

Supplementary Report – Tables 14(m) to 14(y)

1. The Hearing Commissioners have asked:
2. “Regardless of the answers to the above questions, can we please receive a Supplementary Report explaining in detail the changes recommended to each of Tables 14(m) to 14(y)?”
3. This response is prepared by Matthew McCallum Clark and Daniel Clark, with specific points on scope by Philip Maw and Imogen Edwards.
4. This brief supplementary report has three parts:
 - a. a discussion of common features of all tables and recommended changes that apply across all tables;
 - b. a discussion of the scope in submissions for the recommended changes; and
 - c. a description of the changes and, if relevant, specific comments, in addition to a and b above, for each table.

Comment on all (as notified) tables

5. The following comments apply to all tables, with the exception of Table 14(x) (thresholds for minimum flow changes for the Opihi River).
6. As notified, PC7 contains one or two tables for each river. One table is typically the current and near-future flow regimes, and the second table shows a flow regime further into the future. Each flow regime is different, in terms of:
 - a. different kinds of partial restriction regimes;
 - b. some with minimum flows that vary throughout the year;
 - c. some with more than one allocation block; and
 - d. implications arising from different classes of allocation, depending on shareholding in relation to Opuha Water Limited.
7. The Opuha scheme¹ complicates several of the flow regimes – the scheme enables the storage of water and augmentation of flows in the mainstem of the Opihi River, but its operation relies in part on administration of a multitude of resource consents held by individual abstractors and other irrigation schemes. The administration of individual resource consents is inherently the responsibility of the Regional Council. Insofar as the Opuha scheme does not operate as a typical irrigation scheme, where the scheme holds all relevant resource consents and the abstractors are managed by the scheme, there are some grey areas of overlapping responsibility.

¹ The “Opuha scheme” referred to here incorporates all aspects of the storage system, the abstraction of water released from the dam, and its administration. The use of ‘scheme’ does not imply that it entirely falls under the definition of an irrigation scheme in the Land and Water Regional Plan, as it also falls in part under the definition of principle water supplier.

Compounding this, the scheme operator and groups affiliated with it, and the abstractors, have generally sought flexibility for operation of the scheme².

8. Overall, the flow regime tables are complex and, in some cases, include elements of uncertainty.

Commonly recommended adjustments

9. As identified in response to a different question from the Hearing Panel, there are three recommended changes that are common across several of the tables. These changes are:
 - a. Bringing forward the time-staged steps in the flow regimes so that each occurs one step earlier. This typically means that a notified 2025 flow regime is recommended to apply immediately, and a notified 2030 flow regime is recommended to apply from 2025. This is discussed at para 2.14 (pg 28) and paras 5.3-5.6 (pgs 267-268) of the Section 42A report.
 - b. Immediate implementation of an effective partial restriction regime. This is discussed at para 2.14 (pg 28), para 5.4-5.6 (pg 267-268) and para 9.62 (pg 315) of the Section 42A report. Key elements are ensuring that the partial restrictions regime recommended is actually effective at preventing the flow in the waterbody being drawn below the minimum flow and a preference for a simple and common system of 'pro-rata' partial restrictions. This is particularly relevant where 'stepped' partial restriction regimes are included in the notified PC7 that are not likely to be effective at preventing the flow being drawn below the minimum flow. This includes situations where the trigger point for the 'steps' are less than the step size plus the minimum flow or the step size is unable to be calculated or is uncertain.
 - c. Merger of tables where reformatting and other adjustments enables the information previously portrayed across two tables to be held in a single table. This change, of itself, is intended to improve administration of the Plan and does not result in any changes to the flow regimes.
10. While these changes appear to apply immediately or in the near future, the reality is that existing resource consents for abstraction typically have some time to run before expiry, and the Regional Council will need to undertake a review of existing resource consents, or wait until the replacement of existing resource consents to implement any resulting flow regime.

Submission points relied upon for scope

11. There are many submissions on each table. The majority are quite specific, often seeking greater alignment with existing resource consents or allocations, or with the operation of the Opuha system. A small number of submissions comment more generally about outcomes and misalignment between the OTOP tables and environmental outcomes and Te Mana o te Wai. These submissions do not contain specific flow regimes or specifically identify the changes that are recommended to be made. However, the submissions are clear as to the perceived failings

² This has been sought through the PC7 development process, as well as in submissions.

of the notified regime, and make it clear that the changes recommended to be made in the Section 42A report are within the ambit of these submissions.

12. Page 2 of the submission of Te Rūnanga o Arowhenua (Arowhenua) and Te Rūnanga o Ngāi Tahu (Te Rūnanga) is particularly relevant with respect to bringing forward changes in minimum flows and earlier implementation of effective partial restriction regimes. It states:

8. *Arowhenua oppose the environmental flow and allocation limits, and the timeframe within which reductions will take place for the Te Umu Kaha/Temuka River, Ōpūaha/Opuha River and Te Ana-Wai/Te Ana Wai River. The Plan change means that these water bodies of significance to Arowhenua will remain in a poor state for future generations. Arowhenua do not consider the flows proposed are sufficient to maintain natural processes; water levels; prevent nutrient enrichment at the hāpua; or protect indigenous biodiversity at key life stages e.g. the migration of large tuna (eels).*
9. *Arowhenua consider that any phasing out of over-allocation should commence from the date that the plan change is made operative with a view to reductions being achieved by 2025. Such an approach would better give effect to the requirements of the NPSFW 2017.*

13. The submission of Royal Forest & Bird Protection Society Inc is particularly relevant with respect to bringing forward changes in minimum flows and earlier implementation of effective partial restriction regimes:

13. *... Forest & Bird are concerned that PC7 does not put the needs of the waterways at the core of the policies and the rules, and so fundamentally fails to give effect to the NPS-FM 2017.*
14. *PC7 does not give effect to relevant objectives and policies in the Canterbury Regional Policy Statement (CRPS). Of specific interest to Forest & Bird are Chapter 7.2 Freshwater specifically 7.2.1 Sustainable management of water and 7.2.3 Protection of intrinsic value of waterbodies and their riparian zones and polices set out in 7.3; and Chapter 9.2 Indigenous Biodiversity, where objective 9.2.1 seeks to halt the decline of Canterbury's ecosystems and indigenous biodiversity, and polices as set out in 9.3; and Chapter 10 Beds of River and Lakes and their Riparian Zones, specifically 10.3.2 Protection and enhancement of areas of river and lake beds and their riparian zones.*

Relief sought: Redraft proposed PC 7 to give effect to the NPS-FM 2017, Te Mana o Te Wai, to achieve CLWRP objectives and strategic policies and to have proper regard for the CWMS first order priorities.

44. *Forest & Bird strongly supports the setting of minimum flows, caps on water takes and strong reductions in pollution. However we are concerned that the proposed PC7 minimum flows, caps and reductions on pollution and time frames will not restore ecosystem health fast enough. Forest & Bird cannot support inequitable reductions that protect the status quo.*

Relief sought: Retain 2025 targets for minimum flows. Establish meaningful and equitable pollution reductions to restore water quality and quantity in both ground and surface water, with higher minimum flows for rivers underpinned by the needs of the waterway, to be implemented within the life of this plan. This would give effect to Te Mana o Te Wai.

14. The submission of J Richardson is more general, but makes a clear case for a 'practical difference':

Some changes to minimum flow for some watercourses appear merely cosmetic

Decision Sought: Tighten up figures for minimum flow and use more realistic figures that might make a practical difference (Tables 14(h) to 14(w))

15. Similarly, the submission of P Driver clearly seeks the Plan has improved ecological, cultural and social flows, sooner:

Specifically, a significant number of OTOP Zone Committee members requested that their objections to these flow and allocation levels be documented in the Zone Implementation Plan Addendum.

These objections were based on the fact that the flow and allocation regimes gave 1st order priority to economic factors in total contradiction to the Canterbury Water Management Strategy that gives 1st order priority to environmental, cultural and social uses of water. Despite these objections, flows and allocations in Plan Change 7 are based largely on the recommendations from OTOP Zone flow and allocation working parties that were dominated by water abstractors and so did not reflect the preferences of the wider community or of the OTOP Zone Committee as a whole.

Consequently under Plan Change 7, rivers like the Temuka will remain over-allocated for at least a decade with consequent adverse impacts on cultural, environmental and social factors. This is completely unacceptable.

Plan Change 7 therefore needs to be improved to create ecologically, culturally and socially healthy flows in all rivers in the catchment.

16. Overall, the above submissions are sufficient to put the general public on notice that the flow regimes could be recommended to be changed to bring forward meaningful change, and implement and protect more ecologically sustainable minimum flows.

17. The submission of the Central South Island Fish and Game notes the complexity in the flow regime tables and suggests amalgamation/deletion of some tables. Similarly, the submission of Horticulture NZ states that there is a lack of readability in PC7 and considers that the proposed changes are not presented in a form that could be properly understood by the general public. If

scope was considered necessary for the merger and reformatting of tables, these submissions would give that scope.

Recommended changes and additional comments on each Table

Table	Changes recommended and commentary
Table 14(m)	No changes recommended.
<i>Explanation: No further explanation necessary.</i>	
Table 14(n)	<ul style="list-style-type: none"> • Table re-formatted and merged with Table 14(o). • Pro-rata partial restrictions introduced earlier. • 2030 flow regime brought forward to 2025. • Footnote added.
Table 14(o)	<ul style="list-style-type: none"> • Table deleted following merger of content with Table 14(n).
<p><i>Explanation:</i></p> <ol style="list-style-type: none"> 1. As notified, Table 14(n) is the table showing the “current” and “2025” flow regimes, as notified Table 14(o) shows the flow regime from 2030 – reformat suggested to merge the two tables, enabling Table 14(o) to be deleted. Reformat has included removal of the “South Opuha” column, as this is in the title of the table. 2. Pro-rata partial restrictions are introduced in 2025 under the notified flow regimes. As discussed above at para 9, this is recommended to be a part of the flow regime immediately. 3. As notified, there is a minimum flow set for ‘current’, 2025 and 2030. The change from ‘current’ to the 2025 minimum flows are more significant than the 2025 to 2030 changes. For the reasons discussed above at para 9, the 2030 flows are recommended to become the 2025 flows. 4. A footnote is added to the table, informing that the flow and allocation regime applies to the small and un-named tributaries to Lake Opuha. The background to this is explained on page 6 (question reference page 318, para 9.73) of the Errata dated 29 April 2020. 	
Table 14(p)	<ul style="list-style-type: none"> • 2025 flow regime brought forward to current and 2030 flow regime brought forward to 2025. • Table re-formatted and merged with Table 14(q).
Table 14(q)	<ul style="list-style-type: none"> • Table deleted following merger of content with Table 14(p).
<p><i>Explanation:</i></p> <ol style="list-style-type: none"> 1. As notified, Table 14(p) is the table showing the “current” and “2025” flow regimes, as notified Table 14(q) shows the flow regime from 2030 – reformat suggested to merge the two tables, enabling Table 14(q) to be deleted. Reformat has included removal of the “Upper Opihi” column as this is in the title of the table. In undertaking this reformat a typographical error has occurred, where the first column of the table refers to AN and BN Permits when it should refer to AN and BA permits, as per the title and earlier version of this table. This is recommended to be corrected in Update #2. 	

Table	Changes recommended and commentary
	<p>2. <i>As notified, there is a minimum flow set for 'current', 2025 and 2030. For the reasons discussed above at para 9, the 2025 flow regime is recommended to apply currently and the 2030 flows are recommended to become the 2025 flows.</i></p> <p>3. <i>Some residual concern that the two types of partial restriction regimes operating simultaneously will be difficult to implement and could result in the flow being induced below the minimum flow.</i></p>
Table 14(r)	<ul style="list-style-type: none"> • Table re-formatted and merged with Table 14(s). • Pro-rata partial restrictions introduced earlier instead of differentiated stepped reduction regime depending on water user group membership and (as discussed above). • 2025 flow regime brought forward to current (as discussed above) – clarified in response to question from the Hearing Commissioners. • 2030 flow regime deleted, as it is the same as the 2025 flow regime.
Table 14(s)	<ul style="list-style-type: none"> • Table deleted following merger of content with Table 14(r).
<p><i>Explanation:</i></p> <p>1. <i>As notified, Table 14(r) is the table showing the "current" and "2025" flow regimes and Table 14(s) shows the flow regime from 2030 – reformat suggested to merge the two tables enabling Table 14(s) to be deleted. Reformat has included removal of the "Te Ana Wai" column as this is in the title of the table.</i></p> <p>2. <i>Pro-rata partial restrictions are introduced in 2030 under the notified flow regimes. As discussed above at para 9, this is recommended to be a part of the flow regime immediately as the two types of partial restriction regimes under the notified PC7, when operating simultaneously, will be difficult to implement and could result in the flow being induced below the minimum flow.</i></p> <p>3. <i>As notified, there is a minimum flow set for 'current', 2025 and 2030. There is no change from 2025 to 2030 other than with respect to the partial restriction regime. For the reasons discussed above at para 9, the 2025/2030 flows are recommended to become the current flows.</i></p> <p>4. <i>As noted on page 21 (after question reference page 339, para 11.80) of the Officers' Response to Questions from the Hearing Panel – 28 May 2020 and 16 June 2020, the table erroneously includes "From 1 January 2025" in Appendix E to the Section 42A report. That is corrected in Updates #1 and #2.</i></p>	
Table 14(t)	<ul style="list-style-type: none"> • Pro-rata partial restrictions introduced instead of a single 50% step.
<p><i>Explanation:</i></p> <p>1. <i>As notified, Table 14(t) is the table showing the "current" and "2022" flow regimes for Milford Lagoon/Clandeboye Drain Area. There is no apparent difference in these two flow regimes – given this, a further simplification is recommended in Update #2.</i></p> <p>2. <i>Stepped partial restrictions are introduced in the notified flow regimes. As discussed above at para 9, this pro-rata partial restrictions are recommended to be a part of the flow regime, as the step sizes under the notified PC7 could result in the flow being induced below the minimum flow.</i></p>	

Table	Changes recommended and commentary
	<p>3. <i>There appears to be a formatting error in the notified PC7 with respect to the location of the “Partial Restrictions” cell/heading. This is recommended to be corrected in Update #2.</i></p>
Table 14(u)	<ul style="list-style-type: none"> • 2022 flow regime brought forward to current. • Allocation limit shifted to Table 14(ua).
<p><i>Explanation:</i></p> <ol style="list-style-type: none"> 1. <i>As notified, Table 14(u) is the table showing the “current” and “2022” flow regimes for AN Permits on the Opihi River.</i> 2. <i>As notified, there is a minimum flow set for ‘current’ and 2022. The change from ‘current’ to the 2022 minimum flows is modest (2500 L/s to 2600 L/s). For the reasons discussed above at para 9, the 2022 flows are recommended to become the current flows.</i> 3. <i>For the reasons discussed in relation to Table 14(ua), the allocation limit is recommended to be shifted to a separate Table.</i> 	
Table 14(v)	<ul style="list-style-type: none"> • Opuha River identifier added to correct omission in first row. • 2025 flow regime brought forward to current. • References to “Alternative Management Regime”, “Full Availability”, and “Restrictions”³ deleted. • “Level 2 Restriction” (reduced minimum flows) regime deleted.
Table 14(w)	<ul style="list-style-type: none"> • As per Table 14(v), except 2030 flow regime brought forward to 2025.
<p><i>Explanation:</i></p> <ol style="list-style-type: none"> 1. <i>References to “Full availability”, “Level 1 Restrictions” and “Level 2 Restrictions” deleted as terms do not aid understanding of the regime. For example, the relevant policies (Policies 14.4.36-38) refer to an “alternative minimum flow regime”. In line with recommended changes to Policies 14.4.36-38, it is recommended that these two minimum flow regimes be referred to as “Level 1” and “Level 2”.</i> 2. <i>As notified, there is a minimum flow set for ‘current’, 2025 and 2030. For the reasons discussed above at para 9, the 2025 flow regime is recommended to apply currently and the 2030 flows are recommended to become the 2025 flows.</i> 3. <i>The notified “Level 2 Restrictions” regime is recommended to be deleted, as discussed at para 9.54 (page 313) of the Section 42A report. For the avoidance of doubt, the scope for this is consequential to the requested deletion of the related Policies 14.4.36-38, from the Royal Forest & Bird Protection Society Inc.⁴</i> 	
Table 14(x)	<ul style="list-style-type: none"> • References to “Alternative Management Regime”, “Level 1”, and “Level 2” deleted, and values in the table identified as “Minimum Flow Thresholds” in first column. • “Level 2” (reduced minimum flows) rows deleted. • Lake level threshold adjusted in accordance with <i>Clark [2020]</i>.
<p><i>Explanation:</i></p>	

³ Noting that one reference to “Restrictions” was inadvertently retained – this is shown as deleted in Update #2.

⁴ PC7-472.179-181

Table	Changes recommended and commentary
	<ol style="list-style-type: none"> References to “Alternative Management Regime”, “Level 1” and “Level 2” deleted as terms do not aid understanding of the regime. For example, the relevant policies (Policies 14.4.36-38) refer to an “alternative minimum flow regime”. Therefore, the table is recommended to be titled “Minimum Flow Thresholds” and the values in the table are also recommended to be identified as “Thresholds” in first column. “Level 2” (reduced minimum flows) rows deleted as a consequence of recommendation to remove “Level 2 Restrictions”, as discussed with respect to Table 14(v) above. Lake level threshold adjusted in accordance with Clark [2020] and as discussed at para 9.52 (page 313) of the Section 42A Report.
Table 14(y)	<ul style="list-style-type: none"> 2022 flow regime brought forward to current. Footnote added (as explained in errata).
	<p><i>Explanation:</i></p> <ol style="list-style-type: none"> As notified, there is no minimum flow set for ‘current’, with a minimum flow and partial restrictions applying from 2022. The 2022 date is recommended to be deleted so that the minimum flows will apply from the current date. This is both for the reasons addressed above, in respect of bringing dates forward, but also to aid certainty for any renewal, condition changes or new applications made in the interim period. A footnote is added to the table, informing that the flow and allocation regime for the North Opuha applies to Station Stream and Deep Creek. The background to this is explained on page 6 (question reference page 318, para 9.73) of the Errata dated 29 April 2020.
Table 14(ua)	<ul style="list-style-type: none"> New Table – sets allocation blocks for AA and AN permits.
	<p><i>Explanation:</i></p> <ol style="list-style-type: none"> This is a new table, setting allocation blocks for AA and AN permits (as discussed at paras 9.75 and 9.77, pages 318 to 319 of the Section 42A report). This limit is from the notified PC7 and is shown only as applying to AN permits in Table 14(u). On further reflection, this total allocation should also include BA permits so that the total water able to be abstracted in this group of allocation blocks is 5600 L/s. This is recommended to be corrected in Update #2. We acknowledge that applying the 5600 L/s allocation limit to the AA and BA permits is not specifically requested by any submitter. However, general submission points regarding water quantity sought amendments to PC7 to cap allocation in over-allocated catchments. For example, the submission of McFarlane Agriculture Ltd & McFlynn Potatoes Ltd requested, “Amend PC7 to place a firm cap on allocation in over-allocated catchments” (278.56) and “Amend PC7 so no new/reallocation occurs in overallocated zones” (278.65). In the absence of the 5600 L/s allocation limit, the Opihi Freshwater Management Unit may become over-allocated. Further, we note that this part of PC7 is derived from the Opihi River Regional Plan. Policy 4 of that Plan sets out allocation limits, and includes, at (c): “The “A” allocation limit for the Opihi River Catchment (excluding the Temuka River Catchment) is a maximum of 5.6 cubic metres per second;”.

Clark, D. (2020) Appendix D.6 to the Section 42A report – Updated Opihi catchment modelling in response to submissions.