

# DECISION OF THE INDEPENDENT HEARING PANEL

## PROPOSED PLAN CHANGE 9

Tūtaekurī, Ahuriri, Ngaruroro, Karamū Catchments

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

**August 2022**

**Commissioners:**

Antoine Coffin (Chair)

Dr Brent Cowie

Rauru Kirikiri

Dr Roger Maaka

Dr Greg Ryder

## Contents

<b>Chapter 1 – Introduction</b>	<b>6</b>
Appointment of Hearing Panel and Delegations	6
Notification of Hearings and Council Officers Reports	6
Site Visit	6
Hearing Appearances	7
Conflicts of Interest	7
Procedural Matters and Late Submissions	7
Key Dates in Process	10
Background to PPC9	10
– Engagement with tangata whenua and Community	12
Relevant Statutory Provisions and Plans Considered	15
– RMA 1991	15
– Essential Freshwater Rules and Regulations 2020	16
– National Policy Statement for Freshwater Management 2014	16
– National Policy Statement for Freshwater 2020	16
– National Environmental Standards for Freshwater 2020	18
– Resource Management (Stock Exclusion) Regulations 2020	18
– Resource Management (Measurement and Reporting of Water Takes) Regulations 2020	19
Other Relevant National Instruments	19
– NPS Renewable Electricity Generation 2011	19
– NZ Coastal Policy Statement 2010	19
– NPS for Urban Development 2020	19
– National Environmental Standard for Sources of Human Drinking Water 2007	20
– National Environmental Standard for Plantation Forestry 2017	20
– National Water Conservation Orders	20
Regional Policy Documents	20
– The Hawke’s Bay Regional Planning Committee Act 2015	20
– Hawkes Bay Regional Policy Statement	21
– Iwi Planning Documents	21
Section 32AA	22
– Further Evaluation Report	22
– Evaluation Duties	22
– Reasonably Practicable Options	24
Structure of the Decision	24
– Grammar and Numbering	25
Ngā Kōrero o te Hunga Kāinga	26
– Te Rohe	26
– Tikanga	26
– Mangaroa Marae	27
– Ngā Kōrero	27
– Ngā Tuhinga Kōrero	29
<b>Chapter 2 - Preliminary Issues</b>	<b>30</b>
Consideration of Alternatives	30
Consistent Amendments of Terminology to Align PPC9 with Subsequent Changes to NPSFM and RMA	31
Repetitive or Pro-forma Submissions	32
Consultation Undertaken to Develop PPC9	35

– Tangata Whenua and Community Consultation	35
– What we heard or did not hear at the hearings	36
The National Environmental Standards (NES-F) 2020	39
Submissions on Giving Effect to NPSFM 2020	41
Freshwater Management Units (FMUs)	43
Nitrogen Leaching Models	47
Chapter 3 - General Objectives and Policies	50
OBJ TANK 1	51
OBJ TANK 2	51
POL TANK 1-5	53
POL TANK 1	53
POL TANK 2, 4 and 5	54
Chapter 4 - Surface Water Quality & Land Management	56
Existing Water Quality in the TANK Catchment	57
Water Quality Target Attribute States in the TANK Catchments	58
OBJ TANK 4 and 5	58
Catchment Based Objectives	59
OBJ TANK 14	61
Schedule 26	62
– Compliance with the NPSFM 2020	64
– Discussion and Findings – Macroinvertebrate Community “Health”	68
Recommended Target Attribute States for Other Parameters	69
Processes to Achieve Target Attribute States	71
Riparian Management	72
Management of Phormidium	72
Managing Adverse Effects on Land Use on Water Quality	73
“Adaptive Approach” to Nutrient and Contaminant Management	77
POL TANK 17	77
POL TANK 18	79
Sediment Management	79
POL TANK 20	80
POL TANK 21	81
Land Use Rules in PPC9	82
POL TANK 22 and the NES-F Stock Exclusion Regulations	86
Industry Programmes and Catchment Collectives	87
POL TANK 23 and 24	87
POL TANK 25 and 26	88
POL TANK 27	89
Schedule 29 and 30	89
Schedule 29: Land Use Change	89
Schedule 30: Landowner Collective, Industry Programmes and Freshwater Farm Plans	92
Chapter 5 - Management of the Heretaunga Plains Aquifer	96
Appendix 11	96
The Aquifer	98
Hydrology of the Aquifer	101
Long Term Trends in Groundwater Levels	104
Current Allocations of Groundwater	104
Current Uses of Groundwater	105

Principal Issues to be Resolved	108
The “interim allocation limit”	108
The Definition of the Actual and Reasonable Use Test	109
Objectives and Policies	111
OBJ TANK 14	111
Heretaunga Plains Aquifer Management	112
POL TANK 36	112
POL TANK 37	113
– Commercial Users	115
– Large Commercial Growers	117
– Horticulture New Zealand (HortNZ)	119
– The Winegrowers	121
– Overall Discussion of the Summarised Evidence	123
– Overall Findings on POL TANK 37	125
– Is it a Limit?	125
– The Quantum of the “interim allocation limit”	126
POL TANK 52	128
POL TANK 38	131
POL TANK 42	131
Chapter 6 - Surface Water Quantity	132
Objectives	133
Policies	134
POL TANK 36	134
POL TANK 37	134
POL TANK 39	134
POL TANK 40	136
POL TANK 41	137
POL TANK 42	138
POL TANK 43	138
POL TANK 44	139
POL TANK 45	140
POL TANK 48	141
POL TANK 51	142
POL TANK 53	142
Rules	142
Hydrology and Minimum Flows in the TANK Catchments	143
– Key issue: Stream depletion	144
– Minimum Flow Setting and Schedule 31	144
Chapter 7 – High Flow Allocation	153
Objectives	153
Approach to High Flow Allocation in PPC9	155
Policies	156
POL TANK 54	156
POL TANK 55	158
POL TANK 56	159
POL TANK 57	159
POL TANK 58	160
POL TANK 59	160
POL TANK 60	162

Rules	162
Schedule 32 High Flow Allocation	164
– Glossary	165
Chapter 8 - Priority Allocation Framework	167
OBJ TANK 16	167
POL TANK 50	168
POL TANK 51	171
Chapter 9 - General Water Quantity Management	173
Rules for Taking and Using Surface and Groundwater	173
Rules TANK 9 and 10	176
Rule TANK 11	178
Rule TANK 12	178
Rules for Stream Flow Maintenance and Habitat Enhancement Schemes	180
Water Allocation - Permit Duration POL TANK 49	183
Policy 53 - Frost Protection	184
Chapter 10 - Source Protection Zones	190
OBJ TANK 9	191
Protection of Source Water	192
POL TANK 6	192
POL TANK 7	192
POL TANK 8	193
POL TANK 9	193
Source Protection Zone Maps	193
Rules in the RRMP for Source Protection	194
Chapter 11 - Stormwater Management	196
POL TANK 28	196
POL TANK 29	198
POL TANK 30	198
POL TANK 31	199
Rules TANK 19-23	201
Chapter 12 – Wetland Management	204
OBJ TANK 15	204
POL TANK 3	204
POL TANK 14	205
POL TANK 15	205
Chapter 13 – Other Objectives, Policies and Rules of PC9	206
Monitoring and review – POL TANK 33-35	206
Water use and efficiency POL TANK 46 and 47	207
POL TANK 46	207
POL TANK 47	207
Climate change OBJ TANK 3 and POL TANK 61	208
Management of Point Source Discharges	209
Rules in the RRMP	210
Schedule 33: Water Permit Expiry Dates	211

Chapter 14 – Glossary	214
Chapter 15 - Statutory Considerations	217
Chapter 16 - Overall Decision	219

## Summary

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

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

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



## Abbreviation and Glossary of Terms Used in this Decision

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

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

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

## Chapter 1 – Introduction to PPC9

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

### Appointment of Hearing Panel and Delegations

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

### Notification, Hearings and s42A Reporting Officers’ Reports

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

### Site Visit

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

<sup>1</sup> Meeting of the Regional Planning Committee. 19 August 2020.

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

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

## Hearing Appearances

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

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

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

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

1.30 There were no transcripts of the proceedings.

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

## Conflicts of Interests

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

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

## Procedural Matters and Late Submissions

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

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

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

## Key Dates in the Process

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

## Background to PPC9

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



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

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

<sup>2</sup> Section 42A Report. paragraphs 26-30. pages 10-11

<sup>3</sup> Section 42A Report. paragraphs 43 & 44. page 14

- Heretaunga Plains stream flow maintenance and habitat enhancement scheme.<sup>4</sup>

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

- Actual and Reasonable
- Affected Stream
- Allocation limit for surface water
- Allocation limit for Groundwater
- Allocation limit for high flow takes
- Applicable stream flow maintenance scheme
- Aquifer testing
- Essential human health needs
- Farm Environment Plan
- Farming Enterprise
- Forestry Management Plan
- Fre<sup>3</sup>
- Hapū
- Heretaunga Plains Groundwater Model
- Indigenous vegetation
- Infrastructure Leakage Index
- Kaitiakitanga
- Ki uta ki tai
- Mahinga Kai
- Māori
- Marae
- Mātauranga Māori
- Mauri
- Papakāinga
- Pastoral land use
- Registered Drinking Water Supply (or Supplies)
- River
- Source Protection Zone (SPZ)
- Source Protection Extent
- Stream Depletion Calculator
- TANK Industry Programme or a TANK Catchment Collective
- Waka ama<sup>5</sup>

#### *Engagement with Tangata Whenua and Community*

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

<sup>4</sup> Section 42A Report. paragraphs 45 & 46. page 14

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

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

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

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

<sup>6</sup> Section 42A Report. Paragraphs 31-36. Pages 11-12.

<sup>7</sup> Section 42A Report. Paragraph 38. Page 13

<sup>8</sup> Section 42A Report. Paragraph 39. Page 13

<sup>9</sup> Section 42A Report. Paragraph 40. Page 13

## Relevant Statutory Provisions and Plans Considered

### *RMA 1991*

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

<sup>10</sup> Section 32 Evaluation Report. pages 9-16

<sup>11</sup> Section 32 Evaluation Report. pages 9-16

#### *Essential Freshwater Rules and Regulations 2020*

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

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

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

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

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

#### *National Policy Statement for Freshwater (NPS-FM) 2020*

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

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

1.80 Case law establishes that the extent to which it is reasonably practicable for the provisions of PPC9 to give effect to the NPS-FM 2020 is confined by the scope within the submissions to make changes to PPC915. PPC9 does not need to (and cannot) give full effect to the NPS-FM 2020, as full effect cannot be given to the NPS-FM 2020 until the Regional Council has worked through the various implementation steps in Part 3 of the NPS-FM 2020. However, the Panel has attempted to give effect to the NPS-FM 2020 to the extent that it is able within the scope of submissions on PPC9, and based on the merits of the submissions themselves, recognising that remaining conflict between the NPS-FM 2020 and the RRMP will then fall to the Regional Council to resolve in other proceedings. Section 80A(4)(b) of the RMA states that where a freshwater planning instrument has the purpose of giving effect to the NPS-FM 2020, it has to be notified by 31 December 2024.<sup>12</sup> The Regional Council is presently working on this new plan, which is known as the “Kotahi Plan”.

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

<sup>12</sup> Section 42A Report. Paragraphs 54-61. Pages 15-16

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

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

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

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

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

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

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

<sup>13</sup> Section 42A Report. Paragraph 57, page 16.

<sup>14</sup> Section 42A Report. Paragraph 58, page 16.

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

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

*National Environmental Standards for Freshwater 2020*

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

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

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

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

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

*Resource Management (Stock Exclusion) Regulations 2020*

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

- 1.91 The Reporting Officers in the Section 42A Report recommend deleting POL TANK 22, Rule TANK 3 and Rule TANK 4 from PPC9 because these provisions are covered by the Stock Exclusion Regulations 2020.<sup>17</sup> In accordance with s44A of the RMA, the Panel is required to remove any duplication or conflict with a national environmental standard without using the process in Schedule 1.

<sup>15</sup> Section 42A Report. Paragraph 60, page 16.

<sup>16</sup> Section 42A Report. Paragraphs 62-63, pages 16-17

<sup>17</sup> Section 42A Report. Paragraphs 64-65, page 17



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

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

### Other Relevant National Instruments

#### *NPS Renewable Electricity Generation 2011*

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

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

*h) whether the proposal provides for renewable electricity generation.<sup>19</sup>*

#### *NZ Coastal Policy Statement 2010*

1.94 The New Zealand Coastal Policy Statement (NZCPS) has relevance to PPC9 as each of the TANK Catchments flow into the coastal marine area through the Ahuriri and Waitangi Estuaries. OBJs TANK 7 and 10, and POLs TANK 18 and 19 of PPC9 seek to manage effects on the coastal environment in a manner that gives effect in part to the NZCPS Objectives 1, 3 and 6.<sup>20</sup> We note that the Hawkes Bay Coastal Environment Plan was notified in 2006, a decision issued in 2008, however was made operative in 2014. As such the HBRC does not have a coastal plan that gives effect to the NZCPS 2010.

#### *NPS for Urban Development 2020*

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

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

<sup>18</sup> Section 42A Report. Paragraph 66, page 17

<sup>19</sup> Section 42A Report. Paragraph 67, page 17

<sup>20</sup> Section 42A Report. Paragraph 69, page 17

#### *National Environmental Standard for Sources of Human Drinking Water 2007*

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

#### *National Environmental Standard for Plantation Forestry 2017*

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

#### *National Water Conservation Orders*

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

### Regional Policy Documents

#### *The Hawke's Bay Regional Planning Committee Act 2015*

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

<sup>21</sup> Section 42A Report. Paragraphs 73-74, page 18

<sup>22</sup> Section 42A Report. Paragraphs 76-77, page 18.

<sup>23</sup> RMA, ss 62(3), 67(4) and 75(4).

<sup>24</sup> Section 42A Report. Paragraphs 85, page 19

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

#### *Hawke’s Bay Regional Policy Statement*

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

#### *Iwi Planning documents*

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

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

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

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

<sup>26</sup> Section 42A Report. Paragraphs 86, page 19

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

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

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

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

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

## SECTION 32AA

### *Further Evaluation Report*

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

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

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

#### *Evaluation Duties*

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

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

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

#### *Reasonably Practicable Options*

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

#### *Structure of the Decision*

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

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

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

#### *Grammar and Numbering*

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



## Ngā Kōrero o te Hunga Kāinga

### *Te Rohe*

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

### *Tikanga*

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

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

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

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

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

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

*"Ko au te awa, ko te awa ko au"*

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

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



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

#### *Mangaroa Marae*

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

#### *Ngā Kōrero*

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

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

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

*Ngā Tuhinga Kōrero*

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

## Chapter 2 – Preliminary Issues

### Introduction

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

### Consideration of Alternatives

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

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

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

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

2.6 These amendments include:

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

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

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

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

### Repetitive or Pro-forma Submissions

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

2.9 These proforma or repetitive submissions points include:

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

- h) Orchardists, nurseries and other water user submissions on POL TANK 23 and 24 seeking amendments to provisions to align with industry schemes and GAP schemes. Some 35 submitters have also sought the same amendments to the rules for farm plans and 37 submitters sought the same amendments to Schedule 26 Freshwater Quality Objectives, and Schedule 28 Priority Catchments and Schedule 29: Land Use Change and Schedule 30.
- i) Winegrowers and other submissions seeking specific amendments to POL TANK 36 (f).
- j) A large number of submissions seeking deletion of 'actual and' from actual and reasonable in POLs TANK 36, 46, 52, the rules for water take and use and Chapter 9 - the Glossary of Terms Used and Schedule 31: Flows, Levels and Allocation Limits.
- k) Winegrowers' and other submissions on POL TANK 37 seeking specific amendments to the date for the ten-year period of assessment for actual and reasonable use from August 2017 to 30 June 2020.
- l) A very large number of repetitive submissions on POLs TANK 37 and 38 regarding circumstances in which any available water within the interim allocation could be re-allocated before a review of the relevant allocation limits is undertaken.
- m) Nursery and orchard submissions on flow maintenance seeking flow maintenance requirements and Schedule 36, only applying to lowland streams where it is feasible.
- n) Orchardists and other submitters seeking a requirement for the Regional Council to develop flow maintenance schemes rather than consent applicants.
- o) Winegrowers' and other submissions on POL TANK 39 supporting an alternative approach to the requirements in POL TANK 39 including a jointly funded collective stream flow maintenance schemes on suitable lowland streams, facilitated by HBRC.
- p) Over 30 submissions have sought POLs TANK 48 and 52 provide for transfers of all water permits exercised should be enabled. Thirty-six submitters including a number of orchardists sought the same amendments to the rules of the RRMP, specifically RRMP Rules 61, 62, 62a and 62b.
- q) Some 30 submissions from orchardists, nurseries and others on POL TANK 51 sought very specific amendments to add their particular group to the membership of the emergency water management group.
- r) Over 30 submitters have sought a specific exemption in POLs TANK 51 and 52 to allow up to 20m<sup>3</sup> to continue to be taken per day to assist the survival of permanent horticultural crops. 39 submitters sought the same amendments to the rules for water take and use.
- s) Over 38 submitters, including nurseries, orchardists and farmers have sought in POLs TANK 54, 55, 56 and 57; a revisiting of the allocation limit and that high flow allocations are specified for Karamū and Ahuriri Catchments. Many of the same submitters have made the same submission points multiple times in relation to the rules for Damming and Storage and Schedule 32: High Flow Allocation.

- t) Some 29 submissions seeking that POL TANK 59 be re-written to distinguish clearly between water for environmental enhancement and water for Māori development, reduce the proposed Māori development reservation for the Ngaruroro River from 1600L/s to 1200L/s in line with the 20% new water allocation agreed by the TANK Group and remove the presumption that the private sector will fund the infrastructure costs in relation to exercise of the Māori development portion of the high flow allocation.
- u) A large number of submissions regarding Rules TANK 5 and 6, in particular 6.10.1 - Use of production land. These submissions sought two things, one more clarity on how the Regional Council will control land-use change in a water quality control unit and two, adjusting the grape kg/ha/yr for all soils to recognise winter sheep grazing rotation.
- v) Some 38 submitters have sought two changes to land-use change rules, namely nutrient management at a catchment level and a definition of changes to production land.
- w) A large number of submitters sought similar changes to Schedule 30: Landowner Collective, Industry Programme and Farm Environment Plan. These were requests to better align its requirements to work with Industry Programmes, and to be less prescriptive.

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

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

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

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



## Consultation Undertaken to Develop PPC9

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

### *Tangata Whenua and Community Consultation*

- 2.15 The submissions on consultation covered three areas: specifically, that consultation undertaken by the Regional Council with tangata whenua was inadequate, a range of water users wanted the Regional Council to lead consultation with them in the implementation of PPC9, and similarly submitters were seeking consultation on how provisions applied to specific locations.
- 2.16 Pene Charmaine raised concerns regarding lack of consultation with tangata whenua generally but sought no relief.<sup>5</sup> Rangi Morell of Mangaroa Marae raised concerns relating to lack of consultation with Ngāti Ruhanga i te Rangi, dismissal of the Karewarewa Water Plan, water quality, water quantity, and allocation<sup>6</sup>; and Derek Huata of Takitimu Māori District Council listed concerns relating to allocation of water, recognition of tangata whenua and proprietary rights, economic wellbeing, and the TANK development/consultation process.<sup>7</sup>
- 2.17 Hira Huata of Mangaroa Marae Committee and Ngā Marae o Heretaunga implied that PPC9 should acknowledge and be inclusive of the rangatiratanga of the hapū and marae communities in Heretaunga. Hira Huata also raised concerns relating to the plan making/consultation processes and water allocation.<sup>8</sup> Des Ratima for Takitimu District Māori Council submits that PPC9 does not meet the terms of consultation and frame working the resource management processes and does not provide any clear indication where Māori were provided the role and authority to contribute to a solution of water management.<sup>9</sup>
- 2.18 Mark Kenneth raised concerns relating to the timing of consultation.<sup>10</sup> Mark Laurenson for the Oil Companies, Peter Matich for Federated Farmers sought a specific amendment for consultation with landowners and occupiers<sup>11</sup> and existing water permit holders and discharge consent holders in the Source Protection Zone.<sup>12</sup> Keith Marshall for Napier City Council sought

<sup>2</sup> s32 Evaluation Report. Pages 45-64

<sup>3</sup> HBRC Closing Statement. Para 4-6

<sup>4</sup> POLs TANK 7, 8, 9, 41, 57, 59 and 60

<sup>5</sup> sub point 139.2

<sup>6</sup> sub point 174.2

<sup>7</sup> Sub point 181.1

<sup>8</sup> Sub point 182.4

<sup>9</sup> sub point 4.3

<sup>10</sup> sub point 236.1

<sup>11</sup> sub point 203.9

<sup>12</sup> Sub point 195.35

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

- 2.19 Trevor Robinson, counsel for Lowe Corporation, sought a 'Council commitment to assess and develop stream augmentation options in consultation with all sectors of the community including iwi that are efficient, cost effective, and which ensure satisfactory ecosystem outcomes in the surface water bodies affected by groundwater takes from the Heretaunga Aquifer during summer low flow periods'.<sup>14</sup>
- 2.20 Tom Kay for Forest and Bird sought a provision for tangata whenua consultation when considering transferring use and takes for POL TANK 48.<sup>15</sup>
- 2.21 Philipa McVeagh for NZ Apples and Pears suggested exploring the development of Landowner Collective, Industry Programme and Farm Environment Plan schemes in a progressive manner by HBRC, in consultation with affected growers.<sup>16</sup>
- 2.22 Alexander Macphee has submitted that there had been no consultation on Maraekakaho River flows levels and allocation limits and no reason given. Mr Macphee sought they should be restored to the original level.<sup>17</sup>
- 2.23 Te Tumu Paeroa submitted that they 'strongly encourage more consistent engagement with the Māori Trustee to ensure appropriate consultation with our landowners, who by inheritance are Tangata Whenua and intrinsic members of Hapū and Iwi within the TANK catchment area strongly encourages the Hawkes Bay Regional Council to understand these values from our landowners perspective and ensure these values and attributes (described by Iwi) and reflected in the criteria and the outcomes sought by Proposed PC9- TANK.'<sup>18</sup>

*What we heard or did not hear at the hearings*

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

<sup>13</sup> sub point 63.60

<sup>14</sup> sub point 82.13

<sup>15</sup> sub point 210.69

<sup>16</sup> sub point 216.22

<sup>17</sup> sub point 116.9

<sup>18</sup> Submission point 113.3

<sup>19</sup> Marei Apatu EIC. Page 13.

<sup>20</sup> Marei Apatu EIC. Page 14.

<sup>21</sup> Maurice Black EIC. Paragraphs 30, 33, 35, pages 7-8.

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

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

#### *Discussion and Findings*

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

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

<sup>22</sup> Ngaio Tiuka EIC. Para 126. Page 44.

<sup>23</sup> Ngaio Tiuka. Para 151. Page 49.

<sup>24</sup> Ngaio Tiuka. Para 97. Page 51.

<sup>25</sup> Section 42A Report. Para 337

<sup>26</sup> Section 42A Report. Para 338

<sup>27</sup> Section 42A Report. Para 323

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

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

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

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

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

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

<sup>28</sup> Section 42A Report. Para 320

<sup>29</sup> Section 42A Report. Para 319

<sup>30</sup> Appendix 5 to s42A Report

<sup>31</sup> Section 42A Report. Para 321

<sup>32</sup> Section 42A Report. Para 342

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

### The National Environmental Standards (NES-F) 2020

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

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

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

<sup>34</sup> These are the regulations that control winter grazing of dairy cattle.

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

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

#### *Discussion and Findings*

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

#### *Submissions on Giving Effect to the NPS-FM 2020*

- 2.51 A large number of submissions have sought that PPC9 should give effect to the NPS-FM 2020.
- 2.52 The Regional Council (and the Panel by delegation<sup>36</sup>), is required to give effect to the NPS-FM 2020 as soon as reasonably practicable.<sup>37</sup> Part 4 of the NPS-FM 2020 contains timing and transitional provisions. Relevantly, Clause 4.1(1) provides:

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

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

<sup>35</sup> RMA, ss 44A(5) and 44A(2)(b).

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

<sup>37</sup> RMA, ss 55(2D)(b) and 67(3)(a)

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

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

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

<sup>39</sup> [2014] NZHC 3191.



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

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

### Freshwater Management Units (FMUs)

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

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

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

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

- 2.66 A key component of this definition is that each FMU forms the basis for freshwater management and accounting purposes. This is an exhaustive process. Sections 3.9 to 3.11 of the NPS-FM 2020 directs that the regional council must for each FMU (*inter alia*):

- a) Consider the compulsory values in Appendix 1A, together with requirements to address the values that apply to each of the five biophysical components of the value “ecosystem health”;<sup>42</sup>
- b) Consider any other values, including at the least those included in Appendix 1B;<sup>43</sup>
- c) Set an environmental outcome for every value that applies to an FMU or part of an FMU, and include these as an objective, or objectives, in its regional plan(s):

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

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

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

<sup>43</sup> Appendix 1B lists nine “other values” that must be considered.

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

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

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

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

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

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

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

#### *Submissions on FMUs*

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

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

#### *Legal Submissions and Evidence*

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

2.73 Mr Tiuka first addressed FMUs in his Evidence in Chief on behalf of NKII. He said that in the July 2018 TANK Tangata Whenua Review report 12 FMUs were identified, which he listed, and said one more should be added bringing the total to 13.<sup>45</sup> This involved for instance dividing each of Ngaruroro and Tūtaekurī catchments into three FMUs each, together with a combined coastal zone (which included the Waitangi Estuary, which is immediately upstream of where these rivers flow to the sea).

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

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

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

<sup>45</sup> EIC of Ngaio Tiuka at Paragraphs 143 and 144

<sup>46</sup> Supplementary Evidence of Maurice Black at Paragraph 4

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

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

#### *Discussion and Findings*

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

<sup>47</sup> At Paragraph 6 of his submissions dated 21 June 2021

<sup>48</sup> At his Paragraph 43

<sup>49</sup> At her Paragraphs 30 and 31

<sup>50</sup> At his Paragraph 48

<sup>51</sup> As was asserted by Mr Enright in his Paragraph 6

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

### Nitrogen Leaching Models

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

<sup>52</sup> HBRC Closing Statement. para 14 and 29

- 2.91 Overseer was in its sixth version at the time PPC9 was notified. Version changes had often led to significant modifications to the model; for instance, the change from Version 5 to Version 6 in 2016 led to nominal N leaching rates from many dairy farms being increased by about 30-40%, which led to difficulties for both Regional Councils and farmers. This is because although nothing may have changed in farm practices on a particular property, their “nominal” nitrogen leaching losses had often increased substantially due to the Overseer version change. If for instance a regional plan specified that to meet permitted activity standards a farm must average less than 30kg/N/ha/y leaching losses, and suddenly large numbers of farmers can no longer meet this permitted activity standard because their nominal farm leaching loss has increased by 30-40%, it becomes a regulatory road block for both farmers and Regional Councils to decide how to handle such changes.<sup>53</sup>
- 2.92 Both at the time PPC9 was notified, and when the hearing of submissions and evidence took place, Overseer was considered a credible nitrogen loss leaching model, and was referenced frequently in PPC9. At that time Overseer was considered to work reasonably well for dairying and other more extensive farming practices but was considered to have significant limitations for other activities, such as intensive vegetable growing with different crops in different rotations, and for off-site winter grazing of dairy cattle.
- 2.93 More recently however all use of Overseer has been called into serious question. A review released by the Parliamentary Commissioner for the Environment (Simon Upton) in 2018 said it was seriously flawed, opaque and open to “gaming” by farmers.
- 2.94 The Commissioner’s report was then peer reviewed by an independent scientific panel, who concluded that:
- “We do not have confidence that Overseer’s modelled outputs tell us whether changes in farm management reduce or increase the losses of nutrients, or what the magnitude or error of these losses may be.” And that “Overseer could only provide a coarse understanding of nutrient loss”.*
- 2.95 Ministers Parker and O’Connor<sup>54</sup> then put out a press release on 11 August 2021 committing to developing “other tools” to more accurately measure nitrogen losses and support a “next generation” of Overseer. In doing so they signalled that the current version of Overseer is not sufficiently robust or accurate to continue using as a nutrient management model. While other models exist, none are presently considered reliable enough to use in any regulatory framework.
- 2.96 We observe that a great deal of work has gone into the development of Overseer. Much of this was field based using what are known as “lysimeters”, which are placed beneath soils to measure actual nitrogen leaching losses. These studies are expensive and given the heterogeneity of soil types across the country, and indeed often within an individual property, Overseer could only provide an “estimate” at best of actual leaching losses.
- 2.97 For these reasons we believe it may be up to a decade before a new credible nitrogen leaching model can be developed and verified as sufficiently accurate to use for any regulatory purposes.

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

<sup>54</sup> Who were at the time the Ministers for the Environment and Primary Industry respectively.

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

<sup>55</sup> Note that we have not agreed to include these definitions in PPC9.

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

## Chapter 3 - General Objectives and Policies

### Introduction

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



## **OBJ TANK 5**

*Mauri and ecosystem health outcomes are achieved through:*

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

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

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

## OBJ TANK 1

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

### *Submissions and Evidence*

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

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

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

### *Finding*

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

## OBJ TANK 2

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

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

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

#### *Submissions and Evidence*

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

#### *Discussion and Findings*

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

#### **OBJ TANK 2**

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

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

*and that:*

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

<sup>1</sup> EIC of Grey Wilson at her Paragraph 28.

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

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

## POL TANK 1-5

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

### *Submissions on the Priority Management Approach*

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

## POL TANK 1

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

### *Submissions and Evidence*

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

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

#### *Discussion and Findings*

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

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

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

#### *POL TANK 2, 4 and 5*

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

#### *Submissions and Evidence*

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

<sup>3</sup> EIC of Grey Wilson at her Paragraph 55.

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

#### *Findings*

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

#### ***POL TANK 5***

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

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

## Chapter 4 – Surface Water Quality Management & Land Management

### Introduction

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

## Existing Water Quality in the TANK Catchments

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

### *Joint Witness Statement*

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

### *Major Changes Recommended*

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

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

<sup>2</sup> EIC of Catherine Sturgeon at Paragraph 51, citing HBRC Open Portal Data.

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



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

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

## Water Quality Target Attribute States in the TANK Catchments

### OBJ TANK 4 and 5

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

### *Submissions and Evidence*

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

### *Discussion and Findings*

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

<sup>4</sup> EIC of Grey Wilson at Paragraphs 32 and 33.



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

- 4.21 We support the retention of OBJ TANK 4 and 5. Each of them have recommended amendments to clarify and improve their wording. An example is the reference to “target attribute states” in OBJ TANK 4, which is consistent with the NPSFM 2020.<sup>5</sup>
- 4.22 We agree with the changes recommended. No further analysis is necessary because the recommended changes do not modify the overall context or directions of the two objectives.
- 4.23 The details of how the target attribute states are to be achieved are set out in POL TANK 17 - 27 inclusive, and associated Schedules.

### Catchment Based Objectives

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

### *Submissions on the Catchment Objectives*

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

### *Submissions and Evidence on OBJ TANK 10-13*

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

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

from the (extensive) red colour coding in Schedule 26.4 that existing water quality in the catchment is significantly degraded<sup>7</sup> and much work will be required to improve to it to the target attribute states we have agreed be set out in that Schedule.

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

#### *Findings on OBJ TANK 10 -13*

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

#### OBJ TANK 14

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

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

<sup>8</sup> EIC of Catherine Sturgeon at Paragraph 29

<sup>9</sup> EIC of Michael Greer at Paragraph 17, expanded on his Paragraph 30

<sup>10</sup> See for instance Paragraph 34 of his EIC.

<sup>11</sup> Include cross reference

## Schedule 26

- 4.43 The key component in surface water quality management in the TANK catchments is Schedule 26, which is by far the most complex and multi-dimensional component of PPC9. It sets out very detailed information on existing water quality, and many of the desired 2040 and long term target attribute states<sup>12</sup> for the main water quality monitoring sites in each of the four TANK catchments. By our count this includes five sites in the Tūtaekurī catchment, two in the Ahuriri catchment, 11 in the Ngaruroro catchment, nine in the Karamū catchment and sites in each of the Te Whanganui ā Orotū (Ahuriri) and Waitangi estuaries (plus “defaults” in the same sections of catchments in most cases). There is a greater emphasis on lowland sites, as this is where water quality is generally most degraded at present, and so where the most significant improvements are sought.
- 4.44 The schedule sets long term targets consistent with the “bands” set in the NPSFM 2020. These go from Band A (best) to Band D or sometimes E (worst), and in some instances a “bottom line” set somewhere along this continuum. In simple terms the schedule lists the baseline attribute state (where sufficient data is available), in some places the target attribute state in 2040 and the long-term attribute state. Where a 2040 target attribute state is not defined, it usually requires an “improving trend” of a particular water quality attribute. Where insufficient data presently exists, the intention is that this be rectified in the Kotahi Plan.
- 4.45 Schedule 26 is very helpfully colour coded. For instance, where the baseline attribute state has been monitored sufficiently and is far from the long-term target attribute state it is coloured red. Where this is the case, the desired 2040 attribute state may just be an improving trend, whereas the long-term target is to meet (for example) the NPSFM target attribute state. This is where the greatest interventions are necessary to improve water quality in the TANK catchments. At the other end of the scale if existing water quality is high and only needs to be maintained to continue to meet the target attribute states, it is colour coded blue (best) or dark green (very good).
- 4.46 In many cases either no data, or insufficient data exists on what the existing state is in many of the smaller rivers and streams in the TANK catchments. Existing water quality could vary from quite poor to moderately high. A “default” pathway is provided for attributes where there is such a dearth of information. While we accept this is sometimes inevitable, we are unable in such instances to assess how much intervention is necessary to reach the 2040 and/or long term target attribute states, and whether or not the targets set are appropriate. Rather we have to make somewhat generic judgments based on available information for comparable rivers and streams.
- 4.47 Not all the target attributes listed in Schedule 26 for rivers and streams are included in the NOF in the NPSFM 2020. Those included are:
- a) In Appendix 2A periphyton biomass per unit area, ammonia (in its deionised state as a toxin only), nitrate (as a toxin only), suspended fine sediment (which is measured via the visual clarity of the water) and *E. coli*.<sup>13</sup>

<sup>12</sup> Or to put it another way, the future water quality sought.

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

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

- 4.48 Many of these attributes for rivers and streams were not in the NOF in the 2017 iteration of the NPSFM. Those that were present there are: periphyton biomass, ammonia and nitrate as toxins and *E. coli*. Both the potential fish toxins have more conservative “national bottom lines” in the 2020 NPSFM<sup>14</sup>, but those for periphyton biomass and *E. coli* remain unchanged.
- 4.49 The target attributes listed in Schedule 26 but which are not in the NOF are Dissolved Inorganic Nitrogen (DIN) and periphyton cover, both of which commonly have target attributes set in Regional Plans, and which are monitored in freshwater rivers and streams. Some lowland streams also have macrophyte cover listed as an attribute<sup>15</sup>, while water bodies commonly used for recreation have cyanobacteria listed<sup>16</sup>, neither of which are included in the NOF for rivers and streams.
- 4.50 This means that there is more scope for argument about what the target attribute states for these parameters should be, as no specific national direction exists.
- 4.51 A number of other attribute targets are listed in Schedule 26 but not populated as they are to be determined through the Kotahi Plan review. These were: deposited fine sediment, the fish index of biotic integrity, ecosystem metabolism, temperature, pH and other contaminants such as heavy metals and pesticides.
- 4.52 As is appropriate, a somewhat different set of target attributes are listed for the Ahuriri and Waitangi estuaries. We do not need to detail these here.
- 4.53 However, one of the tributaries of the Ahuriri Estuary is the Taipo Stream, which is heavily contaminated and features more in red in Schedule 26 than any other water body listed there. DRP concentrations are particularly high, and macroinvertebrate community health is low. Current levels of contamination will be difficult to remedy, as the stream rises in parts of Napier, where numerous sources of potential contaminants are present. The S42A Reporting Officers consider that as the stream is a tributary of Te Whanganui ā Orotū (Ahuriri) estuary, it is very important that its quality be much improved and we support that approach.
- 4.54 Some matters are not detailed in Schedule 26 at all. Specifically, outcomes for threatened species, mahinga kai, mātauranga Māori and wetlands and lakes are to be set during the Kotahi Plan process. We support this approach, as outcomes for each of these are best set at the regional level rather than in PPC9, which covers only part of the Hawke’s Bay region, albeit a very important part. For this reason, any submissions that sought one or more of these matters be included in Schedule 26 are rejected.
- 4.55 Similarly, detailed groundwater attributes are left to the Kotahi Review. To be fit for human consumption water needs to meet NZ drinking water standards (NZDWS), and these are presently under review. For this reason we are satisfied that groundwater quality outcomes are best detailed for the region as a whole in the Kotahi Plan.

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

<sup>15</sup> Macrophytes are rooted plants that are usually only found in lowland streams.

<sup>16</sup> Cyanobacteria, notably *Phormidium*, can be particularly toxic to dogs.

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

*Compliance with the NPSFM 2020*

- 4.60 Schedule 26, as notified in PPC9 in May 2020, potentially had to be modified significantly after the NPSFM 2020 came into effect on 3 September 2020.<sup>19</sup> This is because some of water quality attributes listed in the National Objectives Framework (NOF) in the 2017 iteration of the NPSFM, were amended in the NPSFM 2020 and/or new attributes were introduced (including for instance sediment related attributes, nitrate and ammonia as toxins and three measures of stream community “health”). Additionally, attributes were separated into two appendices as follows:

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

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

<sup>17</sup> Which was a seasonal objective of 15% for salmonid spawning.

<sup>18</sup> EIC of Michael Greer in his Table 1

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

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

that alongside the long recognised MCI and QMCI<sup>21</sup> measures of “stream invertebrate health”, another measure known as ASPM<sup>22</sup> has been added to the NOF, and should be “assessed separately”.<sup>23</sup> Quite why this is considered essential, and so included in the NOF, also puzzles us.

- 4.63 In response to these NPSFM 2020 changes in some attributes in the NOF, a Council senior scientist reviewed what consequential changes were essential to Schedule 26. This was presented in a Technical Memo from Dr Haidekker, the council’s water quality expert, dated 15 March 2021.<sup>24</sup>
- 4.64 We are very grateful to Dr Haidekker for undertaking this work, and making some accompanying recommended changes to Schedule 26. It would have taken us much work to do so. Additionally, we would not have had the detailed knowledge of water quality in the different catchments that Dr Haidekker does.
- 4.65 We accept some of the conclusions and recommendations that Dr Haidekker makes, along with some of the associated recommended changes to Schedule 26. These changes were also supported “overall” and “in majority” by Ms Sturgeon, an expert witness for Beef and Lamb<sup>25</sup>, and as already noted some were supported by Dr Greer. For these reasons, when we refer to Schedule 26 from this point on it is the version included with the Reporting Officers s42A Report dated 19 May 2021, in so far as it is consistent with the NOF in the 2020 iteration of the NPSFM.
- 4.66 We have read carefully the discussion on the detail of Schedules 26 and 27 (as they were in PPC9) in the Reporting Officers’ s42A report. In some cases, we adopt their discussion and subsequent recommendations, as we agree fully with those points.
- 4.67 Two examples of this are the discussions on ammonia and nitrate as potential fish toxins. No changes were necessary to comply with the NOF in the 2020 iteration of the NPSFM, nor are any changes recommended from what was notified in PPC9. We are entirely satisfied that the target attribute states set in PPC9 for all TANK surface water catchments were for these potential toxins are appropriate. Accordingly, we adopt Paragraphs 1078 -1080 in the s42A Officers’ Report.
- 4.68 In other instances, insufficient data exists for us to make any changes from what was recommended in PPC9. General examples include suspended fine sediment (to be measured via the visual clarity of the water), deposited fine sediment, periphyton trophic state and the “fish index of biotic integrity” (which is a new requirement from the 2020 iteration of the NOF). Much of the “filling in of the data gaps” is left to the Kotahi Plan review.
- 4.69 We largely support this approach. We did consider whether less conservative visual clarity targets should be set for sites in the lower reaches of the Tūtaekurī and Ngaruroro rivers, as few sites meet those targets there. We believe however that the land use interventions provided for in PPC9 should significantly reduce sediment losses in many catchments, these target attribute states are not unrealistic.

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

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

<sup>23</sup> Technical Appendix 9 at pp4

<sup>24</sup> This was included as Technical Appendix 9 to the s42A report

<sup>25</sup> EIC of Catherine Sturgeon at Paragraph 27

### *Submissions on Schedule 26*

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



### *Evidence on Schedule 26*

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

<sup>26</sup> EIC of Michael Greer at Paragraphs 42-44.

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

*Discussion and Findings – Macroinvertebrate Community “Health”*

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

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

4.87 For example, five lowland tributaries of the Karamū Stream have existing MCI scores of between 52 and 62.7<sup>29</sup>. PPC9 sought to increase this to 90 or more, which is in Band C of the NOF, and which we would describe as highly aspirational in these small, intensively used catchments. However, some submitters sought that in lowland catchments such as these the long-term target attribute state should be Band B of the NOF. The s42A Reporting Officers supported this recommendation, one of the consequences of which would be to raise the long term MCI target in a number of lowland streams to 110 or more, which is in Band B of the NOF.

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

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

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

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

<sup>28</sup> EIC of Michael Greer at Paragraph 40, slightly paraphrased.

<sup>29</sup> Such as the Karewarewa, Awanui and Poukawa Streams.

<sup>30</sup> There are no lowland stream monitoring sites in the Tūtaekurī Catchment.

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

### Recommended Target Attribute States for Other Parameters

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

#### *Discussion and Findings - Nutrients*

4.92 Dr Greer opined that the non-compliance with the DIN and DRP Schedule 26 Objectives do not appear to be affecting ecosystem health in any meaningful way, as they are not linked to periphyton or macrophyte growth.<sup>31</sup>

4.93 We agree with him. Elevated levels of DIN and DRP in rivers and streams can accelerate periphyton growth, but the other main factors affecting periphyton abundance in rivers and streams are freshes and floods, photoperiod (i.e., day length) and temperature. High flows scour out periphyton; long sunlight hours, higher water temperatures and elevated nutrient concentrations reduce what is known as the accrual period, which is the time from the last significant fresh or flood that it takes periphyton to reach nuisance levels in rivers and streams. High periphyton biomass can in turn reduce habitat quality, affect macroinvertebrate community health (as measured by indices such as MCI), and make rivers and streams unattractive for contact recreation or activities such as angling.

4.94 Existing Schedule 26 DIN and DRP targets are not met in many of the TANK catchments. This raises the question of how appropriate they are, given that there is no strong link between nutrient concentrations and periphyton or macrophyte biomass in rivers and streams.

4.95 For DIN, we can determine the appropriate Target Attribute States in Schedule 26 as these are not specified in the NOF. In PPC9 these were set as <0.05 mg/l in headwater streams, < 0.15 mg/l in the mainstems of the Tūtaekurī and Ngaruroro Rivers, < 0.3mg/l in hill country tributaries and < 0.444 mg/l in lowland streams. We understand these to be based on ANZECC guidelines. No changes to these values were recommended by the s42A Reporting Officers.

4.96 Where sufficient data existed, which for many monitoring sites it did not, most TANK water bodies met these proposed targets, albeit with some notable exceptions.

4.97 In the water quality JWS Dr Greer sought these targets be set higher in all instances, specifically from <0.05 mg/l to <0.1 mg/l in headwater streams, from < 0.15 mg/l to < 0.63mg/l in the mainstems of the Tūtaekurī and Ngaruroro Rivers, and similarly from < 0.3mg/l to < 0.63 mg/l in hill country tributaries and to current state from < 0.444 mg/l in lowland streams.

4.98 Dr Haidekker said in the JWS that her recommendations were the “best available” to meet the objectives defined by the TANK Group through the consultative process. These are key metrics, and we believe it necessary to set realistic targets for DIN in Schedule 26, particularly given that Overseer, the main N loss model formerly used extensively to manage N losses from

<sup>31</sup> EIC of Michael Greer at Paragraph 56

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

- 4.99 Nor however do we agree entirely with Dr Greer. Having looked at the existing data, and having decided to set a Band C target for the lowland streams for other values in Schedule 26, it is more consistent with our other decisions to set the target attribute states at <0.1 mg/l in headwater streams, and <0.444 mg/l in each of the mainstem, hill country and lowland stream sites. Certainly, we can see no good reason why the mainstem and hill country sites should have more generous targets than do the lowland streams.<sup>32</sup>
- 4.100 Exceptions to these general DIN target attribute states are provided for in catchments where existing water quality is already better than those targets. Examples include the mainstems of both the Ngaruroro and Tutaekuri Rivers.
- 4.101 We do not have a great deal of choice with DRP concentrations as the values listed in Schedule 26 have been updated to reflect the NOF attributes in the NPSFM 2020.<sup>33</sup> In PPC9 the Council chose to include the target attribute state for DRP in the A Band for the upper Ngaruroro and Tūtaekurī catchments, and in the B Band for all other areas. The catchments currently coded "red" for existing DRP concentrations are given longer than 2040 to reach Band B concentrations. The Council's water quality expert argued that this is because it is necessary to meet the outcomes set by the TANK Group.<sup>34</sup>
- 4.102 We do not agree with this approach. Ten of the lowland catchments are presently in Band D or E (nine for both the median and the 95<sup>th</sup> percentile) for DRP, and so are in all instances a very long way from Band B.<sup>35</sup> Not surprisingly, they are much the same water bodies in which MCI is presently between about 52 and 65, and are predominantly in the Karamū Catchment. We have decided to be consistent and so we have also set a Band C target for DRP in the 14 lowland catchments.
- 4.103 In a similar context where sufficient data exists, the lowland streams are presently largely in Bands D or E for *E. coli*. Where this is the case, or where data is insufficient, we have applied the same rationale as we have for stream health indicators and DRP, and set the long-term target attribute state in Band C.
- 4.104 For all other matters relating to Schedule 26 we accept the s42A Reporting Officers' recommendations, which were not to change any other values in the Schedule.

<sup>32</sup> EIC of Michael Greer Page 26

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

<sup>34</sup> See the comments of Dr Haidekker in the JWS under the heading of "DRP"

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

## Processes to achieve the target attribute states

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

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

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

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

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

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

### Riparian Management

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

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

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

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

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

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

### Finding

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

### Management of Phormidium

4.116 POL TANK 16 sets out the Council’s approach to managing cyanobacteria outbreaks in rivers and streams in the TANK catchments. These cyanobacteria, which are very primitive organisms that are not readily evident to the untrained eye<sup>39</sup>, can have adverse effects on human health and can be toxic to dogs.

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

<sup>37</sup> POL TANK 11

<sup>38</sup> POL TANK 12

<sup>39</sup> But which have a distinctive “musty” smell.

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

### Managing Adverse Effects on Land Use on Water Quality

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

### Background

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

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

<sup>41</sup> Occasionally known as Soluble Reactive Phosphorous.



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

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

#### *Submissions and Evidence*

- 4.130 Those who submitted on the whole policy framework for managing the adverse effects of land use on water quality fell into two main camps. First, a number of landowners, or umbrella organisations representing collectives of landowners, supported the overall policy framework; second, a number of submitters, many representing iwi authorities, sought a more regulatory approach to land use and land use change.
- 4.131 This dichotomy was reflected in evidence and legal submissions, where the overall approach to nutrient and catchment management in PPC9, as amended in the s42A addendum report, attracted both criticism and praise. The criticism is perhaps best summed up in the evidence of Ms Grey Wilson for NKII who said<sup>42</sup>:

*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*

<sup>42</sup> EIC of Grey Wilson at Paragraphs 62-64.



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

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

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

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

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

4.134 The praise is best summed up in the legal submissions of Chris Thomsen, counsel for Beef and Lamb NZ<sup>44</sup>:

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

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

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

<sup>43</sup> EIC of Grey Wilson at Paragraph 66.

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

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

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

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

#### *Discussion and Findings*

- 4.135 One of the functions of Regional Authorities listed in s30 of the RMA is “the control of the use of land” for a number of purposes, including “the maintenance and enhancement of the quality of water in waterbodies and coastal water”, and for “the maintenance and enhancement of ecosystems in waterbodies and coastal water”.<sup>45</sup>
- 4.136 How exactly a Council chooses to control the use of land for these purposes is an issue that has long vexed many regional authorities. But to our knowledge no Council has chosen to attempt to regulate directly non-point source discharges of nutrients from farmland. Rather what they have chosen to do is impose some controls on land use, or more particularly, land use change. For instance, there are many examples of Council’s using the (now discredited) Overseer model as a regulatory instrument to control applications of nitrogenous fertiliser to land in an endeavour to control N leaching to groundwater, and from there to rivers and streams. Such regulation was usually associated with initiatives to encourage communities to work collectively to improve water and habitat quality.
- 4.137 The structure of PPC9 is that Schedule 26 sets the 2040 (or longer) target attribute states for a range of contaminants, and instream biotic community “health” in each of the TANK catchments. In PPC9 as recommended to us, POL TANK 17, 18 and 21 set out the overall “adaptive” approach to managing adverse effects on water quality, and rules are established to complement this. These are Rules TANK 1, 2, 5, 6 and X<sup>46</sup>.
- 4.138 In her evidence Ms Wilson criticised the Council for what she said was a policy approach heavily dependent on non-regulatory measures and an adaptive approach to nutrient management. We largely disagree with what she said; the proposed rules are regulatory instruments that enable the relevant clauses of the policies to be enforced. Rather we are broadly (but certainly not fully) in agreement with what Mr Thomsen submitted.

<sup>45</sup> Section 30(1)(c) of the RMA.

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

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

### “Adaptive Approach” to Nutrient and Contaminant Management

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

#### *Submissions and Evidence*

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

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

4.143 Other submitters, most notably those representing Iwi Authorities, sought a more regulatory (and in one instance punitive<sup>47</sup>) approach to land use management. We have previously outlined the reasons why we do not support a stricter regulatory regime for land use management.

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

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

### POL TANK 17

4.146 In summary POL TANK 17 says that the Council will meet Schedule 26 Target Attribute States by 2040 by using establishing programmes and processes via Freshwater Farm Plans<sup>49</sup>, Catchment Collectives and Industry Programmes to ensure land managers adopt good practice, identify critical source areas of contaminants, adopt effective measures to reduce contaminant loss and prepare nutrient management plans for dissolved nitrogen in priority catchments, as shown in Schedule 28. In doing so Policy 17, as now recommended to us, indicates that N management will be used as a surrogate for nutrient management as a whole.

#### *Submissions and Evidence*

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

<sup>47</sup> Submission point 132.115

<sup>48</sup> EIC of Andrew Dooney at Paragraphs 47 and 49.

<sup>49</sup> Which are now encouraged by Part 9A of the RMA.

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

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

#### *Discussion and Findings*

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

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

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

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

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

## POL TANK 18

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

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

### *Submissions and Evidence*

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

### *Findings*

- 4.161 We do not consider that adding more specific detail to the wording of POL TANK 18 is either necessary or helpful. The policy commits the Council to a range of actions, including research and investigations, working alongside industry groups. and actions if target attribute states for contaminants are not tracked towards what is specified in Schedule 26.
- 4.162 In terms of the requirements of s32AA of the RMA, the amendments made to POL TANK 17 - 19, along with those to Schedule 28, make PPC9 much more focussed on a dual contaminant approach. With Overseer no longer able to be used, the previous focus on N can no longer be justified, or indeed implemented. Incorporating the four planning maps attached to Schedule 28 into PPC9 adds certainty and clarity about what is required. Given this, we are satisfied that the amendments made are efficient and effective, and much improve over what was notified in PPC9.

## Sediment Management

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

<sup>51</sup> Such as those from DOC, MTT and HortNZ

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

## POL TANK 20

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

### *Submissions and Evidence*

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

### *Discussion and Finding*

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

<sup>52</sup> EIC of Grey Wilson at Paragraph 74

## POL TANK 21

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

### Submissions and Evidence

- 4.173 There were a wide range of submissions on POL TANK 21. Many of those sought that Catchment Collectives and Industry Programmes manage land use change in accordance with the 2040 timeline for meeting (what are now) target attribute states.
- 4.174 Some of these submitters sought that Policy 21(d) be amended to make it subject to the previous three limbs of the policy, or be deleted altogether.
- 4.175 Industry groups, most notably Federated Farmers and HortNZ sought amendments primarily specific to the particular activities that they represent in the TANK catchments. On the other hand, organisations such as DOC sought specific changes to make the approach more regulatory, and RFBPS asked that the policy be amended to provide more direction and clarity. For instance, HortNZ asked that the limb of the policy be amended to take account of crop rotations, which the reporting officers recommended we accept.
- 4.176 In his evidence on behalf of HortNZ Mr Dooney<sup>54</sup> sought an addition to Policy d) that would qualify the word “avoid” with a cumbersome proposed addition, which sought that land use change could occur in a catchment which already met Schedule 26 attribute state targets, and that the change will result in an improvement in those target attribute states.
- 4.177 We struggle to envisage a situation where such an exception could apply. It would have to be from an intensive land use to a less intensive land use, which we believe runs contrary to what Mr Dooney sought on behalf of HortNZ. For these reasons we do not support his proposed amendment.

### Discussion and Findings

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

<sup>53</sup> Emphasis added.

<sup>54</sup> EIC of Andrew Dooney at Paragraph 111.



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

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

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

*And will;*

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

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

## Land Use Rules in PPC9

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

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

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

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



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

### *Submissions*

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

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

<sup>56</sup> See the Officers’ report at Paragraph 868.

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

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

#### *Evidence*

- 4.196 Mr Dooney, an expert witness for HortNZ, made some substantive comments about Rules TANK 5 and 6, as recommended to be amended by the Officers in their s42A Report. He considered that there were inconsistencies in the way these rules were drafted, and who or what could apply for consent under the rules and made a number of suggestions for how they could be improved<sup>57</sup>. Most of his suggestions were recommended to be accepted by the Officers in their s42A Addendum Report.
- 4.197 Ms Wilson, an expert witness for NKII, proposed that for each of the four land use rules in PPC9 (i.e., Rules TANK 1, 2, 5 and 6) the activity status would each become one step more restrictive; specifically permitted Rule TANK 1 would become controlled, controlled Rules TANK 2 and 5 would become restricted discretionary and restricted discretionary Rule TANK 6 would be fully discretionary.
- 4.198 On a similar theme Ms Taylor, an expert witness for Ravensdown, suggested that Rule TANK 5 be deleted, and Rule TANK 6 be made a fully discretionary activity.

#### *Discussion and Findings – Rule Framework*

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

<sup>57</sup> EIC of Andrew Dooney at his Paragraphs 86 -97.

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

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

#### *The Land Use Rules*

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

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

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

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

### POL TANK 22 and the NES-F Stock Exclusion Regulations

- 4.210 In PPC9, POL TANK22 and Rules TANK 3 and 4 addressed stock exclusion provisions. Rule TANK 3 was a permitted activity and Rule TANK 4 a restricted discretionary activity.
- 4.211 The need this policy and associated rules was brought into doubt by the introduction of new stock exclusion regulations in the NES-F 2020. The regulations came into effect immediately for what are defined in the regulations as new pastoral systems<sup>59</sup>, but for existing deer, pigs and cattle properties, the commencement dates are either 1 July 2023 or 1 July 2025, depending on the category of stock, the underlying land and the specific feature that the stock are to be excluded from.
- 4.212 The regulations apply to deer, pigs and cattle; the latter include beef cattle, dairy cows and dairy support properties. They do not apply to sheep.
- 4.213 In the NES-F there is a general requirement that stock be kept at least 3 metres from the edge of lakes and “wide” rivers (which are defined as having a bed more than 1 metre wide on any part of a land parcel). This is known as the 3-metre setback rule. Exceptions exist: stock are allowed to enter the setback to enter or exit a dedicated bridge or culvert, or to cross a wide river or lake, but not more than twice a month.<sup>60</sup>
- 4.214 Stock are also required to be kept out of natural wetlands that are identified in a regional or district plan, or a regional policy statement on the commencement date, or a natural wetland that supports a threatened species, or a natural wetland of more than 50 square metres on low slope land. Natural wetlands are defined in the NES-F regulations.
- 4.215 A more stringent rule in a regional plan would prevail over these regulations. However, the provisions in the PPC9 are considerably less stringent than those set out in the Stock Exclusion regulations, and the regulations would prevail over the plan provisions. For this reason, the s42A Reporting Officers recommended that this policy and the two associated rules be deleted from PPC9.

<sup>59</sup> i.e. on 3 September 2020

<sup>60</sup> Quite how this could be enforced bemuses us.

### *Finding*

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

### *S32AA Analysis*

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

## Industry Programmes and Catchment Collectives

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

### *Submissions and Evidence*

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

## POL TANK 23 and 24

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

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

### *Submissions and Evidence*

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

<sup>61</sup> Submission Point 123.58 from DOC

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

#### *Finding*

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

#### POL TANK 25 and 26

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

<sup>62</sup> EIC of Carmen Taylor at her 3.10(a).

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

## POL TANK 27

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

## Schedules 29 and 30

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

## Schedule 29: Land Use Change

- 4.239 One of the difficulties now facing the Regional Council, and indeed regional authorities throughout New Zealand, is that Overseer, which was formerly used to regulate nitrogen leaching losses from production land, has been found to be fatally flawed. Government no longer advocates that it be used as regulatory tool, so we have taken out all references to Overseer in PPC9. Preliminary issues – Nitrogen Leaching Models are discussed in more detail in paragraphs 2.89 – 2.101 of our report.
- 4.240 This is important because Schedule 29, as detailed in PPC9, included references to Overseer, SPASMO<sup>63</sup> or an alternative model approved by HBRC. SPASMO is only considered a useful alternative to Overseer for horticultural crops, and no other credible alternative models exist at the present time. Overseer was very much the main N leaching model “in the tool box”

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



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

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

#### *Submissions on Schedule 29*

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

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

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



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

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

#### *Evidence on Schedule 29*

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

#### *Discussion and Findings*

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

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

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

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

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

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

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

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

#### *S32AA Analysis*

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

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

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

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

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

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

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

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

#### *Submissions on Schedule 30*

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

<sup>72</sup> These two points are both slightly paraphrased.

### *Legal Submissions and Evidence on Schedule 30*

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

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

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

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

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

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

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

### *Finding*

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

### *S32AA Analysis*

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

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

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

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

## Chapter 5 - Management of the Heretaunga Plains Groundwater Aquifer

### Introduction

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

### Appendix 11

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

<sup>1</sup> This was the only significant technical change in Appendix 11, with the average annual water use by irrigators during this period reduced from 50 Mm<sup>3</sup>/y to 35 Mm<sup>3</sup>/y, which is the correct figure.

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

- 5.9 In our Minute 6 dated 11 May 2021 we gave all submitters an opportunity to make further submissions on the amended Appendix 11. Mr Black, Mr Tiuka and Mr Smith took this opportunity, with NKII also providing legal submissions from Mr Enright.
- 5.10 The hearing was reconvened in the Council offices on Monday 27 September 2021 to hear this evidence (along with some questions the Panel had on groundwater management, which are discussed elsewhere in this chapter of our report). Much of the evidence received, particularly from Mr Black, was not directly relevant to the Appendix 11 amendments, and so was beyond the scope given in our Minute 6.
- 5.11 Among the points made directly on the amended Appendix 11 were:
- a) Whether it is ethical to change someone else’s memorandum (Mr Enright and Mr Black).
  - b) Council has distanced itself from independent expert advice and that arguably draws attention to some of that advice, particularly “use of regulatory hard lines to manage over allocation and over-abstraction through a sinking lid approach” (Mr Enright at Paragraph 9).
  - c) That references associated with the 1987 Brundtland report were appropriate for a technical expert to make (Mr Black).
  - d) The crossing out of the word “degraded” in relation to surface water bodies, and its replacement with “adverse effects” (Mr Black and Mr Tiuka, with the latter referring particularly to the Paritua Stream).
  - e) Deletion of the water budget model does not mean that groundwater is not being “mined” from the Heretaunga aquifer (Mr Black).
  - f) “Amendments made to Appendix 11 appear to enable, not avoid, further over-allocation within the TANK catchment; enable temporal degradation of aquifer storage and downplay uncertainties in estimates” (Mr Smith at his Paragraph 7).
  - g) Assertions that the average irrigation take in the years 2006 to 2014 was  $39.4 \pm 4.4$  Mm<sup>3</sup>/y with a 95% confidence limit (Mr Smith).
  - h) The Heretaunga aquifer model does not include cultural input, and so cannot fully cater for cultural values. *“Assessment of cultural effects needs to holistically consider physical, spiritual, metaphysical, tangible and intangible effects together at place. The changes to Appendix 11 ignore this holistic consideration and diminish mātauranga Māori, local knowledge and experience and the obligations of tangata whenua to exercise kaitiakitanga in a way that is consistent with their tikanga”* (Mr Tiuka at his Paragraph 13).

#### *Discussion and Findings on Appendix 11*

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

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

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

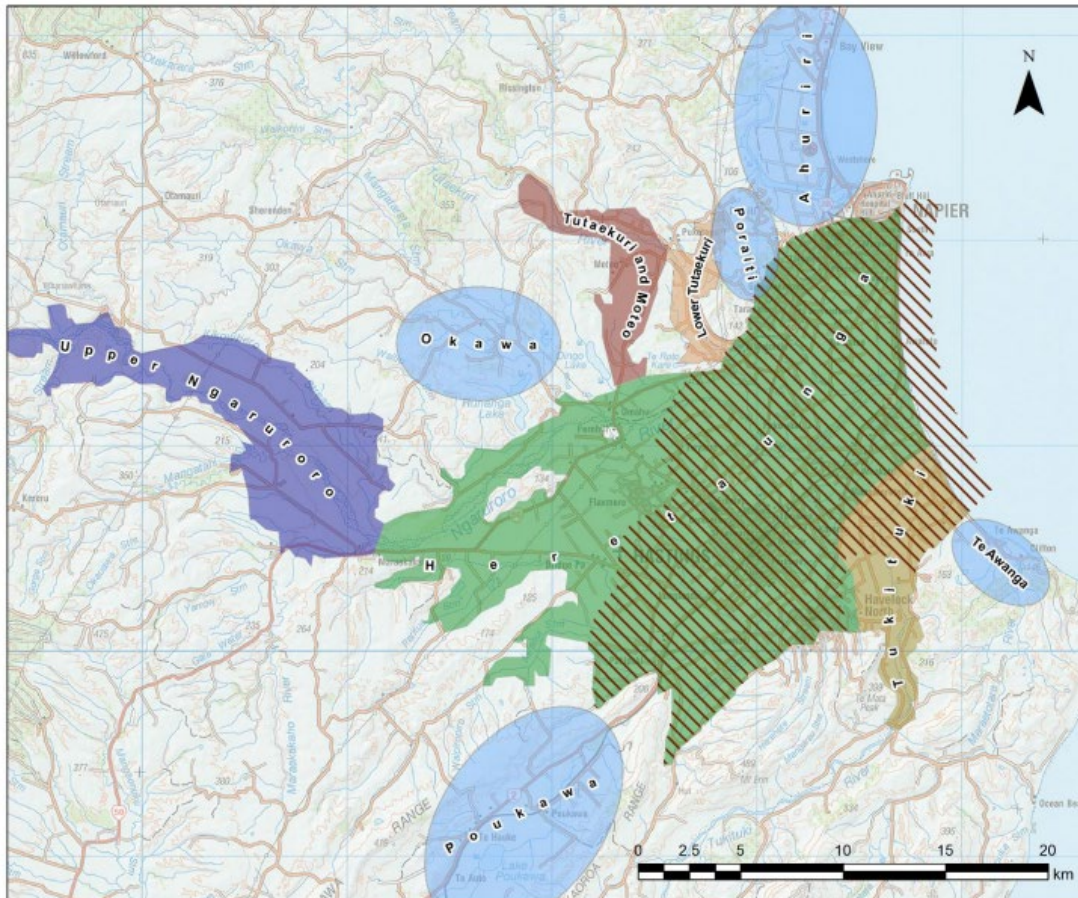
## The Aquifer

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

<sup>2</sup> See Figure 2.3 in the Executive Summary of the development of the Aquifer Groundwater Model.



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



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

- 5.21 In simple terms, an unconfined aquifer has no impermeable layers between the surface of the land and the water beneath it, whereas a confined aquifer has impermeable layers, typically horizontal “lenses” of silts and clays, between the land surface and the underlying groundwater. Of the approximately 300 km<sup>2</sup> area of the aquifer, an estimated 239 km<sup>2</sup>, or about 80%, is totally or largely unconfined.
- 5.22 Unconfined aquifers can be recharged from either local rivers and streams, or excess rainfall and/or drainage water that permeates down to the groundwater. Water in unconfined aquifers needs to be pumped to the surface. Unconfined aquifers are susceptible to contamination from surface activities, such as nitrogenous fertilisers applied to the land and not taken up by plants, which can then leach down into groundwater (principally as nitrate).
- 5.23 Confined aquifers can only be recharged by losses to groundwater from surface streams, or upgradient unconfined groundwater. Typically, there are discrete confined aquifers at different depths, with impermeable layers between them. The water supply may be artesian, and if so does not need to be pumped. However, groundwater takes from confined aquifers can “interfere” with nearby takes because a cone of depression can form around the source

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

- 5.24 Another important concept in managing a complex aquifer system is what is known as transmissivity, which describes how rapidly water moves downgradient in an aquifer or sequence of aquifers. In an aquifer with high transmissivity, the water moves downgradient quite rapidly within gravel lenses in the aquifer. Much of Heretaunga Plains aquifer has relatively high transmissivity.
- 5.25 Compared with surface water, management of groundwater is very difficult. While surface water flows can be gauged and monitored continuously using relationships between flow and water level (rating curves), the volume of groundwater in an aquifer cannot be seen or “measured”. Groundwater levels<sup>4</sup> can be monitored in bores, but this only provides information on the level of the groundwater in the immediate vicinity of the bore and tells us nothing about the levels in the wider area or indeed the volume of groundwater present. Reduced to its essence, groundwater management starts with “suck it and see”.
- 5.26 Fortuitously, on the Heretaunga Plains the thousands of bores that have been drilled collectively provide a very good composite picture of the aquifer, and how it has changed over time. It is now known for instance that there has been a gradual decline in water levels in some parts of aquifer, such as near Fernhill, over recent decades. How significant this is, and what it means for future management, is a matter of much debate, which we discuss particularly at paragraphs 5.195 – 5.213 below.
- 5.27 Early in the hearing we questioned whether the aquifer should be managed as an entire entity, as we considered it possible that different management regimes could be justified in different geographic parts of the Heretaunga Plains aquifer.
- 5.28 In response to this we received a memorandum from a former staff member, Mr P Radowski, who had been the Council’s principal groundwater scientist from March 2015 to February 2019<sup>5</sup>.

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

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

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

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

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

<sup>4</sup> Which are recorded as below ground level, or bgl for short.

<sup>5</sup> At his Paragraphs 4.1 – 4.4

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

## Hydrology of the Aquifer

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

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

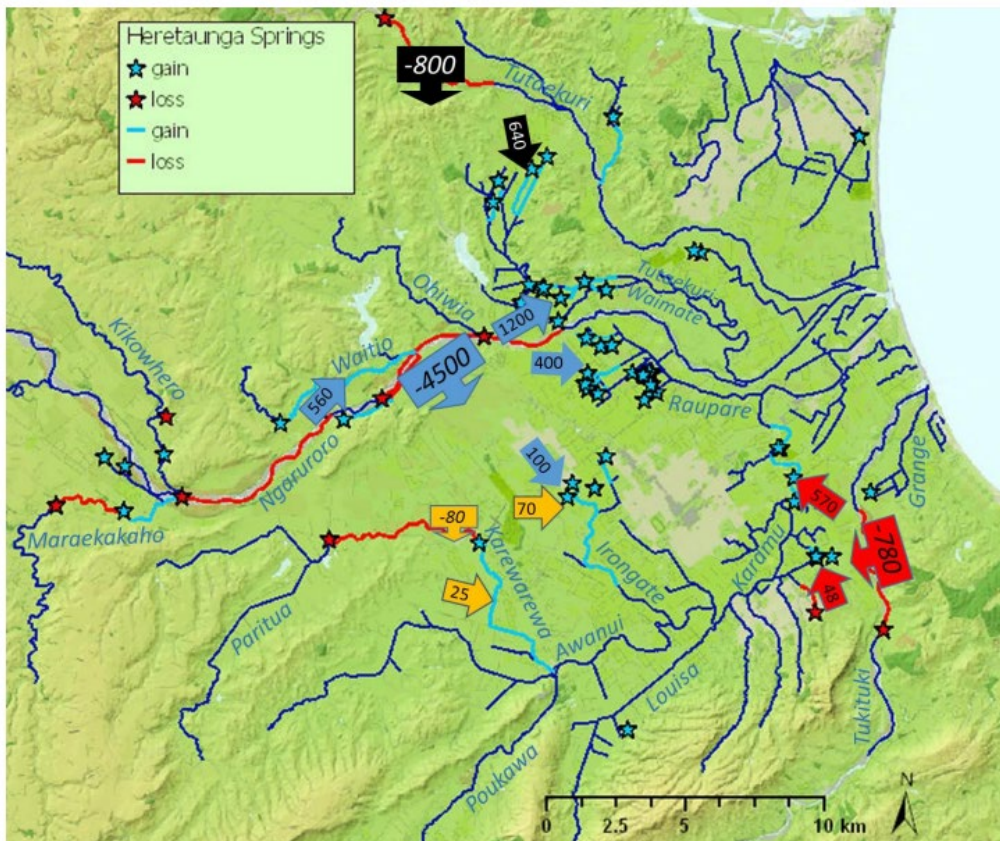
**Table 2-1: Main river losses to the Heretaunga Aquifer System.**

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

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

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

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



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

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



during winter months, and annually, depending on how wet the year is. As part of the work carried out on the development of the groundwater model, Aqualinc estimated LSR to average 330mm per year for the period 2005 to 2015, which is equivalent to an average of 78.9 Mm<sup>3</sup>/y across the Heretaunga Plains. This means that on average losses from surface water bodies provide an estimated 71% of the water entering the aquifer, with LSR making up the other 29%.

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

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

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

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

<sup>7</sup> EIC of Mr Maurice Black at his Paragraphs 271 -276.

## Long Term Trends in Groundwater Levels

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

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

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

## Current Allocations of Groundwater

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

*At the time writing the s32 report, total groundwater allocation was estimated to be between 140 and 180 Mm<sup>3</sup>/y. Council consent staff had re-run the calculation as of September 2021, but estimates vary due to differences in methods and accounting for double ups where water is shared between consents, and where there are multiple points of take.*

- 5.41 The below summary table was also provided:

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

<sup>8</sup> On pp5.

Frost Protection	0.6	This use is not included in the proposed “interim allocation limit”
Environmental Uses	1.9	Includes augmentation/recharge of a stream and a wetland, and water for a trout hatchery
<b>Total</b>	<b>165<sup>9</sup></b>	

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

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

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

### Current Uses of Groundwater

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

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

- a) As of 2015 about 22.5 Mm<sup>3</sup>/y are abstracted for public water supplies, and that this has stayed reasonably stable since 1980.<sup>10</sup>
- b) Industrial use has been about 13 Mm<sup>3</sup>/y since about 2000.

5.46 The information on irrigation abstraction was less certain. Part of the reason for this is that regulations requiring that water takes of over 100m<sup>3</sup>/day be metered and recorded (with those data provided to the Council) only date back to 2010, and it took some years before this was consistently enforced in the region.<sup>11</sup>

<sup>9</sup> In addition to this about 1.526 Mm<sup>3</sup>/y was estimated to be allocated to permitted activities in the TANK catchments, including domestic water supplies, stock water and dairy shed washdown water. This would be included in the “counting of the total volume allocated” (check).

<sup>10</sup> Note however that this increased to about 30 Mm<sup>3</sup>/y from about 2016/17 onwards.

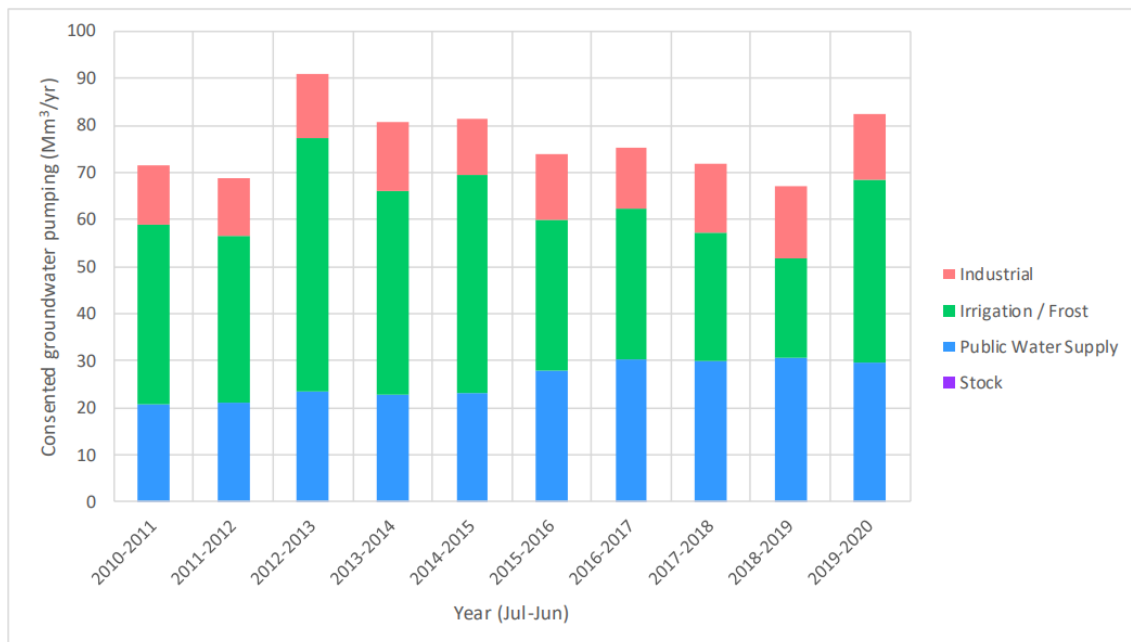
<sup>11</sup> Or indeed most other regions with large numbers of takes, particularly for irrigation. The main reason for this was the sheer logistics of providing calibrated data loggers and associated telemetry to very large numbers of water users throughout the country. For instance, the Canterbury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

5.47 On pp7 Appendix 11 says:

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

*Though there is large year-to-year variability in groundwater abstraction due to climate and other factors, in summer periods up to 50% of all groundwater abstraction from the Heretaunga Plains is estimated to be for irrigation. On average, approximately 35 Mm<sup>3</sup>/year was estimated to be abstracted for irrigation between the years 2006 and 2014.*

5.48 More specific and updated information on was given in Mr Waldron’s EIC dated 19 May 2021. Total water use was estimated to be about 91.1 Mm<sup>3</sup> in 2012/13 and 82.5 Mm<sup>3</sup> in 2019/20. Total use was also estimated to have exceed 80 Mm<sup>3</sup> in each of 2013/14 and 2014/15. This is portrayed in the below figure taken from Mr Waldron’s report<sup>12</sup>.



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

5.49 There is a discrepancy between these data and Figure 12 in the Appendix 11 report for the 2019/20 water year. The latter shows water use in that year to be approaching 105 Mm<sup>3</sup>, with apparently all the difference being in the annual volume of water taken for irrigation.<sup>13</sup>

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

<sup>12</sup> Statement of Reply RJ Waldron Appendix 10 HBRC

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



82.5 Mm<sup>3</sup>/y is the correct volume, and that Figure 12 in the Appendix 11 report shows an incorrect annual volume for the 2019/20 water year.<sup>14</sup>.

- 5.51 Included in these data are an estimated 1,526 Mm<sup>3</sup>/y used for permitted activities, including domestic water supplies, stock drinking water and dairy shed wash down. The officers noted that this represented less than 2% of the estimated 91 Mm<sup>3</sup> of abstraction that is estimated occurred in 2012/13, with the main components of this being irrigation (52.32 Mm<sup>3</sup>), public water supply (23.51 Mm<sup>3</sup>) and industry (13.66 Mm<sup>3</sup>).
- 5.52 The greatest variability is the annual volume taken for irrigation. The volume taken for public water supplies has increased substantially in the last four years of record, and now averages about 30 Mm<sup>3</sup>/y. We asked the s42A Reporting Officers for some further information on this and they provided us with detailed information about the HDC municipal supply water takes. This showed that the main reasons for the increased take volumes: included growth and expansion of the community, providing reticulated water to communities such as Bridge Pa and Paki Paki, and operational changes to the Havelock North water supply in response to the 2016 contamination event. In combination these factors had led to an increase in the water taken by about 10% over three years, although it always remained under their total consented take volume of 15.25 Mm<sup>3</sup>/y.
- 5.53 One of the main accusations made at the hearings was that municipal suppliers were profligate users who were “wasting water” through inefficient and leaking distribution networks.
- 5.54 While there is an element of truth in these arguments, we do not consider it particularly useful to go down this track. We note for instance that Mr Chapman, the “three waters” manager for the HDC, acknowledged that about 20% of the water taken by the HDC was “non deliverable”, which is a euphemism for saying about 20% of the water taken leaks from pipes between the source of take and the point of supply.
- 5.55 It is far from simple however to remedy such losses. It can only be achieved by re-sleeving the network, digging up streets and replacing old or poorly performing water supply pipes, which is a very expensive and highly disruptive process. Within Hastings itself the main water supply bores are to the south-east of the central city, and presumably significant water supply infrastructure runs through the CBD, where works would be very disruptive. More recent developments will undoubtedly have much more modern and robust water supply networks, but the main water supply pipes through the CBD, and indeed to Havelock North, will likely follow main roads.
- 5.56 This is not to say that high levels of leakage from municipal networks are acceptable. They are not. Water not delivered is water wasted, and water is a scarce resource on the Heretaunga Plains. Our expectation is that the Regional Council will keep strong pressure on the TLA’s to improve the integrity and resilience of their water supply networks, as is required by POL TANK 50b.
- 5.57 In their response to our Minute 10 the s42A Reporting Officers pointed out that there is “very high confidence” in water use estimates from 2017 onwards as over 95% of takes were metered. They said there was also high confidence in groundwater take assessments for public water supplies and industrial uses in 2021/13, as these takes were metered, but that the

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

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

- 5.58 The Reporting Officers believed that the abstraction estimated for 2012-13 is approximately 10% greater than that estimated (more accurately, due to more takes being metered) during 2019-20. This meant that in their opinion, the abstraction calculated for 2012-13 might be overestimated by up to 10%, but that it is unlikely to be an underestimate. In other words, the actual abstraction in 2012/13 may have been between about 82 and 91.1 Mm<sup>3</sup>, whereas in 2019/20 it is more accurately calculated (based on more reliable data) at about 82 Mm<sup>3</sup>.<sup>16</sup>

## Principal Issues to be Resolved

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

## The “interim allocation limit”

- 5.61 One of the most contentious provisions within PPC9 is what is known as the “interim allocation limit”. This refers to the annual maximum take of groundwater from the Heretaunga Plains aquifer. The Council’s Regional Planning Committee had decided, on advice from staff, that this should be set as 90 million cubic metres per annum (Mm<sup>3</sup>/y), and this “limit” was included in PPC9 via a reference in Policy 37(a).
- 5.62 In PPC9 the “interim allocation limit” was proposed to be put into force in two main ways:
- a) Over allocation is be phased out by what is known as “the actual and reasonable” use test
  - b) In PPC9 Rule 12 prohibited the take and use of groundwater in excess of the 90 Mm<sup>3</sup>/y “interim allocation limit”. This prohibition reflected some sections of TNAK POL 36 and 37, which set the “interim allocation limit” and sought to avoid “further adverse effects”<sup>18</sup> and “prevent any new allocations of groundwater”<sup>19</sup>.
- 5.63 The “interim allocation limit” of 90 Mm<sup>3</sup>/y is what the S42A Reporting Officers’ referred to as “essentially our best estimate of consented actual and reasonable use across the Heretaunga

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

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

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

<sup>18</sup> Policy 36 (f)

<sup>19</sup> Policy 37 (c)

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

- 5.64 Similarly, the s42A Officers’ Report stated that “Setting an interim limit at the estimated actual and potential use helps achieve OBJ 16, 17 and 18, and aids in implementing a “sinking lid” approach by providing a point of reference for the POL 42 review.”<sup>21</sup> We note that OBJ TANK 16 to 18 talk broadly about outcomes from implementing this regime, including avoiding future over-allocation and phasing out existing over-allocation (which is consistent with NPSFM Policy 11).
- 5.65 POL TANK 37 says the Council “will adopt” an “interim allocation limit” of 90 million m<sup>3</sup>/y based on the actual and reasonable use test, and “*manage the groundwater resource as an overallocated management unit and prevent any new allocations of groundwater*”. As discussed in paragraphs 5.41 – 5.43 above, the aquifer is clearly overallocated, but whether it is over-abstracted is much less certain.
- 5.66 POL TANK 42 says that after water has been re-allocated and consents reviewed the Council will commence a review of these provisions within 10 years. By this we understood that the “interim limit” is proposed to stay in place for up to 10 years, and, on the basis of PPC9, during that time no new uses of groundwater will be allowed for via the proposed prohibited activity in Rule 12.<sup>22</sup>
- 5.67 In summary POL TANK 42 says that the Council will, *inter alia*, review the “interim allocation limit” within 10 years after water has been re-allocated and consents have been reviewed.
- 5.68 We discuss all this in much more detail in the remaining paragraphs of this chapter of our report.

### The Definition of the Actual and Reasonable Use Test

- 5.69 The actual and reasonable use test was based on a complex definition of “actual and reasonable” in the glossary of PPC9. In PPC9 this definition comprised three elements, which were in summary:
- a) No more than the quantity in the current permit, or any less amount applied for, and the least of either:
  - b) The maximum annual amount as measured by accurate water meter data in the ten years preceding 1 August 2017 for groundwater takes from the Heretaunga Plains aquifer; or
  - c) For irrigation takes, the quantity required to meet the modelled crop water demand for the irrigated area with an application efficiency of 80% as specified by the IrriCalc water demand model<sup>23</sup> and with a 95% reliability of supply (again based on the 10 years preceding 1 August 2017).

<sup>20</sup> S42A report at Paragraph 1332

<sup>21</sup> S42A Report at Paragraph 1333

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

<sup>23</sup> This is a model developed by the groundwater consultancy Aqualinc.

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

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

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

<sup>26</sup> See for instance the evidence of Gillian Holmes for HortNZ at her Paragraphs 96 -105 and Mark St Clair for the Winegrowers at his Paragraphs 101 and 102.

<sup>27</sup> S42A Officers’ Report at Paragraph 2065.

<sup>28</sup> Summary evidence of Dr Andrew Dark at Paragraph 6. Much more detail was presented in his evidence. Although he works for Aqualinc, who developed Irricalc, we consider his overall assessment is fulsome and without apparent bias.

*In applying the Irricalc model the Council will take into account any water meter data that is applicable and any site specific soil type or rainfall data not adequately addressed by Irricalc.*

- 5.76 We believe that the amended definition of “actual and reasonable” proposed by the Reporting Officers in their addendum report of 19 May 2021, together with the added words in the “pink version” is a major improvement over the definition in their original s42A Report. Apart from the change shown above we have accepted their recommendations to amend this definition.
- 5.77 In saying this we observe that there were large numbers of submissions who sought that the words “actual and reasonable” should be replaced with just “reasonable”. That would be misleading as the definition is based partly on actual use, so all those submissions have been rejected.

## Objectives and Policies

- 5.78 In this section of our report we discuss OBJ TANK 14, POL TANK 36 - 38 and 52, which are most directly relevant to the management of water quantity in the Heretaunga Plains aquifer. We also briefly discuss POL TANK 42.
- 5.79 Elsewhere we have discussed:
- a) OBJ TANK 16 and POL TANK 50 and 51, which in combination set out the priority in which water resources, including rivers, streams and the aquifer, will be managed at times when water supplies are constrained.
  - b) OBJ TANK 17 and 18, which cover the allocation and use of water, and providing for the health of the water and future generations (cross reference to Chapter 7 High Flow Allocation).

## OBJ TANK 14

- 5.80 This sets out the Council’s overall approach to managing groundwater in the Heretaunga Plains aquifer, and the rivers and streams which lose water to and gain water from the aquifer. In summary as set out in PPC9 as recommended to us the objective says that the Council will maintain mauri, water quality, water quantity and groundwater levels in the groundwater connected to the Ngaruroro, Tūtaekurī and Karamū Rivers to:
- a) Enable people and communities to meet their domestic needs and provide safe and secure supplies for municipal needs.
  - b) Enable primary production, industrial and commercial water needs and water required for associated processing and urban activities to provide for social and economic well-being.
  - c) Provide for the maintenance of groundwater levels at an equilibrium that accounts for annual climate variations and prevents long term declines or saltwater intrusion; and the contribution to water flows and quality in connected surface water bodies.

### *Submissions and Evidence*

- 5.81 There were a variety of submissions on OBJ TANK 14; some were in support, some were not relevant to this objective and others sought specific amendments of various kinds.
- 5.82 Ravensdown sought a specific amendment to sub clause b) that sought recognition of the water needs of “industrial and commercial users and water required for associated processing”. In response to this the s42A Reporting Officers recommended that the words “industrial and commercial users” be added there, as they similarly recommended in OBJ TANK 11-13 in response to similar submissions from Ravensdown.
- 5.83 In her evidence for Ravensdown Ms Taylor expressed dissatisfaction at the inclusion of only part of this phrase<sup>29</sup>. We are not clear why exactly; common sense suggests to us that water used for food processing is an “industrial or commercial use”.
- 5.84 For these reasons we support OBJ TANK 14 with the amendments recommended to us by the Reporting Officers.

### Heretaunga Plains Aquifer Management

- 5.85 In both PPC9, and in PPC9 with amendments recommended to us by the Reporting Officers, this heading along with POL TANK 36 to 38, and 42, set out the framework for managing the water resources of the Heretaunga Plains aquifer.
- 5.86 The policy framework was supported by Rules TANK 7-12 in PPC9. The six main rules, which cover the spectrum from a recommended permitted activity in Rule TANK 8 to a recommended prohibited activity in Rule 12, remain with the same numbers in PPC9 as recommended to us as in PPC9.
- 5.87 There were a wide range of submissions on the general topic of Heretaunga Plains aquifer management. They varied from supporting a ban on further allocation of new groundwater from the aquifer to seeking new water be provided, that municipal takes be excluded from these provisions to limiting takes to particular months, and reducing the total annual allocation limit from the aquifer to 70 Mm<sup>3</sup>.
- 5.88 No substantive evidence was led on this particular topic; rather the focus was on the subsequent policies and rules which cover almost all the submissions raised on the general topic of aquifer management.

### POL TANK 36

- 5.89 The two key policies that cover the detail of how the Council proposes to manage the groundwater resources of the Heretaunga Plains aquifer are POL TANK 36 and 37. In simple terms POL TANK 36 sets out what the adverse effects of groundwater abstraction are, and then presents a “staged approach” to groundwater management. POL TANK 37 details how the over-allocation, and subsequent re-allocation of groundwater will be managed. More detail is also provided in POL TANK 38, 42 and 52.
- 5.90 It goes without saying that these are both highly contentious policies, not least because they embody a potential ban on granting new consents in both POL TANK 36 and 37, and set an

<sup>29</sup> EIC of Carmen Taylor at her Paragraphs 4.10 to 4.13.

“interim allocation limit” of 90 Mm<sup>3</sup> per year in POL TANK 37, along with how the “actual and reasonable use test” will be applied.

- 5.91 POL TANK 36 says the Council recognises the actual and potential adverse effects of groundwater abstraction on the aquifer on five matters: groundwater levels, flows in connected surface water bodies, flows in the Ngaruroro River, groundwater quality via risks from sea water intrusion and tikanga and mātauranga Māori. It goes on to describe a staged approach to groundwater management which includes: not granting new consents to take and use groundwater, reducing existing levels of use, mitigating adverse effects of abstraction on flows in connected water bodies, gathering information about actual use and effects on stream depletion, monitoring the effectiveness of stream flow maintenance and enhancement schemes, and including review provisions to assess the effectiveness of these methods.
- 5.92 The s42A Reporting Officers recommended some amendments be made to POL TANK 36, but these largely tidy up the way the policy is expressed rather than make substantial changes. The most significant recommended amendment was to Clause f), which originally set out that adverse effects would be avoided by not allowing new water use; as recommended to us it now specifies that new consents to take and use groundwater will not be granted.
- 5.93 However as detailed in paragraph 5.2 above, we have decided to include a non-complying activity Rule 11A, a consequential amendment is necessary to Clause f).

#### *Submissions and Evidence*

- 5.94 There were over 50 submissions on POL TANK 36. Matters included in these submissions included:
- a) Many submitters requested that the use of “actual and reasonable” should read just “reasonable”.
  - b) A large number of submitters considered Policy 36(f) should read something like “avoiding further adverse effects by controlling net groundwater use within the “interim allocation limit” set out in POL TANK 37, and many of these submitters also sought that POL TANK 36(g) should read “encouraging water use efficiency” or similar words.
  - c) DOC, Ravensdown, NCC and Twyford water all sought specific amendments. Apart from NCC, aspects of their submissions have all been recommended to be accepted or accepted in part by the s42A Reporting Officers.
- 5.95 Mr Dooney, an expert witness for HortNZ, supported POL TANK 36, albeit with some minor changes suggested. Most of his suggested amendments have been recommended to be accepted by the s42A Reporting Officers, and we accept those recommendations.

#### **POL TANK 37**

- 5.96 This policy contains the critical detail about how the Council intends to manage the Heretaunga Plains aquifer. In summary, its five original clauses as notified in PPC9 said that in managing the allocation and use of the aquifer the Council will:
- a) Adopt an “interim allocation limit” of 90 Mm<sup>3</sup>/y based on the actual and reasonable use test.

- b) Avoid reallocation of any water if it becomes available with the “interim allocation limit” or within the limit of any connected water body until there has been a review of these limits.
- c) Manage the aquifer as an over-allocated management unit and prevent any new allocations of groundwater.
- d) When considering applications for existing consents due for expiry, or when reviewing consents:
  - i. allocate groundwater on an annual volume basis; and
  - ii. apply an assessment of the actual and reasonable use test (unless considering applications under Policy 50, which gives priority to domestic and municipal supplies).
  - iii. Mitigate stream depletion effects on lowland streams by providing for stream flow maintenance and habitat enhancement schemes.

5.97 In the “pink version” of PPC9 additional words were recommended to be added to Clause d)ii. These were based (somewhat loosely) on the evidence of Mr Drury, an expert witness for the two TLA’s, who argued that for consents currently “on hold” under (for instance) s124 of the Act, the consent authority is obliged to take account of the value of existing investment under s104(2A) of the Act when making decisions on such consents.<sup>30</sup>

5.98 In essence these recommended additional words say that in addition to applying the actual and reasonable use test the Council will take into account any of water use as part of a programmed or staged development specified in the current resource consent if:

- a) the consent holder can demonstrate that existing investment is dependent on water use greater than the actual and reasonable use test; and
- b) any part of the activity or development has not lapsed in the duration of the existing consent; and
- c) the activity or development is integral to the ongoing operation for which the consent was granted; and
- d) water demand for rootstock is available only where there is evidence that a contract to supply that rootstock existed as at 20 May 2020.

#### *Submissions and Evidence*

5.99 There were over 300 submissions on POL TANK 37, which is more than for any other single part of PPC9. Almost all opposed the policy, or more accurately parts of the policy, in some way. The main points made by submitters opposing POL TANK 37 included amending the definition of, or references to, “actual and reasonable”, amending or deleting the “interim limit”, and enabling allocation of water that may become available within the “interim limit”.

5.100 In what follows we discuss the evidence of a selected number of parties, including commercial users of water for activities such as food processing, umbrella organisations such as HortNZ and the winegrowers, and other individual companies. While we make some brief comment

<sup>30</sup> EIC of Cameron Drury at Paragraphs 16-23.



after the evidence of selected examples of each of these groups, our overall discussion and findings regarding all the relevant matters is at paragraphs 5.168 – 5.179 below.

#### *Commercial Users*

- 5.101 We heard legal submissions and evidence from a number of commercial users. They included Heinz Watties and Lowe Corporation Limited.
- 5.102 **Heinz Watties** were represented by Counsel, Ms Lara Blomfield, Mr Bruce Mackay, who is their Agricultural Manager, and Dr Anthony Davoren, a consultant whose evidence is not relevant to this discussion as it related solely to a data blimp from the Tūtaekurī flow recorder site on the Puketapu Bridge).
- 5.103 The company has two major food processing plants located on the outskirts of Hastings. It is one of the larger employers in the region, paying about \$52 million in salaries and wages annually, and they contribute up to 20% of regional GDP, which amounts to about \$1.25 billion annually. It buys about \$20 million of local fruit and vegetables annually.<sup>31</sup>
- 5.104 Heinz Watties is the single largest private water user in the region. It has its own water supply bores with a total consented volume of 8,908,652 m<sup>3</sup>/y, and a maximum use over the relevant 10 year period up to 2019/20 of 4,587,376 m<sup>3</sup>/y in 2019. It is the latter volume that would be granted under an assessment just using the actual and reasonable use test. Average annual use over that 10 years was 3,908,652 m<sup>3</sup>/y.<sup>32</sup>
- 5.105 Mr Mackay expressed concern that the maximum annual use over those 10 years will not be sufficient if there are greater volumes of fruit and vegetables to be processed in future years.
- 5.106 The other main concern expressed by Mr Mackay was that under PPC9 no consents could be granted for horticultural use on versatile land that has previously been used for other activities, notably pastoral farming. He said he was aware of “thousands of hectares of prime horticultural land” that currently under PPC9 has no prospect of getting a water take consent except via a water transfer, or seeking a high flow take for water storage. For this reason he supported the change to POL TANK 37(b) put forward by Mr Dooney, the planning expert for HortNZ. He also supported the proposed changes put forward by Mr Drury for the TLA’s to Policy 37(d)(ii).
- 5.107 Ms Bloomfield, counsel for Heinz Watties, said that if current trends for increased production for process crops continue, the company is likely to require more water than would be allocated under the actual and reasonable use test. She noted that while such consent could theoretically be granted under Rule TANK 11 as a discretionary activity, the policy direction in PPC9 would make that “difficult”. She also supported the amendment put forward in the evidence of Mr Drury to Policy 37(d)(ii).
- 5.108 **Lowe Corporation Limited** (LCL) were represented by counsel, Mr Trevor Robinson, the business’s owner, Mr Andrew (Graeme) Lowe, and Mr Gerrard Willis, an expert in planning.
- 5.109 LCL is a meat by-products business based in Hawke’s Bay that processes hides, skins and rendering material at plants throughout New Zealand. About 95% of its production is exported. In August 2020 the company employed 190 people and had an annual turnover of over \$100

<sup>31</sup> Information sourced from the EIC of Bruce Mackay, Agriculture Manager at Heinz Watties

<sup>32</sup> Ibid

million, but Mr Lowe said the workforce had reduced in response to challenging trading conditions brought about the Covid-19 pandemic.

- 5.110 LCL now operates two plants, one in Tomoana (the GHL plant) on the outskirts of Hastings, and one plant (that is jointly owned) at Whakatu (the TPP site). It also has a minority share in a meat rendering plant at Awatoto, and in 2019 “mothballed” another tannery at Pandora in Napier and moved that production to the GHL plant. The Awatoto site draws water from the Napier City Council supply and is not further discussed here.
- 5.111 Mr Lowe, who said process water was vital to LCL’s operations, described the resource consents to take and use water held by LCL. Consents exist to take up to 725,000 m<sup>3</sup>/y from two bores at the GHL site (which expire in May 2023), up to 978,000 m<sup>3</sup>/y for a well at the TPP site (which expires in May 2025) and up to 1,225,750 m<sup>3</sup>/y for “development land” at Whakatu (which also expires in May 2025).
- 5.112 The maximum annual takes for these three consents in the 10 years leading up to 2 May 2020 were 404,687, 514,812 and 201, 414 m<sup>3</sup>/y respectively. In other words, the actual and reasonable use test would reduce the total volume taken from these bores from 2,806,130 m<sup>3</sup>/y to 1,120,953 m<sup>3</sup>/y, which is a 61% reduction overall.
- 5.113 Mr Willis supported the phasing out of over-allocation of the Heretaunga Plains aquifer consistent with the NPSFM, but did not consider this was inconsistent with LCL being able to take and use water in quantities that exceed current use. He said that the NPSFM’s obligation to phase out over-allocation is at the water body scale, not to stop any existing user increasing their water take.
- 5.114 Mr Willis also asserted that industry supplied with water from municipal supply may be able to grow their water use, whereas industry supplied from its own bores cannot, is not justified in resource management terms. He also noted that under Clause 3.3 of the NPSUD the Council is required to provide development capacity to meet industrial demand.

#### *Comment on Commercial Users*

- 5.115 We think it is fair to characterise that many of the submissions on PPC9 from almost all categories of water users recognise that over-allocation of the aquifer needs to be phased out, but that they are a “special case” that should be (at least partly) exempt from such provisions.
- 5.116 LCL is a good example of this approach. In the relevant ten year period LCL has only used, as a maximum, about 40% of the water currently allocated to them in annual volumes on their resource consents. Similarly, Heinz Watties has used a maximum of just over 50% of the annual volumes water currently allocated to them. Both companies seek additional water over and above “actual and reasonable use” to provide for future growth.
- 5.117 Mr Willis told us that the NPSFM’s obligation to phase out over-allocation is at the water body scale, not to stop any existing user increasing their water take. This is contradictory – the only way over-allocation can be phased out is by overall reductions in consented water volumes where they are not presently being utilised. LCL is an example of its allocation being much greater than what they use.
- 5.118 Providing substantial exemptions from the “actual and reasonable” use test to many users would undermine the implementation of the NPSFM directive to phase out over-allocation. If one large user, or one group of users, are made exempt, the integrity of the Council’s proposed process to phase out over-allocation would be significantly eroded. A precedent would be set

that other users, or groups of users, should also get more water than justified through the actual and reasonable use test.

- 5.119 Having said this we believe that the proposed amendments to POL TANK 37(d)(ii) in the “pink version” of PPC9 should be accepted. It remains to be seen how much water and to whom these provisions will apply.

#### *Large Commercial Growers*

- 5.120 Under this heading we discuss the evidence from T&G Global Limited<sup>33</sup>, Mr Apple NZ Limited, Johnny Appleseed and Delegat Limited.
- 5.121 T&G Global Limited (T&G) were represented by legal counsel, Ms Lara Blomfield, and their Operations Director, Mr Craig Betty.
- 5.122 Mr Betty outlined T&G’s operations in Hawke’s Bay. He said the company is NZ’s largest pipfruit business accounting for about 30% of the country’s exports. In Hawke’s Bay a wholly owned subsidiary<sup>34</sup> owns or leases over 740 ha of land for apple orchards, and owns two pack houses at Whakatu, with a value of \$90 million. It also employs about 200 permanent staff and 900 seasonal employees in the region.
- 5.123 T&G Global holds over 80 resource consents, all but one of which take groundwater and all but “a very small number” which use trickle irrigation. Mr Betty acknowledged that “historically T&G had been able to get consent to take a greater volume of water than was actually needed to water its orchards” but it no longer does that (and the Council does not allow it). However T&G sought specific amendments to the definition of “actual and reasonable” that would allow extra land to be irrigated from the water previously (over) allocated to a specific land block<sup>35</sup>, and supported the proposed amendment to POL TANK 37(b) put forward by Mr Dooney (HortNZ) that would allow any water below the “interim allocation limit” that had not been allocated to specific users to be allocated to (inter alia) “essential municipal users or primary production purposes on versatile land”.<sup>36</sup>
- 5.124 The company also invests in land development; according to Mr Betty this amounts to about 60ha of new apple orchards annually, at a cost of about \$12 million. It only buys or leases land that has existing consents associated with it, but it also sought changes that could allow water transfers between properties owned and leased by T&G, and in doing so (at least implicitly) continue to take water over and above “actual and reasonable”.
- 5.125 These points were further addressed by Ms Blomfield in her legal submissions. In particular, she sought changes to the definition of “actual and reasonable” use to allow water that has been allocated for a specific future activity, but not yet fully utilised, to be renewed<sup>37</sup>. She also supported the proposed amendment to POL TANK 37(b) put forward by Mr Dooney representing HortNZ to allow some limited reallocation of water that becomes available within the “interim allocation limit”.
- 5.126 Mr Apple NZ Limited (Mr Apple) was represented by legal counsel James Gardner-Hopkins and Mr Richard Hill, their Chief Operating Officer. Mr Gardner-Hopkins said Mr Apple is a member

<sup>33</sup> T&G is better known as Turners and Growers

<sup>34</sup> Known as ENZAFruit NZ International Limited (ENZIL)

<sup>35</sup> Legal submissions of Lara Blomfield at Paragraph 19, quoting the EIC of Craig Betty at Paragraph 61

<sup>36</sup> EIC of Craig Betty at Paragraph 40

<sup>37</sup> Noting that the RMA does not provide for resource consents to be “renewed”; rather they are replaced.

of HortNZ, and supports their case, but that their focus would be on specific concerns of Mr Apple.

- 5.127 Mr Hill said that Mr Apple is Hawke’s Bay’s largest vertically integrated apple company and that it employs over 2,200 people during peak harvest and packing. It has over 50 separate orchard locations in what he called 15 sectors, with about 1,200 net planted hectares on the Heretaunga and Ruataniwha Plains. Each of the sectors vary in size from 60 hectares to over 120 hectares. The business is run as “one orchard”, by which Mr Hill meant that they make efficiency decisions (e.g. use of labour, water use) in the company as a whole.
- 5.128 Mr Hill said that Mr Apple “is generally in agreement with the big picture recommendations that have come out of the TANK process that have evolved into PPC9” but having said that he observed that “the devil is in the detail”.<sup>38</sup>
- 5.129 Expanding upon this Mr Hill said that Mr Apple are gradually replacing existing apple orchards with smaller, more closely planted higher yielding trees. However, as these have a smaller, more shallow root ball the trees more easily drought stressed, and irrigation water needs to be applied more often. Some consents have been amalgamated to provide more flexible and efficient water use. Mr Hill made a particular plea that when irrigation volumes are restricted during a season this needs to be documented in advance, and restrictions should be imposed in stages, with “a base amount available to keep trees alive”.
- 5.130 Mr Gardner-Hopkins submitted that Policy 11 of the NPSFM 2020, which reads “Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided”, is “not as directive as others might suggest”. In support of this he particularly submitted that “there is no time-frame given for the phasing out of over-allocation” and that it does not need to be “solved” by 2024, and the “avoid directive” only take effect once over-allocation is phased out, with no immediate requirement to avoid over-allocation.<sup>39</sup> We discuss this further in paragraphs 5.224 and 5.225 below.
- 5.131 Mr Gardner-Hopkins supported the S42A Reporting Officer’s recommendation to change the basis for the actual and reasonable use test to the maximum over the 10y period specified, but that if a model is used instead, context specific factors need to be taken account of. Additionally, his client wishes to seek “global consents” for some sectors or groups of orchards, but he was not sure how this would fit within the individual consents definition of “actual and reasonable”, or if it was within the “transfer provisions” of PPC9. One way of providing clarity around this would be for worked examples to be provided, or alternatively, for joint or global consent applications that may not meet Rule TANK 11, he sought that Rule TANK 12 be a non-complying activity.
- 5.132 Johnny Appleseed was represented at the hearing by Paul Paynter, who provided a Power Point summary of their submission. The company holds about 70 titles covering 700ha of mostly apples, pears and stonefruit, and employs about 360FTE’s. Mr Paynter asserted that the Council’s understanding of the horticultural growers was “naïve” and that they had a limited understanding of the needs of the industry. He said that there was immense opportunity for improvement, and that must be industry led.

<sup>38</sup> EIC of Richard Hill at Paragraph 13.

<sup>39</sup> At his Paragraphs 20 and 21.

- 5.133 The company's submission points were the same as those from HortNZ, which we addressed comprehensively when discussing their evidence and submissions. We do not need to repeat that here.
- 5.134 Delekat Limited were represented at the hearing by Ms Blomfield. They had circulated expert evidence from Dr Balasubramaniam, the company's Grower Business Development Manager, but he had taken ill and no other company representative was available at short notice.
- 5.135 In Hawke's Bay Delekat has 677ha of vineyard planted in the region, and in total owns about 1000ha of land, with over 800ha in two blocks at Matapiro Road on the Crownthorpe Terraces<sup>40</sup>, with the balance in the Gimblett Gravels. The company also owns a winery north of Hastings. Dr Balasubramaniam said that the current value of these assets is about \$230 million.
- 5.136 Delekat employs about 30 permanent staff and up to 300 contractors on a seasonal basis. The company holds consents for the separate vineyards, and another for the winery (along with some other land uses).
- 5.137 Ms Blomfield discussed proposed amendments put forward by the S42A Reporting Officers', and she supported many of these.
- 5.138 Delekat's main concerns were similar to other horticultural uses – and particularly the wine growers and orchardists – that the definition of "actual and reasonable" combined with POL TANK 36(f) potentially preclude the use of water presently consented for planned future development.

#### *Discussion*

- 5.139 As we support the proposed changes in the "pink version" of PPC9 to POL TANK 37(d)(ii) some of the criticisms made above will be overcome. This is because water takes presently consented, but not yet used, for planned future development may be able to be consented under this policy.
- 5.140 We do not support the proposed amendments put forward by Mr Dooney to POL TANK 37(b) for reasons we discuss in paragraphs 5.172 and 5.173 below.

#### *Horticulture New Zealand (HortNZ)*

- 5.141 Hort NZ represent growers of all kinds on the Heretaunga Plains, including vineyards, fruit growers and vegetable growers. We note that the winegrowers provided separate legal submissions and evidence, and we discuss this separately below.
- 5.142 Hort NZ were represented at the hearing by legal counsel, Ms Helen Atkins<sup>41</sup>, and six expert witnesses: Andrew Dooney (planning), Stuart Ford (economics and Overseer), Gillian Holmes (hydrology), Catherine Sturgeon (water quality), Damien Farelly (NZGAP) and Michelle Sands (corporate and grower statements). We deal with the legal submissions and evidence providing an overview of horticulture on the Heretaunga Plains, and those matters directly relevant to groundwater management here.
- 5.143 The importance of Hawke's Bay to fruit and vegetable production in New Zealand was outlined by Ms Sands in her EIC. There is an estimated 20,600ha of horticultural land in the region,

<sup>40</sup> One of these blocks is now part irrigated from up to 700,000 cubic metres of water that can be taken from the Ngaruroro River during winter high flows.

<sup>41</sup> Who was supported by Ms Nicole Buxeda

which is 15% of the total such land in the country. Of this, 16,800ha is in the TANK catchments, and by area is made up of about 40% in vegetable growing, 35% in pipfruit and 25% in grapes.<sup>42</sup>

- 5.144 The region accounts for about two-thirds of the country's apple and pear production, and it has the second largest crop of summer fruit (after Central Otago). It also produces over 30% of the country's process vegetables and is the region with the largest squash production. Two major food processing companies – Heinz Watties and McCain Foods - have fruit and vegetable processing plants in Hawke's Bay.
- 5.145 Ms Sands said that about \$761 million per annum was generated by the sector in 2017, which is just over 10% of the regional economy, and that in 2020 the industry employed about 6,700 people, albeit many of whom are seasonal workers. Additionally, Heinz Watties and McCains employed about 1,800 people in their food processing plants.
- 5.146 Earnings from horticulture are sensitive to irrigation restrictions. This was shown by Mr Ford in his Table 2, where although the scenarios presented are far more restrictive than proposed in PPC9, does show that in a very dry water year (2012/13), horticultural earnings on the Heretaunga Plains could suffer significantly.
- 5.147 Ms Sands summarised the overall position of HortNZ in her EIC as follows:<sup>43</sup> In most parts HortNZ supports PPC9. The staged approach within PPC9 is ambitious but achievable, and it is largely consistent with the process outlined in the NPSFM 2020 and with sustainable management as set out in Part 2 of the RMA.
- 5.148 The exception expressed in the words "in most parts" was outlined by Ms Atkins<sup>44</sup> as being that PPC9 (as then drafted via the Addendum Report) "does not make adequate provision for, nor give appropriate recognition to, the realities of water requirements for food supply needed to support a growing population".
- 5.149 Both Ms Atkins and Ms Sands opined that the growing of fruit and vegetables for domestic consumption enable the health needs of people, and so in their view, fit into Tier 2 of Objective 1 of the NPSFM<sup>45</sup>. Ms Sands then further argued that this meant a provisional additional allowance should be made for extra water for growers. On the same basis Mr Dooney argued OBJ TANK 10-14 and 16 are "required" to be altered to include a reference to food production.<sup>46</sup>
- 5.150 In their addendum report the Reporting Officers had opined that "some horticulture may fit inside Tier 2 of (Objective 1)" and that they were "not sure how the Council could determine how much water we could allocate to grow fruit and vegetables for domestic supply".<sup>47</sup>

#### *Discussion*

- 5.151 We do not agree that the growing of fruit and vegetables for domestic supply clearly fits into Tier 2 of Objective 1.
- 5.152 Separately one of the Panel has had argued before him that wastewater treatment and disposal, and the generation of hydro-electric power also fit into Tier 2. The problem that all

<sup>42</sup> Or perhaps more accurately 16,851ha. EIC of Stuart Ford at his Table 1.

<sup>43</sup> EIC of Michelle Sands at Paragraph 67, paraphrased.

<sup>44</sup> Legal submissions of Helen Atkins at Paragraph 4.

<sup>45</sup> See for instance the legal submissions of Helen Atkins at her Paragraphs 18 -34.

<sup>46</sup> EIC of Andrew Dooney at Paragraphs 32 and 33

<sup>47</sup> s42A addendum report at pp 15.

these assertions about Tier 2 have is that the Objective of the NPSFM 2020 is very ambiguous, referring only to the “health needs of people (such as drinking water)”. Quite what else fits into Tier 2 is unable to be determined from such a vague description. Given this, we find it more likely that activities such as the growing of vegetable for domestic supply fits more logically into Tier 3, which is “the ability of people and communities to provide for their social, economic and cultural well-being, now and in the future. This view was supported by Mr Conway in his legal submissions on behalf of the Council.

- 5.153 As we have set out in our discussion on commercial users at paragraphs 5.115 – 5.119 above many parties broadly supported POL TANK 37 but argued they were a “special case” that warranted additional water being granted over and above “actual and reasonable”. HortNZ were no exception for this, and apart from the significant amendments to POL TANK 37 d)(ii), we do not accept their plea for greater exemptions from the “actual and reasonable” use test.

#### *The Winegrowers*<sup>48</sup>

- 5.154 The winegrowers were represented at the hearing by Ms Shannon Johnston of Cooper Rapley Law, and five expert witnesses.
- 5.155 The national significance of vineyard production in the Hawke’s Bay region was detailed particularly by Mr Fabian Yukich, who among other roles is a Director and Deputy Chair of NZ Winegrowers, and Chair of their environment committee. His family have been involved in winegrowing since the 1930’s and were the founding family of Montana Wines.
- 5.156 Mr Yukich said that wine is New Zealand’s 6th largest export commodity, with exports totalling \$1.92 billion in the year ending 30 June 2020, during which the Hawke’s Bay region produced 43,000 tonnes of grapes. The industry employs about 1,000 people in the region. A very large proportion of NZ’s production of red wine varieties, including merlot and syrah, are produced in Hawke’s Bay.
- 5.157 There are 100 wineries in Hawke’s Bay, with about 57 grape growers and 4,721ha of land utilised for grape growing. About 75% of this land is in the TANK catchments, with the main exceptions being on the Ruataniwha Plains and the lower Esk catchment. The region is the second largest wine growing area in the country after Marlborough.
- 5.158 Of the total land in vineyards about 3,577ha are irrigated, including all those in the economically important Gimblett Gravels and Bridge Pa triangle subregions.<sup>49</sup>
- 5.159 Dr Edwin Massey, who is General Manager Sustainability at NZ Winegrowers, said that nationally almost 45 million cubic metres of water was used nationally by vineyards in 2019/20, with 98% of this for irrigation. Of this Hawke’s Bay used an estimated 5.32M m<sup>3</sup>, which equates to an average of about 149mm per annum of irrigation water being applied per unit area of vineyard.
- 5.160 Mr Yukich, Dr Massey and another expert witness, Ms Emma Taylor, emphasised the critical importance of irrigation to different stages of vineyard production, particularly on the light

<sup>48</sup> This embraces Hawke’s Bay Winegrowers Association Limited, Gimblett Gravels Winegrowers Association, Villa Maria Estate Limited and Pernod Ricard Winemakers New Zealand Limited. We refer to them collectively, as the witnesses did, as “the winegrowers”.

<sup>49</sup> EIC of Emma Taylor at Paragraph 21



alluvial, free draining soils that hold little water, but which are of very high value for vineyard production.<sup>50</sup>

- 5.161 Ms Taylor also observed that many existing vineyard plantings will have to be replaced within the lifetime of PPC9, and that recent industry trends are for higher planting densities, which she asserted are more efficient. She said however that under PPC9 “there would not be enough water for existing vineyards to continue, let alone any development of higher density, and therefore more efficient, plantings”.<sup>51</sup>
- 5.162 The overall position of the winegrowers was summarised by Ms Johnston. She submitted that winegrowers are responsible water users, and that in many respects the water quantity objectives of PPC9 align with viticulture industry best practice. While this meant that the winegrowers are generally supportive of the overall intent of PPC9, particularly in regard to over-allocation in the TANK catchments, they seek amendments to better reflect that intent or improve its workability for viticulture in the region.<sup>52</sup>
- 5.163 In particular Ms Johnston asserted that PPC9 applies a “sinking lid” approach to water allocation, at least as far as individual growers are concerned.<sup>53</sup> In her view this meant that “a vineyard’s water allocation can go down but will never return to a previous level.”<sup>54</sup> She opined that this locks existing viticultural activities to already low water use, and that this would “significantly restrict intensification of existing operations”. In saying this Ms Johnston acknowledged that Rule TANK 11 is intended to preserve some flexibility by enabling individual applications that exceed the actual and reasonable use test to be assessed as discretionary activities. In her view however, any such application would face difficult s104 tests when assessed within directive objectives and policies which require over-allocation to be avoided and phased out over time.<sup>55</sup>

#### *Discussion*

- 5.164 The assertion that PPC9 includes a “sinking lid” provision, which counsel for the winegrowers Ms Johnston asserted means a vineyard’s water allocation can go down under the actual and reasonable use test but will never return to a previous level. This will indeed be the case if the particular vineyard was previously allocated more water than necessary under the “actual and reasonable” use test.<sup>56</sup> It also applies to other water users, bar perhaps the TLA’s.
- 5.165 We accept that there is an associated issue that as winegrowing industry practice is changing to more intensive plantings, more water will actually be needed per unit area to support these plantings, and PPC9 makes no provision for this. The changes to POL TANK37 (d)(ii) in the “pink version” of PPC9 do not cover this situation; rather it is explicitly not allowed under earlier sections of POL TANK 37.
- 5.166 What is not stated in the Winegrower’s evidence is that the vineyards are often owned by larger companies that can transfer water from one site to another (within some significant location related constraints – see POL TANK 48). If for instance a crop is removed, there will

<sup>50</sup> Particular examples include the Gimblett Gravels and Bridge Pa Triangle growing areas.

<sup>51</sup> EIC of Emma Taylor at Paragraph 50

<sup>52</sup> Legal submissions of Shannon Johnston at Paragraphs 4 and 5.

<sup>53</sup> We make this distinction because the use of the terminology “sinking lid” is more commonly used to refer to staged reductions in an overall allocation limit, in this case the 90 Mm<sup>3</sup> per annum. This is not the intention of PPC9.

<sup>54</sup> At her Paragraph 34

<sup>55</sup> At her Paragraph 37

<sup>56</sup> As supported for instance in the EIC of Andrew Dooney at his Paragraph 122



be a gap between that and new plantings. If those plantings are to be more intensive, some of the existing infrastructure will have to be replaced (such as fencing wires). Our suspicion is that there would be at least a year between the old stock being removed and the new stock being planted, in which case water could be transferred to another user.

5.167 While we think the winegrowers have a case, providing exceptions in their circumstances makes it difficult to maintain any sort of equity for all users. To put it another way, if one particular exemption is made to the overall allocation framework in PPC9 for commercial growers of any type, this potentially opens the door to many other exemptions. We are not prepared to let that happen.

#### *Overall Discussion of the Summarised Evidence*

5.168 All the submitter's evidence discussed above agrees that the aquifer is overallocated and that this must be phased out; all broadly support the amended "actual and reasonable" use test (but in some instances have reservations about the Irricalc alternative model), and most argue that they are a "special case" that should be treated preferentially under PPC9, and so given some extra water over and above the "actual and reasonable" use test.

5.169 This raises a number of fundamental issues.

5.170 The first issue is whether water presently consented for proposed development, but not yet used, should be able to have those existing consents replaced. This a major issue for many of the grower group and/or umbrella organisations. In response to this, the Reporting Officers recommended amendments to POL TANK 37d(ii)<sup>57</sup> in the "pink version" dated 30 July 2021. Note that these are conjunctive, and quite restrictive. They do, none the less, go part of the way to meeting the concerns expressed by much of the evidence summarised above that the previously recommended framework would mean no development planned in May 2020 could go ahead under the "actual and reasonable" definition framework alone. We support these changes, with the words "where applicable" added to the start of the clause referring to rootstock survival to improve the way the policy is expressed.

5.171 The second is whether POL TANK 37(b) should be redrafted to allow (rather than avoid) any reallocation of water within the groundwater allocation limit, or within the limit of any connected (surface) water body, rather than wait for a review of the relevant allocation limits. Accompanying changes are sought to POL TANK 38 to allow "new entrants" (rather than just existing consent holders) to apply for consents for re-allocated groundwater.

5.172 This amendment was put forward by Mr Dooney, an expert planning witness for HortNZ.<sup>58</sup> It was not supported by the Reporting Officers, but as outlined above, was supported by a number of other expert witnesses and counsel at the hearing. It would replace the words in POL TANK 37(b) as follows:

- a) The current words read *"avoid reallocation of any water that might become available within the interim groundwater allocation limit or within the limit of any connected water body until there has been a review of the relevant allocation limits within this plan"*.
- b) Mr Dooney's suggested words would read *"restrict the reallocation of any water that might become available within the interim groundwater allocation limit or within the*

<sup>57</sup> Note the same changes are made in Policy 52(b)(i).

<sup>58</sup> EIC of Andrew Dooney at his Paragraph 129.

*limit of any connected water body to essential municipal uses or primary production on versatile land, or for use in stream flow or enhancement schemes.*

- 5.173 Although this suggestion has merit, it favours one sector – primary production – over others such as food processing. The removal of the words “or primary production on versatile land”, would effectively focus the policy on municipal uses – which are given priority allocation in any case, and stream enhancement schemes, which we consider should have similar priority.
- 5.174 A third issue – raised particularly by the Winegrowers – is the impact of Zone 1 restrictions on the viability of vineyards within this zone. In essence groundwater in Zone 1 is considered to have strong hydraulic connections to surface water, so any groundwater take in this zone is proposed to be treated as a surface water take, and so is subject to minimum flow restrictions, particularly in the Ngaruroro catchment.
- 5.175 In paragraph 6.5 of Chapter 6 of our report we say:

*Under the “pink version” of PC9, the Zone 1 groundwater boundaries can be found in the Schedule 31 Maps A, C and E <sup>59</sup>. They essentially cover a thin ribbon of land on either side of the lower Ngaruroro River (downstream of about Poporangi Stream), the lower Maraekakaho River and Tūtaekurī River downstream of the Mangaone River confluence. Groundwater takes in Zone 1 are to be managed as if they are direct surface water takes on the assumption that their close proximity to surface waters means that likely to be hydrologically connected to them. Land use in Zone 1 is primarily intensive (e.g., cropping, vineyards and orchards). In response to an information request from the panel, Mr Shannon Johnston, Counsel for the Wine Growers, providing information on the number of vineyards, the total vineyard area and the number of vineyard bores within Zone 1<sup>60</sup>. That information indicated there was approximately 2,363 ha of vineyards in Zone 1 land (the majority in the Ngaruroro catchment) drawing water from 68 bores. There is a total of 219 bores in Zone 1 across all land uses.*

- 5.176 Our understanding is that restrictions on surface water takes from the Ngaruroro are quite common, so these takes could face significantly more restrictions than they currently do.
- 5.177 Chapter 6 of our report discusses minimum flows in rivers and streams within the TANK catchments. The current minimum flow for the Ngaruroro River at Fernhill is 2,400 litres per second, and we have found no good reason to change that. This will be the flow where the bores in Zone 1 have to stop taking water, just as if they were surface water takes (which effectively they are).
- 5.178 We recognise that this is a significant change for growers who hold consents to take or use water in Zone 1. The s32 report evaluated the consequences of this change, including costs and benefits. We agree with that evaluation.
- 5.179 We also observe that the Objective of the NPSFM 2020 gives priority to the “health and well-being of water bodies and freshwater ecosystems” over all human use values. The minimum flow on the Ngaruroro River has been established to protect instream values, and it is not

<sup>59</sup> The Council’s own submission sought a correction to the planning maps so that Zone 1 groundwater areas that are connected to the Ngaruroro River are removed from Schedule 31E and inserted onto Schedule 31C. This change improves clarity and consistency.

<sup>60</sup> Wine Growers’ response to the panel’s request for further information, 2 July 2021.

acceptable that those be eroded downstream of the minimum flow setting point at Fernhill by takes of water that will affect surface water flows.

#### *Overall Findings on POL TANK 37*

- 5.180 We have already discussed the definition of “actual and reasonable” in paragraphs 5.69 - 5.77 above, where we outlined our reasons for agreeing with the Reporting Officers’ latest recommendations as to how this definition is worded. We do not need to repeat any of that here.
- 5.181 The first key component of POL TANK 37 is the proposed ““interim allocation limit””, which we now discuss in detail.
- 5.182 The ““interim allocation limit”” of 90 Mm<sup>3</sup>/y is the Council’s “best estimate of consented actual and reasonable use across the Heretaunga Plains, including consented and permitted takes.”<sup>61</sup>
- 5.183 There are three main issues with this estimate: first, will it reflect actual and reasonable use once this is determined fully, second, is it strictly a “limit”, and third, is it the “right number”.
- 5.184 We have already discussed whether it will reflect “actual and reasonable” use once this is determined in paragraphs 5.57 and 5.58 above, where we concluded that the likely answer to this is that it likely will.

#### *Is it a Limit?*

- 5.185 We do not believe the way the “interim allocation limit” has been established is necessarily consistent with the definition of a limit in the NPSFM 2020, which is:
- a) Limit means either a limit on resource use, or a take limit
  - b) Limit on resource use means the maximum amount of a resource use that is permissible while still achieving a relevant target attribute state.
- 5.186 As target attribute states all relate to water quality, and not water quantity, so the “interim allocation limit” is a take limit by definition. To be so, the Council would have to specify clearly that no more than 90 Mm<sup>3</sup>/y will be allocated during any one water year for the life of PPC9. The Council does this by defining the terms “allocation limit for surface water” and “allocation limit for groundwater” in the glossary. The latter says that this is “the maximum quantity that is able to be allocated in water permits”...“and is the sum of the of maximum water permit allocations for the groundwater zone”, which is a definition we support This is primarily given effect to in POL TANK 37(a) which refers to the 90 Mm<sup>3</sup>/y. Critically however that “interim limit” is based on and driven by the “actual and reasonable” use test, which is specified in POL TANK 37(d) (which was recommended to have significant amendments to provide for development in train in the “pink version” of PPC9 dated 30 July 2021.
- 5.187 The annual quantum of groundwater that will eventually be allocated via the “actual and reasonable” use test is not known at this time. As already noted, Ms Robotham had opined that in 2012/13 the actual annual volume of water used could be up to 10% less than 90 Mm<sup>3</sup>/y. Given that annual volumes used by many irrigators during that year were not recorded and so had to be estimated, such uncertainty is to be expected.
- 5.188 Additionally, given the furore that arose from the initial recommended exclusion of the 2019/20 water year from assessing the maximum annual volume used through the actual and

<sup>61</sup> S42A Officers’ Report at Paragraph 1332

reasonable use test, our inkling is that many irrigators used more water in 2019/20 than they did in 2012/13. Alternatively, in some (or perhaps many) instances, it may well be that the volume of water taken in 2019/20 was much more accurately measured.

- 5.189 The key point here is that no one knows with certainty how much water will be allocated to irrigators via the “actual and reasonable” use test. It seems very likely that the total allocation will be less than 90 Mm<sup>3</sup>/y, but it could be slightly more.
- 5.190 Our understanding of the way the “interim allocation limit” would be imposed via PPC9 is that, regardless of whether the actual annual volume allocated via the actual and reasonable use test is (say) 87 Mm<sup>3</sup>/y or 90 Mm<sup>3</sup>/y Rule TANK 12 would prohibit the allocation of any more groundwater from the Heretaunga Plains aquifer. The proposed prohibition would also apply if the annual volume allocated eventually exceeds the 90 Mm<sup>3</sup>/y “interim allocation limit”.
- 5.191 Additionally, no policy settings change if the “actual and reasonable” use test, in conjunction with POL TANK 37, allocates either less or more than the 90 Mm<sup>3</sup>/y “interim allocation limit”.
- 5.192 In our view this means that the ““interim allocation limit”” is not strictly a limit at all. It is not for instance like setting a minimum flow for a river, below which no more water can be taken apart for essential uses such as domestic and municipal supply. This fits with the NPSFM definition of a take limit.
- 5.193 We have chosen however to use the phrase “interim allocation limit” in PPC9. We punctuate the phrase with parentheses because it is not strictly a limit as defined in the NPSFM 2020. As we have acknowledged previously however, it is very difficult to set a “limit” that can be defended strongly in a large and complex aquifer.
- 5.194 In his expert evidence for the TLA’s Mr Drury suggested it would be more appropriate to refer to the “limit” as a “target”.<sup>62</sup> However we think that understates what the Council is trying to achieve. While it is not strictly a “limit” in the legal sense, we cannot think of a better word, so throughout the text of this decision, but not in PPC9 itself as modified by our decisions we have used the words “interim allocation limit” throughout.

#### *The Quantum of the “interim allocation limit”*

- 5.195 The ““interim allocation limit”” is not strictly based on any firm scientific assessment of how much water can be taken “sustainably” each year from the aquifer. Rather it is based on what the Reporting Officers referred to as “essentially our best estimate of consented actual and reasonable use across the Heretaunga Plains, including consented and permitted takes.”
- 5.196 To use the vernacular, this puts the cart before the horse. It essentially says that “the Council will grant the consents to existing consent holders using the criteria listed in POL TANK 37, which includes the “actual and reasonable” use test, and then figure out if the 90 Mm<sup>3</sup>/y is right or not”. In the meantime, the Council had proposed that no new groundwater would be allocated until the “interim allocation limit” is reviewed, which under POL TANK 42 would be within 10 years, as Rule TANK 12 would prohibit new takes of groundwater.
- 5.197 In an ideal world, how much water could be taken sustainably from the aquifer each water year would be determined first, and then water would be allocated up to, but not beyond, that limit.

<sup>62</sup> EIC of Cameron Drury at his Paragraph 46

- 5.198 As already noted however, it is very difficult to assess how much groundwater can be taken sustainably each year from a large aquifer. Groundwater use is very seasonal, with the greatest volumes used over the summer months when irrigation demand peaks, and similarly municipal demand is highest (such as for watering of gardens), as are some commercial activities, such as food processing. For this reason, groundwater levels in bores on the Heretaunga Plains vary by about 1.5 – 3 metres each water year.
- 5.199 Groundwater recharge can also be highly variable year by year. In some years, such as the 2021/22 water year which was extremely wet, recharge via both rivers and streams and LSR would be well above average, whereas irrigation demand would be much below average. However in dry years the opposite applies – recharge will be below average, LSR will be much lower and irrigation demand will be well above average.
- 5.200 One of the ways that the Council attempted to determine how much water could be taken sustainably from the aquifer was to develop a model.
- 5.201 The groundwater model of the aquifer is both complex and multi-dimensional. It was calibrated using over 800 parameters, including aquifer properties, river bed conductances, land surface recharge and irrigation demand multipliers, coastal boundary conductances and drain bed conductances. In all, nearly 50,000 hours was spent running the model using a wide range of different inputs. Despite this, some uncertainties remain with the model (as they do with all groundwater models).
- 5.202 One main finding from the model is summarised in Appendix 11 as follows:
- A dry climate scenario was run to repeat conditions from the dry year 2012–2013 every year for the next 100 years. Results indicate that groundwater levels and river flows remain at low levels, but there is not a long term declining trend, provided the groundwater pumping continues at the rates applied in 2012–2013 (90 Mm<sup>3</sup>/year) across the Heretaunga Plains groundwater system, which is about 20% higher than average pumping between 2005–2015 (76 Mm<sup>3</sup>/year).*
- 5.203 Within the acknowledged limitations of the model, this suggests that the 90 Mm<sup>3</sup>/y “interim allocation limit” is quite conservative. If it is about the maximum volume of groundwater able to be taken in each water year, it will not be taken every year, as in some generally more wet water years water demand will be significantly less than this.
- 5.204 There was general support for the ““interim allocation limit”” being set at 90 Mm<sup>3</sup>/y, albeit alongside a modified definition of “actual and reasonable” as discussed at paragraphs 5.69 – 5.77 above.
- 5.205 The main party advocating for a lower “interim allocation limit” was NKII, who sought a total allocation limit of 70 Mm<sup>3</sup>/y from the Heretaunga Plains aquifer. This was apparently based on a very conservative approach to the water budget model (see paragraph 5.36 above) that assessed annual groundwater pumping at 78.1 Mm<sup>3</sup>/y. It was also based on Mr Tiuka’s assertion that “actual and reasonable” should be assessed on the basis of the lowest annual use of water during the 10 year period, which is a little under 70 Mm<sup>3</sup>/y.<sup>63</sup>
- 5.206 The water budget information cited by Mr Tiuka is now outdated. Actual estimates of annual water use are available, and these are shown in the table extracted from Mr Waldron’s evidence at paragraph 5.48 above. It shows that actual water use exceeded 80 Mm<sup>3</sup>/y in four

<sup>63</sup> EIC of Ngaio Tuika at his Paragraphs 90-102

of the ten years of record. This is due primarily to annual water demand for irrigation being highly variable.

- 5.207 In relation to the lowest annual use recorded being the basis of an actual and reasonable use test, we agree with Ms Johnston, counsel for the Winegrowers, that no technical evidence or analysis was provided in support of this proposed reduction in the “interim allocation limit”.<sup>64</sup>
- 5.208 We asked Ms Wilson, NKII’s planning expert witness, how she would envisage the proposed 70 Mm<sup>3</sup>/y being implemented given that it would most severely affect growers of horticultural, viticultural and vegetable crops. Her response was somewhat dismissive of these concerns, and she suggested this was an issue that the Council would just have to grapple with.
- 5.209 While we accept that an allocation limit of 70 Mm<sup>3</sup>/y would very likely improve spring flows in some groundwater fed streams on the Heretaunga Plains, we cannot accept that this could only be achieved through severe and arbitrary reductions in water volumes available for irrigation in dry water years. Looking for instance at the worst case water year of 2012/13, the total estimated water use for irrigation was over 52 Mm<sup>3</sup>/y, and to achieve a 70 Mm<sup>3</sup>/y allocation limit this would need to cut by over 20 Mm<sup>3</sup>/y, which represents a nearly 40% reduction in take on average to each irrigator who takes water from the aquifer.
- 5.210 Much evidence was provided that in dry years this would have disastrous consequences for many water users on the Heretaunga Plains, with widespread crop, orchard and viticultural failures, leading to major economic losses for growers and downstream processors.
- 5.211 We believe that irrigators need sufficient groundwater to be allocated to them to carry them through dry or very dry water years in an economically sustainable way. In saying this we note that collaborative approaches to water use – notably the Twyford Water group – can maximise the efficient use of water by a co-operative approach that is effectively “enforced” within the user group. Further, temporary water transfers and the like, particularly when crops are removed to be replaced, are an option available to many companies and grower groups.<sup>65</sup>
- 5.212 Based just on the modelling, the “interim allocation limit” could be regarded as conservative. However, based on actual groundwater levels, which have been slowly declining in some parts of the aquifer, the interim limit could be regarded as a little generous. It seems to us to strike about the right balance.
- 5.213 For these reasons the submissions of parties seeking a reduction in the “interim allocation limit” to 70 Mm<sup>3</sup>/y have been rejected. We have decided that the “interim allocation limit” will be set in PPC9 as 90 Mm<sup>3</sup>/y, via POL TANK 37(a).

## POL TANK 52

- 5.214 We have chosen to include POL TANK 52 in this chapter of our report because although it covers over-allocation of groundwater and surface water in the TANK catchments, most of the existing over-allocation is from the Heretaunga Plains aquifer. Additionally, the recommended amendments to Clause d(iii) of POL TANK 37 in the “pink version” of PPC9, that would enable developments in train to potentially be allocated water over and above the “actual and reasonable,” use test, have also been recommended to be included in POL TANK 52 as Clause

<sup>64</sup> Legal Submissions of Shannon Johnston at her Paragraph 54

<sup>65</sup> As provided for by TANK Policy 48.

b(iii) . We support the addition of this text in POL TANK 37, and for the reasons discussed there we also support their inclusion in POL TANK 52. We do not discuss this matter further here.

- 5.215 To give some context to this discussion we noted at paragraph 5.2 of this Chapter of our report that we have added a new non-complying activity Rule 11A, which is restricted to water potentially taken for essential human health needs and for any such consent to be granted, must pass high policy thresholds. A minor consequential change is necessary to POL TANK 52 to reflect our decision to provide an additional Rule TANK 11A as a non-complying activity.
- 5.216 POL TANK 52 in part implements OBJ TANK 18, which is discussed in Chapter 7 of our report on high flow allocation.
- 5.217 POL TANK 52 was included in PPC9. It set out how the Council would phase out over-allocation and listed eight ways in which this would occur. They included:
- a) preventing new allocation of water;
  - b) allocating water via the “actual and reasonable” use test;
  - c) imposing conditions on consents that required good management practice, and that water was used efficiently;
  - d) reducing the amount of water that could be taken without consent (apart from uses occurring before 2 May 2020);
  - e) encouraging site to site transfers of water, but not of allocated but unused water;
  - f) enabling flexible use of water such as through catchment collectives, water user groups or global water permits; and
  - g) supporting the rostering of water use or reducing rates of take to avoid water use restrictions at minimum or trigger flows.
- 5.218 The s42A Reporting Officers recommended a number of amendments to the policy, the most significant of which are those identical to which we have agreed to in POL TANK 37. That aside, only relatively minor changes are recommended by the Reporting Officers to POL TANK 52; we would describe these as improving the language and clarity of the policy rather than making any fundamental changes to what was notified in PPC9.

#### *Submissions and Evidence*

- 5.219 There were over 100 submission points on POL TANK 52. They included enabling takes at high flows for storage and release, changing the meaning of “actual and reasonable”, enabling allocation of surface water above “actual and reasonable”, and enabling the transfer of allocated but unused water.
- 5.220 In his expert evidence on behalf of Lowe Corporation, Mr Willis sought changes to POL TANK 52 b(ii).<sup>66</sup> The s42A Reporting Officers recommended that these changes, that refer to matters such as good management practice and good management standards, largely be accepted, and like Mr Willis, we support their recommendations.

<sup>66</sup> EIC of Gerrard Willis at his Paragraph 110.

- 5.221 In the Appendix to her expert evidence Ms Wilson sought that the clause that referred to the “actual and reasonable use” test in POL TANK 52 be deleted. No supporting evidence was presented to support this change. We consider that the “actual and reasonable” use test is fundamental to phasing out over-allocation, and we cannot understand why she sought to have this removed from POL TANK 52.
- 5.222 Mr Dooney, an expert witness for HortNZ supported the Reporting Officers recommended amendments to POL TANK 52 in response to his client’s submissions.

#### *Discussion and Findings*

- 5.223 POL TANK 52 gives effect in part to Policy 11 of the NPSFM 2020, which is “that freshwater is allocated and used efficiently, all existing over-allocation is phased out and future over-allocation is avoided”.
- 5.224 In his legal submissions on behalf of Mr Apple, Mr Gardner-Hopkins submitted that<sup>67</sup>:

*There is no time frame given for the phasing out of over-allocation. While the NPSFM is required to be given effect to by 2024, that does not mean that any over-allocation must be “solved” by 2024. The timing of any measures must be proportionate, taking into account all relevant considerations including economic well-being under s5 of the RMA, as well as efficiency under s7(b). (c) Importantly, the avoid directive only takes operative effect once any over-allocation is phased out. There is no immediate requirement to “avoid” over-allocation.*

- 5.225 We do not agree. The direction to avoid any further over-allocation and phase out existing over-allocation has been in the NPSFM as Objective B2 since 2014. It is not a new requirement, and the Council is obliged to give effect to this provision for the last eight years. There is no justification for the Council not to give immediate effect to the requirement to avoid over-allocation.
- 5.226 In response to submissions the s42A Reporting Officers recommended that the words “or high flow allocations” be added to Clause (a) of POL TANK 52. As this is a necessary addition to provide consistency with the high flow allocation provisions in PPC9, we support their recommendation.
- 5.227 The Reporting Officers recommended that submissions that sought to change the meaning of “actual and reasonable”, enable allocation of surface water above “actual and reasonable”, and enable the transfer of allocated but unused water be rejected. We support their recommendations; accepting any of these submission points would be inconsistent with our other decisions on PPC9.

<sup>67</sup> At his Paragraph 20.9



## POL TANK 38

5.228 This is a relatively short policy that states the Council will restrict the re-allocation of groundwater to holders of permits to take and use water from the aquifer as at 2 May 2020, and will review permits or allocate water according to PPC9 policies and rules either upon expiry of the consent, or by reviewing permits within 10 years of the operative date of PPC9.

### *Submissions and Evidence*

5.229 There were 86 submissions on POL TANK 38. The great majority of them opposed the policy, and either sought that water can be re-allocated to any applicant, rather than just existing permit holders as of 2 May 2020, or that (in effect) Mr Dooney’s proposed amendment to POL TANK 37(b) be included in PPC9. We have already discussed our reasons for not accepting the full text of Mr Dooney’s recommended amendment to POL TANK 37(b) in paragraphs 5.171 – 5.173 above.

### *Discussion*

5.230 The Reporting Officers have recommended some minor changes to POL TANK 38, and we support those recommendations

5.231 We were initially concerned that the Council envisages that the “interim” limit could stay in place for up to 10 years via POL TANK 42. However given the very large number of consents presently “on hold” under the provisions of s124 of the RMA, along with the large numbers expiring over the next five years or so, we support this provision in POL TANK 42. We discuss this in Chapter 2, paragraph 2.4 (g).

## POL TANK 42

5.232 This policy commits the Council to review the “appropriateness” of the “interim allocation limit”, and to develop a plan change to ensure any over-allocation is phased out within 10 years of PPC9 becoming operative. This would occur after water has been allocated and consents reviewed in accordance with POL TANK 36-38 and will (in summary) determine:

- a) The amount of water allocated in relation to the “interim limit”.
- b) The annual volume of groundwater recorded to be used over each of those 10 years.
- c) Whether there are changes in the relationship between groundwater abstraction, river flows and groundwater levels.
- d) In relation to the adverse effects listed in POL TANK 36 determine the effects of groundwater takes on stream flows, and the effectiveness of any stream flow maintenance and habitat enhancement work.

### *Submissions and Evidence*

5.233 There were 11 submissions on POL TANK 42 and another four on groundwater management review as a generic heading. No substantive evidence was led on POL TANK 42.

### *Finding*

5.234 The Reporting Officers have recommended that two submissions from Pernod Ricard Winemakers be accepted, and we support these as they clarify the intention of the policy.

## Chapter 6 – Surface Water Quantity

### Introduction

- 6.1 This section of our report deals with the objectives, policies, rules and schedules that relate to surface water minimum flows in the TANK catchments and includes comments on:
- a) OBJ TANK 10, 11, 12, 13, 14 and 15 which sit under the heading ‘Catchment Objectives.
  - b) OBJ TANK 16, 17 and 18 which sit under the heading ‘Water Quantity’.
  - c) POL TANK 36 which acknowledges the potential adverse effects of groundwater abstraction (including effects on surface flows) and sets out mitigation measures.
  - d) POL TANK 39.
  - e) Policies which sit under the heading ‘Surface Water Low Flow Management’. These include policies TANK 43 (Flow Management Regimes: Tūtaekurī, Ahuriri, Ngaruroro and Karamū) and TANK 44 (Paritua and Karewarewa Streams).
  - f) POL TANK 45 (general water allocation).
  - g) POL TANK 48 and 49 (water use change/transfer and permit duration).
  - h) POL TANK 51 (water allocation – Priority).
  - i) Rules TANK 7, 8, 9, 10, 11 and 12 which relate to the taking of groundwater and surface water. These rules are addressed in more detail in our Chapter 9 “General Water Quality Management” on Rules for Taking and Using Surface and Ground Water.
  - j) Schedule 31, which comprises a table of minimum flows for rivers, streams and groundwater, trigger flows for flow maintenance and allocation limits for surface waters and Zone 1 groundwater.
- 6.2 POL TANK 53 (frost protection, temporary and non-consumptive water takes) is dealt with under a separate heading. Rules TANK 7, 8, 9, 10, 11 and 12 are also dealt with under a separate heading but are referred to in this section.
- 6.3 The crux of minimum flows under PPC9 is Schedule 31 (Flows, Levels and Allocation Limits). This is where the policies and rules lead us to after determining whether an existing or proposed water take is subject to a minimum flow (or trigger flow) and an allocation limit. Schedule 31 tables:
- i. what rivers are subject to specific minimum flows,
  - ii. what those minimum flows are (i.e., the hard numbers in litres per second or L/sec),
  - iii. the location of the minimum flow monitoring site (called the ‘Flow management site’),
  - iv. Flow maintenance triggers, and

v. the Allocation Limit for specific rivers and groundwater.

- 6.4 We note here that under Schedule 31, the minimum flow is the flow at which relevant surface water and Zone 1 groundwater takes must cease when, either, there is no appropriate stream flow maintenance scheme in place, or, when a water user does not participate in a stream flow maintenance scheme. Also, the flow maintenance trigger is the flow which stream flow maintenance schemes must maintain for participating water users to continue taking water.
- 6.5 Under the “pink version” of PPC9, the Zone 1 groundwater boundaries can be found in the Schedule 31 Maps A, C and E<sup>1</sup>. They essentially cover a thin ribbon of land on either side of the lower Ngaruroro River (downstream of about Poporangi Stream), the lower Maraekakaho River and Tūtaekurī River downstream of the Mangaone River confluence. Groundwater takes in Zone 1 are to be managed as if they are direct surface water takes on the assumption that their close proximity to surface waters means that likely to be hydrologically connected to them. Land use in Zone 1 is primarily intensive (e.g., cropping, vineyards and orchards). In response to an information request from the panel, Mr Shannon Johnston, Counsel for the Wine Growers, providing information on the number of vineyards, the total vineyard area and the number of vineyard bores within Zone 1<sup>2</sup>. That information indicated there was approximately 2,363 ha of vineyards in Zone 1 land (the majority in the Ngaruroro catchment) drawing water from 68 bores. There are 73 groundwater take consents in the Tūtaekurī Zone 1 area. Of those, 55 are already classed as stream depleting takes. There are 221 groundwater consents in the Ngaruroro and Heretaunga Plains Zone 1. Of these, 118 are already considered stream depleting, and 103 are not current considered stream depleting.
- 6.6 Schedule 31 lists minimum flows for the Karamū/Clive, Ngaruroro and Tūtaekurī catchments only. While the Ahuriri catchment is included in the schedule, there are no specified minimum flows or flow maintenance trigger flows. We understand that the rationale behind this is that an allocation limit (an instantaneous low flow) will be set as a part of the upcoming Kotahi plan review. In the meantime, the allocation limit is the existing use.

## Objectives

- 6.7 Turning our attention back to the Objectives, OBJ TANK 10 through to 15 are specific to each of the four TANK catchments (10 to 13), groundwater (14) and wetlands and lake waahi taonga (15). As noted elsewhere (in Chapter 4 Surface Water Quality & Land Management), although there are no specific references in OBJ TANK 10 to 13 to minimum flows, they set out in general terms the desired environmental outcomes for each catchment and refer to both water quality, groundwater levels and surface flows, the latter which we address in this section. They state desired environmental outcomes, or more correctly, what outcomes are to be ‘enabled’, through meeting the objective. Many of the ‘outcomes’ listed under each of these objectives are probably affected, or influenced, in some way by allocation and minimum flow limits.
- 6.8 OBJ TANK 16 through to 18 address water allocation more directly, with OBJ TANK 16 specifically referring to priorities for water allocation subject to limits, targets and flow regimes which provide for the values of each water body. OBJ TANK 16 is discussed more thoroughly in Chapter 8 on Priority Allocation, and we make no further comment on it here.

<sup>1</sup> The Council’s own submission sought a correction to the planning maps so that Zone 1 groundwater areas that are connected to the Ngaruroro River are removed from Schedule 31E and inserted onto Schedule 31C. This change improves clarity and consistency.

<sup>2</sup> Wine Growers’ response to the panel’s request for further information, 2 July 2021.

- 6.9 OBJ TANK 17 is not specifically related to limits, targets or flow regimes, but describes the outcomes of allocation and water use. OBJ TANK 18 refers to securing the current and foreseeable water needs for mauri and ecosystem health and of future generations and for mauri and ecosystem health through, among other measures, aquifer recharge and flow enhancement. OBJ TANK 17 and 18 are discussed in more detail in Chapter 7 on High Flow Allocation and Schedule 32.

## Policies

- 6.10 Policies relating to minimum flows are found under 5.10.6 (Policies: Heretaunga Plains Groundwater Levels and Allocation Limits) and under 5.10.7 (Policies: Surface water low flow management) and in particular POL TANK 43 and 44.

## POL TANK 36

- 6.11 POL TANK 36 states that Council recognises the effects of groundwater abstraction on flows in connected surface waterbodies and flows in the Ngaruroro River, and signals that it will adopt a staged approach to groundwater management including monitoring the effectiveness of stream flow maintenance and habitat enhancement schemes. Although not specifically referring to minimum flows, this policy refers to monitoring the effectiveness of 'stream flow maintenance schemes'. The minimum flows in Schedule 31 apply when there is no appropriate stream flow maintenance scheme, or when a water user does not participate in a stream flow maintenance scheme. POL TANK 36 is a part of PPC9's sinking lid approach to reducing over-allocation. It is given effect to through Rules TANK 7 to 18.
- 6.12 Only minor changes are recommended by the Reporting Officers to this policy and none of the changes the substance of the policy as notified in PPC9.

## POL TANK 37

- 6.13 POL TANK 37 states that Council will mitigate stream depletion effects on lowland streams by providing for stream flow maintenance and habitat enhancement schemes. We note that stream flow enhancement using groundwater is not supported by mana whenua as the preferred option for managing the adverse effects of stream depletion due to groundwater extraction<sup>3</sup>.

## POL TANK 39

- 6.14 POL TANK 39 as notified in PPC9 requires that all takes either cease abstraction when an applicable minimum flow (trigger flow) is reached, or that consent holders must develop or contribute to flow maintenance scheme and habitat enhancement schemes. The policy also required Council to assess the relative the contribution to stream depletion from groundwater takes and require stream depletion to be off-set equitably by consent holders while providing for exceptions for the use of water for essential human health. It also required Council to enable permit holders to progressively and collectively, through Water User Collectives, develop and implement flow maintenance and habitat enhancement schemes as water permits are replaced or reviewed, in the order consistent with water permit expiry dates.
- 6.15 Over 50 submission points were received about POL TANK 39. Submission points included deleting the policy altogether, seeking Council to have a larger leadership role in developing

<sup>3</sup> Ngaio Tiuka EIC, for NKII, para 115, page 42, and Maurice Black EIC, for TToH, para 313, page 65.

Stream Flow Enhancement schemes, providing for a Water Conservation Strategy approach for municipal takes, clarifying whether the policy provisions apply to the Ngaruroro River and Zone 1, amendments for clarity and simplicity and clarifying the extent to which these provisions relate to domestic takes.

- 6.16 The Council's own submission sought that this policy be deleted and replaced, due to significant implementation challenges, including (but not limited to):
- a) Only one scheme currently exists, so the majority of users would be subject to potentially bans with no feasible opportunity to mitigate their effects until schemes were implemented.
  - b) Feasibility investigations have not yet been undertaken, so some users may never be feasibly able to offset their stream depletion effects.
  - c) Not all streams are suited to the same types of solutions.
  - d) A comprehensive solution is likely to be required at the Water Quantity Area scale, which would require centralised leadership and cost recovery.
  - e) The policy as notified does not provide a pathway for prioritising highly effective or beneficial schemes.
  - f) The policy as notified provide little guidance or support for individual and small scale permit holders to work collectively.
- 6.17 The amended POL TANK 39 recommended to us by the s42A Reporting Officers at the conclusion of the hearing was a complete re-write, and essentially a change in emphasis. The policy now seeks to mitigate the stream depletion effects due to groundwater takes in the Heretaunga Plains Groundwater Quantity Area through consultation, investigation and funding and implementation initiatives. Where stream flow maintenance and habitat enhancement schemes are operational, the revised policy requires either abstraction to cease when an applicable stream flow maintenance trigger is reached, or permit holders to contribute to and participate in the scheme.
- 6.18 A number of submitters had common themes around applying flow maintenance requirement only to suitable lowland streams, to remove the presumption that the mainstem of the Ngaruroro River should be augmented in whole or in part, and to require Council to take a central role in establishment of flow maintenance schemes in an equitable manner over a reasonable timeframe. There were 28 submission points that were identical and supported in principle jointly funded collective stream flow maintenance schemes on suitable lowland streams, facilitated by the Council.
- 6.19 Ms Lara Blomfield, Counsel for Limestone Properties, said that Limestone supported the new POL TANK 39 as it now says that HBRC will investigate options (including funding) for stream flow enhancement in consultation with stakeholders (including presumably Limestone) and look to implement the preferred options within 10 years<sup>4</sup>. The changes to the policy proposed by the Reporting Officers were also supported by Lowe Corporation<sup>5</sup> and T&G Global Limited<sup>6</sup> and others. Mr Gerard Willis, planning witness for Lowe Corporation, considered that the

<sup>4</sup> Ms Lara Blomfield, paragraph 21, Legal Submissions of Counsel for Limestone Properties Limited.

<sup>5</sup> Mr Trevor Robinson, paragraph 101, Legal Submissions for Lowe Corporation Limited.

<sup>6</sup> Mt Craig Betty, EIC, paragraph 42.

changes to POL TANK 39 recommended by the Reporting Officers are likely to be both more efficient and more effective than the policy as notified<sup>7</sup>.

- 6.20 Ms Grey Wilson stated that NKII was opposed to the use of flow maintenance schemes as a mitigation measure to address over abstraction within the Heretaunga Plains aquifer and recharge areas and considered the deletion of POL TANK 39 as proposed, and the amended version proposed by Regional Council in its submission, was appropriate given NKII's position<sup>8</sup>.
- 6.21 Mr Mark Clews, the Principal Advisor, District Development, at the Hastings District Council, sought an amendment to POL TANK 39 to provide for a Water Conservation Strategy approach for municipal takes rather than a requirement to cease<sup>9</sup>.

#### *Finding and s32AA Analysis*

- 6.22 We accept the substantially revised POL TANK 39 as presented to us by the Reporting Officers at the conclusion of the hearing. The revised policy gained general approval from a wide range of submitters. The revisions provide a marked improvement to the notified version and we find the recommended changes make the rule more efficiently and effectively achieve the objectives of PPC9, and in doing so meets the requirements of s32AA of the RMA.

#### POL TANK 40

- 6.23 POL TANK 40 relates to what Council will have regard to when assessing applications for a stream flow maintenance and habitat enhancement scheme. It includes matters relating to maintaining and enhancing stream habitat and water quality (particularly dissolved oxygen), and involvement of mana whenua. POL TANK 40 is aimed at lowland streams where ecosystem health and water quality are important issues. The notified version of the policy included a Clause e) that read:

*e) and will;*

- (i) allow site to site transfer of water to enable the operation of a flow enhancement scheme;*
- (ii) enable water permit holders to work collectively to develop and operate stream flow maintenance and habitat enhancement schemes consistent with the requirements of Schedule 36;*
- (iii) impose consent durations of 15 years that are consistent with the term for groundwater takes affected by stream flow maintenance requirements, except where stream flow maintenance is being provided by significant water storage infrastructure in which case consent duration is consistent with the scale of the infrastructure.*

- 6.24 The Reporting Officers in the s42A addendum report recommended deleting POL TANK 40(e) and its sub-clauses as a consequential amendment to recommended changes to POL TANK 39. The Reporting Officers also noted that many of the matters covered by 40(e) were covered by the proposed amendments to POL TANK 39(a) and (b) or POL TANK 49.
- 6.25 Forest and Bird sought the POL TANK 40 be deleted in its entirety on the grounds that stream flow maintenance schemes are an inappropriate way to deal with over-allocation<sup>10</sup>. Similarly,

<sup>7</sup> Gerard Willis, EIC for Lowe Corporation Ltd, paragraph 117.

<sup>8</sup> Grey Wilson, EIC for NKII, paragraph 85.

<sup>9</sup> Mark Clews, EIC for Hastings District Council and Napier City Council, paragraph 114(b).

<sup>10</sup> Submitter 210, Royal Forest and Bird Protection Society of New Zealand (Forest & Bird).

the Department of Conservation's submission sought all references to stream flow maintenance be deleted from PPC9<sup>11</sup>.

- 6.26 The Section 32 evaluation report notes that the stream flow enhancement option was endorsed by the majority of the TANK Group as the preferred option for managing the adverse effects of stream depletion from groundwater extraction but did not receive support from mana whenua<sup>12</sup>.

#### *Finding and s32AA Analysis*

- 6.27 PPC9's use of stream flow maintenance and habitat enhancement schemes as a means for dealing with over-allocation attracted a reasonable level of criticism from a wide range of submitters. However, we have accepted that they remain in PPC9 as they form part of the toolbox for addressing over-allocation and improving the health of lowland streams in particular. We accept the Reporting Officers recommendation to remove clause 40(e) given the changes to POL TANK 39 and Clauses g) and h) of POL TANK 49.
- 6.28 We consider these recommended changes make the policy more efficient and effective, and improves the clarity of the plan, and in doing so meets the requirements of s32AA of the RMA.

#### **POL TANK 41**

- 6.29 POL TANK 41 as notified specifically seeks to 'remedy' the stream depletion effects of groundwater takes on the Ngaruroro River. The policy requires the Council to do this in consultation with mana whenua, land and water users, and the wider community. Clause a) of the policy relates to investigation of a water storage and release scheme to 'off-set' the cumulative stream depletion effect of groundwater takes, and, if feasible Clause b) relates to developing options of funding, construction and operation through rates. A key driver behind this policy is that stream flow maintenance schemes that rely on groundwater pumping are not feasible for the Ngaruroro River given the high level of pumping that would be required<sup>13</sup>.
- 6.30 Mr Andrew Dooney, planning witness for HortNZ, recommended that the phrase 'The Council will remedy...' be amended to read 'The Council will further consider the option of remedying...' on the grounds that the amendment does not unnecessarily commit the TANK community to a scheme that may not be, on balance, in the best interests of the community<sup>14</sup>.
- 6.31 The term 'remedy' was subsequently amended to 'mitigate' by the Reporting Officers in response to submissions pointing out that remedying the effects of stream depletion through this policy would be a huge undertaking<sup>15</sup> and also because the term mitigate also aligns with its use in POL TANK 36 and 37.
- 6.32 Submissions from Forest and Bird and the Department of Conservation sought this policy be deleted for similar reasons identified above for POL TANK 40.
- 6.33 Federated Farmers sought that this policy be retained as worded<sup>16</sup>.

<sup>11</sup> Submitter 123, Department of Conservation.

<sup>12</sup> 32A report, page 59.

<sup>13</sup> Section 32 Report, page 278.

<sup>14</sup> Andrew Dooney, EIC for Horticulture New Zealand, page 30.

<sup>15</sup> Submitter 99, Twyford Water.

<sup>16</sup> Submitter 195, Federated Farmers of New Zealand.

### *Finding*

6.34 Changes proposed to POL TANK 41 by the Reporting Officers are relatively minor and we accept them as they improve the clarity of the policy and its alignment with other policies. We agree that changing the intent of the policy from remedying to mitigating stream depletion effects is appropriate.

### POL TANK 42

6.35 POL TANK 42 recognises the iterative process of plan making, contextualises the role of PPC9 in addressing over-allocation, and identifies the kind of information that will be required to make decisions for subsequent Regional Plan review.

6.36 We have addressed POL TANK 42 in Chapter 5 Management of the Heretaunga Plains Aquifer. We have accepted the Reporting Officers recommended changes and accepted, the two submissions from Pernod Ricard Winemakers, as they clarify the intention of the policy, but not any of the others.

### POL TANK 43

6.37 POL TANK 43 sets out how the effects of surface and ground water abstraction in Zone 1 on river flows and levels will be managed through minimum flow, water levels and allocation limits. As stated in the s42A Report, this approach aligns with POL TANK 36 and 37, and effectively removes the ability to consent any new ground or surface water takes at low flows in catchments that are fully or over-allocated, with the aim of avoiding future over-allocation in accordance with the NPS-FM 2020. As such, it can be considered to be a corner-stone policy of PPC9.

6.38 As notified, POL TANK 43 included separate sub-section clauses for the four TANK catchments.

6.39 Council's own submission on POL TANK 43 recommended that reference to the allocation limit being for consumptive water use at times of low flow be included to provide clarity for when the allocation limit applies, that it only applies to consumptive water use, and does not include water take and discharge activities that are non-consumptive (e.g., as provided for in revised POL TANK 53 that includes non-consumptive uses).

6.40 There were a number of submissions that addressed this policy in relation to the proposed minimum flows for these surface waters and we address these in more detail below under our discussion about Schedule 31. Some submitters believed the adverse effects of the current allocation minimum flow had not been demonstrated and so did not warrant raising the minimum flow (e.g., Bostock<sup>17</sup>). Forest and Bird sought that the policy be amended such that flows will be managed to the minimum flows in Schedule 31.

6.41 The PPC9 "pink version" of POL TANK 43 recommended to us by the Reporting Officers at the end of the hearing was substantially simplified relative to the s42A Addendum Report version. The separate sub-section clauses for the four TANK catchments were removed and wording was added to make specific reference to Schedule 31, which was not referred to in the notified version. This amendment was sought by Forest and Bird<sup>18</sup> and Ms Wilson in her evidence noted that NKII seek that minimum low flows are established for all water bodies to which POL TANK

<sup>17</sup> Submitter 47, Bostock New Zealand Ltd.

<sup>18</sup> Submitter 210, Royal Forest and Bird Protection Society, submission point 210.64.



43 applies and also require takes to cease at low flows<sup>19</sup>. Additional wording was added to the policy to clarify that aspects of POL TANK 45 and 53 (frost protection, and now, temporary and non-consumptive takes) were exempt from the requirements of Schedule 31. The amended policy still provides a link between low flow management and objectives for aquatic ecosystem health, mauri, tikanga Māori values and other instream values.

- 6.42 Te Taiwhenua o Heretaunga<sup>20</sup> submission sought to add a new POL 43A and include reference in it to reducing abstraction amounts and abstraction rates from the Ngaruroro River mainstem and from connected groundwaters in Zones 1 and 2, from the Tūtaekurī River mainstem and tributaries, and from the Karamū River mainstem and tributaries to achieve limits and targets. They also sought to increase minimum flows in the Ngaruroro River at Fernhill to ‘enhance the life-supporting capacity of freshwater and groundwater and increase instream habitat provision for torrentfish and trout’.

#### *Finding and s32AA Analysis*

- 6.43 We accept the Reporting Officer’s recommended changes to POL TANK 43 as presented to us at the end of hearing. The wording in the policy as notified was highly repetitive and could be more efficiently and effectively achieved by including a reference to Schedule 31. In accordance with that comment, the recommended amendments greatly simplify the policy and improve its clarity, particularly its linking to Schedule 31. These amendments meet the requirements of s32AA of the RMA. We do not see a new Policy 43A as being necessary. We comment on Schedule 31 separately below.

#### **POL TANK 44**

- 6.44 POL TANK 44 is specific to the Paritua and Karewarewa streams (and their tributaries) and acknowledges the contribution of flows from these streams to the flows in the Awanui Stream, Karamū River and the Heretaunga Plains Groundwater Quantity Area. These streams are subject to seasonal drying. The policy indicates that Council will work with water permit holders, landowners and tangata whenua to undertake a series of initiatives to better understand the Heretaunga Plains Aquifer and improve management of flow regimes and improve the health of these streams. The policy also provides for water to be diverted from the Ngaruroro for the enhancement of flows in the Paritua Stream.
- 6.45 No submitters sought that this policy be deleted, but several sought some changes to the wording. Some expressed concern about the potential economic effects of reducing allocation from the Paritua Stream and some wanted the flows in the Karewarewa Stream to be revisited, but did not seek specific relief. Federated Farmers’ submission sought the policy be retained as notified.
- 6.46 In their closing to the hearing, Reporting Officers’ considered that an appropriate change to POL TANK 44(d) would be to include consideration of storage options<sup>21</sup>.
- 6.47 Ngaio Tiuka, in evidence on behalf of NKII, considered POL TANK 44 had more to do with meetings to talk about the issues rather than actually regulating water use for the stream and the aquifers restoration of mauri, mana and well-being<sup>22</sup>. Ms Grey Wilson considered that the policy was not precautionary and effectively enabled the status quo to continue and provides

<sup>19</sup> Grey Wilson, EIC, paragraph 88.

<sup>20</sup> Submitter 132, Te Taiwhenua o Heretaunga.

<sup>21</sup> HBRC’s Closing statement 22 June 2021, paragraph 36.

<sup>22</sup> EIC, Ngaio Tiuka on behalf of NKII, Paragraph 42.

little to no certainty that actual water use will be reduced<sup>23</sup>.

- 6.48 The Council's groundwater scientist, Mr Pawel Rakowski, provided a supplementary brief of evidence at the end of the hearing in which he provide some information about the hydrogeology of the Paritua and Karewarewa streams and the effects of abstraction on surface flows. He stated at paragraph 4.6 of his evidence<sup>24</sup>:

*"As discussed in my previous supplementary evidence (4 June 2021), there is uncertainty with the conceptual setting of the groundwater models in the Paritua Stream area. Therefore it is not known whether continuous flow would be restored in the Paritua Stream at Bridge Pa following a 20% reduction of groundwater abstraction throughout the Heretaunga Plains. I understand that further work (i.e. as prescribed in Policy 44 of PPC9) is underway to resolve this modelling issue, ..."*

- 6.49 The Reporting Officers recommended some relatively minor amendments to the policy at the conclusion of the hearing.

#### *Finding*

- 6.50 We accept the changes to POL TANK 44 provided by the Reporting Officers at the end of the hearing. They are relatively minor but improve the clarity of the policy and consistency with wording used in PPC9. We note that economic effects have been considered in the development of PPC9. We accept the supplementary evidence of Mr Rakowski relating to uncertainty with the relationships between surface flows, groundwater and groundwater abstraction in these streams, and see POL TANK 44 as having an important role in better understanding those relationships, as well as providing a pathway for improving surface water ecosystems.

#### **POL TANK 45**

- 6.51 POL TANK 45 requires Council, when assessing applications to take water, to ensure water allocation from tributaries is accounted for within the total allocation limit for the relevant zone and that the total abstraction from any tributary does not exceed 30% of the mean annual low flow (MALF<sup>25</sup>) for that tributary unless otherwise specified in Schedule 31. The policy excludes stored water from Schedule 31 allocation limits. It requires water metering for all consented takes but telemetry only for those larger than 5 litres per second. The policy enables groundwater Zone 1 takes to participate in stream flow maintenance schemes instead of ceasing takes at low flows.
- 6.52 The notified version of POL TANK 45 allowed for an exception to telemetry where there are technical limitations to its installation. It was pointed out in the Department of Conservation's submission<sup>26</sup> that the Measurement and Reporting of Water Takes Regulations 2020 do not allow metering exceptions and this exception was removed in the amended version of the plan.
- 6.53 The Reporting Officers recommended an amendment to Clause 45d(i) relating to participation in stream flow maintenance schemes, clarifying that contributions to an applicable lowland

<sup>23</sup> EIC, Greg Wilson on behalf of paragraphs 87-90.

<sup>24</sup> Pawel Rakowski, supplementary statement of evidence for HBRC, paragraph 4.6.

<sup>25</sup> The mean annual low flow (MALF) of a river is defined in the Glossary of the RRMP as the average of the annual low flows occurring over 7 consecutive days for the years where river flow records are available for a river.

<sup>26</sup> Submitter 123, Department of Conservation.

stream enhancement scheme were required once such a scheme was operational.

- 6.54 Submissions seeking that POL TANK 45 be amended to be consistent with RRMP POL TT11<sup>27</sup> were opposed by the Reporting Officers on the grounds that stream depleting impacts of groundwater takes in the Heretaunga Plains are quite different in nature to those in the Tukituki Catchment, therefore a different management and mitigation regime is required<sup>28</sup>.

#### *Finding and s32AA Analysis*

- 6.55 We accept the changes to POL TANK 45 provided by the Reporting Officers at the end of the hearing. They align with amendments made to Policy TANK 39 and meet the requirements of s32AA of the RMA.

### POL TANK 48

- 6.56 POL TANK 48 outlines matters Council will take into account when considering applications to change a water use, or to transfer a point of take. These include specified minimum flows and levels or other water users' access to water. The s42A Report notes that the ability to change the use of a water take and/or transfer a point of take is important to enable stream flow enhancement schemes, flexible management regimes and efficient water use. The policy has a number of matters to be considered that relate to the plan objectives, particularly OBJ TANK 16, 17 and 18. The policy as notified also identified seven particular circumstances in which an application would be declined.
- 6.57 There were six submissions on the water use change/transfer policy. Most were from TToH which sought a restrictive approach to decision making on water use change or transfer, such as from surface water to groundwater and vice versa.
- 6.58 There were a large number of submissions with pro-forma type statements seeking that transfers of water permits that have been exercised are enabled. The Reporting Officers interpreted this to mean that the submitters seek that whole existing allocations should not be subject to the Actual and Reasonable assessment under PPC9 and that they should be transferable<sup>29</sup>. The Reporting Officers considered that to allow transfers of water that is allocated but not used would not align with NPS-FM 2020 requirements to avoid and phase-out over-allocation. We agree and have accepted their amendments as they make the policy more efficient and effective, and so meet the requirements of s32AA of the RMA.
- 6.59 Other submissions, such as those from RFBPS and DOC sought a very conservative approach for declining applications by introducing a prohibitive regime for over-allocated catchments and prioritising human health and drinking water over irrigation and other uses<sup>30</sup>. Other submissions sought criteria or circumstances in which transfers could occur where there may be more efficient use, a higher priority use (such as human health) or for water quality reasons.
- 6.60 In response to the submissions the s42A Reporting Officers recommended that POL TANK 48 be comprehensively redrafted into two parts. The first part included those matters which the Regional Council would take into account when considering a change in water use or transfer a point of take to another take. These included total water use, minimum flows and access for other water users, water body values in Schedule 25, water use patterns including seasonal

<sup>27</sup> E.g., Submitter 3, Limestone Properties Limited.

<sup>28</sup> S42A report, paragraph 1554.

<sup>29</sup> S42A report, paragraph 1593.

<sup>30</sup> Department of Conservation sub point 123.83 and Royal Forest and Bird sub point 210.69

variations, and water quality. The second part was a list of matters that the Regional Council would consider when assessing applications, and more particularly when they might decline applications. These included such things as transfers to other water management areas unless new information was provided and there are new beneficial effects, changes of water use from primary production except where the use is a flow enhancement or ecosystem improvements, a more efficient delivery of water services, and a change from frost protection to any other end use.

#### *Discussion, Findings and s32AA Analysis*

- 6.61 We support separating POL TANK 48 into two parts, firstly those matters to be taken into account and secondly those matters which inform the declining of applications. The recommended changes of staff assist the clarity and readability of this policy.
- 6.62 We have agreed with the Reporting Officers' recommendations in the s42A Report, and the amendments made to the text of POL TANK 48 with further refinements including grammatical changes, numbering and links to schedules.
- 6.63 We consider these amendments make the policy more efficient and effective, and so meet the requirements of s32AA of the RMA

#### POL TANK 51

- 6.64 POL TANK 51, as discussed more fully in the section on Priority Allocation, establishes the priority order for water uses at time where the Council considers there is a serious temporary shortage of water in its region or any part of its region under Section 329 of the RMA. This includes when rivers have fallen below minimum flows. The policy notes that takes not subject to any restrictions are firefighting uses and non-consumptive uses.

#### POL TANK 53

- 6.65 Finally, POL TANK 53 establishes consent considerations for applications to take and use water for frost protection, temporary and non-consumptive water takes, and effectively establishes the exceptions for activities not covered by POL TANK 43. The s42A Report notes that taking water for frost protection occurs infrequently, and generally on the fringes of the irrigation season (in spring or autumn) when flows are above the minimum flow, and for a limited time, although the instantaneous rate of take can be quite high. Applicable minimum flows during November to April are specifically identified in this policy.

#### Rules

- 6.66 Rules TANK 7 (surface water) and 8 (groundwater) are permitted take rules. They enable any permitted take existing as at 2 May 2020 to continue, subject to other consent conditions, or else limits the volume of water able to be taken. These permitted take rules are not subject to the minimum flows in Schedule 31.
- 6.67 Rules TANK 9 (groundwater takes from the Heretaunga Plains Groundwater Quantity Area) and 10 (surface and groundwater takes at low flows)) make takes of surface or groundwater that cannot meet the conditions of Rules TANK 7 and 8 Restricted Discretionary activities. Rule TANK 10 as notified had the following condition:

*“Where the take was previously subject to a condition restricting the take at flows that are higher than the applicable flow specified in Schedule 31, the higher flow will continue to*

*apply.”.*

6.68 This was modified in the “pink version” of PPC9 as follows:

*“Where the take was previously subject to a condition restricting the take at flows that are higher than the applicable flow specified in Schedule 31, the higher flow will continue to apply. For all other takes, the flows specified in Schedule 31 apply”.*

6.69 Rule TANK 11 provides a consenting pathway for takes that do not meet the conditions of either Rules TANK 9 or TANK 10 (replacement for existing groundwater or surface water takes), or Rules TANK 7 or TANK 8 (new groundwater or surface water takes that will not cause over-allocation as set out in Schedule 31). These applications would be considered as Discretionary activities.

6.70 As noted at the beginning of this section, these rules are discussed in more detail in our Chapter 9 General Water Quantity Management on Rules for Taking and Using Surface and Ground Water.

## Hydrology and Minimum Flows in the TANK Catchments

### *General*

6.71 Flows in surface waters of the Heretaunga Plains are affected by a range of factors including rainfall patterns, seasonal climate, river morphology, natural losses into the ground, spring flow sourced from groundwater, and abstraction (both surface and groundwater abstractions).

6.72 The Tūtaekurī and Ngaruroro are large rivers draining large catchments with headwaters in the ranges. As they flow across the Heretaunga Plains, they are characterised by gravel beds over low gradient land, forming wide braided channels. The lower Ngaruroro is a losing reach, recharging the Heretaunga Plains groundwater system, which in turn feeds and sustains many of the springs in the surrounding area through summer. Downstream of Fernhill, the Ngaruroro flows predominantly in a single channel under low flow conditions.

6.73 Braiding in the Tūtaekurī River is greatest in the middle reaches, but downstream of the Mangaone River confluence, the river flows mostly in a single channel. The Tūtaekurī River has a losing reach between Hakowia and Silverford and, similar to the Ngaruroro River, the loss appears to be to an unconfined portion of groundwater. This Tūtaekurī River loss is a potential source of water to nearby springs and spring-fed streams, notably the nearby Tūtaekurī-Waimate Stream.

6.74 The Karamū Stream and Ahuriri Estuary catchments are smaller, both draining mainly lowland country, with stream beds often comprised of fine gravels or sandy/silty substrate. The Karamū Stream is thought to gain water from groundwater inflows, probably derived from losses from the Tukituki or Ngaruroro rivers. However, some tributaries of the Karamū Stream lose water and in the case of the Karewarewa Stream, the upper section can become dry at times. We heard that the sources of flow and causes of flow loss for the Paritua/Karewarewa Stream are not well understood, as we note in the section on groundwater and as described in the supplementary evidence of Mr Rakowski noted above.

6.75 Te Whanganui ā Orotū (the Ahuriri Estuary) is fed by a number of small streams. The freshwater inflows to the estuary are minimal compared to other estuaries in the Hawkes Bay region.

*Key issue: Stream depletion*

6.76 The major source of recharge to the Heretaunga Plains groundwater is through loss of water from rivers. Over 70% of the total recharge to groundwater in the Heretaunga Plains occurs through rivers losing water to groundwater, most of which is from the Ngaruroro River, with the remainder from the Tukituki and Tūtaekurī rivers. The other main source of water to the aquifer is land surface recharge (LSR), which occurs only over the unconfined aquifer. We discuss LSR in our section on groundwater.

6.77 A reduction in stream flow (due to lack of rainfall, surface water or groundwater abstractions) can have significant adverse effects on aquatic ecosystem health. Stream flow reductions can result from groundwater abstraction (stream depletion) when the groundwater is hydraulically connected to a stream or river. The s32A Report for PPC9 summarises the findings of a report<sup>31</sup> on the Heretaunga Plains groundwater model, developed by the HBRC and others using groundwater software called MODFLOW-2005. The model showed that groundwater and surface water are highly connected across the Heretaunga Plains, with nearly all groundwater takes connected in varying degrees to surface water systems. The ss32A Report quoted from the report:

*“Increases in groundwater pumping in the past, in particular irrigation pumping, have resulted in declines in groundwater levels and substantial reductions of flows in rivers and streams, especially during summer. Such declines are an expected response of the groundwater system to the additional pumping.*

*However, there are signs that the aquifer is reaching a new equilibrium and further substantial reductions in river flows will not continue, provided that the pumping abstractions do not increase further. Further increases in groundwater abstraction would result in further decline in groundwater levels and reduction in stream flows.”*

6.78 The s32A Report noted that the stream depletion effect of groundwater takes on the Ngaruroro River is more challenging to address. This is because restrictions on groundwater use when river flows are low were predicted by the model to be ineffective in improving flows in time, and there would be a long delay before river flows would be affected by a restriction. This was similar to the finding for lowland streams and tributaries of the Karamū. It was determined that a very substantial reduction in the total allocation limit would be required to make a difference in the Ngaruroro River flow. Water storage and subsequent release were considered necessary to address this issue in the long term, and this approach is carried forward into POL TANK 41 with commitment to investigating a storage and release option.

*Minimum Flow Setting and Schedule 31*

6.79 The TANK Group identified a number of factors (critical values) that are affected by, or are sensitive to, low flows. For both the Ngaruroro and the Tūtaekurī, a range of instream values were identified;

- a) tikanga Māori values including those for cultural practices.
- b) habitat for native fish and birds.
- c) recreational activities including trout fishing, swimming and boating.
- d) trout habitat.

<sup>31</sup> Heretaunga Aquifer Groundwater Model – Scenarios Report’ August 2018. Prepared by Pawl Rakowski.

- 6.80 Instream effects due to low flows can include potential reductions in habitat for species associated with flowing water, including fish, benthic invertebrates (an important food source for fish) and riverine birds. These flora and fauna associated with rivers can have differing flow requirements, that is, a flow that suits one species does not necessarily suit another. Therefore, typically, a compromise is required in adopting a minimum flow that may not protect all species with a degree of conservatism but provides a reasonable degree of protection to the most valued species. However, this concept does not necessarily provide an adequate level of protection for out-of-stream users, but we address this elsewhere.
- 6.81 Relationships between flow and available habitat can be determined through a combination of field surveys, an understanding of habitat preferences for various species, and modelling, to develop predictive relationships for showing how the amount of habitat changes with flow, for individual species or life stages. This approach was used extensively for informing the TANK Stakeholder Group, with the Council undertaking instream habitat modelling for the Tūtaekurī and Ngaruroro mainstems and previously for some tributaries. Various flow and allocation scenarios were explored by the TANK Stakeholder Group, as shown in tables 47 and 48 of the S32 report.
- 6.82 Minimum flow setting for instream habitat is often approached by assessing habitat retention relative to a reference low flow, such as the mean annual low flow (or MALF). MALF is commonly used as it is an important hydrological parameter for long-lived fish and other river species with annual reproduction cycles, and can act as a bottleneck on instream habitat, thus affecting the living space of fish and other instream fauna. The usefulness of this relationship for management purposes is described in the Council's 2012 report<sup>32</sup> on the Tūtaekurī River instream flow assessment:

*"The mean annual low flow describes the magnitude of the expected low flow event for any given year, giving water resource managers a benchmark from which to make management decisions. This relationship between MALF and fish habitat is often recognised in flow management. It has become common practice to interpret WUA<sup>33</sup> curves in conjunction with the MALF. Where the optimum WUA for a given species is greater than the MALF, then it follows that MALF is a potential limiting factor for that species' habitat. Managers can attempt to mitigate the effect of water takes that constrain habitat by restricting the drawdown of rivers below MALF to maintain a percentage of WUA (habitat) available at the MALF."*<sup>34</sup>

- 6.83 The PPC9 process assumed that the naturalised MALF<sup>35</sup> represents idealised habitat, i.e., naturalised MALF is 100% habitat protection<sup>36</sup>.
- 6.84 For the Ngaruroro River, the highest flow requirement species determined through the habitat modelling approach described above is for the native torrentfish, which is a small fish that

<sup>32</sup> TutaekuriRiver Instream Flow Assessment May 2012 ISSN 1179 8513 EMT11/03 HBRC plan No.4262 (P12)  
<sup>33</sup> WUA is short for weighted usable area which is a dimensionless parameter that provides an indication of the relative quantity and quality of available habitat at a given flow.

<sup>34</sup> HBRC 2018e. Addendum to fish habitat modelling for the Ngaruroro and Tutaekuri rivers, Resource Management Group Technical Report, HBRC Report No. 4990 – RM 18-09, Hawke's Bay Regional Council, Napier, New Zealand.

<sup>35</sup> Flow naturalisation involves adding all the various water abstractions that might affect the flow in a river back to the flow actually recorded. This produces an estimate of what the flow regime would have been, particularly the low flows, had the various consents for abstraction not been granted or exercised. The naturalised MALF is the 7-day mean annual low flow calculated using the naturalised flow series.

<sup>36</sup> Appendix 11 - Technical memo on water quantity.

favours fast flowing riffle habitat. The rationale used was that if habitat for torrentfish is provided for, then other less flow-demanding species would also be protected to a high level.

- 6.85 Under the RRMP, and also proposed under PPC9 in Schedule 31, the minimum flow of 2,400 L/s provides an estimated 44% habitat protection level for torrentfish. Information provided by the Council at TANK Stakeholder Group meetings, and relayed to us at the hearing, indicated that even an increase in the existing minimum flow of 2,400 L/sec to 3,600 L/sec only resulted in an improvement in habitat protection from 44% to 70% for torrentfish. Clearly, this is lower than 100 % habitat protection, and a flow of 4,400 L/s was estimated to be required to provide a habitat protection level of 90%. Conversely, modelling indicated that progressively increasing the cease-take trigger flow (i.e., minimum flow) for abstractors above 2,400 L/sec resulted in progressively larger effects on restriction, thus reducing the reliability of supply for water users. Further, analysis of the flow regime under a naturalised flow regime indicated that the flow of the Ngaruroro River would fall below the cease-take trigger flow even with no surface water and groundwater takes.
- 6.86 We note that the advice given to the Council and TANK Stakeholder Group by the Cawthron Institute was that minimum flows need to be considered in association with the allocation limit, and that abstractions over 30% of MALF can be considered to have a high degree of flow alteration (on average across all rivers), while allocations of less than 30 % of MALF are increasingly considered more conservative in terms of impact on the river. This general guideline was used by the TANK Stakeholder Group in evaluating flow regimes in the TANK catchments, particularly the Ngaruroro and Tūtaekurī catchments, and explicitly captured in POL TANK 45.
- 6.87 Returning to the Ngaruroro River, the existing minimum flow (cease-take trigger flow) of 2,400 L/sec was retained in PPC9 (Schedule 31), but the allocation limit was reduced from 1,536 L/sec to 1,300 L/sec, which is about 27% of the naturalised MALF, and so in keeping with the advice provided by the Cawthron institute to the TANK Group.
- 6.88 A farmer, Mr Alexander Macphee, submitted that raising the minimum flow of the Maraekakaho River was not subject to consultation or that any reason was given, and that it should be restored to the original level (presumably that under the existing RRMP).
- 6.89 Schedule 31 has a proposed minimum flow for the Maraekakaho River (a small tributary of the Ngaruroro River), of 109 L/sec and an allocation limit of 36 L/sec. Investigations by the Council into minimum flows in this river concluded a minimum flow of 109 L/sec would not have significant effect on the river's ecological health. The recommended figure of 109 L/s is 90% of MALF<sup>37</sup>.
- 6.90 We note that the Council report referenced in the previous paragraph (6.89) noted: "As a result of the 2009 consents renewal process for the Ngaruroro Catchment, the consent hearing panel granted the applications in the Maraekakaho SMZ subject to a low flow of 90% of MALF over the hydrological year (i.e. a minimum flow of 120 L/s) for the following reasons:
- a) this would provide a safer default minimum flow to protect the in-stream environment

<sup>37</sup> Christie, R. 2010. Maraekakaho Stream Minimum Flow Scientific Evidence. Resource Management Group Environmental Science Section, Hawkes Bay Regional Council.



b) changing from a weekly to monthly volume of take would also achieve a 7% reduction in volume which would address matters in Policy 39(c) of the RRMP.”

- 6.91 For the Tūtaekurī-Waimate Stream (another small tributary of the Ngaruroro River), PPC9 proposes to retain the existing RRMP minimum flow of 1,200 L/sec in Schedule 31 and an allocation limit of 607 L/sec.
- 6.92 For the Tūtaekurī River, the highest instream flow requirement was determined to be for adult trout. The existing RRMP minimum flow is 2,000 L/sec, which provides for 65 % habitat protection. A 90% habitat protection level corresponds to a flow of 3,300 L/sec. Modelling predicted that water restrictions would not occur until flows exceeded 2,500 L/sec. Under the notified PPC9, the Schedule 31 cease-take trigger flow proposed for the Tūtaekurī River was 2,500 L/sec, which remained unchanged in the pink version, and an allocation limit of 1,140 L/sec, which is just under 30 % of the naturalised MALF.
- 6.93 Some TANK Stakeholder Group members identified a need for more explicit direction for managing abstraction from the two largest tributaries of the Tūtaekurī; the Mangaone Stream and the Mangatutu River. These tributaries do not have minimum flows under the RRMP. Both of these rivers are proposed to be subject to a prohibition on damming because of their instream values for high natural character (Mangatutu) and their contribution to the wider trout fishery. The proposed minimum flows for these tributaries in Schedule 31 are tied to the flow at the main flow monitoring point, which is the Tūtaekurī River at Puketapu, that is, takes from these two tributaries have to cease when the flow in the Tūtaekurī at Puketapu falls below a particular flow. Proposed allocation limits for these tributaries are still low compared to the MALF (7.8% of MALF for Mangaone Stream and 13.4% of MALF for Mangatutu River)<sup>38</sup>.
- 6.94 Flow thresholds to protect fish in lowland streams in the TANK catchments (specifically the Karamū catchment) centred around information on relationships between flow and effects on invertebrate community health, dissolved oxygen saturation and water velocity. Relationships were developed between these instream variables and flow for a range of tributaries (Raupare, Irongate, Karamū, Karewarewa, Mangateretere, Louisa, Awanui).

<sup>38</sup> TANK Meeting 42; 26 July 2018.

6.95 A comparison of RRMP and TANK Provisions relating to minimum flows and allocation limits was presented in Table 45 of the s32 Report and is reproduced below:

River	RRMP minimum flow (L/ sec)	RRMP allocation limit (L/ sec)	Actual Existing Allocation (L/ sec) <sup>39</sup>	Recommended TANK minimum flow (L/ sec)	Recommended TANK allocation limit (L/ sec)
Ahuriri catchment surface water	N/A	N/A	N/A	N/A	Existing use only
Awanui	35	0	78	120	Not to exceed a cumulative total of 30 for all of these Karamu catchment freshwater bodies.
Kaweawera/ Paritua	75	0	24	120	
Ongaru	5	0	18	120	
Irongate	100	0	0	100	
Louisa Stream	30	0	25	30	
Te Waikaha Stream	25	0	19	25	
Mangaterere Stream	100	0	0 <sup>40</sup>	100	
Karamū Stream	1,100	29.8	122	1,100	
Raupare Stream	300	138.6	172	300	70
Lake Poukawa surface water	NA	NA	36 (from Poukawa Stream)	NA	Existing Use only
Maraekakaho River	100	9	40	109	36
Tūtaekurī Waimate	1,200	607	720	1,200	607
Ngaruroro River	2,400	1,581	3,969 <sup>41</sup>	2,400	1,300
Mangatutu Stream	N/A	N/A	NA	3,800	120
Mangaone River	N/A	N/A	NA	2,500	140
Tūtaekurī River	2000	1,536	720	2,500	1,140
Heretaunga plains Groundwater	N/A	N/A	Estimated to be 140 – 180 Mm <sup>3</sup> per year	N/A	Existing Use Only (estimated at up to 90 Mm <sup>3</sup> per year)

6.96 While many of the rivers and streams in the above have identical minimum flows under RRMP and PPC9, the allocation limits under PPC9 are generally lower and sometimes much lower than the actual existing allocation and reflects the sinking lid approach to allocation under PPC9.

6.97 We note here that the allocation limits in Schedule 31 do not apply to water abstraction that is enabled by the release of water from water taken at times of high flow and stored for later release. This clarification is specified in the PPC9 “pink version” of Schedule 31, and high flow allocation is addressed in Schedule 32. We discuss high flow allocation in the next section of

<sup>39</sup> Does not include connected groundwater takes.

<sup>40</sup> There is existing allocation of 200 L/sec to connected groundwater.

<sup>41</sup> For the Ngaruroro the existing allocation figure includes connected ‘Zone 1’ groundwater takes as the proposed Schedule 6 allocation includes Zone 1 groundwater with the Ngaruroro allocation.

this decision.

*Submissions and Evidence on Schedule 31*

6.98 There were over 100 submission points about Schedule 31. Many of these sought to increase, maintain or decrease minimum flows for specific rivers, change allocation limits and change the definition of Actual and Reasonable. The majority of submissions focused on the definition of Actual and Reasonable, which is discussed in Chapters 9 and 13 of our decision.

6.99 The Council's own submission recommended amendments to clarify when the limits and triggers detailed in Schedule 31 apply. Council sought an amendment to the Glossary definitions of allocation limits (limit for surface water and limit for high flow takes), where allocation limit may apply to takes during low flow periods from October to April or apply to takes during high flows. The s42A Report noted that, for the Tūtaekurī and Ngaruroro surface water quantity areas, Schedule 31 limits are most relevant during the months November-April when flows are typically lower due to less rain fall, although the minimum flows apply all year round. We note that POL TANK 53 (Frost protection, temporary and non-consumptive water takes) states:

*When considering applications to take water for frost protection, the Council will avoid, remedy or mitigate actual and potential effects of the take on its own or in combination with other water takes;*

*a) from groundwater in the Heretaunga Plains Water Management Unit on;*

*(i) neighbouring bores and existing water users;*

*(ii) connected surface water bodies;*

*(iii) water quality as a result of any associated application of the water onto the ground where it might enter water;*

*b) from surface water on;*

*(i) instantaneous flow in the surface water body;*

*(ii) fish spawning and existing water users;*

*(iii) applicable minimum flows during November to April;*

*(iv) water quality as a result of any associated application of the water onto the ground where it might enter water;*

*By;*

*c) taking into account any stream depletion effects of groundwater takes;*

*d) imposing limits in relation to minimum flows or groundwater levels;*

*e) requiring water metering, monitoring and reporting use of water for frost protection.*

6.100 The only reference in PPC9 to the timing of when minimum flows apply is POL TANK 53. Clarification around when minimum flows and allocation limits apply were not included in the final "pink version" of Schedule 31, but we think that they should be in PPC9 and have included them accordingly.

6.101 A number of submitters<sup>42</sup> sought minimum flows be applied to surface waters of the Ahuriri

<sup>42</sup> e.g., Department of Conservation, Forest & Bird, Maungaharuru-Tangitū Trust.

catchment, however the Reporting Officers indicated little is known about actual use in that catchment<sup>43</sup> and so it was proposed in PPC9 that all water takes in this catchment are limited to existing “Actual and Reasonable” use<sup>44</sup>. We agree with this approach given the lack of existing quantifiable information currently available for this catchment.

- 6.102 A number of submissions sought to increase the minimum flow in the Ngaruroro River to provide greater habitat protection for torrentfish, but provided no evidence to demonstrate that this species is adversely affected by the existing minimum flow. Council scientists at one TANK Stakeholder Group meeting indicated that the Ngaruroro River had relatively high densities of torrentfish under the existing flow regime<sup>45</sup>. We also observe that providing for torrentfish habitat will also ensure ample habitat is available for other species, including mahinga kai such as tuna (eels).
- 6.103 In his statement of reply evidence for HBRC (Appendix 8 of the s42A addendum report), Mr Daniel Fake addressed matters relating to the adoption of minimum flows in Schedule 31 and also issues on this raised by submitters. In particular, he addressed concerns expressed by Mr Marei Apatu and Mr Maurice Black (on behalf of Te Taiwhenua O Heretaunga) around the proposed Ngaruroro River minimum flow, and its associated predicted habitat protection level of 44% for torrentfish. Mr Black had sought that the Ngaruroro River minimum flow is set at or amended in a staged manner to 4,200 L/sec to achieve 90% habitat provision for trout<sup>46</sup>. Mr Apatu stated in his evidence that "*Torrentfish MALF recommends 4,700 L/s to provide 100% survival and protection*" and sought a minimum flow of 3,700 L/sec for the Ngaruroro River<sup>47</sup>.
- 6.104 Mr Fake noted that increasing the minimum flow would not provide a significant increase in habitat protection for torrentfish<sup>48</sup>. Mr Waldron, in his statement of reply evidence for HBRC (Appendix 10 of the s42A Addendum Report), discussed the effect of minimum flows on the MALF and Q95 low flow statistics, and demonstrated that raising the minimum flow would provide only small improvements to low flows, but increase the number of days on ban for irrigators<sup>49</sup>.
- 6.105 The s42A Reporting Officers concluded that the benefits to habitat protection of higher minimum flow are minimal, but the costs could be significant and that increasing the Ngaruroro River minimum flow is not an efficient method of achieving the objectives of PPC9. We agree with this conclusion.
- 6.106 Two submissions<sup>50</sup> sought that the allocation limit for the Ngaruroro River should remain at 1,581 L/sec and not be lowered to 1,300 L/sec as a part of the plan’s strategy to deal with over-allocation. We do not consider that these requests are consistent with the overall intent of PPC9 of reducing over-allocation and improving surface water ecosystem health.
- 6.107 Some submitters also opposed raising the minimum flow of the Tūtaekurī River, but again did not provide evidence justifying the reasons for their opposition. HortNZ’s original submission opposed the proposed increase to the Tūtaekurī River minimum flow due to the potential for this to impact growers’ water use in the future. However, HortNZ’s hydrology expert, Ms

43 Page 282, Section 32 Evaluation Report - TANK Catchments Plan Change to RRMP.

44 Para 1502, s42A report.

45 TANK Collaborative Stakeholder Group: Meeting Thirty-Four Record.

46 Maurice Black, EIC on behalf of Te Taiwhenua o Heretaunga, paragraphs 202-204.

47 Marei Apatu, EIC on behalf of Te Taiwhenua o Heretaunga, paragraph k.

48 Daniel Fake, reply evidence on behalf of HBRC, paragraphs 4.8-4.9.

49 Daniel Fake, reply evidence on behalf of HBRC, paragraphs 4.4-4.6.

50 118 Hugo Beamish; 241 Penny & John Reynolds.

Gillian Holmes, stated that she had reviewed the recorded flows in the Tūtaekurī River at Puketapu and the results of the HBRC SOURCE modelling scenarios, and found no modelled restrictions as a result of the 2,500 L/sec minimum flow, and consequently she agreed with the proposed increase in the minimum flow of the Tūtaekurī River under PPC9<sup>51</sup>.

- 6.108 The Department of Conservation’s original submission considered there was an inconsistent approach in Schedule 31 to protecting indigenous fish and aquatic life between the Tūtaekurī and Ngaruroro rivers. While we understand the point made this is a complex issue and ‘a one size fits all’ approach is not necessarily appropriate.

*Discussion, Findings and s32AA Analysis*

- 6.109 There was limited debate and discussion at the hearing around the actual minimum flow values in Schedule 31. The actual values (for both minimum flows and allocation limits) in Schedule 31 did not vary from those in the notified version of PPC9 for many surface waters. Tangata whenua were most vocal in seeking higher minimum flows for some streams and rivers, but provided limited evidence in support, although we do acknowledge their concerns surrounding flows in surface waters of the Karamū catchment in particular.
- 6.110 Those that sought reductions in minimum flows were abstractors, but again they provided no substantive evidence to support their position other than to express concern on the ability to secure water when demand increased over the peak of the irrigation season.
- 6.111 It seems to us that the processes for deriving the minimum flows in Schedule 31 were thoroughly discussed and dissected through the TANK Stakeholder Group process, and that Council provided a significant amount of technical resource to assist stakeholders in understanding flow requirements for instream values such as fish, invertebrates, plants, riverine birds and maintaining water quality. Ultimately, however, consensus was not reached on this issue, perhaps not surprisingly given the competing demands of abstraction for commercial and municipal purposes versus those for cultural and surface water ecosystem health.
- 6.112 A number of objectives and policies in PPC9 are drafted to improve stream ecosystem health through a series of immediate and longer-term directions and initiatives. The minimum flows in Schedule 31 (i.e., the introduction of ‘hard’ numbers or limits) for some surface waters can be regarded as an immediate direction, as can the ‘hard’ allocation limits. Applying existing use as an allocation limit (via the “Actual and Reasonable” test) for other catchments/sub-catchments can be regarded as a longer-term initiative where existing information is insufficient to recommend defined minimum flows and allocation limits. We regard this as a compromise between providing the certainty of well-defined limits and providing time to gather more information on the likes of actual use and surface water hydrology, and interactions between groundwater levels and surface water flows for some areas within the TANK catchments. In particular, we accept that there still exist some information gaps around actual use and flows in the Ahuriri and Karamū catchments, and that more time is required to investigate these systems until greater certainty is reached around appropriate minimum flows and allocation limits. These information gathering requirements are provided for in the PPC9 policies.
- 6.113 We also accept that PPC9 provides for other factors other than ‘hard’ minimum flow limits to come into play to improve surface water ecosystem health. These include managing allocation limits to protect existing investment (discussed briefly above and in detail under our section

<sup>51</sup> Para 60, EIC, Gillian Holmes for HortNZ.

on groundwater, particularly POL TANK 37 and 52), stream flow maintenance schemes and stream habitat enhancement schemes, and high flow allocation. We have not discussed stream flow maintenance schemes and stream habitat enhancement schemes to any great degree in this section, but consider these provide another tool in the toolbox for enabling stream ecosystem enhancement. Currently, such measures appear confined to two situations (Twyford where groundwater is pumped into the Raupare Stream and Bridge Pa where impounded water from the Maraekakaho and Ngaruroro rivers is released occasionally into the Paritua Stream). We acknowledge that tāngata whenua oppose the use of groundwater to segment surface water flows, and it may not be a viable long-term solution, however it appears to provide some benefits to local stream ecosystem health, and so we recommend that provisions in PPC9 to enable these initiatives be retained.

- 6.114 We consider the recommended changes make Schedule 31 clearer and more efficient and effective, and so meet the requirements of s32AA of the RMA

## Chapter 7 Water Quantity - High Flow Allocation, Damming & Schedule 32

### Introduction

- 7.1 This section of our report deals with the Objectives, Policies, Rules and Schedules that relate to flow triggers and allocation limits for takes under high river flow conditions and the damming of water. The purpose of a high flow allocation (HFA) is to provide water for storage (for example behind a dam or in an off-line reservoir), so that the water may be released or used later when there is demand or need (including for river flow enhancement).
- 7.2 Providing for HFA is one of three policy groups in PPC9 that relate to water quantity, the other two being Heretaunga Plains Groundwater Levels and Allocation Limits (which identifies that the Heretaunga Aquifer is closely connected to surface water bodies across the TANK catchments, and must be managed as an over-allocated catchment) and Surface Water Low Flows (which include specific policies for surface water body catchments, and policies which guide the management of all ground and surface water takes in the TANK catchments).
- 7.3 The s42A Report notes that the taking of high flows is considered an important mechanism for providing improved reliability of supply (through storage) and enabling stream flow mitigation where groundwater pumping is not feasible<sup>1</sup>.

### Objectives

- 7.4 PPC9 objectives OBJ TANK 16, 17 and 18 relate to water quantity. As noted in the previous section, OBJ TANK 16 refers to priorities for water allocation subject to limits, targets and flow regimes which provide for the values of each water body. There were a number of submissions around the order of prioritisation, but the objective does not specifically refer to high flow takes or HFA. The s42A Reporting Officers made several recommended changes to OBJ TANK 16 to provide more clarity on the intent of the objective. OBJ TANK 16 is discussed more thoroughly in Chapter 8 of this report on the Priority Allocation Framework, and we make no further comment on it here.
- 7.5 OBJ TANK 17 establishes the desired outcomes of allocation, including a pathway for policies and rules which enable allocation of water at high flows for Māori development (Clause 17(a)), ensure reliability of supply for abstraction, and efficient use). As notified, the objective listed four sub-clauses. HortNZ requested in its submission that it be clearly stated that Clauses (a) to (d) are not listed in any order of priority<sup>2</sup>.
- 7.6 Some submissions<sup>3</sup> opposed Clause 17(a) applying just to Māori and sought that it be amended to apply to the wider Hawke's Bay community. We discuss this issue further under POL TANK 59. Federated Farmers requested that the reference to Māori in Clause 17(a) be deleted such that the amended clause would effectively apply to everyone<sup>4</sup>.

<sup>1</sup> Para 1218 s42A Report.

<sup>2</sup> Submitter 180, Horticulture New Zealand.

<sup>3</sup> For example, Submitters 3 (Limestone Properties Ltd.), 124 (Brownrigg Agriculture Group Ltd.).

<sup>4</sup> Submitter 195, Federated Farmers of New Zealand.

- 7.7 Clause 17(d) provided for “Allocation regimes that are flexible and responsive, allowing water users to make efficient use of this finite resource”. The s42A Reporting Officers recommended that Clause 17(d) be deleted because it is already provided for by OBJs TANK 17(c) and 18(b).
- 7.8 OBJ TANK 18 of PPC9 establishes how current and foreseeable water needs are secured for mauri, ecosystem health and future generations through:
- a) water conservation, water use efficiency, and innovations in technology and management;
  - b) flexible water allocation and management regimes;
  - c) water reticulation;
  - d) aquifer recharge and flow enhancement;
  - e) water harvesting and storage.
- 7.9 The s42A Reporting Officers recommended an additional clause be included which specifically identifies avoiding future over-allocation and to phase out existing over-allocation as an objective of PPC9.
- 7.10 Twyford Water and HortNZ sought amendments to OBJ TANK 18 so that it was made clear that the sub-clauses were listed in order of priority, and that water harvesting and storage should have the highest priority.

#### *Discussion, Findings and s32AA Analysis*

- 7.11 Recommended changes to OBJs TANK 17 and 18 by the s42A Reporting Officers are largely to improve the clarity of the intent of the objectives, and we recommend that these changes be retained. We note that none of the recommended changes relate specifically to high flow takes and HFA, which is the subject of this section of our decision.
- 7.12 We reject the requests of some submitters to amend Clause 17(a) such that it applies to the wider Hawke’s Bay community. Providing for the development of Māori economic, cultural and social well-being will help achieve RMA sections 6(e) (the relationship of Māori and their culture and traditions with water), 7(a) (kaitiakitanga), and 8 (Te Tiriti o Waitangi). We discuss this issue further under POL TANK 59, following.
- 7.13 Rather than delete Clause 17(d), as recommended by the s42A Reporting Officers, we have amended it to read:
- Clause 17(d) efficient and effective allocation management regimes.***
- 7.14 While Clause 17(c) refers to efficient water use, Clause 17(d) is aimed at encouraging management regimes to be efficient and adaptive.
- 7.15 The amendment to include a new clause in OBJ TANK 18 that refers to avoiding future over-allocation and phasing out existing over-allocation is a core objective of PPC9 and reinforces the sinking lid approach to dealing with over-allocation.
- 7.16 There were a number of submissions on the order of prioritisation in OBJs TANK 17 and 18. As noted above, some requested that water harvesting and storage should be prioritised first. Whereas OBJ TANK 16 specifically notes that the water “...is allocated, subject to limits, targets



and flow regimes ... in the following priority order”, there is no mention of a priority order for the measures listed in both OBJ TANK 18 and 17. Consequently, we see no benefit in shuffling the order of measures listed under these objectives and we received no evidence that justified an order of priority for all the matters listed in each sub-clause.

## Approach to High Flow Allocation in PPC9

- 7.17 Before discussing each policy in detail, it is useful to reflect on the science behind HFA as used in PPC9. Under PPC9, the potential adverse ecological effects of high flow takes are managed by:
- a) setting a trigger flow (a cease-take trigger flow), which is the equivalent to a ‘minimum flow’, where takes may only occur above that (high) flow;
  - b) setting allocation limits for high flow takes; and
  - c) prohibiting certain rivers from being dammed.
- 7.18 The HFA limits in TANK rivers and streams have been proposed in a way which results in only a small change to the number of annual flow events three times the median flow or greater. This flow statistic is often referred to as the FRE3.
- 7.19 FRE3 flows have been used throughout New Zealand in setting HFAs since research found that flows of this magnitude, or greater, were significant in influencing ecological processes within the river, such as scouring periphyton (algae) and fine sediments from the bed. Larger flood flows also play important roles in shaping river channels (for example by maintaining braiding patterns), a point noted in the submission of Jet Boating New Zealand, and scouring weed growths from beaches and islands. Therefore, the number of FRE3 events in a year can influence the ecological and physical character of a river, and altering the number of events can induce unintended and potentially undesirable changes to those instream characteristics.
- 7.20 As a general rule of thumb, a river with a lot of FRE3 flow events can be considered ‘flashy’ in nature and have a bed of clean gravels, like many braided and hill country rivers. In contrast, a river with relatively few FRE3 flow events is often silty and prone to algae and weed build-up, like many lowland streams and springs.
- 7.21 The advice received by the Regional Council, and relayed to the TANK Water Augmentation Working Group, was that a 10% change or less to the number of annual FRE3 events is considered a minor effect<sup>5</sup>.
- 7.22 A high flow allocation will typically have a relatively high cease-take trigger flow, to ensure that low flows in a river are not affected. In the case of PPC9, the median flow<sup>6</sup> was adopted as the trigger flow for the Ngaruroro and Tūtaekurī Rivers and their tributaries.
- 7.23 The HFA for each of the rivers was assessed by examining the volume of water that could be abstracted from each river without the number of FRE3 events each year being reduced by more than 10%. The Water Augmentation Working Group also considered that the potential land available for new irrigation on the Heretaunga Plains and Ngaruroro River flats may be up

<sup>5</sup> Discussion Document for TANK Meeting 38, March 2018. Part 2: High Flow Allocation Regime; Policy and Rules.

<sup>6</sup> The median flow is hydrological statistic defined as the flow where half the flow measurements from a monitoring site are higher than the median and half are lower.

to 3,500 ha and that this demand could be met with 17.5 million cubic metres (Mm<sup>3</sup>) of storage.

- 7.24 Modelling found that 8,000 L/sec could be abstracted from the Ngaruroro River without significantly compromising the flows above FRE3. This allocation volume would also provide the 17.5 Mm<sup>3</sup> for additional irrigation as well as flow releases for environmental enhancement. Schedule 32 of PPC9 included 8,000 L/sec as the HFA for the Ngaruroro River and 2,500 L/sec for the Tūtaekurī River. Under Schedule 32, for tributaries of these mainstems the HFA is proportional to its contribution to the mainstem and is part of the total allocation for the mainstem HFA.

## Policies

- 7.25 Policies in PPC9 were formulated such that there will be no new water allocations in the TANK catchments, except for surface water at high flows. New users can only gain access to water through a transfer of an existing consent to take and use water, applying for a high flow take, or accessing water made available through storage schemes. Policies TANK 54 to 60 relate to the taking and storing of water at high flows.
- 7.26 All of policies POLs TANK 54 to 60 were included in PPC9 as notified, and the s42A Reporting Officers recommend they all be retained in PPC9. Only relatively minor changes are recommended to these seven policies.

## POL TANK 54

- 7.27 POL TANK 54 addresses the potential adverse effects resulting from damming rivers and other waterbodies, and sets out a list of effects that the Regional Council will avoid, remedy or mitigate when assessing applications to dam water and take water from the dam impoundment. A large number of submitters sought identical relief with respect to revisiting HFAs and providing HFAs for the Karamū and Ahuriri catchments. The s42A Reporting Officers noted that HFAs are not considered feasible or desirable in these two catchments because they are small lowland catchments and, in the case of the Ahuriri catchment, there is limited current understanding of water use and resource limits. Their hydrology differs from the Ngaruroro and Tūtaekurī catchments, which have headwaters in high country.
- 7.28 The submission of HortNZ sought the deletion of clauses (a) and (c), leaving Clause (b) on its own, on the grounds that the changes more appropriately reflects the water take focus of the policy<sup>7</sup>.
- 7.29 The provisions of POL TANK 54 apply to all surface waters except those rivers specifically referred to in POL TANK 58, which identifies rivers where damming is prohibited.
- 7.30 A number of submitters also sought that the HFAs in Schedule 32 be revisited, but provided no evidence in support of revised allocations.

## *Finding and s32AA Analysis*

- 7.31 POL TANK 54 helps give effect to OBJ TANK 2, 3 and 18. Dams have significant effects on rivers by displacing flowing water, altering river hydrology and water quality, and restricting fish passage. Consequently, the cultural, ecological and recreational values of the river can be affected. Water taken from dams and reservoirs for land use application can result in land use

<sup>7</sup> Submission point 180.49, Horticulture New Zealand.

intensification and indirectly affect ground and surface water quality. POL TANK 54 signals that the Regional Council will address these matters and we are satisfied that the policy is consistent with the NPS-FM 2020.

- 7.32 The s42A Reporting Officers did not recommend any changes to the wording of POL TANK 54 from that notified in PPC9, other than some very minor redrafting. The policy refers to POL TANK 58, which lists rivers where damming is prohibited. We think the policy would benefit from some additional text at the end of it to improve clarity, as follows:

*“... and, except as prohibited by ~~Policy~~ POL TANK 58, will limit the amount of flow alteration so that the damming of surface water either on its own or in combination with other dams or water storage in a catchment does not cumulatively adversely affect the frequency of flows above three times the median flow by more than a minor amount and provided that any dam in combination with other dams or high flow takes shall not cause changes to the river flow regime that are inconsistent with specified flow triggers, including those specified in Schedule 32.”*

- 7.33 While we reject HortNZ’s request to delete clauses (a) and (c), we have made an amendment to clause (c) because, as written in the “Pink version” of PPC9, and in previous versions, it does not make sense following on from the stem clause. POL TANK 54 is currently worded as follows:

*54. When assessing applications to dam water and to take water from the dam impoundment, the Council will avoid, remedy or mitigate adverse effects of;*

*a)...*;

*b)...*;

*c) whether there are practicable alternatives;*

*and, except as prohibited by Policy POL TANK 58, will limit the amount of flow alteration so that the damming of surface water either on its own or in combination with other dams or water storage in a catchment does not cumulatively adversely affect the frequency of flows above three times the median flow by more than a minor amount and provided that any dam in combination with other dams or high flow takes shall not cause changes to the river flow regime that are inconsistent with specified flow triggers.*

- 7.34 We have deleted clause (c) and replaced it with:

*And consider where there are practicable alternatives;*

- 7.35 The policy now reads as follows:

*When assessing applications to dam water and to take water from the dam impoundment, the Council will avoid, remedy or mitigate adverse effects of;*

*a) potential changes to water quality arising from subsequent changes to land use activities that may occur as a result of water being allocated for take and use from the dam and whether relevant freshwater quality objectives can be met;*

*b) the dam and any associated lake or reservoir, and any effects of the volume, velocity, frequency, and duration of flow releases from the dam, either by itself or cumulatively with other storage structures or dams, on;*

*(i) the uses and values for any water body identified in the objectives or Schedule 25;*

- (ii) water levels and flows in connected water bodies, including lakes and wetlands;*
- (iii) water quality, including effects on temperature and management of periphyton in connected water bodies;*
- (iv) river ecology and aquatic ecosystems, including passage of fish and eels, indigenous species habitat and riparian habitat, including in relation to the storage impoundment;*
- (v) groundwater recharge;*
- (vi) downstream land, property and infrastructure at risk from failure of the proposed dam;*
- (vii) other water users;*
- (viii) downstream river bed stability, including through sediment transfer and management of vegetation in river beds.*

*And consider where there are practicable alternatives;*

*and, except as prohibited by POL TANK 58, will limit the amount of flow alteration so that the damming of surface water either on its own or in combination with other dams or water storage in a catchment does not cumulatively adversely affect the frequency of flows above three times the median flow by more than a minor amount and provided that any dam in combination with other dams or high flow takes shall not cause changes to the river flow regime that are inconsistent with specified flow triggers including those specified in Schedule 32.*

- 7.36 We consider these recommended changes make the rule more efficient and effective, and so meet the further evaluation requirements of s32AA of the RMA.

## POL TANK 55

- 7.37 POL TANK 55 is similar in intent to POL TANK 54, but addresses the potential adverse effects caused by taking water for off-line storage or taking water from an impoundment. It sets out a list of effects that the Regional Council will avoid, remedy or mitigate when assessing applications to take water for off-stream storage and to take water from a storage impoundment. These are similar to those listed under POL TANK 54.
- 7.38 POL TANK 55 helps give effect to OBJs TANK 2, 3 and 18. It enables the Regional Council to address the potential effects of water takes to off-line storage, and the taking of water from impoundments, on instream values, groundwater recharge, downstream land and other water uses. As for POL TANK 54, it specifically refers to the mechanisms that limit the potential effects of high flow takes (that is, the median flow as a trigger flow below which flows must cease, specified allocation limits which must not be exceeded by cumulative takes, and the limits on the degree of change in annual FRE3 events).
- 7.39 Submissions on POL TANK 55 were similar in nature to those noted above for POL TANK 54. Hawkes Bay Fish and Game Council's submission sought a 50:50 flow sharing regime to "ensure that blocks of water between median and FRE3 are fairly allocated".

### *Finding*

- 7.40 The s42A Reporting Officers did not recommend any changes to the wording of POL TANK 55 from what was notified in PPC9. We are satisfied that the policy is consistent with the NPS-FM 2020. We do not see that changes to the flow sharing regime, such as sought by Hawkes Bay

Fish and Game Council, provide any additional benefit to the river ecosystem. As previously discussed, we are satisfied that the HFA regime in PPC9 is sufficient to allow only minor changes to the frequency of high flow events, which are important for maintaining river ecosystem health.

## POL TANK 56

- 7.41 POL TANK 56 provides a set of criteria that the Regional Council will consider when considering applications to take water at high flows, establish storage for water taken at high flows and takes from stored water. These criteria are aimed to encourage applicants to maximise the various potential benefits of storage and augmentation schemes for environmental, economic, social, cultural and recreational uses.
- 7.42 Submissions on POL TANK 56 were similar in nature to those noted above for POL TANK 54 and 55.
- 7.43 Ms Grey Wilson stated in her evidence that she understood NKII's position on the development of the HFA provisions in PPC9 was that it was "offensive and inadequate", and consequently she considered it appropriate to delete POLs TANK 56 to 58 from the plan. She also stated that:

*"NKII seeks that water within the TANK catchments is managed firstly within sustainable limits and secondly in such a way that provides for a tangata whenua allocation within new allocation regimes to be introduced within the life of the Plan."*<sup>8</sup>

### Finding

- 7.44 The s42A Reporting Officers did not recommend any changes to the wording of POL TANK 56 from that notified in PPC9. We are satisfied that the wording of the policy is consistent with the NPS-FM 2020. Two submissions sought an amendment to relieve individual off-line storage proposals from being subject to these criteria, but we agree with the s42A Reporting Officers that adverse effects on surface waters across the TANK catchments are cumulative in nature, and as such all activities including off-line storage need to be assessed. We also agree with the s42A Reporting Officers that the wording of the policy is sufficient to enable decision-makers to take into account a wide range of factors, including scale.
- 7.45 We do not agree with Ms Wilson's assertion that the development of HFA provisions in PPC9 is "inadequate". Rather we consider it to be robust, and will ensure that there will be only minor reductions in the frequency of ecologically significant flow events in the Ngaruroro and Tūtaekurī Rivers. Specific allocations are made for tangata whenua in POL TANK 59, which is discussed below.

## POL TANK 57

- 7.46 POL TANK 57 commits the Regional Council to carry out further investigation to understand the present and potential future regional water demand and supply including for abstractive water uses and environmental enhancement, and in relation to climate change. The policy also requires the Regional Council to consider water storage options according to the criteria in POL TANK 56 in consultation with local authorities, tangata whenua, industry groups, resource

<sup>8</sup> evidence of Grey Wilson for Ngāti Kahungunu Iwi Incorporated Paragraphs 96.

users and the wider community when making decisions about water augmentation proposals in its Annual and Long-Term Plans.

- 7.47 Again, submissions on POL TANK 57 were similar in nature to those noted above for POL TANK 54, 55 and 56. Some submissions sought specific wording amendments to ensure that the investigation under POL TANK 57 occurs before the review of allocation and consents under POL TANK 42.

#### *Findings and S32AA Analysis*

- 7.48 The s42A Reporting Officers recommended that clarifying timing of the investigation is appropriate to ensure POL TANK 42 review is effective, and we agree that this amendment should be made to the policy for improved clarity, and in doing so meets the further evaluation requirements of s32AA of the RMA.

#### POL TANK 58

- 7.49 POL TANK 58 prohibits the damming on the mainstems of the Ngaruroro, Tūtaekurī, Taruarau, Omahaki, Mangatutu and Mangaone Rivers. The policy is given effect to by Rule TANK 17 and the prohibited status of damming the mainstems of these rivers is also reiterated in Schedule 32.
- 7.50 The TANK Stakeholder Group agreed on a prohibition on the damming of the Tūtaekurī and Ngaruroro Rivers in recognition of the highly valued instream uses and values of these two rivers, including those related to natural character and landscape, habitat for indigenous species and recreational activities including angling and rafting. They also recognised the strong marae/hapū connections and whakapapa to these rivers<sup>9</sup>. The Group subsequently agreed on additional prohibitions on instream dams in some tributaries of these rivers, including the Taruarau (a large tributary of the Ngaruroro River), Mangaone and Mangatutu Rivers (large tributaries of the Tūtaekurī River). The Omahaki Stream is a smaller tributary of the upper Ngaruroro and was also nominated because it is a source of trout recruitment<sup>10</sup>.
- 7.51 Submissions largely supported that damming of these rivers be prohibited.

#### *Finding*

- 7.52 The Ngaruroro, Tūtaekurī, Taruarau, Omahaki, Mangatutu and Mangaone Rivers are highly valued for cultural, ecological and recreational reasons. Their protection against damming is consistent with the concepts of Te Mana o Te Wai and ki utu ki tai. The s42A Reporting Officers do not recommend any changes to the wording of POL TANK 58 and we agree with them.

#### POL TANK 59

- 7.53 POL TANK 59 allocates 20% of the water available for abstraction, storage and use of high flows for environmental enhancement or for economic, cultural, and social well-being of Māori. It is specific to the Ngaruroro and Tūtaekurī catchments. The policy direction is carried through into Schedule 32.

<sup>9</sup> TANK Meeting 41, Covering Report; TANK Draft Plan Change.

<sup>10</sup> Cover Report TANK meeting 41.

- 7.54 POL TANK 59 is to be read in conjunction with POL TANK 54-58 and it helps to achieve OBJs TANK 2, 17 and 18. Schedule 32 includes the allocation limit at high flows, and the 20% allocation for Māori development and environmental enhancement.
- 7.55 POL TANK 59 attracted a lot of attention from submitters. A large number of identical submissions (particularly from the farming and wine sectors) sought that the allocation be made available not just to Māori, that the allocation to Māori from the Ngaruroro River needs to be reduced (see below) and that the policy needs to be clear on differentiating between an allocation for Māori and an allocation for environmental enhancement<sup>11</sup>. Some submitters thought the policy should specify particular iwi groups that the allocation would apply to and that the 20% allocation should be for Māori only<sup>12</sup>.
- 7.56 A key issue raised by submitters was that POL TANK 59 covers water allocated for both Māori development and environmental enhancement, but that Schedule 32 refers only to Māori development (in column E). Some concern was also expressed by a number submitters<sup>13</sup> about the volume of water being made available to Māori from the Ngaruroro River, as it was understood by these submitters that the 20% was to be 20% of new HFA water (that is, 6,000 L/sec for the Ngaruroro) and not 20% of the total allocation of 8,000 L/sec, which includes 2,000 L/sec already consented.

*Finding and S32AA Analysis*

- 7.57 The provision of allocation water for Māori well-being as provided for in POL TANK 59 and Schedule 32 is consistent with OBJ 17(a) of PPC9, and we decided that it be retained. The relevant clause is:

**OBJ TANK 17**

*The allocation and use of water results in;*

- a) the development of Māori economic, cultural and social well-being supported through regulating the use and allocation of the water available at high flows for taking, storage and use*

- 7.58 Applicants seeking water under POL TANK 59 do not have to be affiliated with an iwi group, but the water has to benefit Māori well-being, and the Regional Council will need to be satisfied that this is the case. We consider POL TANK 59 can provide opportunity for potential benefits associated with water storage and augmentation as listed under POL TANK 56.
- 7.59 Whether the actual proportion of water available under this policy (20%) is appropriate is something that we did not receive evidence on, other than for some submitters to say it was too much. However, we are satisfied that it remains within the HFA cap for each relevant river and that justification around that cap has been suitably assessed in terms of potential effects on the river environment.
- 7.60 We agree with some of the submitters that there is an element of uncertainty around whether the 20% HFA is available for either environmental enhancement or Māori well-being. This is not clear to us in the s42A Reporting Officers' "pink version" of PPC9. POL TANK 59 refers to both in separate conditions, while Schedule 32 has one column (Column E) titled 'Amount

<sup>11</sup> For example, Ritchie Garnham, Booster Wine Group, Submitter 102; and others

<sup>12</sup> Wi Huata, Submitter 133

<sup>13</sup> For example Submitters 28 (Saint Clair Family Estate Ltd.), 34 (Craggy Range Vineyards Ltd.), 143 (Strathallan Trust), 179 (Otawhao Farms Ltd.).



reserved for Māori development’. We accept that allocation for Māori development could also result in environmental enhancements, but we consider that it should be made clear in PPC9 that the allocation can potentially be for either of these. This will also require an amendment to the wording in Schedule 32 and we have made this accordingly (see below under Schedule 32).

- 7.61 We also agree with those submitters who sought that the 20% volume of water made available to Māori from the Ngaruroro River is to be for new HFA water only (that is 6,000 L/sec for the Ngaruroro) and not 20% of the total allocation of 8,000 L/sec. To enable access to 20% of the total Ngaruroro River HFA of 8,000 L/sec implies that a clawback for water would be required when consents expired for the 2,000 L/sec of water already allocated. We do not consider that this was the intention of the TANK Group, who recommended to the Regional Planning Committee that 20% of ‘available water’ be reserved for Māori<sup>14</sup>. Consequently, we have amended the second row of column E of Schedule 32 (see paragraphs 7.82 – 7.89 under Schedule 32).
- 7.62 We accept the recommendation that the policy is amended to refer specifically to Schedule 32 as it improves clarity and in doing so makes the rule more efficient and effective, and so meets the further evaluation requirements of s32AA of the RMA.

## POL TANK 60

- 7.63 POL TANK 60 establishes additional criteria for considering applications to take and store high flows to maximise the potential to provide for the development of Māori economic, cultural and social well-being. This policy aligns with OBJ TANK 17.
- 7.64 This policy attracted relatively little response from submitters. Those that did comment on it sought clarification as to whether the policy related just to POL TANK 59 (HFA for Māori well-being). Others suggested some rewording and to include environmental matters for consideration.

### *Finding*

- 7.65 POL TANK 60 is relatively benign in that it signals that the Regional Council will ‘take into account’ a number of matters relating to Māori interests when making decisions about resource consents. The wording of the policy is clear in that it does not relate just to allocation under POL TANK 59, but is to apply to any application to take and store high flow water. We think it is consistent with the other plan provisions of PPC9, in particular those relating to HFA (POL TANK 54 to 59) and OBJ TANK 17(a) listed above, and recommend it remains as drafted in PPC9.

## Rules

- 7.66 In PPC9 Rules TANK 13 - 15 are provided for as discretionary activities:
- a) the taking of surface water at high flows;
  - b) damming (including weirs and other barriers) of surface water and discharges from dams; and

<sup>14</sup> Meeting of the Regional Planning Committee 12 December 2018. Item 6: 6. TANK Plan Change (version 8) recommendation to HBRC. Attachment 1: Allocation of high flow water for Māori development.



c) the take and use of water from a dam or water impoundment.

- 7.67 Rule TANK 13 makes the taking of surface water at times of high flow for storage in an impoundment a discretionary activity subject to the conditions contained in Schedule 32. The s42A Reporting Officers recommended that Condition 13(a), which refers to RRMP Rules 67 and 68, be deleted (and inserted into Rule TANK 14, which relates to dam construction) as these two rules are about the construction of dams and are not relevant to Rule TANK 13, which is about the taking of water at high flows.
- 7.68 Rule TANK 14 enables erecting dams and the consequential damming of water a discretionary activity. It notes that Rule TANK 17 explicitly prohibits damming on the main stem of the Ngaruroro, Taruarau, Omahaki, Tūtaekurī, Mangone and Mangatutu Rivers, but we note that abstraction under high flow conditions from these rivers is not prohibited.
- 7.69 Under PPC9, Rule TANK 15 would have made the taking and use of water from a dam or water impoundment a discretionary activity if it exceeds 5 m<sup>3</sup> per day per property (that is does not comply with the conditions of Rule TANK 7). Takes under this rule are not subject to the flow triggers and allocation limits in Schedules 31 and 32.
- 7.70 The s42A Reporting Officers recommended that this rule be changed to restricted discretionary status partly on the basis that a discretionary activity status is a high bar to pass and the damming or taking of water at high flows has already had to pass “quite a high bar”<sup>15</sup>. They also recommended a new condition specifying that the activity does not result in a change of land use that required consent under Rules TANK 5 and 6.
- 7.71 The s42A Reporting Officers also recommended an additional rule (Rule TANK 15a) be included in PPC9. This rule would make the take and use of water from a dam or water impoundment a discretionary activity if the activity does not comply with the conditions of Rule TANK 15.
- 7.72 If the conditions of Rule TANK 13 – 15a cannot be met, the activity becomes non-complying under Rule TANK 16. Rule TANK 16 provides the opportunity for non-complying activity applications to be made and assessed on their merits where the provisions of Schedule 32 cannot be met. No changes were recommended this rule by section 42A Reporting Officers.
- 7.73 Rule TANK 17 implements POL TANK 58 and prohibits the construction of dams or damming or waters in specified rivers. The rule consists of a single stem clause and the s42A Reporting Officers recommended no changes to its wording. However, we note that under the Conditions/Standards/Terms column, the first clause should be amended from (b) to (a).

#### *Submissions and evidence*

- 7.74 A common theme in submissions relating to the above rules is less to do with the wording of the rules, but about revisiting the allocation limits for high flow takes, including providing for HFAs for the Ahuriri and Karamū catchments, and clarifying the 20% allocation to Māori and environmental enhancement.
- 7.75 Federated Farmers submitted that Rule TANK 17 should be changed from a prohibited activity to a non-complying activity on the grounds that there may be unforeseen circumstances which meant that damming these waterways is necessary<sup>16</sup>.

<sup>15</sup> S42A Report, Paragraph 1957

<sup>16</sup> Federated Farmers of New Zealand, Submitter 195

### *Finding and s32AA Analysis*

- 7.76 We consider that the recommended changes to the wording of these rules by the s42A Reporting Officers improves their certainty and clarity. We also consider that further clarity can be provided to the conditions of Rule TANK 13 to indicate that reference to Schedule 32 is only where it is applicable, that is, when the taking of water at times of high flows is in relation to the Ngaruroro and Tūtaekurī catchments. These conditions would read:
- b) *The take on its own or in combination with other authorised takes is still available for allocation within the limits specified in both columns (D) and (E) of Schedule 32, where applicable.*
  - c) *The activity either on its own or in combination with other activities does not cause the flow regime of the river to be altered by more than the amount specified in Schedule 32, where applicable.*
- 7.77 We consider these recommended changes improves clarity and in doing so makes the rule more efficient and effective, and so meets the further evaluation requirements of s32AA of the RMA.
- 7.78 We agree with the s42A Reporting Officers that HFAs for the Ahuriri and Karamū catchments are not considered feasible because they are small, lowland catchments, and also because we received no evidence to indicate that the taking of water from these catchments under high flow conditions would be culturally or ecologically acceptable. Any applications to take water from these catchments under high flow conditions would have discretionary activity status under Rule TANK 13 and so be judged on their merits through a consent process.
- 7.79 We also support changing the status of Rule TANK 15 from discretionary to restricted discretionary, and we do not consider it weakens the intent of the policy and rule framework relating to HFA. The matters for proposed discretion, including measures to avoid adverse water quality effects, measures to ensure the water is used efficiently and monitoring, are consistent with the objectives of PPC9.
- 7.80 Submissions seeking that allocation limits and triggers for takes under high flow conditions be revisited have already be discussed under the section on policies (paragraphs 7.25 – 7.65).
- 7.81 There was general agreement in the TANK process to prohibit damming of the rivers listed under Rule TANK 17 and in Schedule 32. Additionally, decisions on PPC7 found both the upper Ngaruroro and Taruarau Rivers were “outstanding” in the region, which would prohibit them from being dammed in any case. We reject calls for PPC9 to prohibit damming on all rivers and tributaries within the TANK catchments as we consider the bar damming surface waters is already set sufficiently high within the policy and rule framework of PPC9.

### *Schedule 32 High Flow Allocation*

- 7.82 The rationale behind the flow triggers and allocation limits have been described above in paragraphs 7.17 to 7.24. As discussed, Schedule 32 sets out the flow triggers for HFAs in the Ngaruroro and Tūtaekurī catchments, including the ‘amount of flow reserved for Māori Development’, and identifies rivers where damming is prohibited.
- 7.83 As already noted, some submitters sought that the allocation limit for high flow takes should be revisited, including HFAs for the Ahuriri and Karamū catchments and clarifying the 20% allocation to Māori and environmental enhancement.

- 7.84 Ms Gillian Holmes, an expert witness for HortNZ, stated that the proposed HFA limit of 8,000 L/sec for the Ngaruroro River should be set as an interim limit, given that modelling had indicated that further allocation would be available before the environmental limit (that is, a 10% reduction in the number of annual FRE3 events) is reached<sup>17</sup>.
- 7.85 Ms Holmes also noted in her evidence that HortNZ had requested a HFA be included in Schedule 32 for both the Ahuriri and Karamū catchments. However, she was satisfied that these catchments should not be included in Schedule 32 at this time, “given the current lack of data in the Ahuriri catchment as well as the fact that both catchments are small lowland catchments”. She went on to comment that a future plan change may identify a volume of water that could be harvested from these catchments.
- 7.86 Ms Wilson for NKII stated Schedule 32 would need to be deleted if the HFA regime approach were abandoned in favour of a water allocation approach which fundamentally addresses the issue of over abstraction.

#### *Finding and s32AA Analysis*

- 7.87 We have referred to Schedule 32 throughout this section of our decision. It is a key component of PPC9’s components relating to the new allocation of water and allocation of high flow water in particular. We consider that providing an allocation of high flow water in PPC9 is consistent with OBJs TANK 16, 17 and 18. The recommended trigger flows and allocation limits have been based on a considered framework of potential effects of flow alteration while providing for foreseeable needs. The proposed allocation limits are consistent with the approach set out in POLs TANK 54 and 55. We see no merit in allocation limits for HFA being treated as interim limits or altered upwards or downwards. No technical evidence was presented to us in support of alternative limits.
- 7.88 The allocation water reserved under Column (E) of Schedule 32 refers just to Māori development. Environmental enhancement and Māori well-being are not mentioned, but are listed in POL TANK 59 as being activities entitled to this allocation. We have decided that the title of Column E of Schedule 32 be amended to read ‘Amount reserved to give effect to POL TANK 59’.
- 7.89 As indicated above, we have adjusted the amount of Ngaruroro River water reserved under Column E from 1,600 to 1,200 L/sec in line with 20% of 6,000 L/sec, which is the amount of unconsented (and so available) HFA water.

#### *Glossary*

- 7.90 The notified PPC9 Glossary defines ‘Allocation limit for high flow takes’ as:

*“... the maximum quantity that is able to be allocated in water permits and abstracted expressed in litres per second as an instantaneous flow and calculated as the sum of the instantaneous flow allocations in water permits for a river or management zone.”*

- 7.91 The glossary definition makes no reference to high flow and we consider that it is not sufficiently distinct for the glossary definitions for Allocation limit for surface water and Allocation limit for groundwater. Consequently, we have amended the Glossary definition of **Allocation limit for high flow takes** as follows:

<sup>17</sup> EIC of Gillian Holmes for HortNZ at her Paragraphs 75 - 79.

*“ means the maximum quantity that is able to be allocated and abstracted at times of high flow in water permits and abstracted expressed in litres per second as an instantaneous flow and calculated as the sum of the instantaneous flow allocations in water permits for a river or management zone, including as specified in Schedule 32.”*

7.92 We consider the changes to Schedule 32 and the Glossary make their intent clearer, and more efficient and effective with respect to HFA, and so meets the further evaluation requirements of s32AA of the RMA.

## Chapter 8 - Priorities for Water Allocation

### Introduction

8.1 In this section of our report we discuss how PPC9 proposes to deal with priorities for water allocation, particularly at times of water scarcity during dry conditions. In doing so we discuss OBJ TANK 16, POLs TANK 50 and 51, as these collectively establish priorities for allocating water. There are no associated rules, and no terms used in the Glossary are relevant to this assessment.

### OBJ TANK 16

8.2 This objective sets out the priority order for allocating ground and surface water in the TANK catchments. In summary, as recommended to the Panel by the section 42A Reporting Officers, it says that subject to limits, targets and flow regimes which provide for the values of each water body, water will be allocated according to the following priorities:

- a) The reasonable domestic needs of people, livestock drinking and fire-fighting supply.
- b) Existing and future demand for domestic supply, including marae and papakāinga, and municipal uses as set out in the HPUDS (2017).
- c) Primary production on versatile soils.
- d) Other primary production, food processing, industrial and commercial use.
- e) Other non-commercial end users.

8.3 More detail about how water will be allocated during water shortages is provided for in POL TANK 51, which we discuss at Paragraphs 8.31-8.38 following. As the policy provides significantly more detail, many submitters, and their evidence when provided, focussed more on POL TANK 51 than they did on OBJ TANK 16.

8.4 A number of changes to OBJ TANK Objective 16 have been recommended to us for consideration. We would describe most of these as improving the way the objective is expressed, particularly in the stem clause. One key change is in Clause a), which now specifies that the highest priority includes the reasonable domestic needs of people, together with livestock drinking and firefighting supply.

### *Submissions and Evidence*

8.5 There were a large number of submissions on OBJ TANK 16. Most of them were identical, and sought that Clause c) should specify primary production on “versatile and viticultural soils”, and that Clause e) should specify that “water bottling” is a non-commercial user.

8.6 A number of submitters, including Federated Farmers and Fire and Emergency NZ sought changes to Clause a), which as noted above, have been recommended to us by the section 42A Reporting Officers.

8.7 Ms Sweeney, in her expert evidence on behalf of the TLAs, asserted that “amending Objective 16(b) to include reference to subsequent versions of HPUDS is consistent with the priority order of Te Mana o te Wai and is consistent with the NPS-FM”. She did not explain how she came to this conclusion.

- 8.8 On behalf of Lowe Corporation both Mr Willis, their expert planner, and Mr Robinson, their counsel, were opposed to OBJ TANK 16 as expressed in PPC9. This opposition was based on their perception that industries which source water from reticulated municipal supplies have an unjustified priority advantage over industries that source water from their own bores (which is what Lowe Corporation do).
- 8.9 Their reasoning, as asserted by Mr Willis, being that “some industry, should in effect be accorded a fourth priority (under Te Mana o Te Wai) by virtue of being self-supplied by water”<sup>1</sup>. He also opined that in his opinion “there is nothing in the national policy framework that necessitates or justifies the differentiated approach PPC9 proposes for industrial water users”.<sup>2</sup>

#### *Discussion and Findings*

- 8.10 We do not support HDC’s submission, as that would mean all updates of the HPUDS would be allocated water as a priority. We also note that POL TANK 50 says that the Regional Council will allocate water for urban development projections according to the 2017 HPUDS until 2045, and we discuss this matter further in paragraphs 8.18 – 8.19.
- 8.11 We do not support water bottling being considered a non-commercial use of water; as bottled water products are sold and therefore this is a commercial enterprise.
- 8.12 We do not consider that priority needs to be provided for “versatile and viticultural soils” as sought by many submitters. This is because the definition of “versatile land” in the RRMP already includes viticultural soils<sup>3</sup>, and the recommended replacement of “soils” by “land” resolves this matter.<sup>4</sup>
- 8.13 We accept that the Lowe Corporation appear to have a valid point about industry serviced by municipal supplies receiving more reliable water. However, we consider such concerns are addressed specifically in POL TANK 50(b) which requires water demand for industry/commercial activities within areas serviced by municipal supplies being subject to strong demand management, council asset management plans and by-laws.
- 8.14 Regarding Mr Willis’s assertion about Te Mana o Te Wai, we much prefer the Reporting Officers’ interpretation as expressed in the s42A Report, where they explain that the priority order set out in OBJ TANK 16 is in accord with the NPS-FM 2020, as it prioritises the health needs of people (Clauses a) and b)) followed by uses which allow people and communities to provide for their social, economic and cultural well-being (Clauses c) to e)).<sup>5</sup>
- 8.15 For these reasons we support the priority order set out in OBJ TANK 16, and the recommended amendments put forward by the s42A Reporting Officers, particularly those to the stem of the clause and to Clauses a) and b).

#### **POL TANK 50**

- 8.16 POL TANK 50 sets out how the Regional Council will, in ensuring the water needs for future community growth are met, make decisions on resource consent applications for papakāinga

<sup>1</sup> EIC of Gerard Willis at his Paragraph 55.

<sup>2</sup> EIC of Gerard Willis at his Paragraph 65.

<sup>3</sup> S42A Report at Paragraph 1277.

<sup>4</sup> This change is also supported by the Winegrowers – EIC of Mark St Clair at his Paragraph 57.

<sup>5</sup> S42A Report at Paragraph 1273.

and municipal water supplies. Three means of doing so are listed: allocating water for current urban growth projections through to 2045; calculating demand within expected water reticulation areas and requiring planning, good practice and leak management amongst other things; and finally collaborating with the NCC and HDC on future planning and water demand, and investigating reticulation options in communities with low water reliability.

- 8.17 In doing so, the policy “puts the flesh” on elements of OBJ TANK 16, by detailing how water will be allocated to municipal supplies.
- 8.18 The stem of the clause says “that the HBRC will ensure the water needs of future community growth are met within water limits.” These provisions appear to be somewhat contradictory, as they state water needs will be met but within water limits, which we presume refers to the 90 million m<sup>3</sup>/y “interim allocation limit”. Clause 50(a) goes on to say that water for population and urban development projections will be allocated until 2045 on the basis of the HPUDS 2017.
- 8.19 Only minor changes are recommended by the s42A Reporting Officers; none change the substance of POL TANK 50 as notified in PPC9.

#### *Submissions and Evidence*

- 8.20 There were no submissions that totally opposed POL TANK 50, but some submitters sought amendments. More specifically both HDC and NCC sought that updates of the HPUDS be accounted for in the policy, Lowe Corporation sought that they be afforded the same priority as municipal suppliers as a “regionally significant industry”, and Federated Farmers wanted Clause a) removed.
- 8.21 In his evidence on behalf of Lowe Corporation Mr Willis sought amendments to POL TANK 50 to specifically recognise and provide for “regionally significant industry”, along with some criteria for deciding how water would be allocated, together with a proposed definition of what a regionally significant industry is.<sup>6</sup>
- 8.22 Reasons he gave for this included that in his opinion “it is not consistent with HPUDS direction to support greenfield development in preference to intensification on existing self-supplied sites” and that it is not consistent with Objective LW1 of the RPS which includes a policy to ensure efficient allocation and use of water”. He also asserted that it was inefficient to take water from an existing established industrial user and make it available for some future currently unspecified industrial user.<sup>7</sup>
- 8.23 To give some context, in Paragraphs 5.111 – 5.119 we have decided that Lowe Corporation’s existing allocation of water is much in excess of what is “actual and reasonable”. Water is not being “taken” from Lowe Corporation, but their existing allocation is nearly three times what they actually use. Our expectation is that their future consents will reduce their total water allocation by a significant amount under the “actual and reasonable use” test.
- 8.24 The TLAs however are a different matter. Legal counsel and several witnesses expressed a range of concerns about only providing existing annual volumes of water to be taken by the two TLAs. They included:

<sup>6</sup> EIC of Gerard Willis as his Paragraphs 84 and 85.

<sup>7</sup> EIC of Gerard Willis as his Paragraph 83.

- a) There may be insufficient water available for the councils to meet their future obligations under the provisions of the National Policy Statement for Urban Development 2020 (NPS-UD). This requires TLAs to have enough land live zoned for expected demand within the next 3 years, either zoned or proposed to be zoned for expected demand within the next 3-10 years and identified in a Future Development Strategy for demand in the 10–30-year period. It includes land for both business and housing. Ms Davidson, counsel for the TLAs, said it was implicit in the NPS-UD that any such development needed to be serviced, including water supply, and that there might be enough water for future development, but that was not at all certain.<sup>8</sup>
- b) Ms Davidson also disagreed with the Regional Council’s contention that consented volumes are sufficient for growth in the short term. In her view no evidence had been provided to support this assertion, and that this did not meet the Regional Council’s obligations under the NPS-UD.<sup>9</sup>
- c) She cited case law in the High Court that had stated that “there is no basis on which to prefer or give priority to the provisions of one National Policy Statement over another....much less to treat one as “trumping the other”<sup>10</sup>
- d) In Ms Davidson’s assessment it is possible for PPC9 to give effect to both NPS-UD Policy 2 and NPS-FM Policy 11 by amending the prohibited activity status of Rule TANK 12 to non-complying and/or providing for increased allocations for municipal use as a discretionary activity.

8.25 The TLAs sought that Clause 50(a) should also refer to future updates of the HPUDS. The reasons for this were given in Mr Clew’s evidence, where he explained why in his opinion the population projections in the 2017 HPUDS were already outdated.<sup>11</sup> In summary, over the period 2017 to 2045 the 2017 HPUDS projected population growth of 16,485 whereas the Statistics NZ medium growth projection is presently 31,506, which is a difference of just over 15,000 people.

*Discussion and Findings*

8.26 We do not accept the position of the Lowe Corporation on POL TANK 50, and so we have not included the words “regionally significant industry” within the policy.

8.27 We do not support giving equal priority to self-supplied industries and municipal water supplies. This would not be consistent with Objective 1 of the NPS-FM 2020.

8.28 The TLAs however are a different proposition. If we take a reasonably conservative water use as being 180l/d per person per day that 15,000 population growth “difference” equates to an annual demand of 985,500 m<sup>3</sup>/y, whereas the annual volume of water needed to supply 31,500 additional people is over 2 million m<sup>3</sup>/y. Even the present 2017 HPUDS estimated population growth of 16,485 to 2045 requires about an additional 1.083 million m<sup>3</sup>/y to be provided to the TLAs for future growth.

<sup>8</sup> Legal submissions of Asher Davidson at her Paragraph 12 in particular.

<sup>9</sup> Legal submissions of Asher Davidson at her Paragraph 14.

<sup>10</sup> Legal submissions of Asher Davidson at her Paragraph 19.

<sup>11</sup> EIC of Mark Clews in the table at his Paragraph 96.



- 8.29 We do not support any change that referred to any update of the HPUDS, as that could be over a 10- or 15-year period and could involve allocating water well over the “interim allocation limit”.
- 8.30 However, as we discuss in detail under the section headed “Take and Use Rules” we have decided to provide a non-complying activity pathway Rule TANK 11A for resource consents that seek to provide more water for essential human health needs and papakāinga housing. Our reason for this is that in POL TANK 50 the Regional Council says that in making decisions about consent application for municipal and papakāinga supply, the Regional Council will ensure the water needs of future community growth are met within water limits. This policy intention, which we support, cannot be met without a consenting pathway to do so, and that does not presently exist within PPC9 as any such application would be a prohibited activity under Rule TANK 12.

## POL TANK 51

- 8.31 POL TANK 51 sets out when making water shortage directions under s329 of the RMA, which occurs when rivers fall below minimum flows and takes have ceased or been reduced the Regional Council will establish an emergency water management group (with a broad range of participants) to make decisions about water allocation in an established priority order which is water for:
- a) The maintenance of public health.
  - b) As necessary for animal welfare.
  - c) As necessary for community well-being and health.
  - d) What is essential for rootstock survival.
  - e) Water used seasonally for primary production or processing.
  - f) Uses of water which are essential for business continuity not covered by Clause e).
- 8.32 The policy goes on to say that there will not be restrictions for firefighting uses or non-consumptive uses of water, and that non-essential uses will not be provided for, such as for private swimming pools and car washing.
- 8.33 We note that water rationing during very dry summer and/or autumn conditions in Hawke’s Bay are addressed through consent conditions. Section 329 notices which could be used in future where there is a serious temporary shortage of water as a result of rivers falling towards or below their specified minimum flows as set out in Schedule 31 of PPC9. Because of this, there was strong interest in POL TANK 51 and how it is set out.

### *Submissions and Evidence*

- 8.34 There were 81 submissions on POL TANK 51, most of which fell into three main groups:
- a) A large number of submitters wanted the representation on the emergency water management group broadened to include affected primary sector groups or primary sector representatives.
  - b) A large number of horticulturalists who sought a specific amendment allowing up to 20 m<sup>3</sup>/d for rootstock survival.

- c) Other parties who made more specific submissions, including for instance not providing for horticultural crops, or providing more reliable water during restrictions for industries that supply primary production.

8.35 In his expert evidence on behalf of HortNZ, Mr Dooney supported POL <sup>12</sup>, particularly its provision for water being used for rootstock survival. This was on the provision that Rule TANK 8, which is a permitted activity rule for groundwater takes<sup>13</sup>. The changes they sought to Rule TANK have been recommended to be made by the section 42A Reporting Officers. Ms Holmes, another expert witness for HortNZ also supported these changes.

8.36 In his evidence on behalf of HortNZ Mr Ford implied that it is more straightforward to “ship” water to <sup>14</sup> move them to a reliable source of water than it is to provide water for rootstock survival as “neither of these options is available to them”. This is implausible – it would be much easier to “ship” water to lowland properties used for horticulture than, for instance, provide additional water to water troughs on a hill country farm.

#### *Discussion and Findings*

8.37 Many organisations sought that they be represented on the emergency water management group that will be established under POL TANK 51. The s42A Reporting Officers have recommended that only Fire and Emergency NZ, along with iwi authorities, be included on this group. We agree with this recommendation, as if the group gets too large it will be cumbersome and so somewhat defeat the purpose of having such a group.

8.38 We support the s42A Reporting Officers’ other recommended amendments POL TANK 51, some of which are based on Ravensdown’s submission (135.48). These amendments improve the clarity of the policy.

<sup>12</sup> As outlined in Paragraph 1848 of the s42A Report

<sup>13</sup> EIC of Andrew Dooney at his Paragraphs 157-163.

<sup>14</sup> EIC of Stuart Ford at his Paragraph 57

## Chapter 9 - General Water Quantity Management

### Rules for Taking and Using Surface and Ground Water

- 9.1 There were seven rules in PPC9 that controlled how groundwater and/or surface water would be allocated in relation to the Objectives and Policies that set the overall framework for water allocation. Those rules remain, albeit with many recommended amendments, in the “pink version” of PPC9. The rules are:
- a) Rule TANK 7, which is a permitted activity rule for surface water takes.
  - b) Rule TANK 8, which similarly is a permitted activity rule but for groundwater takes.
  - c) Rule TANK 9, which is a restricted discretionary activity rule for groundwater takes.
  - d) Rule TANK 10, which is a discretionary activity rule for both surface water and groundwater takes.
  - e) Rule TANK 11, which is a restricted discretionary activity rule for low flow surface water allocations, or groundwater.
  - f) Rule TANK 12, which is a prohibited activity rule for both surface water and groundwater takes.
  - g) Rule TANK 13, which is a discretionary activity rule for the taking and use of surface water at times of high flow (or to put it another way, “water harvesting”)
- 9.2 In this section of our report we deal with Rules TANK 7-12 inclusive. Rule TANK 13, which deals exclusively with high flow surface water takes, is dealt with in the section on surface flows.
- 9.3 Although Rule TANK 7 applies to surface water flows only, its proposed conditions, standards and terms are very similar to those in Rule TANK 8; accordingly, we deal with both of them here.
- 9.4 RULES TANK 7 is a permitted activity rule for surface water takes; Rule TANK 8 is a permitted activity rule for small takes of groundwater.
- 9.5 The s42A Reporting Officers have recommended some substantial revisions to Rules TANK 7 and 8 versus what was notified in PPC9. These revisions do not substantially change the content of the two rules, but do improve the way they are expressed. We will outline these rules, and the others discussed below, as recommended to be amended by the s42A Reporting Officers.
- 9.6 There are some restrictions on the catchments where Rules TANK 7 and 8 apply, and so where resource consents will be required for any new takes of water after 2 May 2020. For the surface water takes five catchments were listed in PPC9, and these remain, with the proposed addition of the Paritua and Karewarewa catchments. This was in response to a submission made by Mr Marei Apatu on behalf of TToH, and given that surface flows in these catchments are clearly depleted, is one we support. There is only one water short catchment listed in Rule TANK 8, and that has not been changed.

9.7 In summary, in PPC9 as recommended to be amended by the s42A Reporting Officers, Rules TANK 7 and 8 propose to make the following activities permitted:

- a) Any take first commencing after 2 May 2020 is not from specified water bodies (as discussed above, six of these are listed for surface water takes but only those near Lake Poukawa are specified for groundwater takes).
- b) The take shall not exceed 5 m<sup>3</sup>/day per property except:
  - i. Lawful takes existing as at 2 May 2020 may continue to take up to 20 m<sup>3</sup>/day.
  - ii. New takes to reasonable domestic needs can take up to 15 m<sup>3</sup> over any seven day period per dwelling house on the property.
  - iii. Lawful takes for stock water drinking that existed on 2 May 2020 can continue.
  - iv. Takes that occur for less than 28 days in any 90 day period, provided the total volume taken per property is not more than 200 m<sup>3</sup> in any 7 day period.
  - v. For groundwater takes alone (Rule TANK 8) the taking of water for non-consumptive uses including aquifer testing is not limited to 20 m<sup>3</sup>/day, and the rate of take shall not exceed 10 l/s, except for aquifer testing.<sup>1</sup>

9.8 There are some significant changes here from what was in PPC9 as notified. In particular, lawful takes for up to 20 m<sup>3</sup>/d per property per day that existed when PPC9 was notified on 20 May 2020 are recommended to be permitted for all takes, not just for stockwater, and lawful takes for stockwater that existed on that date are also recommended to be permitted in PPC9

9.9 Some of these recommended changes to Rule TANK 7 were supported by Federated Farmers, on whose behalf Ms Rhea Dasent said:

*“we want stock water enabled to reflect its extremely high importance as a farming value. We support the s42A Report’s recommendation to clarify that stock drinking and s14(3)(b) uses are excluded from the 5 and 20 (m<sup>3</sup>/d) volume limits.”<sup>2</sup>*

9.10 We support these recommended changes for the reasons outlined by the Officers in Paragraphs 1843 – 1846 of the s42A Report.

9.11 Some general conditions apply to one or both of surface water and groundwater takes. For instance, for all such permitted takes there is a requirement that the activity shall not cause changes in the flows or levels in any wetland, and the take shall not prevent any other existing lawful take to be able to continue. Surface takes are required to install a screen, with specified performance standards, to prevent any fish entering the reticulation system, and (a recommended added requirement) that the rate of take shall not exceed 10% of the instantaneous flow at any point. Groundwater takes must prevent any backflow of water or contaminants into the bore.

<sup>1</sup> This is for what is known as pump tests, which are short term (generally a few hours) and undertaken to find out how much water a new bore might provide, and what its potential effects on neighbouring bores might be. It is not practical to restrict such takes.

<sup>2</sup> Evidence of Rhea Desant at her Paragraph 12.

### *Submissions and Evidence*

- 9.12 There were over 100 submission points on Rules TANK 7 and 8. Among the main points made were: not limiting takes under RMA s14(3)(b) and (e) for domestic use and stock water supply and/or not limiting domestic or stock drinking water, increasing the permitted takes, making the permitted takes depending on the size of the property and allowing takes of up to 20m<sup>3</sup>/d for survival of horticultural tree crops.
- 9.13 The oil companies sought that Rule TANK 8 be amended to provide for temporary construction dewatering activities for takes of up to 40l/s for up to 10 consecutive days.
- 9.14 The evidence we received focussed on three main matters: first, that stock water for domestic supply should not be limited as s14(3) of the RMA provides for these as a right; second, that the 20m<sup>3</sup>/d for (particularly) stock water supply was too little; and third, that having water available for horticultural root stock survival was critical for tree crops such as apples. Examples of this evidence included:
- a) Mr Richard Ridell on behalf of Olig Limited (Submitter 17) said he was concerned about the permitted activity threshold for stock water supply. He told us that he would need about up to a maximum of 55 m<sup>3</sup>/d from the Mangatahi Stream for his 860ha farm at Maraekakaho. This would be to supply up to 400 steers, 400 ewes and 150 bulls. He said he knew of other farmers with similar stock water demands.
  - b) Mr Alexander Macphee (Submitter 116) was also concerned that under permitted activity Rule TANK 7, for stock water 20 m<sup>3</sup>/d is not enough, and that on a hot summer's day could be using 70 m<sup>3</sup>/d for stock water on his 700 ha property at Maraekakaho. He said he had springs on his property, and that he would like to be able to use a litre or two per second for his stock.
  - c) Mr Matthew Truebridge (Submitter 85), who farms in the upper Dartmoor Valley noted that in Taupo there are no restrictions on stock water supplies, and implied this same approach should apply to the TANK catchments.

### *Discussion and Findings*

- 9.15 In relation to the evidence provided by both Mr Riddell and Mr Macphee, the Maraekakaho Stream is a relatively small stream sourced from a catchment in low foothills, and so it potentially affected by the cumulative effects of small takes during low flow conditions. We further note that no new takes from the Maraekakaho Stream will be permitted under Rule TANK 7, and so would have to seek consent as a discretionary activity under Rule TANK 11. As this is a water short catchment, we support these restrictions on new takes here and in other small catchments in Rule TANK 7.
- 9.16 We acknowledge that it is difficult to draft rules for permitted takes of water. Limits have to be imposed on how much water can be taken instantaneously and/or over a fixed period of time and for what purposes, and sometimes over what area, and these limits can seem quite arbitrary. However, to make the rules workable "lines in the sand" have to be drawn to provide certainty and clarity for both resource users and the Regional Council, as the regulatory authority. While there are always apparent exceptions that should be provided for, there is generally little dispute that permitted activity takes are necessary to reduce costs and unnecessary bureaucracy, it is where those "lines in the sand" are drawn that is commonly the main issue for many resource users.

- 9.17 All this means there is no such thing as a “perfect”, or indeed anywhere close to perfect, permitted activity rule for the taking of water. Anomalies will always exist. For example rules will often talk about properties or households, but the rules will remain the same regardless if the property is 30ha, 300ha or 3,000ha, and if the household has 1-2 people dwelling there, or a very large family or family groups. Limits could be drawn around such descriptions, but then the permitted activity rules would become very complex, with potentially dozens of conditions for different situations. Our view is that the rules must be relatively simple and easy to understand, otherwise their whole purpose is undermined by being much too complex.
- 9.18 We consider that the proposed permitted takes, as outlined particularly in Condition (b) of both Rules TANK 7 and 8 get the balance between the volumes that are permitted to be taken, and what volumes require consent, are “about right”, by which we mean they are neither too restrictive or too liberal.
- 9.19 We do not consider that temporary construction water takes of up to 40l/s should be permitted as of right, as sought by the oil companies. It is possible that such takes will interfere with nearby bores, and an assessment of whether such effects could occur needs to be undertaken on a case by case basis.
- 9.20 In relation to s14(3)(b) rights to take water, this says that water can be taken or used for an individual’s reasonable domestic needs, or the reasonable needs of (a person’s) animals for drinking water. Both these however are subject to the caveat that **“the taking or use does not, or is not likely to, have an adverse effect on the environment”** (emphasis added).
- 9.21 In water short times in a generally dry part of the region, we cannot be at all confident that unrestricted permitted takes will not have adverse effects on flows in smaller streams in the TANK catchments. For this reason, we do not accept that domestic and stock water takes should not be subject to reasonable restrictions.
- 9.22 We note an exemption is proposed from Rule TANK 7 for take or use of water for emergency or training purposes, as provided or by s14(3)(e) of the RMA. We support this amendment.
- 9.23 We also support the proposed restriction on permitted takes from surface water to less than 10% of the instantaneous flow at the point of take. This should reduce the potential for cumulative effects of permitted takes on small streams.

#### *Section 32AA Analysis*

- 9.24 We consider that with the amendments proposed by the s42A Reporting Officers, Rules TANK 7 and 8 are both efficient, by reducing the need for resource consents for minor takes of water, and effective, in that they define more precisely and somewhat more liberally what takes are permitted and in what circumstances than in PPC9 as notified.

#### Rules TANK 9 and 10

- 9.25 As these two rules are also similar, we discuss them together.
- 9.26 Rule TANK 9 is a restricted discretionary activity for replacement<sup>3</sup> of an existing resource consent to take and use water from the Heretaunga Plains groundwater aquifer. It does not apply to applications for new resource consents.

<sup>3</sup> Often wrongly referred to as “renewal” of an existing consent. The RMA allows expiring consents to be replaced, but there is no entitlement to “renew” a consent.

- 9.27 The description of the activity is recommended to be changed as a result of submissions, and we support the proposed amendments there as they are more accurate. The application can be either for the continuation of a one or more consents held by a particular person or entity, or can be for a joint or global application that replaces existing permits.
- 9.28 The remainder of the conditions/standards/terms for such groundwater takes have been much simplified in response to submissions. Condition c) now refers (quite correctly) to takes for a potentially wide range of activities rather than irrigation alone, and these will be granted using the “actual and reasonable” use test. Condition (d) says that the quantity taken for municipal, community and papakāinga housing cannot be more than the quantity being replaced. Condition (e) is recommended to be deleted as what it says is now more succinctly expressed in Conditions (c) and (d). Condition (e) is vastly simplified and just refers to undertaking a stream depletion calculation, rather than prescribing at length exactly what that involves.
- 9.29 The matters for control/discretion are largely as notified in PPC9 but with some amendments, particularly to allow consents to be reviewed with new conditions to provide for stream enhancement projects. A new condition providing for non-notification, or limited notification in some circumstances, is recommended to be added under the notification heading, which we support.
- 9.30 Rule TANK 10, which is also a restricted discretionary activity, applies to surface water takes in the TANK catchments. This is achieved somewhat indirectly by prescribing that the take is not from groundwater, except from where a groundwater take is in “Zone 1” which is an area adjacent to the Ngaruroro River near Fernhill where groundwater is hydraulically connected to the surface waters of the river. In simple terms this means that groundwater takes from this zone can affect (deplete) surface flows in the river. In this instance a “stream depletion calculation” must be made.<sup>4</sup>
- 9.31 Many of the same amendments recommended in Rule TANK 9 are made for Rule TANK 10. For example, the changes to Conditions (c) and (d) described for Rule TANK 9 are also recommended to be included in Rule TANK 10, albeit to Conditions (e) and (f) in Rule TANK 10. As we said in relation to Rule TANK 9, we support these recommended changes, and so have included them in Rule TANK 10.
- 9.32 Rule TANK 10 also requires that fish be excluded from the reticulation system, which is the same requirement of for the permitted activity Rule TANK 7 for water takes.

#### *Submissions and Evidence*

- 9.33 Many submitters sought changes to Rules TANK 9 and 10. Most of these sought that the definition of “actual and reasonable” should be changed to just reasonable. As we have said repeatedly in our report these submissions have all been rejected.
- 9.34 There were some more thoughtful submissions from parties including Federated Farmers, Ravensdown, the Regional Council, Waterforce and TToH (although many of the latter’s submission points were not directly relevant to the water take and use rules in PPC9, but rather other provisions in the notified plan change). There was some support for the provisions as notified in PPC9, but all these submissions sought particular amendments to Rules TANK 9 and 10.

<sup>4</sup> More significantly, groundwater takes in Zone 1 become restricted when flows in the Ngaruroro at Fernhill fall below the Schedule 31 minimum flow of 2,400 l/s.

### *Discussion, Findings and s32AA Analysis*

- 9.35 We support the s42A Reporting Officers' recommended changes to Rules TANK 9 and 10. These simplify the rules, take out redundant wording and clarify other wording and make non/limited notification possible in both rules. We consider these recommended changes make the two rules more efficient and effective, and so meet they meet the requirements of s32AA of the RMA.

### Rule TANK 11

- 9.36 This rule allows water takes and associated uses from either surface water or groundwater in the TANK catchments that existed before 2 May 2020, but do not comply with the conditions of any of Rules TANK 7-10, to seek consent as a discretionary activity.
- 9.37 Changes are recommended to Rule TANK 11, most particularly to specify that four activities are not subject to Schedule 31 limits: these are for frost protection, takes of water from or dependent on release from a water storage impoundment or aquifer recharge scheme, non-consumptive takes and temporary water takes (such as for construction dewatering).

### *Discussion and Findings*

- 9.38 Rule TANK 11 is what is known as a "default rule", which means that if an activity does not meet any other relevant rules (in this case Rules TANK 7-10) it is treated as discretionary activity. Such a rule is an essential part of a "rule cascade", and we support its inclusion in PPC9.
- 9.39 We also support the recommended specification of what activities are not subject to Schedule 31 minimum flow requirements, which clarifies and improves the rule. This now includes frost-fighting, the reasons for which are discussed under the heading "POL TANK 53" below.

### Rule TANK 12

- 9.40 This is a prohibited activity rule, which as presently drafted applies to any new take and use of groundwater. It would apply regardless of what "actual and reasonable" turns out to be. It will take several years to work that out given that large numbers of present consents have expired, and so are continuing under s124 of the RMA. These will all need to now be processed and decisions made under the provisions of PPC9.

### *Should Provision for a Non-Complying Activity Rule be Made?*

- 9.41 POL TANK 50 states in part that "in making decisions about resource consent applications for municipal and papakāinga water supply the Regional Council will **ensure** the water needs of future community growth are met within water limits" (emphasis added). The policy then under Condition (b) lists comprehensive efficiency standards that the TLAs will have to meet with their existing water takes and associated uses.
- 9.42 However, in PPC9 as notified, and in PPC9 as recommended to be amended by the s42A Reporting Officers, there is no consenting pathway available for any further water to be provided to communities. This was highlighted in Ms Davidson's legal submissions made on behalf of the NCC and HDC, which we included in the discussion of POL TANK 50 in Chapter 8 of our report.
- 9.43 We had asked the s42A Reporting Officers for the potential wording of a non-complying activity rule that would enable some water to be provided to users such as the TLAs. That was



provided to us as Appendix 2 to a memorandum dated 4 August 2021 from Ms Robotham, who was (at that time) a Planner with the Regional Council.

- 9.44 Ms Robotham did not support the provision of a non-complying activity rule, stating that “my recommendation remains that prohibited activity status (and the objectives and policies without the amendments shown in Appendix 2) is the most appropriate approach” (at her Paragraph 2). She also cited some recent case law that offered some support to a prohibited activity rule, but which also as an exception made provision for new public water supply applications exceeding the limits as non-complying activities (her paragraphs 7 and 13).
- 9.45 Given that the Regional Council has committed itself to “**ensuring** future water needs are met” for municipal and papakāinga water supplies, we consider it essential that a consenting pathway be provided to enable this provision. Under Rule TANK 12 this pathway does not exist, as any such application would be a prohibited activity.
- 9.46 As discussed by Ms Sweeney in her evidence<sup>5</sup> there are two alternatives for providing such a consenting pathway. One would be to list municipal supplies as an “exemption” in Rule TANK 11 b(ii); which would mean any such application would be treated as a discretionary activity and not subject to the “interim allocation limit”, and the other is to provide for such applications via a non-complying activity.
- 9.47 We understand Ms Sweeney’s evidence to favour the “exemption provision” in Rule TANK 11b(ii)<sup>6</sup> but we strongly oppose that approach for two reasons. First, the exemptions provided are for short term activities such as frost protection and temporary water takes, non-consumptive uses and takes from water impoundments. Second, we do not consider any additional water for municipal supplies should be treated as a discretionary activity which is not subject to the “interim allocation limit”.
- 9.48 For these reasons we have made any such activity non-complying and so subject to the s104D RMA tests. We doubt any such application will have effects that are “no more than minor”, and so they would have to pass the “not contrary to the objectives and policies of the relevant plan” test, which in this case would be PPC9.
- 9.49 We are adamant that this latter test should set high policy thresholds for any new takes of water under Rule TANK 11A. Some of those thresholds already exist in PPC9 in POL TANK 50b), but we have added a new POL TANK 50A which adds further significant threshold tests before any non-complying activity could be granted for municipal and papakāinga water supplies. It reads:

**POL TANK 50A**

*The Council will consider applications to take and use water from the Heretaunga Plains Groundwater Quantity Area for essential human health needs for the community or unforeseen non-commercial needs that, by itself or in combination with other water takes in the same water quantity area, causes the total allocation limit as specified in Schedule 31 to be exceeded.*

*When assessing the application the Council will take into account:*

<sup>5</sup> At her Paragraphs 19 – 37.

<sup>6</sup> At her Paragraph 30.

- a) *whether the volume and rate of take is reasonable for the use*
- b) *the extent to which demand can be met through other methods or sources of water and that all other options have been considered and exhausted*
- c) *the extent to which the water use meets social, environmental or cultural needs essential for the community*
- d) *the nature and scale of adverse effects, including but not limited to bore interference, stream depletion, effects on minimum flows and potential derogation of existing water takes*
- e) *any adverse effects on the significant values of connected wetlands, outstanding waterbodies in Schedule 25, and the values of connected waterbodies as expressed in OBJ TANK 10-14.*

9.50 Consequential amendments are necessary to POLs TANK 36, 37, 43 and 52 but only to exempt or include POL TANK 50A as part of their considerations.

#### *S32AA Analysis*

9.51 The addition of a possible consenting non-complying activity pathway for essential human health needs for the community meets the Regional Council's stated obligation to ensure water is potentially available for such uses. The new Rule TANK 11A is much more efficient than having no such rule in place, as it provides at least a gateway for new applications to take and use water for very specified activities. However, the policy hurdles that any such applications will have to pass through are deliberately set very high, as such applications should be a last resort if all other options to provide water, including efficiencies in water supply and reticulation, are exhausted. Accordingly, we do not believe this new rule opens the door to new applications to take and use water, but it does at least ensure the door is not slammed shut.

9.52 We see the benefits of adding this rule would be greater than the potential costs of not providing a possible consenting pathway.

#### Rules for Stream Flow Maintenance and Habitat Enhancement Schemes

9.53 Rule TANK 18 as notified relates to both the transfer of water permits and the discharge of groundwater into surface water in the Heretaunga Plains Water Management unit (renamed Water Quantity Area) which are necessary for implementing Stream Flow Maintenance and habitat Maintenance Schemes. Stream Flow Maintenance And Habitat Enhancement Schemes form a part of notified POL TANK 39. Rule TANK 18 as notified is a discretionary activity that has conditions requiring the transfer and discharge of water to be managed according to the applicable requirements of Schedule 36.

9.54 Schedule 36 (Heretaunga Plains Stream Flow Maintenance And Habitat Enhancement Scheme) as notified provides direction for establishing Water User Collectives with applicable permits, to manage stream flow depletion for streams affected by stream depletion.

9.55 Significant recommended amendments by the Reporting Officers to POL TANK 39 (discussed in paragraphs 6.14 - 6.12), which we have accepted, required consequential deletion of Schedule 36. The Reporting officers stated that a principal reason for recommending to delete this schedule was that, in order to fully consult in good faith, iwi, relevant parties and Council

should establish the scheme plan and operational requirements together and on the needs of the relevant stream or water quantity area that the scheme services<sup>7</sup>.

9.56 The Reporting Officers noted that transfers are already managed by RRMP Rules 60-62b, therefore the inclusion of “transfer” within the activity description of Rule TANK 18 was an unnecessary duplication, and that potential adverse effects which require management are those relating to the discharge only, such as:

- a) Changes to water quality caused by the discharge
- b) Changes to water quality caused by land use change enabled by the discharge
- c) Flooding risk.<sup>8</sup>

9.57 A large number of multiple identical submissions sought amendments to Rule TANK 18 to ensure that flow maintenance requirements only apply to lowland streams where it is feasible, and to remove the presumption that the mainstem of the Ngaruroro River will be augmented<sup>9</sup>.

9.58 Forest and Bird sought that the rule and associated framework for stream flow compensation schemes be deleted throughout the plan. Federated Farmers sought that Rule TANK 18 be retained as notified.

9.59 Twyford Water’s submission questioned the activity status of the rule and sought that its status be amended to Restricted Discretionary<sup>10</sup>. Their concern was that, as a Discretionary Activity, the rule did not incentivise joining a Stream Flow Maintenance and Habitat Enhancement Scheme. They suggested a Restricted Discretionary status provided a higher level of comfort for an applicant, and also, through identification of matters of discretion, provided a clearer guidance about what information needed to be provided in a consent application.

9.60 The Reporting Officers acknowledged that allocation and transfer of the groundwater to be discharged is already subject to Rules TANK 9, 10, 11, 13 and 15. They considered that making Rule TANK 18 a Restricted Discretionary activity status would encourage investigation and implementation of “innovative, flexible water management regimes and flow enhancement by providing greater security to applicants”, and that this helps implement OBJ TANK 18.

9.61 In the final version of the plan presented to us at the conclusion of the hearing, the Reporting Officers recommended changing the activity status Rule TANK 18 to Restricted Discretionary with the following matters for control or discretion:

- a) Location, quantity, rate, duration and timing of discharge.
- b) Flood mitigation measures.
- c) Compliance monitoring including monitoring for water quality.

<sup>7</sup> S42A, paragraph 1485.

<sup>8</sup> S42A, paragraph 1995.

<sup>9</sup> e.g., submitters 23 (Pattullo's Nurseries Ltd.), 37 (Dartmoor Estate Ltd.), 71 (Bellingham Orchard Ltd.).

<sup>10</sup> Submission point 99.27 (Twyford Water).

- d) Measures or methods required for meeting the receiving water quality targets in Schedule 26.
- e) The duration of the consent having regard to POL TANK 49.
- f) Lapsing of the consent.
- g) Review of consent conditions.

9.62 As a consequence of recommending that Rule TANK 18 be amended to having Restricted Discretionary status, the Reporting Officers further recommended that a new Rule TANK 18a with a Discretionary Activity status be established for activities which do not meet the conditions of Rule TANK 18.

9.63 Mr Dooney, a planning witness for HortNZ, supported the Reporting Officer's recommended changes to Rule TANK 18 and new Rule TANK 18a<sup>11</sup>.

*Discussion, Findings and S32AA Analysis*

9.64 The purpose of Rule TANK 18 was to allow existing allocations to be transferred to provide the water required for stream flow mitigation. We do not think that the removal of the 'transfer' part of the rule as recommended by the Reporting Officers is appropriate, as new Rule 66a in the RRMP relates to the transfer of actual and reasonable water between existing points of take, whereas transfers of water scheme flow maintenance is outside of that. Consequently, we have decided that the term transfer be retained in the rule activity.

9.65 We also consider that the matters for discretion put forward by the Reporting Officers do not adequately cover the management of such a mitigation scheme either. Rather, they should refer to parts of POL TANK 39, and as such we have made the following amendments to the matters for discretion:

- a) Location, quantity, rate, duration and timing of discharge, especially in relation to the maintenance of trigger flows in Schedule 31.
- b) The extent to which the activity is consistent with the requirements of POL TANK 39 and 40.
- c) Benefits to stream flows and aquatic ecosystems including across multiple streams as a result of the discharge.
- d) Benefits of the activity for flood control, climate change resilience and public access.
- e) Management of the stream flow scheme.
- f) Compliance monitoring including monitoring for water quality.
- g) Measures or methods required for meeting the receiving water quality targets in Schedule 26, especially dissolved oxygen levels.
- h) The duration of the consent.

<sup>11</sup> Andrew Dooney, EIC, paragraph 145. HortNZ.

- i) Lapsing of the consent.
- j) Review of consent conditions.

9.66 We support the officers' recommended other changes to TANK Rule 18 and 18a. These provide for a restricted discretionary consenting pathway in Rule TANK 18 along with greater clarity around the intent of that rule and its relationships with the relevant Schedule and policy of PPC9. We consider these recommended changes make the rules more efficient and effective, and so meet they meet the requirements of s32AA of the RMA.

#### Water Allocation - Permit Duration POL TANK 49

9.67 POL TANK 49 deals with the durations of permits granted in the TANK catchments by the Regional Council. This included setting common catchment expiry dates, as was set out in Schedule 33. The policy as notified in PPC9 lists the potential effects to be taken into account when reviewing effects of cumulative water use: these include the Regional Council's knowledge of water bodies, any over-allocation of water, patterns of water use, new technology, climate change effects, flow enhancement schemes and riparian improvement.

9.68 The policy sought to provide certainty for consents in a Water Management Unit by granting terms of 15 years including subsequent reviews, and consent durations of up to 30 years for municipal supply consistent with the HPUDS. It also provided for the possibility of extending these periods by up to three years if a consent is granted in the three years before a common catchment expiry date (as listed in Schedule 33, which is discussed in Chapter 13 of our report).

9.69 Section 8.2.4 of the RRMP says that the Council will grant consents for 20 to 35 years unless certain exceptions apply. The exception most relevant to PPC9 is the need to align consent expiry dates to consider cumulative effects through common consent replacements.

9.70 Over 20 submissions were received on POL TANK 49. Seven submission points supported the 15 year consent duration. Three submissions sought longer durations, three submissions sought shorter durations.

9.71 In their discussions on permit duration most of the TANK Group supported a 15 or 20 year consent duration. The s42A Reporting Officers consider that a 15 year consent duration provides a balance between certainty for water users who may need to invest in infrastructure to utilise their consent, and flexibility for changes to respond to environmental needs.

9.72 Hastings District Council submitted that municipal supply consent duration should be up to 30 years, to align with required infrastructure and planning decisions under the NPS-UD. Heinz – Watties also submitted that significant investment needs to be considered and a term of up to 35 years is appropriate. Similarly, Twyford Water sought a longer-term consent duration for water storage taken during high flows.

9.73 The s42A Reporting Officers consider that notifying all of the common consents in a water quantity area is likely to trigger RMA s95 requirements for public notification due to the cumulative effects of those consents being more than minor. There are over 1,500 consents to take groundwater across the TANK Catchments. Publicly notifying all of these consents could cause PPC9 provisions, particularly the definition and application of the "actual and reasonable use" test, to be litigated through individual consents resulting in unnecessary processing delays and cost. A more efficient and effective process would be to consider PPC9 provisions once, through the plan making process. They recommended amendments to Rules

TANK 9 and TANK 10 in accordance with RMA ss95A(5)(a), 95A(9), 95B(6)(a) and 95B(10) to clarify when public notification is not required.

#### *Discussion and findings*

9.74 Setting permit durations will always be rather contentious, as larger users often assert that the value of their investment justifies a longer consent duration than for smaller users. In the TANK catchments however, there appears to us to be little justification for such an approach to be embedded in the policy framework, as larger users need to be dealt with at the same time the other permits in the water management unit are considered.

9.75 We support the recommendations of the Reporting Officers to amend POL TANK 49. In particular we are comfortable with the amendments to the consent duration being “up to 30 years’ for municipal supply”. We are particularly mindful of the investment and planning inputs required to support the application and reporting on consents.

### Policy 53 - Frost Protection

#### *Introduction*

9.76 POL TANK 53 outlines what Council will consider when assessing new consent applications to take and use water to help avoid the effects of frost on sensitive crops - commonly known as frost protection (or frost fighting). Water can be abstracted from either groundwater or surface water depending on availability. In PPC9 the policy was worded as follows:

*When considering applications to take water for frost protection, the Council will avoid, remedy or mitigate actual and potential effects of the take on its own or in combination with other water takes;*

- a) from groundwater in the Heretaunga Plains Water Management Unit on;
  - (i) (neighbouring bores and existing water users;*
  - (ii) connected surface water bodies;*
  - (iii) water quality as a result of any associated application of the water onto the ground where it might enter water;**
- b) from surface water on;
  - (i) instantaneous flow in the surface water body;*
  - (ii) fish spawning and existing water users;*
  - (iii) applicable minimum flows during November to April;*
  - (iv) water quality as a result of any associated application of the water onto the ground where it might enter water;**

*By;*

- c) taking into account any stream depletion effects of groundwater takes;*
- d) imposing limits in relation to minimum flows or groundwater levels;*
- e) requiring water metering, monitoring and reporting use of water for frost protection.*

9.77 The Reporting Officers note that this practice occurs infrequently, on the fringes of the irrigation season (i.e., spring or autumn), when flows are above the cease take triggers (i.e., the minimum flow). The takes occur for a limited time, and as such the total volume used may

not exceed permitted take volumes under Rules TANK 7 and 8, however the instantaneous rate of take can be quite high<sup>12</sup>.

- 9.78 Under PPC9, existing frost protection takes can be applied for as a Restricted Discretionary activity under Rules TANK 9 and 10, and new frost protection takes can be applied for as a Discretionary activity under Rule TANK 11.
- 9.79 Under PPC9, Rule TANK 11 Condition b)(ii), the total amount taken of surface or groundwater, either by itself or in combination with other authorised takes in the same water management unit does not cause the total allocation limit in the relevant management unit as specified in Schedule 31 to be exceeded except this clause does not apply to takes for frost protection (or to takes of water associated with and dependant on release of water from a water storage impoundment).
- 9.80 We note that, under the Glossary definition of 'Allocation limit for Groundwater', water taken for frost protection is excluded from the allocation limits.
- 9.81 The TANK Group Meeting 41 noted a NIWA study that indicated that, at least for the foreseeable future, frost risk remains for the TANK catchments and frost protection is an on-going management requirement<sup>13</sup>. There was also considerable spatial variability in the location and severity of frost risk across the Heretaunga Plains and TANK catchments, and in some areas the risk of light or moderate frost extends right to the end of October, with a very low probability of light frosts in the first week of November. Notes from meeting indicated that severe frosts destroyed around 70% of the Hawke's Bay summer fruit in 2003 and 50% in 2007, both occurring in early November, while vineyard production was almost wiped out in 2001, again during early November.
- 9.82 The s42A Reporting Officers considered that the adverse effects arising from frost protection takes are generally minor and relate to:
- a) The impact on the flow of a stream (through a stream depletion effect). This is generally brief given the short duration of the take.
  - b) The timing of the take. Reductions in flow at times when spawning fish may be sensitive to lower flows (spawning sites could be dewatered).
  - c) The cumulative impact on groundwater levels. The volume of frost protection takes are generally minor given the short duration of a take and its relative infrequency but may have adverse effects on neighbouring bores and have stream depletion effects.
- 9.83 TANK Meeting 41 noted that the Heretaunga Plains water model accounted for frost protection water within the total water abstractions modelled, and while the instantaneous rate of water take in litres per second could be quite high, it only occurs for very limited periods (hours at most) and infrequently during spring (1 – 1.25 frosts per week in limited areas as the long-term median for September). This meant that the total volume of the frost water take is almost insignificant compared to the total irrigation and municipal takes. Council staff's information on current allocations, provided to us in response to our Minute 10, noted that of

<sup>12</sup> S42A report, Paragraphs 1688-1689.

<sup>13</sup> TANK Meeting 41, Covering report: TANK Draft Plan Change, Section 4 Frost Protection.

the approximate 165 Mm<sup>3</sup>/y of water presently allocated, only approximately 0.6 million cubic metres of this is for frost protection.

- 9.84 Other measures used for frost protection include frost fans, helicopters and frost protection structures.

*Submissions and evidence*

- 9.85 There were seven submission points relating to POL TANK 53. The Department of Conservation's submission stated that water used for frost protection should always be within allocation limits and minimum flows<sup>14</sup>, while the Royal Forest and Bird Protection Society's submission sought the policy be removed on the grounds that water taken for frost protection should be treated like all other uses<sup>15</sup>.
- 9.86 The submission by Delegat Limited noted that, given the potentially over-allocated nature of the Heretaunga Plains Groundwater Unit, it would be beneficial if applicants for frost protection water were required to firstly investigate and discount the feasibility of alternative non-water reliant options such as frost fans<sup>16</sup>. Delegat sought an amendment to the policy that requires applicants for frost protection water to firstly investigate and discount alternative non-water reliant options such as frost fans.
- 9.87 Mr Bevan Davidson<sup>17</sup>, an orchardist from the Havelock North area, told us at the hearing that he did not need frost protection very often and the need was quite variable. He said his operation also has a new windmill and frost protection using water was mainly around the edges.
- 9.88 In response to questions from the panel, Ms Emma Taylor<sup>18</sup>, an independent vinicultural consultant who gave evidence on behalf of the Wine Growers, told us that a lot more water is required for frost protection relative to irrigation (the rate at which it is applied), however the amount required in terms of total volume is decreasing in Hawkes Bay as people are turning towards wind for frost protection. She told us that there are two types of frost; one formed by ground cooling and hot air rising (radiated frosts), creating an inversion layer. With inversion layers, wind machines can help push warmer air down to the vineyard. However, there are areas in Hawkes Bay where inversion layers do not occur and wind transports cold air mass into an area. In such situations, water is needed for frost protection. The spray forms a protective ice around the buds preventing temperatures within from dropping below 1°C<sup>19</sup>.
- 9.89 Mr St. Clair, a planning witness on behalf of the Wine Growers, noted that the drafting of POL TANK 11 as amended by the section 42A Hearing Report did not align with POL TANK 53, and he suggested some amendments to the wording to deal with this<sup>20</sup>. He identified that POL TANK 53 as notified ensures that minimum flows are considered as necessary while Rule TANK 11 as notified specifies that Schedule 31 allocation limits are not relevant to takes for specific uses.

<sup>14</sup> Submitter 123.90, Department of Conservation.

<sup>15</sup> Submitter 210, Royal Forest and Bird Protection Society.

<sup>16</sup> Submitter 8, Delegat Limited.

<sup>17</sup> Submitter 73, Bevan Davidson.

<sup>18</sup> Evidence in Chief Emma Talyor on behalf of the Wine Growers.

<sup>19</sup> TANK Meeting 41 Covering report; TANK Draft Plan Change.

<sup>20</sup> Evidence in Chief Mark St. Clair on behalf of the Wine Growers (Hawke's Bay Winegrowers Association Ltd; Gimblett Gravels Winegrowers Association; Villa Maria Estate Ltd; Pernod Ricard Winemakers New Zealand Ltd).



- 9.90 Submissions<sup>21</sup> on behalf of several oil companies sought POL TANK 53 be expanded to include temporary construction dewatering, on the grounds that there is potential for the proposed provisions to prohibit temporary construction dewatering activities. Evidence by planning witness Mr Peter Brown in support of those submissions recommended broadening POL TANK 53 to frost protection and non-consumptive takes given the similarities in terms of effects<sup>22</sup>. The Reporting Officers subsequently recommended that the wording of POL TANK 53 title and sub-heading be amended to read:

*Frost Protection, temporary, and non-consumptive water takes*

*POL TANK 53 When considering applications to take water for frost protection, temporary, and non-consumptive water takes, the Council will avoid, remedy or mitigate actual and potential effects of the take on its own or in combination with other water takes; ...*

- 9.91 Mr Brown also noted that PPC9 has no definition for non-consumptive use in its Glossary, but does have a definition for consumptive use, to which he recommended some amendments.

*Discussion and Findings*

- 9.92 We do not support POL TANK 53 being broadened to include temporary construction dewatering activities. These have quite different potential effects to those generated by taking water for frost protection. In saying this we note that both frost fighting and temporary construction water takes are both exempt from Schedule 31 limits under the provisions of RULE TANK 11 b)(ii).
- 9.93 We find that frost protection is a vital component in ensuring successful fruit and grape development and economic viability in Hawkes Bay. There is a reliance on access to water for frost protection through the application of sprayed water to coat the fruit in ice and effectively seal it from further reductions in temperature below zero. While there are alternatives (e.g., helicopters and windmills), these can be costlier and are not always effective under certain frost conditions.
- 9.94 POL TANK 53 provides users with a pathway for accessing water for frost protection while providing a number of conditions that must be considered in relation to protecting the environment, particularly surface waters, from adverse effects. Taking water for frost protection use occurs over very short periods of time and the volume taken is very minor with respect to the total water allocation in the TANK catchments.
- 9.95 Frosts occur outside of the warmer months of the year when surface water flows are at their lowest so any effects on low flows are mostly minimised. However, we heard that taking water for frost protection (either from a surface water or from groundwater), although occurring for short periods of time, can occur at a high rate and can potentially affect flows in local streams either directly or indirectly through connected groundwater. Therefore, we consider taking water under POL TANK 53 should comply with the minimum flow limits specified in Schedule 31, but not with the allocation limits in that Schedule. With that in mind, we accept the recommended changes to POL TANK 53 and Rule TANK 11 in the final “pink version” of PPC9 presented to us by the Reporting Officers’ at the conclusion of the hearing. Recommended changes to Rule TANK 11 in the s42 Addendum report “pink version” which clarify conditions are also accepted. These conditions now read:

*a) The activity does not comply with the conditions of Rules TANK 8 or TANK 9*

<sup>21</sup> Submitter 203. Oil Companies (Z Energy Ltd, BP Oil Ltd, Mobil Oil NZ Ltd).

<sup>22</sup> Evidence in Chief Philip Brown, Paragraph 418.

*where relevant.*

b) *Either*

(i) *The application is either for the continuation of a water take and use previously authorised in a permit that was issued before 2 May 2020 or is a joint or global application that replaces these existing water permits previously held separately or individually*

(ii) *Or:*

(iii) *The total amount taken, either by itself or in combination with other authorised takes in the same water quantity area does not cause the total allocation limit in the relevant quantity area as specified in Schedule 31 to be exceeded except this clause does not apply to takes for:*

- i. frost protection*
- ii. takes of water from or dependant on release of water from a water storage impoundment, or managed aquifer recharge scheme*
- iii. water takes that are non-consumptive.*
- iv. temporary water takes*

9.96 We also agree that under POL TANK 53 applicants seeking water for frost protection should be required to demonstrate that non-water reliant alternatives have been investigated and provide evidence as to why they are not appropriate.

9.97 We also are satisfied that the proposed broadening of POL TANK 53 to include temporary and non-consumptive water takes will not create additional adverse effects on surface water environments or other water users given the matters required for consideration.

9.98 We have decided that POL TANK 53 be worded as follows:

*Frost Protection, temporary, and non-consumptive water takes*

**POL TANK 53**

*When considering applications to take water for frost protection, temporary, and non-consumptive water takes, the Council will avoid, remedy or mitigate actual and potential effects of the take on its own or in combination with other water takes:*

a) *from groundwater in the Heretaunga Plains Groundwater Quantity Area on:*

- i. neighbouring bores and existing water users*
- ii. connected surface water bodies*
- iii. water quality as a result of any associated application of the water onto the ground where it might enter water*

b) *from surface water on:*

- i. instantaneous flow ins the surface water body*
- ii. fish spawning and existing water users*
- iii. applicable minimum flows during November to April*
- iv. water quality as a result of any associated application of the water onto the ground where it might enter water*

*By:*

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

## Chapter 10 - Source Protection Zones

### Introduction

- 10.1 Source Protection Zones (SPZs) were initially established under the National Environmental Standard for Sources of Human Drinking Water (the NES-DWS) in 2007. At that stage they applied only to communities with populations of 500 or more people for at least 60 days a year, so such communities already have provisional SPZs for their community water supplies.
- 10.2 Following the serious contamination of the Havelock North water supply in 2016<sup>1</sup>, a new water regulator Taumata Arowai has been established, with a focus on better management of all sources of drinking water. A Water Services Bill is before Parliament at the time of writing this report.
- 10.3 Both the NCC and HDC take and use groundwater for municipal supplies in Napier, Hastings and Havelock North, respectively. Other communities within the boundaries of the TANK catchments also use ground water or surface water to supply their community drinking water supplies.
- 10.4 Our main focus in this discussion is the “size and shape” of the SPZ around the bores used by the HDC to supply water to Hastings and Havelock North, and other nearby areas, as this was the only significant point of contention between the Regional Council and the two local authorities.
- 10.5 In PPC9 OBJ TANK 9 directly addressed SPZs. In PPC9 it is now recommended by the s42A Reporting Officers to read:

*Activities in source protection areas for Registered Water Drinking Supplies do not cause source water in these areas to become unsuitable for human consumption, and that the risks of supply to safe drinking water are appropriately managed*<sup>2</sup>

- 10.6 Similarly, POLs TANK 6 - 10 in PPC9 addressed the protection of source water for Registered Drinking Water Supplies. Importantly POL TANK 6 says the quality of water for both groundwater and surface water source supplies will be protected (emphasis added).
- 10.7 These policies are given effect to in Schedule 35 of PPC9 which:
- a) In Table 3 defines how SPZs will be determined in communities of different sizes; and<sup>3</sup>
  - b) In Figure 1 provides a method for calculating the area of an SPZ for a registered drinking water supply; and
  - c) In Table 4 lists the provisional protection extent for groundwater bores of different depths that supply water to communities; and

<sup>1</sup> Noting that this was due to contaminants entering the water supply from an unprotected well head, rather than from contamination of the sources of supply.

<sup>2</sup> This is the wording now recommended to us in the “pink version” of PPC9 dated 30 July 2021.

<sup>3</sup> Additionally, RRMP Rule 31, which allows the discharge of drainage water as a permitted activity, becomes a restricted discretionary or discretionary activity under Rules TANK 18 and 18a throughout the TANK catchments.

- d) Maps the proposed SPZs for Hastings and Napier on Planning Maps 1 and 2 attached to that Schedule.
- 10.8 Source zone protection is to be achieved by proposed amendments in PPC9 to existing rules covering discharges in the RRMP. Specifically, two rules are proposed to be changed as follows:
- a) The discharge of animal effluent would become a discretionary activity in an SPZ under RRMP Rule 15 (at present they are controlled activities under RRMP Rule 14). Note that RRMP Rule 15 already covers other sensitive catchments, including the headwaters of some rivers and the catchments of several lakes.
  - b) Discharges from on-site wastewater systems, which are currently permitted under RRMP Rule 37, become discretionary activities in SPZs under RRMP Rule 52.
- 10.9 Permitted activities are provided for as of right, with no resource consent required. Resource consent applications for controlled activities must be granted, subject to what are known as conditions/standards/terms and matters for control/discretion<sup>4</sup>, and are usually processed as non-notified applications. Restricted discretionary activities may be granted or declined, and may be (but are not usually) publicly notified. This means that there are additional costs and uncertainties for resource users who discharge to land or potentially to groundwater within SPZs that do not exist outside these zones.

## OBJ TANK 9

- 10.10 This objective sets out the outcome expected from SPZs within the TANK catchments to ensure that activities in these zones do not cause source water to become unsuitable for human consumption.
- 10.11 In response to evidence at the hearing the s42A Reporting Officers have recommended some amendments to the wording of the objective, including some additional wording in the “pink version” of PPC9 in response to a submission from Pernod Ricard Winegrowers.
- 10.12 Eight submissions were received on OBJ TANK 9, all of which either supported the objective or sought some amendments to improve, but not significantly change, its wording. The TLAs supported the objective, and the amended objective by Ms Sweeney in her evidence on their behalf.<sup>5</sup>

### *Finding*

- 10.13 We support OBJ TANK 9 as recommended to be amended by the s42A Reporting Officers. It is an improvement over the notified objective in PPC9 as it now expressed more clearly as an outcome statement.

<sup>4</sup> These also apply to restricted discretionary activities.

<sup>5</sup> EIC of Annette Sweeney at her Paragraph 50.

## Protection of Source Water

- 10.14 There were 28 submissions on this topic, which covers POLs TANK 6-9 collectively. Most sought that the policies and associated rules be amended to take out any implied regulatory approach, and instead that the risks be addressed via farm plans, Catchment Collectives and Industry Programmes. Other submitters, most notably the two TLAs, NKII and TToH, sought much more specific changes, such as adding more areas to the SPZs or taking a more strictly regulatory approach.
- 10.15 Under the NES-DSW the Council is obliged to protect the sources of drinking water for communities. This cannot be achieved through a voluntary, non-regulatory approach as sought by many submitters. All such submissions are rejected for this reason.

### POL TANK 6

- 10.16 This policy specifies that the quality of the groundwater in the Heretaunga Plains aquifer, and surface water used for Registered Drinking Water Supplies will be protected by the Council using two specific methods.
- a) Identifying source protection extents for small scale drinking water supplies, and SPZs for large water scale supplies using the methods outlined in Schedule 35.
  - b) Regulating activities within SPZs that could affect, or present a risk, to the supply of safe drinking water. Five reasons are outlined for doing so.
- 10.17 The s42A Reporting Officers recommended only minor amendments to POL TANK 6 from what was notified in PPC9.

#### *Submissions and Evidence*

- 10.18 There were nine submissions on POL TANK 6, most of which either supported the policy or sought minor amendments.
- 10.19 Each of HortNZ and Federated Farmers sought amendments that we might describe as protecting the interests of their sector groups, specifically seeking options to relocate sources of supply and recognising “lawfully established land uses” within SPZs. On behalf of HortNZ Mr Dooney did not pursue this particular change in his evidence.<sup>6</sup> Both these submission points are rejected.

#### *Finding*

- 10.20 We support POL TANK 6 with the minor amendments recommended by the s42A Reporting Officers.

### POL TANK 7

- 10.21 This policy sets out the matters that the Council will consider when considering applications to take water for a Registered Drinking Water Supply.
- 10.22 In the “pink version” of PPC9 the s42A Reporting Officers recommended some amendments to the wording of the policy. These do not change the context of the policy, but certainly improve its wording.

<sup>6</sup> Although he did suggest the proposed amendment could be included in POL TANK 9.

10.23 Only five submissions were received on POL TANK 7; those from HortNZ and Federated Farmers were identical to those they made on POL TANK 6. These submissions are rejected for the same reasons outlined in the discussion of that policy. We support POL TANK 7 as recommended to be amended by the s42A Reporting Officers.

#### POL TANK 8

10.24 This policy sets out the matters that the Council will consider when considering applications for activities within the source protection extent for Registered Water Supplies, and in much more detail, the criteria for considering such applications in SPZs.

10.25 Some amendments are recommended by the s42A Reporting Officers, all of which are based on the submissions of the HDC, along with several other parties. We consider these amendments improve the wording, and add a relevant clause, to POL TANK 8.

10.26 Five submissions were received on POL TANK 8. Those of HortNZ and Federated Farmers made similar or identical submissions to those made on POL TANK 6 and 7, and these are rejected for the same reasons outlined in our discussion of POL TANK 6.

10.27 We support POL TANK 8 as recommended to be amended by the s42A Reporting Officers.

#### POL TANK 9

10.28 This policy describes how the Council will work co-operatively with other agencies with roles and responsibilities for the provision of safe drinking water. There were only six submissions on the policy, three of which sought that Clause g) in PPC9 be deleted because it largely repeated Clause a).

10.29 That is the only change recommended to the policy, apart from the stem of the clause being updated to reflect more recent role changes in the management of drinking water supplies.

10.30 We support POL TANK 9 as recommended to be amended by the s42A Reporting Officers.

#### Source Protection Zone Maps

10.31 As already discussed, the s42A Reporting Officers recommended a number of amendments to PPC9 after submissions from the HDC and NCC. With one exception these were generally supported by the TLAs and the Hawkes Bay Drinking Water Governance Committee.

10.32 The one main matter of contention between the TLAs and the Council is the “size and shape” of the SPZ mapped around HDC’s water supply bores. Two of these bores are located near Flaxmere, three in a bore field near Frimley to the north-east of the hospital, three on East Street, just to the south-east of the central city, and one at Brookvale, which supplies only Havelock North.

10.33 Our understanding is that there are two methods to determine the “size and shape” of SPZs. These are known as the analytical and numerical methods. The HBRC, particularly via its expert witness Mr Pawel Rakowski, believed that the numerical method (the Heretaunga Plains numerical model) was superior to the analytical method, which is a simpler model that he

asserted had “multiple limitations”.<sup>7</sup> He went on to explain that analytical methods produce more conservative SPZs due to higher uncertainties.

- 10.34 The HDC considered the SPZ for the Hastings water supply wells should be determined by combining the results of the numerical and analytical methods. No expert evidence was led to support this approach; rather they referred to this as a “conservative and precautionary approach”<sup>8</sup> and inferred that Mr Rakowski is not qualified to say that the merging of analytical and numerical models is “unnecessarily conservative”.<sup>9</sup> The conservative approach to mapping the HDC water source SPZ was also supported by Mr Chapman, their “3 Waters Manager”.<sup>10</sup>
- 10.35 We observe that Mr Rakowski is an experienced and qualified groundwater modeller. We prefer his evidence, and his stated strong preference for the use of the numerical model to determine the size and shape of the SPZ upgradient of the HDC water supply bores. Basing the SPZ on a combination of models is in our view unduly conservative.

#### S32AA Analysis

- 10.36 In essence the arguments put forward by the HDC are based on a “precautionary” approach to defining a SPZ for the HDC water supply bores. We understand the basis for that, given the Havelock North water gastroenteritis outbreak caused by contaminated drinking water, although we observe that was very largely due to very poor well head protection at the Brookvale bore, rather than any upgradient contamination of the groundwater supply. That does not in our view justify a very cautious approach to defining the SPZ for the HDC bores.
- 10.37 We disagree with Ms Sweeney’s assertion that that the change of activity status from permitted or controlled to restricted discretionary or discretionary is “not a significant cost burden on the person undertaking the activity”.<sup>11</sup> Nor do we accept Mr Chapman’s similar assertion that extending the zone would not “impose any significant implications on landowners” residing in these areas.<sup>12</sup> That is not our experience; it is substantially more onerous to seek restricted discretionary activities than it is for controlled activities, and permitted activities are allowed as of right.
- 10.38 Rather we adopt the analysis in the s32 Evaluation Report, which does not need further evaluation under s32AA, and which reads:

*“Use of both models at the same time is overly cautious, would impose a higher consenting burden on landowners and would not be defensible given the more technically robust approach provided by the Heretaunga Plains numerical model”.*<sup>13</sup>

#### Rules in the RRMP for Source Protection

- 10.39 As part of PPC9 a number of rules in the RRMP were specifically amended to exclude SPZs from the activities listed, or to make other similar amendments. This means that the listed activities will face more stringent consenting requirements in SPZs. Examples of these rules include those for Bore Drilling (RRMP Rule 1), Feedlots and Feedpads (RRMP Rule 5), Use of compost,

<sup>7</sup> Statement of Reply Evidence of Pawel Rakowski for HBRC at Paragraph 3.2  
<sup>8</sup> Evidence of Mr Brett Chapman dated 21 June 2020 at Paragraph 18  
<sup>9</sup> Legal submissions of Asher Davidson for the HDC and NCC at her Paragraph 47  
<sup>10</sup> EIC of Brett Chapman at his Paragraphs 46 and 47  
<sup>11</sup> At Paragraph 13 of Ms Annette Sweeney’s evidence tabled on 21 June 2021  
<sup>12</sup> EIC of Brett Chapman at his Paragraph 48.  
<sup>13</sup> Section 32 Evaluation Report – TANK Catchments Plan Change to RRMP, pg. 302



biosolids and other soil conditioners (RRMP Rule 13), Discharge of animal effluent (RRMP Rule 14), and new (on-site) sewage systems (RRMP Rule 37).

10.40 The main submissions on these rules were from Mr Renouf, who sought a number of extra changes to these rules, but these are out of the scope of PPC9.

10.41 We consider that these proposed changes to the RRMP are necessary to provide additional protection to SPZs and we support them.

## Chapter 11 - Management of Stormwater Discharges

### Introduction

- 11.1 POL TANK 28 - 31 and Rules TANK 19 - 23 of PPC9 dealt with discharges of stormwater to the environment. Those same policies and rules have remained in PPC9, as recommended to us to be amended.
- 11.2 While some of the objectives of PPC9 could be said to have some influence on stormwater discharges, they primarily refer to the water quality in TANK catchments and lakes and wetlands in a generic manner, and so these matters have been dealt with elsewhere in our report.
- 11.3 These policies are given regulatory effect by Rules TANK 19 - 23 of PPC9. Presently, the numbering of these rules is the same in PPC9. We discuss these rules once we have discussed the relevant policies.
- 11.4 In saying this while we first assess the submissions and evidence on these policies, we have decided that POL TANK 28 and 31 mixed and muddled criteria for assessing resource consent applications to discharge stormwater with how the HBRC, NCC and HDC could collaborate and co-operate to provide more effective and efficient stormwater management. For this reason, we have comprehensively redrafted these two policies, so POL TANK 28 focusses solely on assessment criteria, whereas POL TANK 31 focusses only on consistency and collaboration between the three local authorities.
- 11.5 We recognise that this is “stretching” the scope of submissions on the stormwater management provisions, but it does retain the intent of the two policies while making them much more robust and coherent.

### *Submissions on Stormwater Management*

- 11.6 There were a range of submissions on stormwater management as set out in PPC9. They included points about making sure that the stormwater discharges to the Ahuriri Estuary are improved, requiring that all stormwater discharges meet target attribute states in Schedule 26 by 2040, and having better alignment between the HBRC, HDC and NCC regarding stormwater management.
- 11.7 Mr David Renouf sought changes to policies in the RRMP that relate to stormwater management. These are outside the scope of PPC9, and so cannot be taken into account in this decision.

### POL TANK 28

- 11.8 POL TANK 28 is one of the most complex in PPC9, with significant changes recommended to us by the s42A Reporting Officers. It is headed “stormwater infrastructure”. PPC9 listed 11 criteria or actions to implement this direction; in PPC9 as recommended to us (in the “pink version” dated 30 July 2021) there are now 14 criteria or actions listed.

### *Submissions and Evidence*

- 11.9 There were a range of very specific requests to amend POL TANK 28. They included:
  - a) adding a clause that would require having particular regard to values of the receiving environment for stormwater discharges;

- b) amendments to Clause c) of the policy as notified regarding detention of stormwater;
  - c) taking out words such as “where practicable” in Clause i) and so just referring to best practice.
  - d) requiring management of solid contaminants and debris entering stormwater systems and implementing measures to remove it once instream.
- 11.10 In response to submissions the s42A Reporting Officers had recommended that new Clause a) be added to POL TANK 28 that requires decisions on consent conditions to contain measures to help achieve the target attribute states in Schedule 26. This is consistent with the NPS-FM 2020, and with a large number of other changes recommended to PPC9 by the s42A Reporting Officers.
- 11.11 Expert evidence on behalf of the NCC and HDC was provided by Ms Sweeney, a registered engineer with expertise in “three waters” infrastructure. In reference to POL TANK 28 she sought further changes to POL TANK 28d) and 28g) in PPC9.<sup>1</sup> As we understand it her evidence on both these matters has been accepted by the s42A Reporting Officers, and the changes she sought have been recommended to us.
- 11.12 In response to evidence led on behalf of the NCC and HDC the s42A Reporting Officers recommended a new Clause k) be inserted in POL TANK 28 in the “pink version” of PPC9 dated 30 July 2021.
- 11.13 Ravensdown, through their consultant planner Ms Taylor, supported the intent of POL TANK 28 but did not believe that the 1 January 2025 timeframe for achieving best practicable option was achievable. In her view the requirements of the policy could more readily be implemented when existing consents are replaced.<sup>2</sup>

#### *Discussion and Findings*

- 11.14 The s42A Reporting Officers have recommended most of the amendments sought by the TLAs be accepted. We support their recommendations.
- 11.15 We also agree in part with Ms Taylor, and so we have taken out the date in the stem clause of POL TANK 28.
- 11.16 Having said this, our comprehensive re-write of POL TANK 28 now reads:

#### ***POL TANK 28***

*The Council will reduce or mitigate the adverse effects of stormwater quality and quantity on aquatic ecosystems and community well-being arising from existing and new urban development (including infill development) industrial and trade premises and associated infrastructure by addressing the following matters when considering applications to divert and discharge stormwater, by requiring:*

- a) measures to achieve the target attribute states in Schedule 26*
- b) adoption of an integrated catchment management approach to the collection, treatment and discharge of stormwater*

<sup>1</sup> EIC of Annette Sweeney at her Paragraphs 84-86.

<sup>2</sup> Hearing Evidence of Carmen Taylor at her Paragraph 5.5(b)

- c) *stormwater to be discharged into a reticulated stormwater network where such a network is available or will be made available as part of the development*
- d) *retention or detention of stormwater where necessary, while not exacerbating flood hazards*
- e) *adoption of a good practice approach to stormwater management including adoption of Low Impact Design for stormwater systems; and adherence to relevant industry guidelines*

*and by further considering:*

- f) *any potential adverse effects on significant and/or outstanding values of the receiving environment including estuaries, wetlands and any waterbody listed in Schedule 25*
- g) *site specific constraints including areas with high groundwater and source protection zones and extents*
- h) *impact of the activity on the joint approach of HBRC, Napier City and Hastings District Councils to provide for integrated stormwater management*
- i) *the effects of climate change when providing for new and upgrading existing infrastructure.*

## POL TANK 29

11.17 POL TANK 29 is headed up “source control”; it specifies three actions to reduce sources of stormwater contamination and contaminated stormwater. The s42A Reporting Officers recommended that additional words be added to Clause (b), but that the policy otherwise remain unchanged.

### *Submissions and Evidence*

11.18 There were five submission points on source control and POL TANK 29, as notified in PPC9. Most sought specific changes; one supported the policy as notified and Ravensdown sought the policy be deleted. Ms Taylor reinforced Ravensdown’s desire for the policy to be deleted in her evidence, but in our view gave no good reasons for doing so.<sup>3</sup>

### *Finding*

11.19 We have retained POL TANK 29 in PPC9, with the inclusion of the added phrase recommended by the s42A Reporting Officers.

## POL TANK 30

11.20 POL TANK 30 is headed “dealing with the legacy”. It sets out criteria that stormwater discharges must meet after reasonable mixing. Although amendments are recommended to us, most of those are aimed at improving the way the policy is expressed rather than changing the substance of the policy greatly. There are however two particularly significant changes recommended to us:

- a) Making all of criteria listed under a) and b) in PPC9 subject to reasonable mixing.

<sup>3</sup> Hearing Evidence of Carmen Taylor at her Paragraph 5.8(b)

- b) Adding a specific reference to the contents of the 2018 ANZECC guidelines for making decisions on attributes/contaminants not listed in Schedule 26, but potentially in stormwater discharges. Two dates are listed: 80<sup>th</sup> percentile species protection by 1 January 2025, and 95<sup>th</sup> percentile protection by 2040.

#### *Submissions and Evidence*

- 11.21 Most of the submissions sought some changes to POL TANK 30, including adding a general reference to reasonable mixing, removing any reference to reasonable mixing, and deleting all references to species protection standards. However, no party sought the policy be deleted or completely redrafted.
- 11.22 On behalf of the NCC and HDC Ms Sweeney said that “the s42A Reporting Officers” recommended changes meet the intent of the Councils submission and is appropriate”.
- 11.23 On behalf of Ravensdown Ms Taylor took a different view. She asserted that the ANZECC Guidelines are not intended to be used as water quality standards; rather that where a guideline is not being met in a receiving environment, further investigations are warranted. Additionally, her understanding was that the different percentiles apply to different situations or characteristics of waterways, and cannot be applied universally in catchments, or even a region.<sup>4</sup>
- 11.24 She suggested an amendment that would just refer to the relevant ANZECC guidelines for attributes not included in Schedule 26.

#### *Discussion and Findings*

- 11.25 We acknowledge that using the ANZECC guidelines as a “regulatory backstop” is far from perfect. Given however the wide range of contaminants potentially found in stormwater, such as hydrocarbons and heavy metals, a consistent and reasonably rigorous approach to evaluating such potential contaminants in stormwater discharges is necessary. Additionally, because the guidelines refer specifically to levels of species protection, the amendment suggested by Ms Taylor is much too general to be interpreted in any meaningful way.
- 11.26 For these reasons we agree with the s42A Reporting Officers’ recommended changes to POL TANK 30.

#### **POL TANK 31**

- 11.27 POL TANK 31 addresses consistency and collaboration between HBRC, NCC and HDC. As notified in PPC9 it contained a stem clause and eight actions that would be adopted to implement the policy.
- 11.28 The s42A Reporting Officers recommended that some relatively minor changes to be made to POL TANK 31, including to the stem clause so this is consistent with other references to “target attribute states in Schedule 26” throughout PPC9, along with two additions recommended to be inserted at the request of the TLAs.<sup>5</sup>

<sup>4</sup> EIC of Carmen Taylor at her Paragraph 5.8(c).

<sup>5</sup> EIC of Annette Sweeney at her Paragraph 87

*Finding*

11.29 While we support the s42A Reporting Officers' recommended amendments to POL TANK 31, as we noted earlier this has been rewritten as follows:

**POL TANK 31**

*To assist in achieving the 2040 target attribute states in Schedule 26, the Council in collaboration with the Napier City and Hastings District Councils will:*

- a) *no later than 1 January 2030, implement similar stormwater performance standards and management including through the adoption of:*
  - i. *shared information and processes for monitoring, compliance and auditing management of sites at high risk of stormwater contamination*
  - ii. *consistent levels of service for stormwater management and infrastructure design*
  - iii. *an integrated stormwater catchment management approach, consistent with Schedule 33*
  - iv. *undertaking a programme of mapping the stormwater networks and recording their capacity*
  - v. *aligned resource consent processes including joint hearings where appropriate*
  - vi. *Amending standards, codes of practice and bylaws to specify consistent design standards for stormwater reticulation and discharge facilities including through consent conditions, that will enable implementation of the stormwater policies set out in this Plan*
  - vii. *requirements for site management plans and good site management practices on industrial or trade premises in the following high priority areas:*
    1. *the Ahuriri catchment*
    2. *the Karamū River and its tributaries*
    3. *within identified drinking water Source Protection Zones and*
    4. *land over the unconfined aquifer*
- b) *when reviewing district plans, include provisions that specify consistent design standards for stormwater reticulation and discharge facilities, that will achieve the freshwater objectives set out in this plan*
- c) *develop and make available to the public consistent advice about good stormwater management options (including through HBRC's guidelines)*
- d) *encourage, through education and public awareness programmes, greater uptake and installation of measures that reduce risk of stormwater contamination*

## Rules TANK 19 -23

11.30 These five rules set out a framework for regulating stormwater discharges to receiving environments within the TANK catchments, and are structured as follows:

- a) Rule TANK 19 is a permitted activity, but with restrictive conditions: these include there being no increase in flood risk, that the discharge is not from stockyards or has actual or potential hazardous substances present, that it meets the qualitative criteria in s107(1) of the RMA, and that the discharge is from a property with less than 1000 m<sup>2</sup> of impervious area.
- b) Rule TANK 20 is a restricted discretionary activity that applies to small scale diversion and discharge activities that do not comply with Rule TANK 19, and are not from an industrial or trade premise. In PPC9 11 matters of discretion were listed; three further matters are now recommended to be included.
- c) Rule TANK 21 is a controlled activity for diversion and discharge of water from an existing or new local authority managed stormwater network. There are a set of conditions, but many of the conditions in PPC9 as notified have been removed from the conditions/standards/terms heading and put into a new Schedule 34B.
- d) Rule TANK 22 is a restricted discretionary activity covering stormwater discharges from industrial or trade premises. There are comprehensive sets of conditions/standards/terms and matters for discretion, including (in the “pink version” of PPC9) a recommended performance standard for petroleum hydrocarbon interceptors.
- e) Rule TANK 23 is a default discretionary activity rule for activities that do not comply with any of Rules TANK 19-22. Such a “default rule” is very common in regional plans. No submissions or evidence sought that this rule be deleted, and it was supported by some parties. An amendment sought by the two territorial local authorities<sup>6</sup> that sought the matter for discretion be removed has been supported by the s42A Reporting Officers, and is appropriate for a discretionary activity rule. For these reasons we do not comment further on Rule TANK 23.

11.31 All these rules have changes recommended by the s42A Reporting Officers in response to submissions and evidence. The most apparently comprehensive change is to put the requirements for an Integrated Catchment Management Plan formerly listed in Rule TANK 21 into a new Schedule 34B. The words used are not recommended to be changed, and having all this detail in a schedule makes eminent sense to us, and so is not a matter we comment further on.

### *Submissions and Evidence*

11.32 A wide range of submissions were made on Rules TANK 19-22 as set out in PPC9 by the TLAs, DOC, Ravensdown, TToH, Federated Farmers (who supported all the rules as notified), the collective oil companies<sup>7</sup>, and RFBPS.

<sup>6</sup> That is the NCC and HDC, who made identical submission points on the stormwater rules. We will refer to them in the rest of this discussion as the “two TLAs.”

<sup>7</sup> That is, Z Energy, BP and Mobil, which we will refer to as “the oil companies”.

- 11.33 Evidence on the proposed rules was led by several witnesses, including Mr Brown for the oil companies, and Ms Sweeney for the TLAs.
- 11.34 In his EIC Mr Brown discussed Rules TANK 19-22 as they affect discharges of stormwater from refuelling facilities. He noted that Rule TANK 19, which is a permitted activity, would exclude all such facilities, and sought that discharges that met Ministry for the Environment (MfE) guidelines be permitted.<sup>8</sup>
- 11.35 The s42A Reporting Officers did not accept this assertion; we agree with them.<sup>9</sup> Our view is that stormwater discharges that potentially contain hydrocarbons or other hazardous waste need to be regulated, and that a restricted discretionary activity, as provided for in Rule TANK 22, is an appropriate way of doing so. Additionally, we do not believe “MfE guidelines” should be given any formal status in a rule, as they are not drafted with that endpoint in mind. Further, they are subject to periodic change, and may not stay the same for the life of PPC9.
- 11.36 Mr Brown also sought that Rule TANK 22 be amended to remove the absolute exclusion of hazardous substances. In his evidence presented at the hearing he proposed an amendment to conditions/standards/terms column of the rule to include an enabling provision allowing some discharges of hydrocarbons in stormwater via an interceptor and a low limit on total petrol hydrocarbons in the discharge.<sup>10</sup> The s42A Reporting Officers have recommended to us that this provision be accepted in the “pink version” of PPC9, and we are comfortable doing so. Similarly the s42A Reporting Officers’ recommended that the words “adherence to relevant industry guidelines” be added to POL TANK 28, which is an amendment supported by Mr Brown.<sup>11</sup> In the context it is recommended to us, we are comfortable adding it to POL TANK 28.
- 11.37 Ms Sweeney sought two specific changes to Rule TANK 21.<sup>12</sup> The s42A Reporting Officers have recommended that these be accepted, in one case in a modified form and we agree with their advice.

### *Findings*

- 11.38 In accordance with the above discussion, we support the amendments to the Rules TANK 19 - 23 recommended by the s42A Reporting Officers.
- 11.39 The s42A Reporting Officers also recommended that the pages of detail in the conditions/standards/terms column in Rule TANK 21 be put in a separate Schedule 34B headed “Integrated Catchment Management Plans” We think this an eminently sensible recommendation, which we strongly support.

### *S32AA Analysis*

- 11.40 We have decided to make significant changes to rationalise POL TANK 28 and 31, but not change their overall intent. These changes make the two policies more efficient and effective by clearly separating out assessment criteria and how local authorities will collaborate on stormwater management.
- 11.41 A number of amendments have also been made to the rules that help clarify them and make them more certain, and so more effective. The major change made – to remove a large section

<sup>8</sup> EIC of Philip Brown at his Paragraphs 6.2 and 6.3.

<sup>9</sup> Section 42A Report at Paragraph 2181.

<sup>10</sup> Hearing Evidence of Philip Brown at his Paragraphs 20-22.

<sup>11</sup> Hearing Evidence of Philip Brown at his Paragraph 23.

<sup>12</sup> Hearing Evidence of Annette Sweeney at her Paragraphs 14(c) and (d).



from Rule TANK 21 and place it in a separate Schedule - much improves the coherence of the rule, and so makes it much more effective.

## Chapter 12 - Wetland Management

### Introduction

- 12.1 In PPC9 the management of wetlands in the TANK catchments were addressed by OBJ TANK 15, and POLs TANK 3, 14 and 15. The Reporting Officers' s42A Report recommended that these remain in PPC9, with the exception of POL TANK 14 which is recommended to be deleted, with some of its contents recommended to be included in POL TANK 15.

### OBJ TANK 15

- 12.2 This objective sets out that wetland and lake waahi taonga in the TANK catchments are to be managed so that mauri, water quality and flows, and levels are maintained and improved to enable five matters, which in summary included: having healthy and diverse biota, improved hydrological functioning, enabling people to safely carry out activities in these water bodies, collection of mahinga kai, improvement of water quality in connected water bodies, and the protection of values in three specified water bodies. An additional provision sought to restore and increase the area of existing wetlands, and create some new wetlands, by 2040.
- 12.3 Submitters sought a number of changes to OBJ TANK 15. Some are more relevant to the policies than this objective. They included enabling more water from wetlands for primary production and economic welfare generally, including recreational values of wetlands, and making the objective more outcome focussed.
- 12.4 The s42A Reporting Officers made several recommended changes to OBJ TANK 15, including making the stem clause more of an outcome statement, recognising "valued introduced" flora and fauna, including the recreational values of wetlands, and enabling more water abstraction for human or animal health.

### *Discussion and Findings*

- 12.5 While we accept that the changes to the stem of OBJ TANK 15 are entirely appropriate, we do not accept most of the other changes recommended by the s42A Reporting Officers. We do not consider that "valued introduced species" should be given the same level of recognition as indigenous fish, bird and plant populations<sup>1</sup>. Additionally, given Regulation 53(2) of the NES-F 2020 prohibits the taking and use of water if it results in the complete or partial drainage of a natural wetland, it would be contradictory to encourage such abstraction. For these reasons we do not support the s42A Reporting Officers' recommended changes to Clauses (a) and much of (d).
- 12.6 We support however acknowledging the recreational values of wetlands, as these can be high, and the removal of the words "collection of" in relation to mahinga kai in Clause (d).

### POL TANK 3

- 12.7 This policy sets out how the Council will work alongside landowners to improve the quality of wetlands in the TANK catchments. Only minor changes are recommended by the s42A Reporting Officers to the policy from PPC9; these improving consistency and clarity within PPC9.

<sup>1</sup> This would also leave an open judgement as to what is "valued", and by whom.

- 12.8 Five submissions were received on POL TANK 3; two supported the policy and the others including Department of Conservation and Forest and Bird sought amendments of various kinds which are covered by other policies.
- 12.9 The NES-F, which came into effect on 3 September 2020, includes significant restrictions on activities in and around the margins of wetlands, including a prohibition on private landowners modifying natural wetlands. These regulations prevail over any rules in a regional plan. Nothing in POL TANK 3 or 15 contradict these regulations.

*Finding*

- 12.10 We support the Reporting Officers' recommended amendments to POL TANK 3.

POL TANK 14

- 12.11 POL TANK 14 of PPC9 stated that the Council would regulate activities in and around wetlands and lakes, and would support and encourage the maintenance and improvement of wetland values for six possible reasons, including for biodiversity, cultural uses, their role in the hydrological cycle, and fishery habitat. In doing so, it largely repeats what was set out in OBJ TANK 15.
- 12.12 There were only four submission points related to POL TANK 14 that were either supportive and/or seeking additions to wetland values. The S42A Reporting Officers recommended that POL TANK 14 be deleted, as it largely repeats what was set out in OBJ TANK 15. Those parts of the policy that were not included in OBJ TANK 15 are now recommended to be included in POL TANK 15.

*Finding*

- 12.13 We support the recommendation to delete POL TANK 14, as it is largely redundant.

POL TANK 15

- 12.14 In PPC9 POL TANK 15 sets out how the Council would support and encourage the restoration and extension of natural wetlands, along with the reinstatement or creation of additional wetlands. Six methods were listed for achieving these outcomes. They include identifying priority areas for improvement and increasing the extent of wetlands, providing information and funding assistance for protection of existing wetlands and constructing new wetlands, and decision-making criteria on such projects, including possibly waiving consenting fees if there would be significant public benefit from a proposal to increase ecosystem benefits.
- 12.15 The s42A Reporting Officers recommended some amendments to POL TANK 15. These include saying the Regional Council will regulate activities in and adjacent to wetlands (which was originally in POL TANK 14), and other relatively minor amendments, one in response to a submission from the Hawke's Bay Fish and Game Council. There were only two other submissions.

*Finding*

- 12.16 We support the Reporting S42A Reporting Officers' recommended amendments to POL TANK 15.

## Chapter 13 - Other Objectives and Policies and Rules in PPC9

### Introduction

13.1 This section addresses a number of miscellaneous policies in PPC9 that are important, but which however were not considered particularly contentious by either submitters or witnesses at the hearing. These policies also do not “fit well” within the main chapters of our report.

### Monitoring and review – POL TANK 33-35

13.2 These policies set out how the Regional Council will monitor and review PPC9. The three areas they cover are:

- a) POL TANK 33 describes how the Regional Council will recognise and support a mātauranga Māori based monitoring framework that enables kaitiaki and resource users to carry out local scale monitoring.
- b) POL TANK 34 sets out how the Regional Council will meet regularly with representatives from TANK Stakeholder Groups to review and report on the TANK implementation plan and work on issues as they arise.
- c) POL TANK 35 describes a suite of measures to support the Regional Council monitoring and reporting role on the effectiveness of the TANK water quality management policies and rules and to assist in making decisions about reviewing or changing this management framework.

### *Submissions and Evidence*

13.3 There were 34 submission points on these three policies. Four of the submissions supported the policies and wanted them retained. Ten submission points sought minor text changes and links to various parts of the plan, and five submission points were in opposition. These latter points sought the policies either being deleted or moved to the methods section. In addition, there were a number of general submissions from Iwi and hapū submitters supporting the introduction of a mātauranga monitoring framework and sought clarification and more definition of its implementation.

13.4 In response to these submissions the s42A Reporting Officers recommended two technical amendments to these three policies, one to the submission of Federated Farmers, deleting the reference to conducting a review of these provisions in ten years under section 79 of the RMA; the second a minor amendment to the text in response to Ravensdown Limited.

13.5 Mr Apatu for TToH in his evidence said that it is an affront to have the HBRC referred to as Kaitiaki Guardians over the environment for the region and asks that this be removed from PPC9. The Officers Section 42A Addendum Report picks up on this point and recommended that an amendment be made to refer to tangata whenua in POL TANK 33 (b).<sup>1</sup>

13.6 We did not receive any other evidence on these policies.

<sup>1</sup> Section 42A Addendum Report. Page 16 (see also Marei Apatu EIC, point f on page 14)

### *Findings*

13.7 We support the s42A Reporting Officers' recommended amendments to POL TANK 33, 34 and 35.

### *Water use and efficiency POL TANK 46 and 47*

13.8 POLs TANK 46 and 47 of PPC9 set out how the Regional Council proposed to ensure that water taken in the TANK catchments and the Heretaunga Plains aquifer is allocated and used efficiently. These two policies are recommended by the s42A Reporting Officers to be retained in PPC9.

### *POL TANK 46*

13.9 This policy lists four ways in which the Regional Council proposed to ensure the efficient management and allocation of water. These are: providing water with known reliability of supply, allocating via the "actual and reasonable use test", encouraging the flexible use of water, and ongoing data collection and monitoring. The s42A Reporting Officers recommended only minor changes to this policy.

13.10 POL TANK 46 relates to OBJ TANK 17 and 18 that seek to ensure there are processes that are efficient and supporting water users to use and manage their allocation well. We discuss OBJ TANK 17 and 18 in Chapter 7, High Flow Allocations, of our report.

### *Submissions and Evidence*

13.11 There were over 50 submission points on POL TANK 46. Most of these opposed the policy and sought the specific use of 'actual and' being deleted from the 'actual and reasonable' test. As we have discussed elsewhere in our report these submissions are all rejected, as the "actual and reasonable use" test accurately describes how water will be allocated in the future.

13.12 The other submissions either supported the policy, or sought it be deleted, that a definition be provided for "actual and reasonable" (which already existed in PPC9) and including references to reliability of supply for irrigators.<sup>2</sup>

13.13 No substantive evidence was provided on POL TANK 46.

### *Finding*

13.14 We support the s42A Reporting Officers recommended minor amendments to POL TANK 46.

### *POL TANK 47*

13.15 This policy lists six criteria that the Regional Council proposed to use when considering resource consent applications to take and use water and how it will be allocated and used efficiently. In summary these criteria are:

- a) Ensuring that the use of water is efficient through three means, including using appropriate technology and water meters
- b) Using Irricalac to determine efficient water allocations

<sup>2</sup> Sec42A Report, page 203

- c) Allocating water on the basis of an 80% application efficiency and 95% reliability of supply
- d) Requiring all other takes (apart from municipal supply) to show how 80% efficiency of water use is met.
- e) Requiring any new takes to be installed in accordance with industry codes of practice and standards
- f) Requiring water use systems to be maintained to ensure ongoing efficient water use.

#### *Submissions and Evidence*

- 13.16 There were over 25 submissions on POL TANK 47. Most of these sought specific amendments to one more clauses of the policy, such as alternative wording to align with industry terms and interpretations. In response to these submissions the s42A Reporting Officers recommended a substantial number of amendments to POL TANK 47, which we would describe largely as improving and clarifying the wording of the decision making criteria, rather than substantially changing the meaning or effect of those criteria.
- 13.17 Some submission points sought a 90% reliability of supply in Clause (c), versus the 95% reliability of supply provided for in PPC9 and (with amendments) recommended to be retained by the s42A Reporting Officers.
- 13.18 Reliability of supply (sometimes referred to as security of supply) refers to the allocation of water sufficient to meet a 1 in 20-year drought event. 95% reliability of supply is consistent with the RRMP approach and Market Economics modelling which showed a significantly larger adverse economic impact of a 90% reliability of supply than 95% reliability of supply.<sup>3</sup>
- 13.19 In his evidence for various parties Dr Davoren said that PPC9 must differentiate between application efficiency versus what he called distribution uniformity, which we understand to be how an irrigation system applies water and how uniformly it is spread.<sup>4</sup> PPC9 talks about application efficiency, which both he and Mr Dooney suggested be defined in the glossary of PPC9. The s42A Reporting Officers recommended adding a definition of application efficiency to the glossary, which we support. As the words “distribution uniformity” are not used in PPC9, there is no reason to include a definition of this term in the glossary.
- 13.20 On behalf of HortNZ Mr Dooney largely supported the s42A Reporting Officers’ recommended amendments to POL TANK 47, although he also sought a definition of distribution uniformity be added to the glossary.

#### *Finding*

- 13.21 We support the s42A Reporting Officers recommended amendments to POL TANK 47, as they improve and clarify the policy in a way consistent with some submissions and the main evidence led on the policy. They also make PPC9 more consistent with the RRMP.

#### *Climate change OBJ TANK 3 and POL TANK 61*

- 13.22 OBJ TANK 3 included the sole references to climate change in PPC9. In doing so however, most of what was included in the objective is much more appropriate at the policy level, as it sets

<sup>3</sup> Section 42A Report, page 204-205

<sup>4</sup> Such as the EIC of Anthony Davoren for Ngaruroro Irrigation Society at his Paragraphs 36-40.

out how the Regional Council will take account of climate change in decision making. For this reason POL TANK 61 was included in Appendix 1A to the s42A Report.<sup>5</sup>

- 13.23 There were only eight submission points on OBJ TANK 3. None opposed the objective. Two submission points supported the objective and sought its retention. Five submission points sought amendments to the objective to cover natural resources such as the habitat of trout and salmon<sup>6</sup>, aquatic ecosystems<sup>7</sup>, and broader consideration of the four well-beings<sup>8</sup>, and environmental changes such as increases in rainfall, erosion and sediment loss, sea level rise, water shortages<sup>9</sup>, human and animal disease vectors<sup>10</sup>.
- 13.24 HortNZ sought a number of changes to POL TANK 21 which had some bearing on POL TANK 61. The S42A Reporting Officers recommended further amendments to POL TANK 61 which considered opportunities to reduce greenhouse emissions alongside contaminant losses.<sup>11</sup>
- 13.25 The recommended new POL TANK 61 for climate change includes the matters raised in submissions on OBJ TANK 3, along with most of the content of the objective. A concise outcome focussed statement is now all that is recommended to be included as OBJ TANK 3. The recommended new POL TANK 61 sets out criteria that the Regional Council will consider to address climate change in making decisions on land and water management.

#### *Findings*

- 13.26 OBJ TANK 3 in PPC9 muddled an outcome statement with criteria for decision making. They should be separated. For this reason we support the s42A Reporting Officers recommendations to pare down OBJ TANK 3 to just an outcome statement, and put the detailed decision making criteria in new POL TANK 61.

#### Management of Point Source Discharges

- 13.27 POL TANK 10 of PPC9 deals with the management of point source discharges. These are discharges that are from a distinct point to water; examples include treated discharges from industry or dairy farming discharges from effluent treatment ponds.
- 13.28 POL TANK 10 explicitly does not cover stormwater discharges, which are addressed in POL TANK 26 - 29 and Rules TANK 19 - 23. We deal with these separately in Chapter 11 of our report.
- 13.29 In PPC9 as notified POL TANK 10 had a stem clause, and three subsidiary clauses which outlined matters to be taken into account in decision making. In response to submissions and evidence the s42A Reporting Officers have recommended a change to the stem clause, and that two additional subsidiary clauses be added to POL TANK 10.

<sup>5</sup> Appendix 1A - Recommended Changes to PPC9. Page 36

<sup>6</sup> Peter Wilson sub point 58.5

<sup>7</sup> Heretaunga Tamatea Settlement Trust sub point 201.18

<sup>8</sup> Federated Farmers of NZ sub point 195.19

<sup>9</sup> Heretaunga Tamatea Settlement Trust sub point 201.18

<sup>10</sup> Hawkes Bay District Health Board sub point 233.5

<sup>11</sup> Horticulture NZ sub point 180.31

### *Evidence and Submissions*

- 13.30 The recommended change to the stem clause, which involves additional words requiring existing water quality be maintained as an alternative to meeting 2040 target attribute states in Schedule 26, came from the evidence of Ms Wilson for NKII.<sup>12</sup> We support that change.
- 13.31 A number of submitters supported the policy as notified. In their submission the oil companies sought an addition be made to Clause (b), but in their evidence accepted the s42A Reporting Officers' recommendation that this be rejected.<sup>13</sup> Similarly, some other submitters sought changes that would have made the policy cumbersome and/or ambiguous and/or very directive. The changes they sought are rejected.
- 13.32 The s42A Reporting Officers recommended two new clauses be added to POL TANK 10. A recommended Clause (d) referred to compliance with "good management standards"; a new Clause (e) to best practicable option and whether it was necessary to include in consent conditions.

### *Findings*

- 13.33 We consider that the strength is primarily in the stem clause, particularly with the addition of Ms Wilson's suggested amendment. Accordingly, we have added the word "also" in the last phrase, so it reads "will also take into account."
- 13.34 We do not consider that the addition of a proposed Clause (d) to POL TANK 10 adds value to the assessment criteria, as it is not clear what "good management standards" would refer to. They are not defined in the glossary, and we consider this clause to be too uncertain to include as an assessment criterion.
- 13.35 We do consider however that the proposed addition of a new Clause (e) is helpful, as best practicable option is defined in the RMA, and this gives certainty about how it is to be applied. We have added the words "point source" before discharge, just to be very clear where this is to apply.

### *Rules in the RRMP*

- 13.36 In PPC9 there were 23 rules that the s42A Reporting Officers recommended be either amended or deleted. These same recommendations largely remain in PPC9, except that proposed Rule 33A has been deleted.
- 13.37 The Panel has discussed a number of these rules in other chapters of our report, particularly in the section on Source Protection Zones. These were RRMP Rules 1, 2, 4, 5, 6, 13, 14, 15 and 37.
- 13.38 Several of these rules deal with the transfers of water use and takes from site to site. These changes were made so that the specific rules in PPC9 for the TANK catchments override the RRMP rules, which still apply for the rest of the region. These were RRMP Rules 61, 62, 62A and 62B.
- 13.39 Several of the other rules similarly establish a stricter regulatory framework in the TANK catchments than in the remainder of the region. These rules cover matters such as discharges of drainage water. These changes are necessary because in PPC9 Schedule 26 sets target attribute states for water bodies in the TANK catchments, and these will not be met if, for

<sup>12</sup> EIC of Grey Wilson at her Paragraphs 57-59.

<sup>13</sup> EIC of Philip Brown at pp3 of his Annexure.



example, uncontrolled discharges of drainage water continue to exist. RRMP Rules 31, 32 and 33 were considered too lenient for the TANK catchments. In PPC9 an additional Rule 33A was proposed to be added to the RRMP, but this has been recommended to be deleted and its provisions incorporated into RRMP Rule 33.

- 13.40 RRMP Rules 67 and 69 would establish a stricter regulatory regime in the TANK catchments; this is necessary to meet POL TANK 58.
- 13.41 One other rule recommended to be amended refers to riparian shading, and a new permitted activity rule allows shade planting to be provided for along rivers and streams that are part of the Heretaunga Plains Flood Control and Drainage scheme. These are RRMP Rules 70 and 71.
- 13.42 RRMP Rule 7 was recommended to be amended to reduce the potential for sediment loss within the TANK catchments. This is consistent with POL TANK 20.
- 13.43 Finally, there were also amendments proposed to RRMP Rules 42-46, and RRMP Rules 53-55. These rules dealt with stormwater and the take and use of water respectively, and have been supplanted by Rules TANK 19-23 and 7-13 respectively.

#### *Submissions*

- 13.44 Most of these proposed amendments to the RRMP attracted few submissions, and those were sometimes to re-litigate other matters dealt with in PPC9. An example is the submissions to exempt the TANK catchments from the provisions of Rules TANK 7-13, such as by increasing the permitted activity threshold for water takes from 20 to 60 m<sup>3</sup>/day, or changing the term “allocation limits” to “abstraction limits”.
- 13.45 By way of contrast there were 154 submissions on RRMP Rules 60-62A, which would make transfers of water more restrictive in the TANK catchments than elsewhere in the region. 151 of these submission points were identical and sought that all transfers of all permits that have been exercised be enabled. We understand that would mean that water that has been allocated over and above the “actual and reasonable use test” is able to be transferred.

#### *Discussion and Findings*

- 13.46 The s42A Reporting Officer recommendations to amend rules in the RRMP is not intended to open the door for carte blanche changes to newly established rules in PPC9 via an alternative pathway. Rather they are to ensure that the regulatory frameworks established in the Policies and Rules of PPC9 remain intact and unambiguous. For this reason, we generally support the s42A Reporting Officers’ recommended changes to the rules in the RRMP.
- 13.47 There were some minor amendments recommended by the s42A Reporting Officers in response to submissions, and we support those. An example is that five submitters sought that proposed RRMP Rule 33A be deleted and the amendments incorporated into RRMP Rule 32, which is a change we support.

## Schedule 33: Water Permit Expiry Dates

### Introduction

- 13.48 Schedule 33 tabulates the timeframes for consent reviews in the TANK Catchments. In the notified version of PPC9, all consents will be reviewed within 10 years of the plan becoming operative, which aligns with the proposed requirements of POL TANK 38 (relating to permits

for re-allocation of groundwater). Schedule 33 also helps implement POL TANK 49 which relates to setting common expiry dates for water permits in each catchment.

- 13.49 Restricted discretionary Rules TANK 9 (groundwater takes) and 10 (surface water and Zone 1 groundwater takes) list the duration of the consent as provided for in Schedule 33 as a matter for control/discretion. Schedule 33 would also be a matter for consideration when assessing water applications under discretionary Rule TANK 11 (groundwater and low flow surface water takes).
- 13.50 The table in Schedule 33 lists all the current common expiry dates and a programme of setting future common expiry dates to align them to common 15-year periods (with some exceptions), as provided for under POL TANK 49. Clause 49(j) of this policy also enables the Regional Council to grant consents granted within three years prior to the relevant common catchment expiry date with a duration to align with the second common expiry date, except where the application is subject to Section 8.2.4 of the RRMP). The relevant dates in this situation are listed in the right-hand column of Schedule 33.
- 13.51 The Karamū, Twyford and Ahuriri water quantity units have multiple common expiry dates which require a staged approach to align to a single expiry date for each water quantity area. This is reflected in Schedule 33.

#### *Submissions and Evidence*

- 13.52 There were a range of submission points on Schedule 33 including support for Schedule 33 as notified, extending permit durations, reducing permit durations, aligning permit durations with farm plan requirements, correcting policy references and correcting dates which do not align with POL TANK 49.
- 13.53 TToH opposed Schedule 33 until the objectives and policies have been more integrated with the RPS and NPS-FM 2020 provisions, and Rules TANK 9, 10 and 11 have been amended to reflect a number of changes including requiring consent renewals to occur upon consent expiry or when PPC9 becomes operative, whichever occurs first<sup>14</sup>.
- 13.54 Ms Grey Wilson's evidence on behalf of NKII stated:
- "Schedule 32 [which relates to High Flow Allocation] would be deleted if the high flow allocation regime approach were abandoned in favour of a water allocation approach which fundamentally addresses the issue of over abstraction. Likewise, **Schedule 33** would require changes to align with changes to consent expiry dates that would need to occur to give effect to the proposed review at five years from the date the Plan become operative<sup>15</sup>."*
- 13.55 The submission of OIrig considered a 15-year duration for water permits was inadequate given the significant investment requirement and contended that 30 years is more appropriate<sup>16</sup>. Federated Farmers submission requested the schedule be amended so that all expiry dates had a minimum of 20-year intervals<sup>17</sup>.

<sup>14</sup> Submission point 132.160, Te Taiwhenua o Heretaunga.

<sup>15</sup> Ms Wilson, EIC for NKII, para 101.

<sup>16</sup> Submission point 50.19, OIrig Ltd.

<sup>17</sup> Submission point 195.148, Federated Farmers of New Zealand.

- 13.56 The submissions of Ravensdown and Pernod Ricard pointed out that the notified version of Schedule 33 referred to POL TANK 45 and sought that this be amended to POL TANK 49<sup>18</sup>.
- 13.57 The submission of Hawkes Bay Fish and Game Council noted that some catchment expiry dates may be inconsistent with consent term limits<sup>19</sup>.

*Finding and s32AA Analysis*

- 13.58 We accept the changes recommended in the “pink version” of PPC9 presented to us by the s42A Reporting Officers at the conclusion of the hearing. The changes include amending the reference to POL TANK 45 to POL TANK 49, some minor changes to the naming of water quantity areas to align with the wording used throughout PPC9 and amendments to the consent expiry dates in some catchments. We also recommend that the last two columns of the table in Schedule 33, which relate to next expiry dates, include individual sub-headings to improve the clarity as to what these two columns refer to.
- 13.59 Submissions seeking the duration dates for permits be aligned with FEPs are rejected. We agree with the s42A Reporting Officers when they state that FEPs are intended to be a much more dynamic document with more frequent reviews than water permits, which are relatively static over their duration<sup>20</sup>.
- 13.60 Submissions seeking longer or shorter duration dates for permits are also rejected. The 1-year duration provided for the majority of permits in the management areas identified in Schedule 33 aligns with POL TANK 49.
- 13.61 We consider recommended changes make Schedule 33 clearer and more efficient and effective, and so meet the further evaluation requirements of s32AA of the RMA.

<sup>18</sup> Submission points 135.65, Ravensdown Ltd., 194.110 Pernod Ricard Winemakers New Zealand Ltd.

<sup>19</sup> Submission point 58.40, Hawkes Bay Fish and Game Council.

<sup>20</sup> S42A Report, paragraph 1624.

## Chapter 14 – Glossary

### Introduction

- 14.1 The glossary has been formed over many years in the development of PPC9 including drawing on the collaborative engagement with tangata whenua, resource users and stakeholder groups.

### Submissions

- 14.2 The Section 42A Report identified some 15 submission points on the Glossary.<sup>1</sup> In the course of our deliberations we have identified some 52-additonal submission points that are not dealt with in the main body of our report.
- 14.3 As outlined in Chapter 2 (Repetitive of Pro-forma Submissions) a large number of submissions sought to amend the definition of “Actual and Reasonable” in PPC9. As we have said elsewhere in our report, the definition of “actual and reasonable” reflects how water will be allocated in PPC9. We have addressed these submissions in Chapters 5 and 13.
- 14.4 A number of submissions have supported a glossary and retaining definitions in the glossary as notified.<sup>2</sup> Similarly a number of submissions have sought ‘te reo Māori’ terms be included in the glossary and that these terms should be consistent with higher order documents, regional plans and incorporate views of tangata whenua.<sup>3</sup>
- 14.5 Most submissions here have sought ‘new’ terms to be added to the Glossary of PPC9. These terms include; distribution uniformity<sup>4</sup>, aquatic ecosystems<sup>5</sup>, TANK estuarine systems<sup>6</sup>, TANK waterbodies<sup>7</sup>, water mining<sup>8</sup>, hazardous substances<sup>9</sup>, cultural flow<sup>10</sup>, baseline commercial vegetable growing rotation<sup>11</sup>, baseline commercial vegetable growing area<sup>12</sup>, land holding<sup>13</sup>, nitrogen losses from production land<sup>14</sup>, production land<sup>15</sup>, production land use change<sup>16</sup>, Collective Catchment Programme Industry Programme, drain, Modified water course, Re-allocation, Versatile Soils, Zone 1<sup>17</sup>, Groundwater dependent ecosystem<sup>18</sup>, food and fibre

1 Section 42A Report, Section 12.10, pages 48-50  
2 Sub point 24.3, sub points 203.32, 203.33, 203.34, 203.35, 135.68  
3 Sub point 97.81, sub points 120.143, 120.144  
4 Sub point 59.42, sub point 66.50  
5 Sub point 126.34  
6 Sub point 126.35  
7 Sub point 126.36  
8 Sub point 132.135  
9 Sub point 132.139  
10 Sub point 132.168  
11 Sub point 180.76  
12 Sub point 180.75  
13 Sub point 180.79  
14 Sub point 180.80  
15 Sub point 180.81  
16 Sub point 180.82  
17 Sub point 194.116  
18 Sub point 123.162

producers<sup>19</sup>, Regionally Significant Industry<sup>20</sup>, Accurate Water Meter Data<sup>21</sup>, and local authority<sup>22</sup>. DOC have requested definitions for enhanced, maintained and restored.<sup>23</sup>

- 14.6 Some submissions have requested amendments to the glossary definitions for Farm<sup>24</sup>, TANK Industry Programme or TANK Catchment Collective<sup>25</sup>, Registered Drinking Water Supply<sup>26</sup>, Allocation limit<sup>27</sup>, Allocation limit for groundwater<sup>28</sup>, Farm Environment Plan<sup>29</sup>, indigenous vegetation<sup>30</sup>, Land Use Change<sup>31</sup>, Consumptive Water Use<sup>32</sup>, and stream depletion<sup>33</sup>.
- 14.7 Several submissions have sought specific relief that excludes their activity or sector from the definitions; an example is Mr Ezekial Hudspith for Pernod Ricard Winemakers seeking a frost protection exception. These types of submissions have been addressed in the relevant topic chapters.<sup>34</sup>
- 14.8 A small number of submissions have sought deletion of definitions such as Applicable stream flow maintenance scheme<sup>35</sup>.

#### *Discussion and findings*

- 14.9 As a general rule of thumb the panel consider that definitions in the glossary should provide certainty and clarity in the interpretation of the objectives, policies and rules of PPC9.
- 14.10 In this section we have considered the glossary on an exception basis, that is, where submissions on terms have not been addressed in the main body of our decision report.
- 14.11 A number of submissions sought definitions for terms that the Panel considers either have ordinary dictionary meanings and/or have been subject to case law. This is the case for words as maintained, enhanced, and restored. In these cases, we have not included a definition in the glossary.
- 14.12 There are a number of instances where submissions have sought to make changes to terms that have been defined in the RMA, other legislation or national direction. Unless there is specific and special meaning of these terms in a PPC9 context we have not made changes to them.
- 14.13 As mentioned in Chapter 2, we have replaced the term 'mana whenua' with 'tangata whenua' where it has appeared in PPC9. This is for several reasons including alignment with the definitions in the RMA, NPS-FM and consistency throughout the plan change. Both terms

- <sup>19</sup> Sub point 97.78
- <sup>20</sup> Sub point 82.1
- <sup>21</sup> Sub point 66.61
- <sup>22</sup> Sub point 58.3
- <sup>23</sup> Sub points 123.163, 123.164, 123.165
- <sup>24</sup> Sub point 180.77
- <sup>25</sup> Sub point 180.83
- <sup>26</sup> Sub point 207.37, sub point 119.23
- <sup>27</sup> Sub point 210.149, sub point 129.40, 129.41
- <sup>28</sup> Sub point 210.150
- <sup>29</sup> Sub point 210.53, sub point 194.115, sub point 131.5
- <sup>30</sup> Sub point 210.54
- <sup>31</sup> Sub point 194.116
- <sup>32</sup> Sub point 129.42
- <sup>33</sup> Sub point 123.161
- <sup>34</sup> Sub point 194.114
- <sup>35</sup> Sub point 210.152

have been used interchangeably, however, 'tangata whenua' has been most commonly used by Ngāti Kahungunu submitters.

- 14.14 We have also amended the definitions for 'mahinga kai' and 'marae'. The mahinga kai amendments better reflect the description in Appendix 1A of the NPS-FM and the amendment of the marae definition more accurate and reflects the context of the term related to domestic supply and water supply in the objectives and policies.
- 14.15 Some submissions have sought definitions which repeated the term in its definition. In these cases we find that they have not added value or clarity to defining the terms.
- 14.16 Several submissions have requested definitions of terms that have not been used in PPC9 or the Panel believe are not relevant or add any value. In these instances we have not included them.
- 14.17 One submission sought to add the specific qualifications of people suitable to undertake or audit Farm Environment Plans (now Farm Freshwater Plans). We think the definitions are not a suitable place to define those types of things which can be dynamic and may change over the period of the plan change.<sup>36</sup>
- 14.18 Some submitters have sought specific exclusions for their water use from definitions.<sup>37</sup> The Panel have thought that these types of exclusion are unhelpful and are likely to make definitions verbose and unworkable. In most of these instances the topic chapters have addressed these matters.
- 14.19 Some submissions such as those seeking to replace the 'Registered Drinking Water Supply' with the definition that is in the Water Services Bill are premature. It is anticipated that once this occurs, the meanings in the Water Services Regulator Act or its successor will prevail.
- 14.20 Our findings are detailed in the amendments made to Appendix 2 (track change decision version of PPC9) and 3 (clean decision version of PPC9) and the decisions on submissions in Appendix 4.

<sup>36</sup> Sub point 135.5

<sup>37</sup> Sub point 194.114

## Chapter 15 Statutory Considerations

*Is the Plan Change designed in accordance with, and assist the Council to carry out its functions so as to achieve the purposes of the Act?*

- 15.1 The purpose of PPC9 is to ensure integrated management of land and water resources in the Tūtaekurī, Ahuriri, Ngaruroro and Karamū (TANK) Catchments by introducing a catchment management approach to improve water quality and water quantity, and to manage values for the catchments.
- 15.2 PPC9 has been designed to accord with and assist the Council in carrying out its section 30 functions, in particular section 30(1)(a), (1)(c)(ii),(iii),(iiia), (1)(e), (1)(f), and (fa)(i).

*Does the Plan Change give effect to any NPS or the NZCPS?*

- 15.3 In Chapter 2 of our report, we find that PPC9 gives effect to the NPSFM 2014 (amended 2017), and NPS-FM 2020 to the extent that it is practicable to do at this time.

*Does the plan change give effect to the RPS?*

- 15.4 PPC9 does not propose changes to the RPS sections of the RRMP. At Chapter 2 of our decision and consistent with the section 32 evaluation we find that the PPC9 gives effect to the RPS.

*Is the plan change consistent with any regional plans or proposed regional plans?*

- 15.5 The changes in PPC9 provide a regulatory decision-making framework for the TANK catchments in conjunction with existing provisions in the regional plan, along with a number of amendments to the RRMP included in PPC9.

*Are the provisions the most appropriate way to achieve objectives having regard to their efficiency and effectiveness, actual and potential environmental effects and reasonable alternatives?*

- 15.6 This is a consideration we turned our minds to at Chapter 2 of our report. Our finding, as expressed there is that the provisions of PPC9 as attached at Appendices 2 and 3 to our report represent the most appropriate way to implement the 'objectives' having had regard to their efficiency and effectiveness, actual and potential environmental effects.

*What (if any) regard should be given to relevant management plans and strategies under the Acts, including any relevant entry in the Historic Places Register?*

- 15.7 The most relevant resource management plans and strategies that we have had regard to under this category are listed in Chapter 1 of our report.

*Are the proposed objectives the most appropriate way to achieve the purpose of the Act?*

- 15.8 As set out in Chapter 2 of our decision, there are a number of objectives that we have considered, being:
- a) The goals set out in the plan change's purpose; and
  - b) The settled, relevant objectives of the RRMP.

15.9 Our finding as set out in that part of our report is that the 'objectives' of the plan change are the most appropriate way to achieve the purpose of the Act.

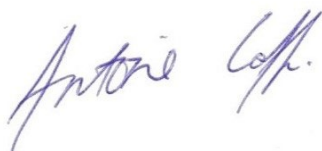


## Chapter 16 - Overall Decision

16.1 Based on the Panel's consideration of all the material before it, including the section 42A reports, submissions, further submissions, evidence presented at the hearings and following consideration of the requirements of section 32AA and other relevant statutory matters, and for the reasons set out in this decision report:

- a) PPC9 is accepted as notified, and as further amended prior to, during and subsequent to the hearings, as set out in Appendices 2 and 3.
- b) All submissions on PPC9 be accepted, accepted in part or rejected to the extent that they correspond with that conclusion and the matters the Panel has set out in the preceding report sections (and as summarised in Appendix 4).
- c) Pursuant to clause 10 of the First Schedule of the Resource Management Act 1991, the Panel gives notice of its decision on submissions to PPC9.

**DATED THIS 31<sup>ST</sup> DAY OF AUGUST 2022**



Antoine Coffin

Independent Commissioner (Chair)



Dr Brent Cowie

Independent Commissioner



Dr Greg Ryder

Independent Commissioner



Rauru Kirikiri

Independent Commissioner



Dr Roger Maaka

Independent Commissioner