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Joint response to the revised Canterbury Water Management Strategy Targets

TO: Christina Robb, Environment Canterbury

FROM: Horticulture New Zealand, Combined Canterbury Provinces, Federated Farmers of New Zealand, Irrigation New Zealand, Fonterra Co-operative Group, DairyNZ Incorporated (for the purpose of this letter, the organisations have been collectively referred to as “**the Parties**” – please refer to our original response to the CWMS for background information for each organisation).

Introduction

We appreciated the opportunity to engage with other parties in detailed discussions of the targets and to work through refinements. This greatly helped with understanding the background and the intent of the targets. We are also pleased to see that the proposed targets have incorporated our feedback given during the review process. We would, however, like to comment on some remaining issues that need to be resolved.

Structure of targets

The targets appear to be a mixture of outcomes, processes, and mechanisms.

- Outcome targets are those that relate to the environmental, cultural and economic characteristics that the community wants to maintain and enhance.
- Process targets are those that relate to setting environmental flows, groundwater levels, and nutrient load limits. In setting these targets, consideration of the outcomes for all the target areas is needed to ensure that all of the relevant outcomes can be achieved.
- Mechanism type targets are those that describe mechanisms that will contribute to achieving the outcomes, for example targets relating to % of farms achieving nutrient efficiency targets, water use efficiency targets, % riparian area planted etc. It is important to note that these mechanisms alone will not necessarily result in achievement of the outcomes, as a range of other mechanisms (both natural and human-influenced) will also affect the outcomes.

Separating and structuring the targets to reflect these different types would clarify the nature and relative importance of various targets. This would help the zone committees to readily understand the targets and how they link with each other, and help with the development of implementation plans. If it is not possible to make this change before the next release of the targets, it should be done at the next opportunity.

The parties are particularly concerned about the process related targets, such as those for setting environmental flows and catchment nutrient load limits. These targets appear in some of the target groups with specific mention of that group’s goals (e.g., biodiversity goals), but not in others where we consider they are also needed to be explicitly included (e.g., irrigated land area goals).

The parties propose that these process type targets are removed from individual target groups, and instead are presented in a manner that requires considerations and balancing of relevant goals across the full range of target groups. This approach would most appropriately apply to targets for setting environmental flows, catchment limits for nutrients and groundwater allocation zone limits. An example of wording for these targets follows:

Example of wording for overarching targets that sit outside the individual target groups

By 2015

Environmental flows for rivers and streams are set and include minimum flows, flood peaks, flow variability, flood periodicity and channel forming flows, taking into account the relevant goals of all target groups.

Groundwater zone allocation limits are set taking into account the relevant goals of all target groups.

Catchment limits for nutrients are set taking into account the relevant goals of all target groups.

Benchmarking information

The parties are concerned that there is insufficient data/information to benchmark those targets that aim for improvements over time compared to existing conditions (2010). This is relevant to targets for wetlands, length of waterways with appropriate riparian protection, increased recreational site use, increased quality of recreational opportunities and beneficial water use. It may take considerable effort and time to establish their current condition, and our concerns relate to the reliability of this information for future assessments of progress towards the targets. Targets with these benchmarks in time should be referenced to the year in which the reliable data/information will be gathered, which is unlikely to be 2010 for all of these targets.

2040 goals

The parties remain concerned that many of the environmental based goals set for 2040 are based on very limited baseline data and to construct definitive goals without robust science providing baseline data is likely to develop goals that are unrealistic. Furthermore, based on our current understanding of land and water linkages and effectiveness of current mitigation options, the following goals are considered unachievable:

Ecosystem health/biodiversity

- 100% of lowland and spring-fed streams with at least good aquatic ecosystem health or showing an upward trend
- 80% of other rivers/streams and lakes with very good aquatic ecosystem health

Drinking water

- Average annual nitrate levels in all groundwater in Canterbury are below 50% of the maximum allowable value for drinking water

Recreational and amenity opportunities

- Restored fishing opportunities in most lowland streams in each water management zone

It is recognised that 2040 is a long way out and there may be considerable change over the next 30 years that may, or may not, result in the targets being met. Our primary concern is regarding whether these are intended to be used now as a trajectory for setting in place measures aimed at achieving these longer-term goals without adequate assessment of the feasibility and implications of achieving them.

The parties would like to see further explanation of the 2040 goals, such that they are recognised as ambitious goals, and are subject to review as further understanding of their achievability becomes available.

Comments on specific targets

1. Ecosystem health/ biodiversity

By 2015

- *Protected or reinstated at least two significant wetlands in each zone.*

Given that there may be different numbers of 'significant' wetlands in each zone, this target may be unrealistic for some zones, and easily achieved in others. Need flexibility to account for variations in issues in different zones.

- *Increasing annual trout spawning counts in identified important areas (based on a 5-year average)*
- *Increasing annual adult salmon population estimates (spawning plus harvest based on a 5-year average)*

Although the appropriateness of these targets in this section was discussed at a meeting at Environment Canterbury, following further discussion the parties consider that both of these goals are not appropriate in this section. Trout and salmon are introduced sports fish species, and are well recognised as a threat to native fish populations. Goals relating to sports fish belong in the Recreational and amenity opportunities sections. It is also important to recognise that not all aspects of successful trout and salmon spawning and population growth are controlled by activities identified in the CWMS, and other factors such as disease, fishing pressure and climate have an important influence. This needs to be recognised in the strategy. Strategy targets need to be able to be directly influenced by management practice.

Tools

FarmSim and other nutrient models- Understanding nitrate contributions from land uses and potential for best practice to reduce contaminants. Tool developed by collaboration of Crown Research Institutes (due for completion 2007 but is behind schedule).

The parties do not accept that Farmsim should be the only farm nutrient modelling tool explicitly identified in the CWMS. There are a number of modelling tools, each with their own benefits specific to different farming systems. The parties request that Farmsim is removed, and replaced with a general reference to 'Nutrient modelling tools'.

2. Natural character, processes and ecological health of braided rivers

from 2010:

Maintain the braided character of Canterbury's braided rivers by

- *Maintaining the **unmodified** upper catchments of Canterbury's alpine braided rivers as highly natural ecosystems and landscapes*

This target is considered vague and open to interpretation such that it could mean 'no further modification of any parts of the upper reaches of braided rivers' or it be interpreted as applying only to the existing unmodified reaches of braided rivers, for which there are very few truly unmodified reaches. Given the importance of water from alpine rivers for meeting the irrigated land area and economic targets, there must be some flexibility to modify the upper catchments of alpine braided rivers. For clarity either a definition of unmodified needs to be included or the word 'unmodified' should be removed from the target.

- *Avoiding new dams on the **mainstem** of major alpine braided rivers*

Definition of 'mainstem' is required.

5. Recreational and amenity opportunities

From 2015

- *An increase in freshwater angler numbers (or catch rate) assessed over a 5 year average.*

This target is driven by numerous external factors (recreational trends, climate and other naturally occurring phenomena) and therefore has little value as a specific target. Its essence is already captured by the 'a positive trend in the availability and/or quality of recreational opportunities in each zone target'. The angler number target therefore needs to be removed.

Thank you for the opportunity to inform discussion and debate on the revised Canterbury Water Management Strategy targets.

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