

APPENDIX 3: Specific Relief Sought Relating to Schedules 26, 27 and Other Provisions including a New Schedule

This specific relief is in addition to, and is without prejudice to the general and specific relief identified by the Ngāti Kahungunu appeal.

TANK PC9 Plan Provision	Position	Reason for position	Relief sought (use <u>underline</u> and strikethrough)
<p>Schedule 26 – use of terms and overall structure</p>	<p>Support with amendments</p>	<p>Schedule 26 is generally supported to meet many of the requirements for water quality in the NPS FM (notwithstanding issues with the overall policy structure and framework of PC9 and the deferral of several attributes to a future plan process - Kotahi).</p> <p>Schedule 26 is titled: ‘Freshwater Quality Objectives’, although Policy 1 and other provisions of PC9 refer to Schedule 26 as containing water quality targets or target attribute states. PC9 is unclear as to whether the water quality numeric attribute states in Schedule 26 are objectives or targets.</p> <p>Timeframes should be shortened to be within the life of the Plan or if longer should follow the NPS FM requirements to include interim target attribute states (set for intervals of not more than 10 years) to assess progress towards achieving the target attribute state in the long term (NPS FM 2020: 3.11(6)(a)). A date is required to achieve the long term target attribute state and interim targets for every ten years to that date are required in Schedule 26 to implement the NOF.</p> <p>It is not clear whether the management units are FMUs as defined in the NPS FM. They are described in Schedule 26 as ‘Water Quality Areas. Where the Monitoring site for an attribute is identified as ‘default’, clarify what this means. For example, does this mean the default target attribute states apply at all sites within the ‘water quality area’/FMU not otherwise specified?</p> <p>Schedule 26 column nine is titled “Critical Value” but this term is not defined within PC9. The term ‘critical value’ is not part of the NPS FM (2020) process and its use within Schedule 26 remains unclear.</p>	<p>Change timeframes for which target attribute states are to be achieved to have interim targets (not more than 10 years from when the plan is operational) within the life of PC9 to assess progress towards long term target attribute states. Ensure any interim targets are ambitious.</p> <p>Delete the ‘Critical value’ and ‘Critical value also provides for’ columns from Schedule 26 and identify these freshwater values in a separate Schedule within PC9, defining where they apply.</p> <p>Alternatively, delete only the ‘Also relevant for’ column and amend the ‘Critical value’ column to reflect the freshwater values for which the most stringent attribute state is set. Delete all reference to ‘statistical GL’, ‘MCI’, ‘Algal growth’ and ‘Toxicity’ as these are not freshwater values.</p>

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		<p>While the method of identifying the most stringent attribute state for freshwater values is consistent with the National Objectives Framework (NOF) approach in the NPS FM at Policy CA2(e)(iii), the critical values in Schedule 26 do not apply this method consistently. For example, algal growth (periphyton) and toxicity attributes in the NOF are applied for the value of Ecosystem Health, they are not values themselves as Schedule 26 suggests. The critical value, if retained in Schedule 26, should state the freshwater value for which the most stringent attribute state is applied, using consistent and defined values (which ideally would be identified in a Schedule within PC6). Alternatively, if a schedule of values and where they apply is included in PC6 as recommended, references to the 'critical value' and the 'critical value also provides for' can be removed from Schedule 26.</p> <p>The column 'critical value also provides for' simply provides a restated list of freshwater values throughout the Schedule 26 tables. This would be more appropriate (and concise) if values were instead identified within a separate Schedule within the Plan for ease of use and consideration in decision making. The relationship between the freshwater values in this column and the water quality attributes is unclear and no technical report to support the linkage is provided in the references to baseline data in the preamble to Schedule 26.1. For example, it is not clear how instream DIN is a relevant attribute for abstractive uses for domestic, farm and community water supply or primary production and food production, industrial and commercial use.</p> <p>The period of record used to determine whether a waterbody is meeting or exceeds the attribute state in Schedule 26 also needs to be defined. For example, MCI specifies an average at flow < median but does not define over what period the average is to be calculated (e.g., 5-years). It is assumed that the NPS FM methods in Appendix 2B are to be applied, but this is not specified. Further, there is no technical reason why MCI average from flows below median should be specified as the</p>	

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		measurement system for this attribute. National standards, methods and protocols specify conditions for when macroinvertebrate data should be collected and this is not required to be stated as the measuring system, it is incorrect to do so.	
Schedule 26 – attributes	Support	The attributes for surface and ground water quality are generally appropriate for managing the effects on ecosystem health and human health with the exception of the changes specified below.	Retain all of the listed attributes in the decisions version of Schedule 26. Include attribute states and targets from the NPS FM now for those water management areas specified to be addressed through a future plan process (Kotahi).
Schedule 26 – attribute states: Suspended fine sediment / visual clarity (m)	Support in part	For Trout fishery values (e.g., in the Ngaruroro and Tūtaekurī rivers) the suspended fine sediment/visual clarity attribute applies at flows less than median in Schedule 26 and NOF attribute states are also included. It is unclear from Schedule 26 how it will be determined whether the target is met for this attribute, given the two methods and outcomes.	Include two separate attributes for suspended fine sediment / visual clarity so the outcome to be achieved is clear.
Schedule 26 – attribute states: Deposited sediment (%)	Support in part	Deposited sediment is a critical factor affecting the ecosystem health of rivers, particularly benthic macroinvertebrate community health and the spawning habitat of salmonids (and indigenous fish). The attribute states for deposited sediment are largely consistent with national guidelines from Clapcott et al. (2011) and are supported. The maximum attribute states are appropriate to provide for the values of Ecosystem health and salmonid spawning. Presumably the more stringent attribute state of 15% cover from May to Oct is to support the salmonid spawning value in the upper Ngaruroro and Tūtaekurī river mainstems.	
Schedule 26 – attribute states: periphyton biomass (Trophic state)	Support in part	There are only two sites at which periphyton biomass is monitored in the TANK catchments (lower Ngaruroro and upper Tūtaekurī Rivers). The attribute state to provide for ecosystem health at the Ngaruroro site is set at the NPS FM B band of 120mg/m ² whereas a periphyton biomass 2040 target attribute states for the Tūtaekurī River are deferred to the Kotahi Plan (even though the baseline state is currently in the B band of the NPS FM). It is unclear whether periphyton biomass at the NPS FM B band will be adequate to protect ecosystem health in the upper Tūtaekurī River. 50 mg/m ² chlorophyll a is associated with a good state of benthic	Amend the periphyton biomass target attribute state 2040 for the upper Tūtaekurī River to “A” (<50 mg/m ²).

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		<p>biodiversity (Biggs 2000), whereas 120 mg/m² is more closely aligned with trout habitat outcomes in the literature.</p> <p>The two sites for periphyton biomass may not be representative of the 'FMUs' managed for periphyton. However, the risk of this approach is mitigated by the inclusion of a periphyton cover attribute for all rivers in the two catchments (see below). MfE guidance accepts that periphyton cover may be used in place of periphyton biomass and this approach is supported.</p>	
Schedule 26 - attribute states: periphyton cover	Support in part	<p>Periphyton cover (using the Weighted Composite Cover %PeriWCC) method of Matheson et al. (2012) and (2016) is a useful method to address the adverse effects of periphyton cover on ecosystem health and recreational use of rivers. The annual maximum applied to the upper Ngaruroro and upper Tūtaekurī Rivers is supported as periphyton can form nuisance growths at any time of the year when flow and nutrient conditions are suitable, adversely affecting ecosystem health. 20% cover equates to excellent ecological condition and is appropriate for these waterbodies.</p> <p>It appears the freshwater value with the most stringent periphyton requirements in the lower Ngaruroro and Tūtaekurī rivers and tributaries is Uu.</p>	If reference to critical values are retained within Schedule 26 include the values "Uu" alongside Ecosystem Health for periphyton cover as it is this values which is associated with the 30% cover threshold.
Schedule 26 – attribute states: cyanobacteria	Support in part	The attribute is appropriate to manage the adverse effects of potentially toxic benthic cyanobacteria. As Uu applies year-round this is the most stringent value and should replace Recreation if the critical value column is retained in Schedule 26.	If reference to critical values is retained in Schedule 26 delete recreation and replace with Uu.
Schedule 26 – attribute states: macrophytes	Support in part	<p>Not all macrophytes create adverse effects (e.g., indigenous macrophytes can be positive indicators of ecosystem health). Submerged nuisance macrophytes (e.g., invasive weeds) however can adversely affect ecosystem health and dissolved oxygen. This should be clarified in the wording of the attribute.</p> <p>Nuisance macrophytes may also have adverse effects on other lowland streams in the TANK catchments. Macrophytes are not included as</p>	<p>Amend the attribute to be named:</p> <p><u>'Submerged nuisance macrophytes'</u>.</p> <p>Include macrophytes as an attribute for all lowland rivers and streams in the TANK catchments.</p>

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		attributes for the lowland streams in the Tūtaekurī catchment. Schedule 26 should be amended to include all lowland rivers and streams to reduce the potential effects on ecosystems health from nuisance macrophyte growth.	
Schedule 26 – attribute states: MCI	Support in part	MCI is the macroinvertebrate index which measures the health of benthic macroinvertebrates and is an important indicator of the aquatic life component of ecosystem health. The attribute states for macroinvertebrates are supported and are generally appropriate.	
Schedule 26 - attribute states: DIN and DRP	Support in part	<p>Dissolved inorganic nitrogen (DIN) and dissolved reactive phosphorous (DRP) are key nutrients in managing periphyton, macrophyte, cyanobacteria growth and macroalgae in estuaries. The numeric attribute states for DIN appear to be appropriate to provide for ecosystem health in most cases. However, DRP in the lower Ngaruroro and Tūtaekurī Rivers and tributaries may not be stringent enough to manage periphyton biomass or cover to meet those attribute states.</p> <p>The critical values should be ecosystem health as algal growth is not a freshwater value, it is an attribute.</p>	<p>Delete ‘algal growth’ and amend the critical values for DIN and DRP to ecosystem health.</p> <p>Amend the DIN and DRP attribute states to ensure these will achieve periphyton and other aquatic life outcomes associated with ecosystem health.</p>
Schedule 26 – attribute states: nitrate and ammonia	Support in part	Nitrate nitrogen and ammoniacal nitrogen are managed to avoid toxic effects on aquatic life for ecosystem health. However, the concentrations at which nitrogen has adverse effects on ecosystem health are much more stringent than those for toxicity and in all cases for the TANK catchments nitrate and ammonia attribute states will be overridden by dissolved and total nitrogen needed to manage for periphyton, macrophyte, cyanobacteria and estuarine health. The A band toxicity attribute state from the NPS FM for nitrate and ammonia in all catchments is supported as an important ‘backstop’ to ensure nitrate and ammonia do not have toxic effects on sensitive aquatic life.	If reference to critical values is retained in Schedule 26, amend the critical value for nitrate and ammonia from ‘Toxicity’ to ‘Ecosystem health’.
Schedule 26 – attribute states: <i>E. coli</i>	Support in part	The <i>E. coli</i> attribute states are generally supported as these attribute states are adequate to provide safety for Uu and the NPS FM value of human health.	
Schedule 26 – attribute states:	Support in part	Dissolved oxygen is critical to aquatic life and therefore ecosystem health and the attribute states are generally supported.	

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dissolved oxygen			
Schedule 26 – attribute states: temperature	Support in part	<p>Temperature is a critical stressor of aquatic life and ecosystem health. It is unclear what the reference state in Schedule 26 is for temperature in each 'FMU' so it is difficult to see how the temperature change increments might affect ecosystem health and other freshwater values or how they will be measured over time.</p> <p>Management of maximum water temperatures is needed in Schedule 26. Both maximum temperature and temperature change (because of activities managed by PC9 such as point source or stormwater discharges) are needed in Schedule 26.</p>	Include relevant maximum temperature attributes from deleted Schedule 27 in Schedule 26.
Schedule 26 – attribute states: BOD	Support	The attribute states are appropriate and supported.	Retain
Schedule 26 – attribute states: Metals, metalloids and toxins	Support	The attribute states are appropriate and supported.	Retain
Schedule 26 attribute states: Nitrate-nitrogen (groundwater)	Support	Nitrate in groundwater can have adverse effects on ecosystem health and aquatic life when it enters surface water systems (as well as the aquatic life of groundwater dependent ecosystems). Managing groundwater quality to avoid toxic effects when it reaches surface water provides some protection for aquatic life in surface water and groundwater dependent ecosystems. This objective applies to all groundwater in the TANK catchments and is supported. However, the quality of groundwater in the Heretaunga Aquifer must not be allowed to degrade where quality is currently better than the attribute state.	Retain and ensure objectives which do not allow degradation of the Heretaunga Aquifer are included in PC9.

To be Added to PC9:

Irrigation Season – minimum flow limits and targets

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

New Minimum Flow Sites

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

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

Table 2: Schedules/maps from the operative RRMP

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

New Tangata Whenua Monitoring Schedule to be inserted into PC9

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

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

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

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