

BEFORE THE MANAWATU-WANGANUI REGIONAL COUNCIL

UNDER Resource Management Act 1991

IN THE MATTER of submissions on the Manawatu-Wanganui Consolidated Regional Policy Statement, Regional Plan, and Regional Coastal Plan by the Horowhenua, Manawatu, Rangitikei, Ruapehu, Tararua, and Wanganui District Councils

AND

IN THE MATTER of hearings by the Manawatu-Wanganui Regional Council in respect of the Manawatu-Wanganui Consolidated Regional Policy Statement, Regional Plan, and Regional Coastal Plan – **Water Matters**

SUPPLEMENTARY EVIDENCE OF DAVID JAMES FORREST

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INTRODUCTION

1. My name is David James Forrest and I reside in Palmerston North. I am the Principal Planner of Good Earth Matters Consulting Limited, an environmental engineering, asset management, planning and resource management consultancy practice based in Palmerston North.
2. My qualifications and experience are set out in my evidence-in-chief.
3. This supplementary evidence arises as a consequence of the Territorial Authority Asset Managers' consideration of the supplementary reports from Council Officers and further discussions with these Council Officers in recent weeks. It seeks to update the Hearing Panel on where submission matters are no longer an issue and to focus on those matters where the TA's concerns have not been met.
4. In places, this evidence makes reference to the evidence of other witnesses for the TA's, by way of explanation as to why a change to a particular provision or provisions is being sought. These witnesses are also available to receive questions from the Panel.

CHANGES SUPPORTED BY THE TERRITORIAL AUTHORITY COLLECTIVE

5. The Territorial Authority collective has reviewed the track changes version of the water section of the Proposed One Plan as proposed by the Regional Council's officers and are supportive of the objectives, policies and rules as currently proposed. In particular, the Territorial Authority collective is supportive of the following amendments:
 - The relocation of objectives and policies relating to how resource consent decisions will be made to the Regional Plan section of the Proposed One Plan
 - Amendments to rules relating to stormwater discharges, particularly the removal of the 2 hectare limit for permitted activity status which was previously proposed for Rule 13-15.
 - Amendments to rules relating to water takes to maintain controlled activity status for public water supplies which continue to abstract, at reduced rates, when river flows are below minimum flow.

CHANGES BEING SOUGHT BY THE TERRITORIAL AUTHORITY COLLECTIVE

WASTEWATER SCHEMES

Lining of Sewage Treatment Ponds

6. The Territorial Authority Collective is concerned at the discretionary activity status accorded to all unlined sewage treatment ponds. They seek two new rules which provide for existing sewage treatment ponds as a controlled activity and new ponds which do not meet permitted activity status to be considered as a restricted discretionary activity. The current and proposed rule framework is summarised in Figure 1 below.

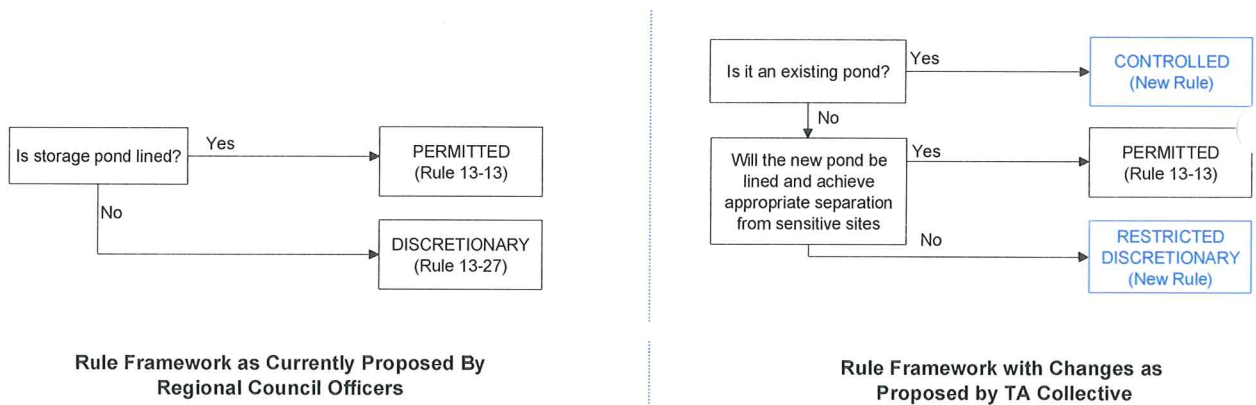


Figure 1

Rule Framework for Sewage Treatment Ponds

7. The proposed controlled activity rule is as follows:

Proposed New Rule: Existing human effluent storage and treatment facilities

Activity: The discharge into or onto land of human effluent for the purpose of storing or treatment of effluent in ponds and any associated discharge to air from storage and treatment facilities lawfully established prior to this Plan becoming operative.

Classification: Controlled

Conditions/Standards/Terms: n/a

Control / Discretion / Non-notification

Control shall be exercised over:

- Measures to avoid objectionable odour beyond the boundary of the property
- The effects of seepage from the storage and treatment facilities on groundwater and surface water bodies.

8. The proposed restricted discretionary activity rule is as follows:

Proposed New Rule: New human effluent storage and treatment facilities not complying with rule 13-13

Activity: The discharge into or onto land of human effluent for the purpose of storing or treating the effluent in new effluent storage and treatment facilities and any associated discharge to air in a manner which does not comply with rule 13-13.

This rule controls sewage treatment and storage in ponds but does not control domestic wastewater treatment and disposal, which is controlled under Rules 13-10, 13-11 and 13-12.

Classification: Restricted Discretionary

Conditions/Standards/Terms: n/a

Control / Discretion / Non-notification

Discretion shall be restricted to the following matters:

- *Measures to minimise the leakage of effluent (including consideration of in-situ soil conditions and their natural permeability)*
- *Siting of storage and treatment facilities in relation to residential properties, schools, maraes, public buildings, public recreation areas, historical heritage areas, rare habitats, threatened habitats, at risk habitats, bores, surface water bodies and the coastal marine area*
- *The potential for objectionable odour beyond the boundary and measures to control and minimise odour*

9. The Territorial Authority Collective also seeks to have Rule 13-13 Clause (b) amended as follows:
- All effluent storage and treatment facilities (including sumps and ponds) shall be located and/or managed in a manner which ensures at all times that:*
- (i) *run-off from the area into surface water is ~~prevented~~ minimised as far as practicable*
 - (ii) *run-off from the surrounding catchment is ~~prevented~~ minimised as far as practicable from entering the area.*
10. The Territorial Authority Collective's concern is with a potential requirement to retrofit existing sewage treatment ponds with an engineered liner. The permeability requirement of Rule 13-13 would require significant cost to achieve (via emptying of ponds and retrofitting of an engineered liner). Ms Sweeney discusses this in her evidence and is available to answer questions on this matter.
11. The proposed rule framework allows for existing ponds to be considered as a controlled activity. It would require an application to assess – via a water budget – the extent of leakage and consider if there were any identified significant adverse effects. The consent authority would be able to impose conditions which require remedial works if significant adverse effects were identified.
12. The Territorial Authority collective accepts that new ponds should be sealed to an appropriate standard but do not consider that 10^{-9} m/s permeability would be appropriate in all circumstances. Either Ms Sweeney or Mr Bridges are available to explain why this is the case. The restricted discretionary activity rule is proposed to allow consideration of new ponds which do not meet the permitted activity rule permeability requirement, with discretion restricted to the matters suggested.

Treated Wastewater Discharges – New Restricted Discretionary Rule

13. As proposed, discharge of treated wastewater from the Territorial Authority Collective's assets is a discretionary activity under Rule 13-27. The Collective is concerned at the unfettered nature of this discretion and the potential for lengthy and costly consent processes as a result of peripheral issues needing to be dealt with. For this reason, the Collective is proposing a restricted discretionary activity status for discharge of treated wastewater from sewage schemes managed by a territorial authority. The proposed rule is as follows:

Proposed New Rule: Discharges of treated wastewater to water from community sewerage schemes managed by a Territorial Authority

Activity: *The discharge of treated wastewater in to water from community sewerage schemes managed by a Territorial Authority .*

Classification: *Restricted Discretionary*

Conditions/Standards/Terms: *n/a*

Control / Discretion / Non-notification

Discretion shall be restricted to the following matters:

For those parameters which do not meet the schedule D water quality standards for the water management zone in which the discharge occurs:

- *The degree to which the discharge contributes to the water quality standard being exceeded*
- *The degree to which the discharge could be improved to reduce the loading of that parameter to the water management zone*
- *Consideration of alternative treatment and discharge arrangements to minimise the potential effects of the discharge*

In the submissions as originally lodged with the Council, the TA Collective sought that new rules providing for discharge of treated wastewater to water from community sewerage schemes be provided for as a controlled activity. The Collective is willing to accept that the status not be controlled provided the status is restricted discretionary as outlined above.

Policy 13-6 – Point Source Discharges to Land and Water

14. The Collective seeks to amend Policy 13-6(b)(i) to read as follows:

in the case of discharges, the discharge is of a temporary nature or is associated with necessary maintenance ~~or~~ upgrade work and the discharge cannot practicably be avoided.

The collective has discussed the proposed change with Ms Marr and Ms Barton and were advised verbally that such a change would be acceptable.

Policy 13-7 – Point Source Discharges to Land

15. The Collective seeks to amend Policy 13-7(b) to read as follows:

does not result in pathogens or other toxic substances accumulating in soil or pasture to levels that would render the soil unsafe for agricultural, ~~or~~ domestic ~~or~~ recreational use

Policy 13-8 – Options for Discharges to Surface Water and Land

16. The Collective does not wish Policy 13-8 to imply a preference to discharge to land over discharge to water, rather that both options are to be assessed and the most sustainable discharge option adopted. This is discussed in Mr Cameron's evidence, paragraph 17. The Collective seeks to amend Policy 13-8(a) to read:

discharging contaminants onto land ~~rather than~~ as an alternative to discharging contaminants into water

Objective 6-2 – Water Quality

17. The Collective supports the inclusion of a timeframe for achieving Objective 6-1 and seeks this to also be included in Objective 6-2. The proposed timeframe of 2030 is supported as it is consistent with the proposed National Policy Statement on Freshwater Management. The Collective therefore seeks that Objective 6-2(a)(i) be amended to read:

Water quality is maintained or enhanced ~~where required~~ by 2030 in water bodies at a level which supports the values of the water bodies

Policy 6-3 and Policy 6-4

18. Ms Sweeney states in her evidence that there is a need to provide some guidance for policies 6-3 and 6-4 as to how data is to be interpreted, including the number of data points required to determine if water quality standards are met and the way in which outlier data will be interpreted. The Collective suggests the following be added to policies 6-3 and 6-4. This has been discussed with Ms Marr and Ms Barton who have been advised that the Collective is willing to discuss this matter further.

Note: For the avoidance of doubt, a minimum of 20 data points over a two year period are required to assess compliance with water quality standards. If this is not achieved, Policy 6-5 applies.

Stormwater Discharges

19. The Collective also seeks to amend Rule 13-22 – Discharges of Persistent and Harmful Contaminants Activity – to read as follows:

Any discharge, ~~excluding discharges of stormwater managed under Rules 13-15, 13-16 and 13-17~~, onto or into land pursuant to ss15(1), 15(2) or 15(2A) RMA, or into water pursuant to s15(1)RMA,

This change is to prevent stormwater discharges containing hydrocarbons from being considered a non-complying activity. This change was proposed in Mr Kennedy's evidence. The collective has discussed the proposed change with Ms Marr and Ms Barton and were advised verbally that such a change would be acceptable.

WATER TAKES

20. The current rule framework for water takes for public water supplies is summarised in Figure 2 below. Figure 3 shows the rule framework as proposed by the Territorial Authority Collective.

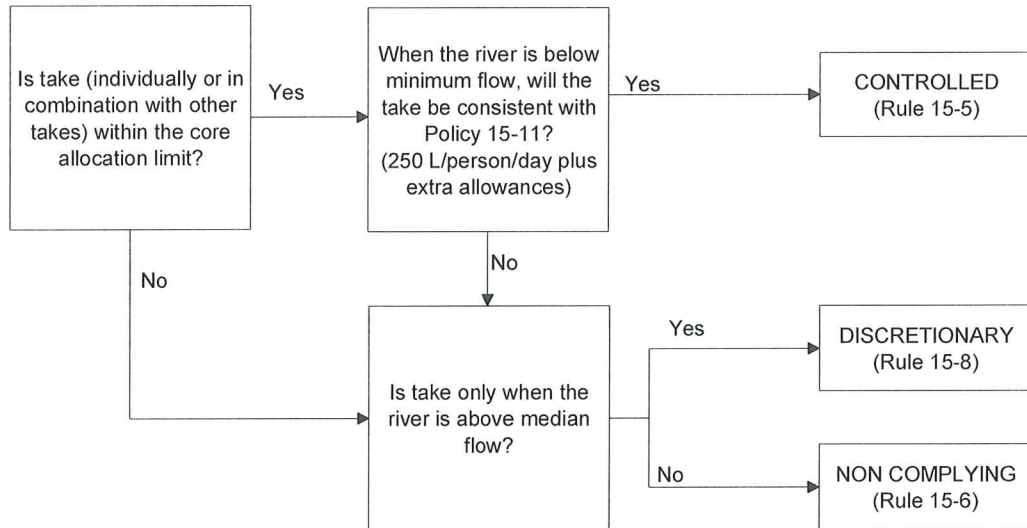


Figure 2
Water Rules Current Framework

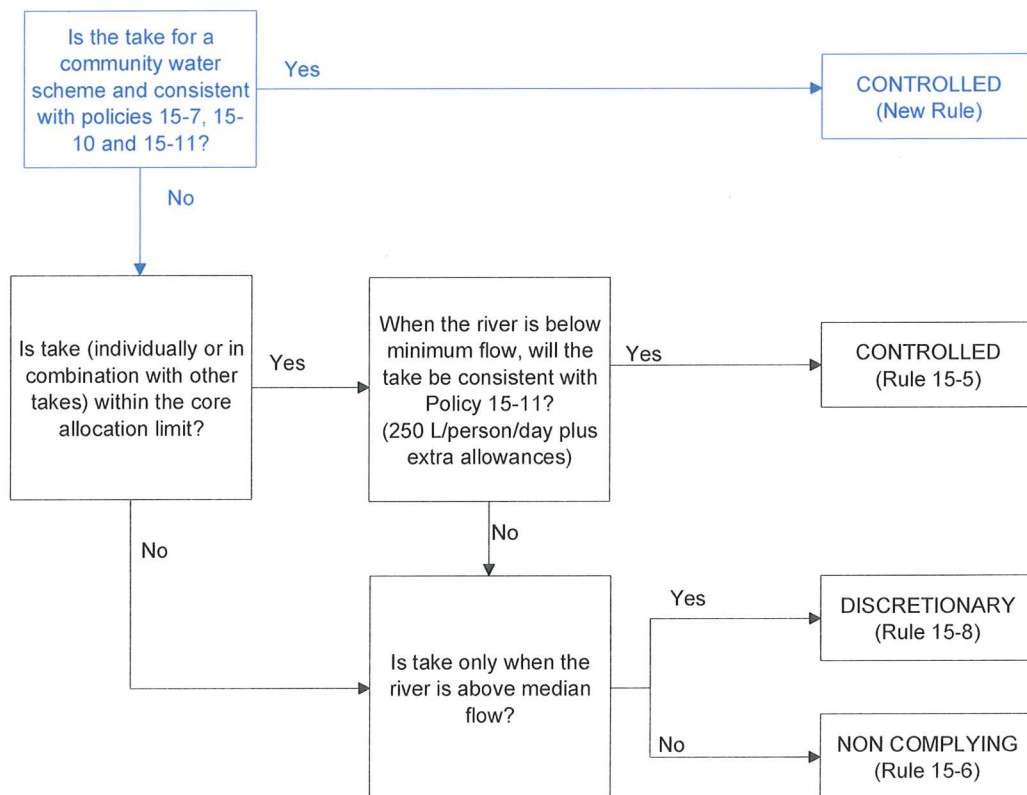


Figure 3
Water Rules Framework Proposed by Territorial Authority Collective

21. The Collective is supportive of the inclusion of clause (b)(i) to Rule 15-5 which enables public water supplies to abstract at reduced rates when rivers are below minimum flow. However, the Collective has the following concerns regarding the rule framework for public water supplies:
- the inability to provide for supplementary water takes as a controlled activity may discourage water harvesting
 - many public water supplies do not currently have the ability to achieve compliance with clause (b)(i) of Rule 15-5 as they lack an alternative supply or storage.
 - Rule 15-6 will require public water supplies to be considered as a non-complying activity upon renewal of resource consents if the water management zone becomes over-allocated (either by consents being granted during the term of the public water supplies consent or if the Regional Council were to amend the core allocation for the water management zone downwards).

With respect to the latter point, Ms Marr and Ms Barton have advised that it was not intended for public water supplies to lose their controlled activity status in this instance.

To address the above matters, the Collective proposes a new rule and amendments to policies 15-7, 15-8, 15-9 and 15-11 as follows.

New Rule for Public Water Supplies

22. The new rule proposed is:

New Rule: Takes and uses for public water supplies

Activity

The taking and use of surface water from a river for a public water supply scheme

Classification: Controlled

Conditions/Standards/Terms

- (a) When the river is below its minimum flow, the take shall be no more than the maximum take set out in Policy 15-11*
- (b) When the river is between minimum flow and median flow, the take shall be no more than the maximum take set out in Policy 15-7.*
- (c) When the river is above median flow the take shall be consistent with Policies 15-7 and 15-10.*

Control/Discretion Non-Notification

Control is reserved over:

- (a) the volume and rate of water taken, and the timing of the take*
- (b) the location of take*
- (c) intake velocity and screening requirements*
- (d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction*
- (e) the efficiency of water use*

- (f) effects on other water takes
- (g) effects on rare habitats, threatened habitats and at-risk habitats and Sites of Significance – Aquatic.
- (h) compliance with minimum flow requirements
- (i) duration of consent
- (j) review of consent conditions
- (k) compliance monitoring.

Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).

Policy 15-7

23. The Collective seeks to amend the paragraph at the end of clause (c) of Policy 15-7 to read:

Where the existing allocation for a public water supply exceeds the allocation calculated in accordance with (i) to (vi) above, ~~consideration will be given to a timeframe by which the existing allocation can be reduced to the calculated amount.~~ the Regional Council will establish, in consultation with the relevant Territorial Authority, a timeframe by which the existing allocation shall be reduced to the calculated amount, or to some other amount agreed between the Regional Council and the relevant Territorial Authority as being reasonable, taking in to account:

- *the amount of water required by the community as a percentage of the core water allocation for the relevant water management zone*
- *the effect of reducing water usage on the social, economic and cultural wellbeing of the community.*

24. The above amendment would allow the Regional Council and the Territorial Authority the ability to adopt an alternative value than that prescribed by the formula within policy 15-7(c) taking in to account the specific situation of the community and the effect of the take. A case study regarding this issue is the Mangaweka water supply which has been discussed in Mr Kirby's evidence (paragraphs 17 to 23). Mr Bridges has also discussed the issue of determining a community's reasonable use in his evidence (paragraphs 23 to 39).

Policy 15-9 – Efficient Use of Water

25. The Collective seeks an additional clause (f) as follows:

- (f) *for community water supplies, use of water within reticulated community water supply systems shall be assessed as efficient if it meets current best practice when benchmarked against comparable systems using current national industry standards or guidelines*

This clause is proposed to enable the use of the "Benchmarking of Water Losses in New Zealand", February 2008 document to be adopted to assess the efficiency of the network. This is presented as an alternative to a percentage loss figure recognising that the water supply industry now considers that other factors need to be considered in assessing the efficiency of a water network (eg density of connections, network pressure). The document has been adopted by the New Zealand Water and Wastes Association and Water Services Managers Group and is based

on the International Water Association's Water Loss Task Group's methodology. Mr Bridges is able to answer any questions in respect of this document.

Policy 15-9 – Consideration of Alternative Water Sources

26. The Collective seeks to amend policy 15-9 to read:

*When making decisions on consent applications to take surface water, the opportunity to utilise alternative **back up or augmentation** sources such as groundwater or water storage, including harvesting during periods of high flow in a water body, shall be considered.*

The reasons for this are addressed in Mr Kirby's evidence (paragraphs 24 to 28).

Policy 15-11 – Apportioning, restricting and suspended takes in times of low minimum flow

27. The Collective seeks to amend clause (b)(iv)(E) to read as follows for reasons set out in paragraph 25 above

(E) an allocation for leakage equal to 15% of the total of subsections (A) to (D) above, or the amount determined in accordance with current best practice when benchmarked against comparable systems using current national industry standards or guidelines

28. The Collective also seeks to add the following clause at the end of clause (b)(iv):

Where the public water supply take is unable to be reduced at times of minimum flow to that calculated in accordance with (A) to (E) above, due to the lack of storage within the network, alternative water sources and / or infrastructure condition, the territorial authority (public water supply) shall manage the take when the river is at or below minimum flow in accordance with a supply and demand management strategy which has been adopted by the territorial authority and includes measures to achieve the low flow abstraction calculated in accordance with (A) to (E) above within a timeframe agreed between the Regional Council and the relevant territorial authority.

The reason for this addition is to allow a timeframe for territorial authorities to provide the necessary infrastructure to reduce their take at times of low flow to the calculated amount.

SCHEDULE D

29. The territorial authority collective continues to express concerns at the fact that the Schedule D water quality standards apply to ephemeral waterbodies and in particular watercourses. The collective considers that the manner in which Schedule D has been applied in the past has been unreasonable and costly and therefore request that such 'waterbodies' be excluded from the standards applying to waterbodies.

30. Several options or mechanisms as to how such 'waterbodies' could be excluded have been discussed, including:

- Excluding such ephemeral waterbodies based on criteria (such as being located on private property, the waterbody being ephemeral, the waterbody being fenced off and a minimum of 'x' metres from the primary waterbody (receiving environment)); or
- Exclusion by means of the discharge to the waterbody being well within the 'mixing zone' as defined in the RMA; or
- Exclusion of specific ephemeral known waterbodies into which existing community STPs discharge.

31. Having discussed these options, the TA Asset Managers are strongly of the view that the simplest and most effective mechanism is to exclude the known ephemeral waterbodies (watercourses) by listing them in the Plan.