wellbeing of Maori due to the resulting reduction in economic activity thereby diminishing employment and employment opportunities for Maori. The result is an already materially deprived community is potentially made (even) worse off, which is then used to argue for the continuance of the status quo.
- 12 The s42A assessment cross-references (and appears to uncritically rely on) Mr Cole's powerpoint when discussing the economic, social and cultural impact of Plan Change 9, including on Ngāti Kahungunu, and Māori communities more generally.
- 13 For context, the s42A report states as follows:

### **"Discussion**

185. An economic impact assessment report<sup>5</sup> that looked at horticulture and farming scenarios was completed in August 2018. The report looked at direct impacts and flow on impacts from the policy options in PPC9 for the scenarios. The results of the analysis showed that the impacts varied over 30 years, they varied between the scenarios and losses were not experienced over the entire years of analysis. The analysis also showed that the value added impact is considerable for the horticulture and fruit growing industry but that direct impacts on employment were relatively low. However, employment impacts were found to be mostly felt indirectly through impacts to processing and services, and then in less spending by affected households.

186. Section 32 (2) (a) of the RMA requires the Council to consider environmental, economic, social and cultural effects that are anticipated from the implementation of provisions, including the opportunities for economic growth and employment. The Section 32 Report for PPC9 includes information from the economic assessment report to outline the economic effects that are anticipated from the PPC9 provisions.

187. The Council also needs to consider the hierarchy of obligations under Te Mana o te Wai which is found in section 1.3 (5) of the NPSFM2020. This hierarchy states that the health and well being of water bodies and freshwater ecosystems comes first, the health needs of people comes second and the ability of people and communities to provide for their social, economic and cultural well-being comes third.

188. Most of the submission points in this section do not seek relief, they are concerned that the Council has not considered economic impacts. Two submission points have asked for an economic analysis to be undertaken. I am recommending to accept in part these submission points because an economic assessment was undertaken. The rest of the submission points are worried about compliance costs, adverse effects and providing employment. The impacts of PPC9 will be varied, they will change over the years and there will be little direct impact on employment. We also need to consider other analysis which has shown that the Heretaunga Aquifer is over allocated<sup>6</sup> which means we need to ensure the hierarchy of obligations in the NPSF2020 is met. I recommend that the rest of the submission points in this section are rejected as economic impacts are only one

impact that we need to consider. The Council also needs to consider environmental, social and cultural effects.

189. Two submission points that were discussed in Section 12.3 seek that cost is not a reason to not manage freshwater and that higher weighting has been given to economic development over the years than impacts on freshwater. These two points counteract the points in this section. Furthermore, a Social Impact Assessment<sup>7</sup> was undertaken which demonstrated that increasing minimum flows would have a negative adverse impact socially and culturally. TANK Catchment communities characterised by high levels of welfare and by high levels of Māori population ethnicity would be at risk.

<sup>5</sup> Economy-wide Impacts of Proposed Policy Options for the TANK Catchments. Market Economic Research, 20 August 2018

<sup>6</sup> P Rakowski: Heretaunga Aquifer Groundwater model – Scenarios Report August 2018

<sup>7</sup> Social and cultural assessment TANK catchments, Anthony Cole - <https://www.hbrc.govt.nz/assets/Document-Library/TANK/TANK-Key-Reports/Social-and-Cultural-Impact-Assessment-TANK-Catchments-Powerpoint-Dr-Cole-June-2020.pdf>

- 14 The s42A report relies on Mr Cole's powerpoint when referring to submission points that criticise the Council (as proponent of Plan Change 9) for failing to undertake an economic assessment, as part of a wider cost-benefit analysis anticipated by s32 RMA.
- 15 At the level of principle, I endorse this criticism.<sup>3</sup> The 2018 Market Economics report was prepared prior to notification of Plan Change 9. Therefore it cannot provide an assessment of the relevant economic costs and benefits of the specific provisions set out in Plan Change 9, including relevant economic impacts on Ngāti Kahungunu, in their exercise of rangatiratanga and kaitiakitanga over their ancestral waters and taonhga. From a macro-economics perspective, the absence of an updated economic assessment appears to be a flaw in Plan Change 9 as notified.
- 16 Returning to Mr Cole's powerpoint, I have not examined the accuracy of Mr Coles's data - I have simply assumed the material contained within his presentation is factually correct. In short, my concern rests with how Mr Cole's data has been relied on by the s42A report, rather than the validity of the data itself.
- 17 From an economics perspective, I have the following concerns with the approach taken in the s42A report:

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<sup>3</sup> My written evidence does not respond in detail to the 2018 Market Economics Report; I anticipate updating my position at the hearing.

17.1 *Lack of evidential support:* At the core of the decision to favour the status quo is an argument about the prospective impact of a negative economic shock on a particular community due to increased minimum flows in the TANK catchments (and commensurate lower abstraction) - in this instance, Māori. I note the s42A report has not provided any theoretical and/or empirical evidence (or economic analysis) outlining the different scenarios and/or the timeframe such a shock may take. Critically, it appears no such analysis informed either the original decision or has been used to support it subsequently. The result is essentially an assertion (of adverse social and cultural impacts) masquerading as an argument.

17.2 *Failure provide an updated cost-benefit analysis as per s32 of the RMA.* A decision to reduce the amount of water that can be abstracted for commercial, agricultural and industrial uses will have a range of economic, social, cultural and environmental impacts - both positive and negative. From an economic perspective, this is where cost benefit analysis can be useful in informing decision-making. As noted, any assessment of cost-benefit needs to be updated in light of the actual provisions proposed.

17.3 *Failure to take adequate account of the 2020 NPS - FW.* The 2020 FW NPS introduces Te Mana o te Wai as the fundamental tool to manage freshwater allocation. Te Mana o te Wai gives first priority to the health of the waterbody from which the abstraction is occurring with commercial, agricultural and industrial uses being priority 3 (with human need being priority 2).

17.4 *Counsel advises me that Ngāti Kahungunu Iwi Inc's position as a submitter is that there needs to be an urgent re-allocation from tier 3 or tier 1 (to give effect to Te Mana o te Wai).*<sup>4</sup> In reliance on that submitter position, and from a public policy perspective, the economic problem is how to achieve this in a least cost fashion thereby minimising the degree of economic harm. The s42A report appears to rely on vague or unsubstantiated concerns about Māori

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<sup>4</sup> Whether that is appropriate involves wide range of considerations, not limited to macro-economics, so my position is limited to the implications of this submitter position.

employment to justify a status quo position that does not increase minimum flow.

*17.5 Failure to take adequate account of historical inequities in water allocation to Māori, as outlined in the Waitangi Tribunal Inquiry into Geothermal and Freshwater Resources (WAI 2358).* The RMA allocation system of “first in, first served” has caused significant equity problems for Māori - and in many instances it has meant Māori have missed out completely in terms of accessing tier 3 water for activities such as development of under-utilised land. To this end, the status quo is disadvantageous for Māori and its continuance perpetuates historical inequalities and inequities - which is negative in terms of Māori wellbeing.

*17.6 The creation of a false dichotomy by collapsing Maori wellbeing into a subset of regional economic activity.* The argument juxtaposes economic, social and cultural values into a false dichotomy where Māori are effectively forced to choose between two impossible choices: jobs or the environment - thereby creating a simplified binary option, when the actual situation is likely to be different. Indeed, the investigation of sustainable development opportunities may well result in an 'and' outcome where Māori economic aspirations and cultural values (social and cultural wellbeing) can both be simultaneously achieved.

*17.7 Logical inconsistency and wider context.* The reliance placed on the s42A report does not necessarily or naturally flow from the material contained within Mr Cole's presentation. For example, in slide 3 Mr Cole states that recommendations are made that outline "how this risk [i.e. reduced water for commercial, agricultural or industrial uses] might be mitigated, reduced or possibly avoided". The s42A report may have cherry-picked sections of the presentation that suit its arguments but in doing so has lost the original context the information was provided in.

*17.8 Implicit reliance on 'trickle down' economics.* HBRC's argument relies on the notion of 'trickle down economics'; or that policies that will benefit the more wealthy and affluent members of society will

benefit all - including the more deprived parts of the community - through increased economic activity and employment generation. There is no empirical support for the first argument (and strong support for increases in wealth and/or income inequality); and in the case of the second, it depends on the type of jobs generated. For example, an increase/decrease in fruit picking jobs is likely to benefit/harm RSE workers from overseas than Māori living at Bridge Pa.

**Dated this 11<sup>th</sup> day of May 2021**

**Peter Fraser**