IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of submissions and further submissions by Rangitata Diversion Race Management Limited to the proposed Canterbury Land & Water Regional Plan (pL&WRP)

STATEMENT OF EVIDENCE OF NIGEL ROLAND BRYCE (HEARING 2)

1.0 INTRODUCTION

1.1 My name is Nigel Roland Bryce. I am an Associate Director and Planner at Ryder Consulting Limited. My experience and qualifications are set out in my primary planning evidence for Hearing 1. As a consequence, I do not repeat them in this statement.

1.2 This planning evidence addresses those submissions and further submissions to the pL&WRP raised by the RDRML and as this relates to issues applicable to Hearing 2 (Farming Provisions).

1.3 I confirm that I have read and agree to comply with, the Code of Conduct for Expert Witnesses, as set out in the Environment Court's Consolidated Practice Note.

2.0 STRUCTURE OF EVIDENCE

2.1 The RDRML made a number of submissions to the farming provisions contained within the Regional Plan. My evidence will address those submission and further submission points that are of particular concern to the RDRML. I do this by briefly summarising the response of the Officers to the submission points made by the RDRML and then offering my own evidence in relation to the same.

3.2 The issues addressed in this statement have been grouped into 5 topics, being:

a. The Nutrient Management Approach advanced under the Regional Plan;
b. Management of Discharges;
c. Nutrient Management Rules;
d. The Definition of 'Changed'; and
e. New Provisions.

3.3 I note at the outset that this evidence addresses, under the heading 'Nutrient Management Approach', a number of submissions[1] by the RDRML relating to the Nutrient Management Zones and the policies and rules relating to the same. This evidence also addresses those submissions and further submission of the Company that raise specific issues associated with the nutrient management rules.

[1] Submissions 197.1, 197.14, 197.16, 197.17 and Further Submission F623.56.

4.0 THE OFFICERS' REPORT

4.1 I have reviewed the Officers' report. The Officer has recommended a number of significant amendments to the Nutrient Management provisions within the Regional Plan. I acknowledge that a number of these amendments are useful and that there are a number of instances where I believe it offers recommendations, which are both sound and constitute good planning and resource management practice. I have listed those recommendations that I agree with in **Annexure A** to this statement.

4.2 There are, however, a number of matters raised in the RDRML's submissions and amendments made by the Officers recommended relief that I do not support, or which I wish to address. These matters are addressed in subsequent sections of this evidence.

4.3 Further, I set out, within **Annexure B**, those amendments to the pL&WRP that I consider appropriate to address the concerns that I raise in sections 5 to 8 of this evidence.

4.4 Further still, I note, for completeness, that when I refer to the plan *"as amended"* I am referring to the recommendations proposed by the officers (which the Commissioners are not obliged to accept).

4.5 Lastly, as I have set out in my Hearing primary evidence, when preparing this evidence I have reviewed the following statutory planning instruments, reports and statements of evidence:

- The proposed pL&WRP;
- The Operative Canterbury Regional Policy Statement (2013) ('**RPS**');
- The Section 32 report supporting the pL&WRP ('**Section 32 Report'**)
- The Environment Canterbury Section 42a Hearing 1 Officers Report ('**Officers' Report**');
- The Canterbury Water Management Strategy ('**CWMS**');
- The National Policy Statement on Freshwater Management ('**NPS FM'**);
- The Canterbury Natural Resource Regional Plan ('**NRRP**')
- The Resource Management Act 1991 ('**the Act'** or '**the RMA**')
- The submissions and further submissions of the RDRML;
- The statement of evidence of Mr Ben Curry on behalf of RDRML;
- The statement of evidence of Dr Ryder on behalf of RDRML;
- The statement of evidence of Mr Andrew MacFarlane on behalf of RDRML;
- The statement of evidence of Mr Andrew McFarlane on behalf of RDRML;
- The statement of evidence of Dr Antony Robert's on behalf of Fertiliser Association of New Zealand Incorporated;
- The statement of evidence of Mr Chris Hansen on behalf of Fertiliser Association of New Zealand Incorporated;
- The statement of evidence of Dr Edmeades on behalf of Canterbury Pastoral Limited.

5.0 NUTRIENT MANAGEMENT ZONES (NMZ's)

Policy 4.34 (As Notified)

5.1 The RDRML made a submission[2] opposing the approach adopted by the Council in advancing with Nutrient Zones in the pL&WRP. The key concern of the Company is that nutrient zones adopted within Policy 4.31 and other provisions may not be appropriately justified by any detailed and robust scientific analysis. While the Company appreciated that the setting of the nutrient zones is an interim measure, it was concerned that it could have implications for those land managers identified within the more sensitive areas of the region (with the implications centring on the consent processes, their costs and risks and associated lack of certainty).

Officer's Report

5.2 The Officer addresses the NMZ's at section 9.6 of his Report and states:

"Overall, the framework behind the mapping was outlined in a Memo titled "Derivation of nutrient status zones" attached as Appendix 6 the Section 32 Report. The basic criteria and analysis contained in that memo continues to stand, and Dr Adrian Meredith, as the primary scientist responsible for the mapping continues to stand behind both the methodology and the outcomes.

There will continue to be debate about the scientific methodology, the broad scale at which the mapping has been undertaken and the appropriateness of individual properties being included within the mapped areas.

It is also apparent that some of the frustrations from the mapping have arisen due to the lack of connection between the mapping and some of the rule frameworks, particularly related to the focus on nitrogen. As has been stated above, this focus is recommended to be broadened, as has been included in the recommendations above.

The nutrient allocation mapping is also a tool to prioritise the development of the sub-regional sections and this sub-regional section development will allow catchment specific approaches, which may entail alternative criteria and mapping scales.

On the basis of the reasoning above, no amendments to the mapping, either through a technical review or alterations to exclude or include specific properties has been recommended for acceptance."

Further, at page 74 the Officer states:

"A number of the policies and rules in the pLWRP are seen by submitters to have placed an undue restriction on further development of individual properties and irrigation scheme areas, particularly in areas marked as "red" on the nutrient allocation status mapping. The mapped red areas are likely to be subject to additional iterations, as the sub-regional sections will take some time to develop, and in the interim, the region-wide provisions are intended to operate as a "holding position" until the sub-regional sections are developed.

This is potentially unrealistic and some policies, such as Policy 4.34, are likely to be unachievable on a property where development is proposed, even with the best mitigation. Similarly, non-complying activity status, while sending a discouraging message, is potentially an inappropriately high hurdle, as stronger policy direction can more effectively set out the expectations of the CRC and the community, and accepts the reality that some development will continue to occur."

[2] Submissions 197.1, 197.14, 197.16, 197.17 and Further Submission F623.56.

Comments

5.3 The RDRML considers that given the size of some catchments and the varying land use within them a sub-regional catchment approach would have been the preferable approach to be adopted in the Plan, and not just adopted in part for certain 'sensitive lakes'. A sub-catchment approach also better accords with the policy approach to setting limits under the NPS FM (including when addressing integrated management of freshwater and land under Objective C1 and Policy C1 of the NPS FM).

5.4 While I support the RDRML's submission, given that it would offer greater certainty from a regulatory point of view in addressing nutrient management issues, I recognise the limitations of trying to advance a catchment specific approach, especially if the Council has not sufficiently developed a system to track and record nutrient losses in most catchments in Canterbury.[3] This, coupled, with the significant level of resourcing required to advance a catchment specific approach, weighs in favour of advancing with an interim response, at least until such time as a more comprehensive catchment specific response can be advanced.

5.5 Dr Ryder's evidence provides for a broad level assessment of the NMZ's and while supporting the NMZ's as an interim response, concludes at paragraph 4.2 and 5.1 of his evidence that they contain sufficient deficiencies that they should be treated with caution when applied in a regulatory framework.

5.6 Reinforcing Dr Ryder's evidence, my own observations of the NMZ boundaries within the vicinity of the RDR and associated irrigation schemes, reflects the arbitrary nature of the NMZ's boundaries. Planning map A-073 shows the demarcation of the Green and Red NMZ's extending along the road boundary of Ealing Montalto Road (which also happens to be the line followed by the Ashburton and Alpine Sub Regional boundaries). The NMZ boundary in this area does not follow catchment specific boundaries as you would expect, but is simply demarcated by a road boundary. The reality is that farming activities within close proximity of this road boundary are likely to be almost identical (as conveyed to me by Mr Curry), but are treated differently under the Regional Plan based on classification of the Green and Red NMZ's.

5.7 Under Rule 5.45 (as notified) the Regional Plan provided for a change to an existing farming activity located within the Red Zone (which covers a large proportion of the Ashburton Zone), as a non-complying activity.

5.8 I note that this was a highly restrictive activity classification and provided for a great deal of uncertainty for land managers within areas identified under the Regional Plan as being located within the Red Zone. Reinforcing this point, I note that section 2.3 of the Regional Plan (as notified) stated that non-complying activities are generally inappropriate (though there may be exceptional cases when a resource consent is granted).[4]

5.9 The Reporting Officer clearly acknowledges that the NMZ's and their use as a regulatory tool in the Regional Plan should be applied with caution and that with the

[3] As set out at page 52 of Appendix 1 to the section 32 report – Managing Cumulative Effects of land use on water quality in Canterbury, Environment Canterbury, dated 26th July 2012.
[4] Refer page 2-1 of the Regional Plan as notified.

amendments he recommends, the zones will no longer underpin an overly restrictive planning regime. Given the Officer's contention that the NMZ's are being employed to establish a 'holding pattern' until the sub-regional sections are developed, I agree with the Officer that the use of a non-complying activity status imposed on property owners in the Red Zone is considered an 'inappropriately high hurdle' to face. I also agree that this approach provides no certainty that 'change' could occur within the Red Zone. The Officer in addressing these apparent shortcomings (and while not recommending changes to the NMZ's themselves), does recommend a change to the activity status for new (or changes to existing) farming activities to discretionary activity status under Rule 5.46. I agree with this recommended relief as it more appropriately reflects the interim nature of the NMZ's.

Policy 4.35 (As Notified)

5.10 The RDRML made a submission[5] in support of Policy 4.35. The Company noted, however, that the RDRML would not fall within the definition of an irrigation scheme, and as such the policy would not accommodate shareholders in the RDRML. The Company, therefore, sought that the definition of 'Principal water supplier' be included within the definition section and that reference be included within Policy 4.35 to ensure that the Company's shareholders benefit from the enabling provisions embodied within this policy.

Officers' Report

5.11 While the Officer sets out the RDRML's relief[6], reference to 'Principal Water Supplier' has not been carried into the recommended relief in Policy 4.34 (as amended). No explanation is given by the Officer as to why this relief was not accepted.

Comments

5.12 I note that the Officer addressing Policy 4.73 for Hearing 1 agreed that the term 'Principal Water Supplier' be inserted within this policy to ensure that physical resources such as the RDR are appropriately addressed by Policy 4.73. I also note that a new definition has been included in the pL&WRP to reflect this term (consistent with the definition included within the NRRP).

5.13 Given the importance of Policy 4.34 (as amended) for schemes governed by conditions which address nutrient management issues (which the RDRML is currently advancing by way of a land use consent lodged with the Council), it is critical, in my opinion, that Policy 4.34 (as amended) adopt the relief sought by the RDRML to include specific reference to 'Principal Water Supplier'. My reasoning for this is set out as follows.

5.14 Firstly, as set out in the evidence of Mr Curry (at section 4), the RDRML has already adopted nutrient management processes including audited self management (ASM) and FEPs as a cornerstone to the way in which the Company operates and manages nutrient management activities. The Company advanced ASM at a scheme level well before the Regional Plan was notified. Mr Curry provides what I consider to be a helpful overview of the land use consent application process, which the Company is currently advancing with the regional council. This land use consent, once approved,

[5] Submission 197.30.
[6] refer page 101.

reflects the outcomes envisaged by Policy 4.34 (as amended) and will, I understand, include nutrient management condition/s.

5.15 Policy 4.34 (as amended), in my opinion, reflects a move towards a more comprehensive and integrated approach to the management of nutrients at a scheme level. Having considered Mr Curry's evidence, it is clear to me that ASM and FEPs (when applied at a scheme level) enable a more comprehensive understanding of nutrient management issues across a large area of land, which offer many advantages in trying to manage nutrient discharges at an individual property level. A key advantage is having a better understanding of potential cumulative effects of nutrient discharges on the basis that the scheme and the properties that it governs are managed in an integrated way. In the case of the RDRML, there are some 400 share holding farms, which collectively irrigate approximately 70,000ha. I note, however, that the RDRML is authorised to expand this area up to 94,486ha. Further, I understand that initiatives are already underway to utilize the additional 24,500ha that is available under the RDRML's resource consent. The scheme approach introduces efficiencies in the way in which the schemes are audited and the restrictions that can be imposed on individual properties should compliance not be adhered to (including denying access to water to an individual property where compliance to scheme regulations are not being adhered to). While this reflects a rather blunt instrument, it ensures a high level of buy in by properties within the scheme.

5.16 Secondly, given that the RDRML is a water conveyance company, and not an irrigation company, the policy does not recognise the RDRML. Without the inclusion of this reference, water conveyance infrastructure such as the RDR will not be recognised by the policy. This in my opinion would result in an adverse outcome because it ignores the importance of these schemes in advancing ongoing nutrient management improvements across the properties they serve.

5.17 For the reasons discussed above, I support the inclusion of the term 'Principal Water Supplier' into Policy 4.34 (as amended). I have, for completeness, included the proposed amendment into **Annexure B** of this statement.

6.0 MANAGEMENT OF DISCHARGES

Policy 4.36 (As Notified)

6.1 The RDRML made a submission[7] opposed to Policy 4.36 (as notified). The RDRML noted that Policy 4.36 effectively establishes a form of priority for certain discharges, being wastewater from marae, community wastewater and discharges from primary health providers, schools and education facilities.

6.2 In reviewing this Policy, the Company assumed that these discharges will be allowed to have some form of priority to the available assimilative capacity, and any proposal to 'scale back' discharges should the assimilative capacity be found to be exceeded. The Company considered that the policy was unclear and without such clarification, it was not possible for RDRML to assess the relevance or implications of this approach in the context of the Act's purpose.

[7] Submission 197.32.

Officers' Report

6.3 The Officer does not qualify why Policy 4.36 is deemed acceptable and while setting out the concerns of submitters, does not actually address these in sufficient detail for position to be understood. The Officer renumbers Policy 4.36 (to Policy 4.35) and recommends the words *"provided the design and management of the discharge treatment system minimises the discharge of nutrients that may enter water:"* be included.

6.4 The Act promotes the use of best practicable option ('**BPO's**'), which I believe requires the adoption of the BPO to address the adverse effects of a discharge on the environment.[8] Further, Policy A3(b) of the NPS FM provides for the adoption of rules that provide for BPO's and states:

> *"(b) where permissible, making rules requiring the adoption of the best practicable option to prevent or minimise any actual or likely adverse effect on the environment of any discharge of a contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water."*

6.5 Further still, I have a more fundamental issue with the manner in which the policy has been crafted and more importantly the fact that the policy provides no linkage with the catchment specific outcomes that are to be developed in Sections 6-15 of the Regional Plan. The Officer has not addressed these matters.

Comments

6.6 In my opinion, Policy 4.35 (as amended) is disjointed on the basis that it is not linked in any way with the nutrient limits that are to be developed for specific catchments under Sections 6-15 of the Regional Plan. It also appears disconnected with other policies[9] that are relevant to addressing discharges under the Regional Plan.

6.7 With respect to my first comment, Policy 4.35 is the only discharge policy that currently refers to the NMZ's. I understand that the NMZ's are an interim response only and are intended to operate as a 'holding position' until the sub-regional sections are developed. What I am concerned about is that Policy 4.35 (as amended) implies that irrespective of the limits set for a specific catchment the key uses specified are to be allowed (subject to minimisation of discharges of nutrients that may enter water). In my opinion, such an approach fails to address nutrient discharges in a comprehensive and integrated manner. More importantly, Policy 4.35 (as amended) does not accord with the central thrust of the NPS FM, particularly, Objective A2 which requires the overall quality of fresh water within a region to be maintained or improved while (c) improving the quality of fresh water in water bodies that have been degraded by human activities to the point of being over-allocated. I read Policy 4.35 (as amended) as meaning that irrespective of the nutrient limit set for a particular catchment, the listed uses are prioritised irrespective of whether the catchment nutrient limits are exceeded or not.

[8] As required under section 108 of the Resource Management Act 1991 when addressing discharges addressed under section 15.

[9] Policies 4.9, 4.10, 4.11 and 4.12

6.8 Policy 4.35 (as amended) is also disconnected with the other relevant policies addressing point source discharges under the Regional Plan. There are three general policies addressing discharge of contaminants to land and water namely Policies 4.9, 4.10, 4.11 and 4.12. Policy 4.35 (as amended) fails to acknowledge that a large proportion of the uses listed, where they are located within an urban boundary, will likely be connected to a community wastewater treatment system and discharge via that system, as opposed to individually. This is particularly the case for hospitals, which tend to be located in the main centres of the region. Under this scenario, all discharges would fall under the umbrella of the community wastewater treatment system as a single discharge. In my opinion, where the listed uses within Policy 4.35 (as amended) are included within urban boundaries they would already be covered by Policy 4.12. Further, in situations where the listed uses within Policy 4.35 (as amended) are located outside of an urban boundary (such as rural schools or marae located within rural areas) it is highly likely that they would be serviced by an existing disposal system, such as a septic tank which disposes to land. Under this situation the discharge activity would be covered by Policy 4.11.

6.9 I note that neither Policy 4.11 nor Policy 4.12 exclude the listed uses within Policy 4.35 (as amended) as needing to comply with nutrient limits. Policy 4.11(c)(i) on the contrary requires nutrient allowance in Sections 6-15 to be met for any discharge to land that has the potential to discharge to ground water.

6.10 Further still, I note that Policy 4.36 (as amended) requires that all activities are required to achieve the nutrient load limit and nutrient discharge allowance for the catchment where a load limit or nutrient discharge allowance is set in Sections 6-15 of this Plan. The relationship between Policy 4.35 (as amended) and Policy 4.36 (as amended) is unclear, however I read Policy 4.36 (as amended) as taking priority once the catchment specific nutrient limits have been set. I reach this conclusion on the basis that the NMZ's are an interim response and will be superseded once the catchment specific limits have been set.

6.11 Overall, I am concerned that Policy 4.35 (as amended) fails to:

(a) provide for a clear and transparent linkage to Policies 4.11, 4.12 and Policy 4.36 (as amended);
(b) address how the uses listed will be advanced once catchment specific limits are set under Sections 6-15 of the Regional Plan, particularly where the uses may be occurring within a catchment which is over-allocated;
(c) address how the listed uses would seek to give effect to the NPS FM, especially where they are occurring in a catchment where the water quality is degraded; and
(d) guide how the listed uses will be treated as part of any consent renewal process, having regard to the matters raised under a) to c) above.

6.12 Policy 4.35 (as amended), in my opinion, raises a number of significant questions that have not been addressed by the Reporting Officer and leaves the policy open to divergent interpretation by those parties seeking to give effect to it. This, in my opinion, is contrary to good planning and resource management practice.

6.13 In this regard, I consider that it would be more appropriate for Policy 4.35 (as amended) to be deleted and replaced with a new policy that guides the

consideration of existing community uses that involve discharges and how they should be treated when setting nutrient discharge limits under Sections 6-15 of the Regional Plan (particularly, there they are undertaken in over-allocated catchments).

6.14 I set out in **Annexure B** my recommended replacement to Policy 4.35.

7.0 NUTRIENT MANAGEMENT RULES

7.1 The following section of my evidence addresses the following matters:

(a) The enabling provisions supporting the farming provisions (as notified);
(b) the proposed 20 kg nitrate/ha/yr threshold.
(c) the use of OVERSEER and its ability to predict year to year losses on farm.
(d) Annual auditing and how this is addressed by entities such as the RDRML.
(e) Definition of 'changed'.
(f) Activity status structure as it relates to farming activities.

Permitted Activity Rules 5.39, 5.40, 5.42, 5.46

7.2 The RDRML made a submission[10] supporting the 'rules' within the Regional Plan, being those rules that enable farming activities to continue, largely unrestricted for the first five years following notification of the PL&WRP.

Officers' Report

7.3 There have been significant amendments to the policies and rules reflected within the Officers' recommended relief. Rules 5.39, 5.40, 5.42, and 5.46 have been deleted/replaced as a consequence.

7.4 The Officer[11] notes that as part of the policy and rule regime, that industry initiatives and a form of audited self management be provided for, with a regulatory backstop managed by the Council to manage poor performance, and/or people who choose to not adopt an audited self-management framework. Equally, the Officer notes that there is greater management of 'higher risk activities'. A new definition is recommended that details those higher risk activities, which are termed 'high nutrient risk farming activities'.

Comments

7.5 The RDRML supported the interim approach (within the notified version of the Region Plan) advanced by the Council which requires all existing farms to keep records of nitrogen loss from the land, which is to be provided to the Council on request.

7.6 The Officer's recommended relief, on its face, also appears to be similarly enabling. I am, however concerned that Rule 5.41 requires properties that include uses that fall within the definition of 'high nutrient risk farming activity' to be audited annually and achieve an audit grade of 'A-B' or better (based on the amended Schedule 7 provisions). I have three central concerns with this approach.

[10] Submission 197.59
[11] at page 72

7.7 Firstly, there is a lack of detail associated with the proposed audit grading system. For those properties located within those more sensitive NMZ's and which are undertaking 'high nutrient risk farming activities', Schedule 7 does not set out sufficient detail around how the grading system will be/is to be to be applied. While I support the philosophy behind the recommended rule framework, there is a lot of detail that requires further work to address the apparent shortcomings of these new provisions. Schedule 7 underpins the permitted activity rules and therefore it is important that the rules are worded clearly and are able to be readily and easily interpreted. The lack of detail around the manner in which the FEPs are to be graded within Schedule 7 means that it is difficult to determine whether it is possible to comply with the provisions or not. This is, in my opinion, a significant shortcoming of the recommended rules advanced by the Reporting Officer. I expand upon this matter in paragraphs 7.37 and 7.40 of my statement.

7.9 Secondly, the planning provisions (namely Rule 5.41) do not provide any certainty that farm managers will be a permitted activity until after the FEP's have been submitted and audited. By way of an example, if Farmer X is located within a Red Zone and there is 'high nutrient risk farming activities' undertaken from the property, then a FEP is required to be submitted under Rule 5.41. The FEP is graded in accordance with Part C of Schedule 7. Once submitted, should the FEP not meet the grading system specified under Schedule 7, then further corrective measures are to be made and the FEP re-audited within 6 months of the original audit taking place (without penalty under Rules 5.39 to 5.51). What is clear is that until the audit process has been undertaken (including a further re-evaluation of the revised FEP where it did not achieve an 'A-B' grade) it is not possible to determine whether Farmer X complies with the permitted activity rules or not. Importantly, this may take between 6-18 months to determine (depending on the resources available to undertake this audit and the number of audits being undertaken at any one time). Therefore, the proposed rule framework, in my opinion, contains uncertainties for farm managers as to whether their activities comply with the Regional Plan or not. I see this as being an adverse outcome, and one that cuts across good planning and resource management practice.

7.10 Thirdly, there is the potential that farming activities may be affected by section 20A of the Act, although as set out in paragraph 7.9, there would be no way of determining compliance with the rule until after the FEP auditing process was undertaken and the FEP was graded in accordance with Schedule 7 (Part C). This process may extend beyond 12 months and may preclude existing use rights applying. This may result in existing farming activities operating without consent or ceasing operations until such time as the audit review confirms that the operation is permitted under the rule framework. Therefore, the rule structure generates further uncertainty as to whether it might trigger the need for a resource consent application under section 20A of the Act for the continuation of an existing farming activity.

7.11 To offset these issues, in my opinion, Schedule 7 should be amended to provide for greater certainty around the grading system to be employed to this audit process. Further, the rules should be recast such that they acknowledge that existing farming activities, including those that undertake 'high nutrient risk farming activities' are permitted until such time as the annual audit determines compliance with Schedule 7 audit grades. In situations where non-compliance is identified, the Plan provisions

should allow for a grandfathering approach whereby an applicant has 6 months to submit an application and can operate until such time as a decision is issued.

7.12 I set out in **Annexure B** my recommended amendment to amended rules (as set out in the Officer's report).

The 20 kg nitrate/ha/yr threshold

7.13 The RDRML made a submission[12] opposing the region wide nitrogen-leaching limit ('the 20 kg nitrate/ha/yr threshold'). The RDRML raised specific concerns that there appears to be limited scientific justification underpinning this 'blanket approach'. While a limit of 20 kg N/ha/yr for wide sections of the region may be precautionary for the protection of ground water and surface water bodies where they are connected to groundwater, the application of a 'one-size fits all' approach across the region was opposed. The reasons cited for opposition were its potential consequences post 2017. Of greater note, the RDRML contended that there is no evidence that the approach provides for appropriate farm specific limits for catchments and sub-catchments.

7.14 The Company requested the deletion of the 20 kg nitrate/ha/yr threshold. It suggested that a limit could be reintroduced as a variation or plan change to the Regional Plan once this has been rigorously assessed as being appropriate at both a catchment and sub-catchment level.

Officers' Report

7.15 The Officer recommended the deletion of the 20 kg nitrate/ha/yr threshold from Rule 5.46 of the Regional Plan. He also recommended that this limit be replaced with a new nutrient management approach embodied within the submission of FEP's (reflected within amended Schedule 7). The reason for this is not given by the Officer directly, however I read this as being linked to issues raised with OVERSEER (upon which the 20 kg nitrate/ha/yr threshold would have been calculated), and greater reliance now given to FEPs as a regulatory tool to manage nutrient discharges.

Comments

7.16 I note that the basis for the 20kg limit is set out in the report titled *"Managing the cumulative effects of land use on water quality in Canterbury: Environment Canterbury 26 July 2012"* ('the Cumulative Effects Report') attached as Appendix 1 to the Section 32 report. However, the report itself states *"that setting a value for a nutrient limit is difficult, and is likely to be a challenged. There is no clear-cut basis for setting a nutrient threshold. It requires a pragmatic judgement taking into account the following factors:*

- *The number of landowners likely to be affected.*
- *the potential transaction and implementation costs to ECan and land owners.*
- *the location of the land uses.*
- *the sensitivity of different water bodies to nutrient enrichment*
- *the current nutrient status of Canterbury's rivers, lakes and aquifers.*

Based on these factors, it is recommended that a nitrate loss threshold should be set at 20 kg/ha/ year."

[12] Submission 197.63

7.17 Having considered this report, I agree that there appears to be limited scientific justification underpinning this 'blanket 20 kg nitrate/ha/yr approach'.

7.18 I note that the evidence of Dr Antony Roberts (presenting for the Fertiliser Association of New Zealand Incorporated) addresses the 20 kg nitrate/ha/yr more generally at paragraphs 40 and 45 of his evidence, when discussing the application of OVERSEER. Dr Roberts (whose evidence I rely on to address this part of the RDRML's submission) contends that OVERSEER (upon which the 20 kg nitrate/ha/yr limit is based) is more useful to estimate the long-term equilibrium nitrogen losses, rather than within and between year nitrogen loss fluctuations, from pastoral and other farm types. This, in my opinion, therefore calls into question the validity of (a) setting a nitrogen discharge limit that is not catchment specific and applied at a broad scale and (b) the appropriateness of underpinning this nitrogen discharge limit (averaged over three consecutive years) when OVERSEER is better utilised to identify the long term equilibrium nitrogen losses, rather than within and between year nitrogen loss fluctuations.

7.19 Given the issues raised above, I support a move away from a region-wide nitrogen discharge limit as the basis to regulate nutrient management activities, especially when this is applied at such a broad scale and which does not respond to catchment specific nutrient management issues. I support the Officer's recommended relief relating to the adoption of FEPs and the associated audit process (subject to addressing the issues that I raised within this evidence) as a means of managing nutrient discharges until such time as catchment specific outcomes are to be developed in Sections 6-15 of the Regional Plan.

The use of OVERSEER and its ability to predict year to year losses on farm

7.20 The RDRML made a submission[13] opposing the region wide nitrogen-leaching limit and raised concerns associated with OVERSEER being used as a regulatory tool that is applied on a 'absolute' and 'annual basis'.

7.21 I note, again for completeness, that this is a matter that Dr Edmeades (for Canterbury Pastoral Limited) and Dr Roberts (for the Fertiliser Association of New Zealand Incorporated – '**FANZ**') discuss in more detail in their respective briefs of evidence.

Officers' Report

7.22 The Officer at page 73 of his report in addressing OVERSEER states:

> *"[t]he issues raised with respect to the use of Overseer, despite its attractiveness for outputting numbers that could be compared to thresholds in the Schedule 8 lookup table, meant that overall, the confidence in the nutrient management system and its applicability across all farms in Canterbury has been brought into question.*
>
> *In this transitional phase, before the introduction of a "lookup table" in Schedule 8, there is an opportunity to step back from Overseer in the interim period to enable it to be developed more fully and gain the required confidence. On this basis, thresholds in the recommended definitions and rules are based on measures other than modelled outputs from Overseer."*

[13] Submission 197.63

Comments

7.23 Dr Roberts and Dr Edmeades both provide what I consider to be compelling reasons that OVERSEER should be applied cautiously in a regulatory context. Further, Dr Roberts states *"that as OVERSEER predicts the N loss estimate is what is leaving the root zone, it is inappropriate to use the model to solely determine N loss limits that are designed to protect ground or surface water quality. This is because between the end of the root zone and the receiving water there are mixing, assimilation and attenuation processes that may increase or decrease the concentration of N in those receiving waters."*

7.24 The Council Officer has responded to the concerns raised by the RDRML and other submitters by placing greater emphasis on the FEP's as a regulatory tool to manage nutrient discharges. I support this approach. The revised Schedule 7 (as it relates to using a nutrient budget model (such as OVERSEER)) is also supported as this provides for a degree of flexibility and does embed OVERSEER within the rules themselves. The only area where OVERSEER is identified is in amended Schedule 7 which refers to OVERSEER under clause 7 "*Nutrient budgets are prepared .....using a nutrient budget model, (such as OVERSEER) for each of the identified land management units and the overall farm".*

7.25 Overall, having considered the evidence of Dr Roberts and Dr Edmeades and the Officer's report, I support the recommended relief proposed by the Officer, being to establish FEP's as the regulatory approach to manage nutrient discharges from farming activities (until such time as good practice is defined under Schedule 8 and catchment specific nutrient limits are adopted for each catchment). In this regard I support the following provisions which seek to achieve this outcome, including:

(a) Policy 4.38 (as recommended by the Officer);
(b) Policy 4.38A (as recommended by the Officer);
(c) Policy 4.38B (as recommended by the Officer);
(d) Rule 5.39 (as recommended by the Officer); and
(e) Schedule 7 (Part A and B) (as recommended by the Officer);

Annual auditing and how this is addressed by entities such as the RDRML

7.26 The RDRML made a submission[14] opposed to the auditing of information flowing out of Nutrient Management Rules (Rules 5.39 – 5.54). While supporting the general approach advanced in providing for the continuation of farming activities under Rule 5.40, 5.42, and 5.46, the Company was concerned that the Plan imposes a significant burden for every property to have information available that demonstrates the annual amount of nitrogen loss from their properties, as well as the frequency of this auditing process.

7.27 More particularly, Rules 5.40, 5.42, and 5.46 (as notified) all have auditing requirements associated with them. In the case of the FEP's these are required to be audited externally each year for the first three years by a Farm Environment Plan Auditor, who needs to be an independent third party (who is formally accredited) to undertake an assessment of farm operations. There is also an ongoing requirement for plans to be audited every three years following this initial three review period, which RDRML considered to be excessive. Further, the Company considered that the Plan should be amended to reduce the annual auditing requirement for those

[14] Submission 197-68

properties that form part of an irrigation or Principal Water Supply scheme that are managed through holistic 'Scheme Management Plans'.

Officers' Report

7.28 The Officer addresses issues relating to the FEP's and associated auditing processes within his report[15] and states that *"[w]ith the increased focus in the submissions on wider application of farm environment plans, greater emphasis on audited self-management and industry developed farm environment plans, it has been necessary to recommend relatively significant changes to the farm environment plan framework. As has been recommended below, the changes fall into four broad areas:*

- *The ability to use industry-developed farm environment plan regimes, provided they meet certain basic criteria and have the approval of the CRC.*
- *Revisions to the "default" farm environment plan, which sets out minimum requirements for farm environment plans if there is no industry standard farm environment plan template in place, or the individual applicant decides not to use the industry standard.*
- *A revised set of criteria that specify the requirements for auditing of farm environment plans, and in particular a grading of the plans with clarification that the auditing is to require a certain level of quality of plan as well as performance against the plan.*
- *A new set of requirements that identify information requirements for all farming types, where the rules specify that information is to be provided.*

Overall, the changes to Schedule 7 are not significant with respect to the requirements for farm environment plans, but they have been broadened to allow other industry based farm environment plans, wider application beyond just nutrient management and have set out a tighter framework with respect to auditing."

7.29 Having considered the Officer's recommended amendments to Schedule 7, I note that his audit requirement is significantly more onerous than that in the Regional Plan, as notified. Further, I note that the Officer has not formally addressed the RDRML's relief that the Plan should be amended to reduce the annual auditing requirement for those properties that form part of an irrigation or Principal Water Supply scheme that are managed through individual Scheme Management Plans.

Comments

7.30 In addressing the audit process, I raise three specific concerns. These issues are, in summary:

- The frequency of the audit process;
- The inadequate assessment within the Officer's assessment of the costs and benefits of implementing the annual audit system (as recommended by the Officer) and its effects on the farming community;
- The lack of recognition given to nutrient management approach advanced under Scheme Management Plans.

Frequency of Audit Process

7.31 The Officer's recommended relief requires FEPs to be audited annually and for the results of the audit to be provided to the Council no later than 31 December. I note

[15] At page 135

that the audit of the FEPs appears to be an ongoing requirement, which is not linked in any way to farming activities undertaken on site or the sensitivity of the receiving environment. Put another way, the annual auditing process is not effects based and simply provides for an annual audit process that is ongoing, irrespective of whether the FEP's are achieving an acceptable audit score or not. In this regard, the Officer provides for little or no justification as to the reasons why a more onerous audit system has been imposed.

7.32 The RDRML sought that the Regional Plan be amended so as to require the auditing of FEP's once every three years. I understand the basis of this to be (i) it reduces the costs incurred to both farmer and service support industry, with no environmental dis-benefit (or cost) (especially if there has been no effective change to the property) and (ii) it will reduce the potential administrative costs associated with having to implement auditing of all FEP's. As Mr Curry reinforces at paragraph 8.2 of his evidence, the implementation of an annual FEP auditing process for 400 individual properties also adds significant costs. In this regard, Mr Curry identifies that the RDRML has set aside $220,000 to audit the FEP's governing these properties. I note here that these costs could trickle down, and manifest as a potentially adverse social effect for mid-Canterbury.

7.33 In the case of FEP's audited under the Officer's recommended relief, I consider that there are instances where an ongoing audit requirement may be acceptable to address specific environmental considerations. These may include instances where the audit grade 'A-B' is not being achieved for those properties that are located within the Lake Zones or other sensitive NMZ's and where the environmental effects of not complying with audit grade requirements are uncertain.

7.34 However, in instances where the FEP has demonstrated compliance with the audit grades, and there is no associated change introduced as part of the ongoing farming activities, I do not consider that there should be a continuous annual audit requirement beyond the first anniversary of the FEP being in place. This conclusion is founded on a conclusion that where a farming system has not changed and the effects of the existing operation are well understood (through compliance with FEP annual auditing), then further annual audits are neither justified nor necessary to achieve the Act's purpose.

7.35 Rather, I consider that once confirmed as being appropriate and aligned with the specified audit grading system (as in the case of those properties located within those more sensitive NMZ's) audits should only be undertaken every 2-3 years following on from the first audit review. Further, where OVERSEER is used to assess the nutrient budgets set within FEP's, for the reasons set out in paragraphs 7.20 to 7.25 of this evidence, it would appear more appropriate to mirror auditing processes which reflect the ability for models such as OVERSEER to adequately determine long term equilibrium nitrogen losses from a property.

7.36 I note at this juncture, that Mr Hansen (for the Fertiliser Association of New Zealand Incorporated) reinforces the amendments sought on behalf of FANZ, as they relate to FANZ's submission to the notified provisions and reinforced that it was appropriate for nutrient budgets and nutrient management plans be audited every three years.[16] I support the rationale behind this.

[16] Refer paragraph 263.

Lack of Detail Associated with Audit Grading

7.37 As I have noted above at paragraphs 7.26 and 7.30 of my evidence, the way in which the audit grading system has been set out in Schedule 7 (as amended in the Officer's Report) is problematic. In short, Part C of Schedule 7 provides for insufficient detail as to how the audit grading system will be scored for those properties located within those more sensitive NMZ's and which are undertaking 'high nutrient risk farming activities'. In my opinion, this is problematic and generates a significant level of uncertainty as to whether farming activities will be able to comply with the rules reflected within the Officer's recommended relief. Rules should not result in this level of uncertainty and I see this cutting across good planning and resource management practice.

7.38 As a large proportion of the properties serviced by the RDR are located within the 'Red Zone', the Officer's amendment to Rule 5.41(2) requires that if there is a 'high nutrient risk farming activity' occurring on the property, then a FEP is prepared and audited in accordance with Schedule 7 Parts A and C and the audit grade is 'A-B' or better. As such, for the majority of the properties serviced by the RDRML (which include 'irrigated dairy' farming activities) will be subject to annual auditing processes and be required to achieve a minimum audit grade is 'A-B' or better.

7.39 The grading of FEP's is set out in Part C (Farm Environment Plan Audit Requirements) of Schedule 7. Part C sets out that the audit framework will give a grade of A, B or C for the FEP itself, and a grade of A, B or C for performance against the FEP actions.[17] I do not have any philosophical concerns with this approach. Equally, I see the logic in it. Further, any audit result that does not result in an 'A-B' grade may be submitted with a revision of the FEP, a list of corrective actions and a follow-up audit that shows an 'A-B' grade within 6 months of the original audit without penalty under Rules 5.39 to 5.51. I interpret this last point to mean that even if an initial audit identifies a substandard grade for the FEP, then Schedule 7 provides further flexibility for 6 month period to remedy any shortcomings with the FEP before resource consent is required. I note that this last matter is only referred to within Schedule 7 and is not explicitly referred to within the rules themselves. While I support this approach, it would be prudent for this outcome to be expressed within the relevant rules. Further, as I have set out in paragraph 7.9 of this statement, this further 6 month period has the potential to increase the audit process before such time as a farm manager is able to confirm compliance with the Plan provisions. While it is important to reinforce here that I support the flexibility provided to ensuring that FEPs achieve the required grading standard, it does nonetheless reinforce my concerns (refer to paragraph 7.9 of this statement) that the rules contain a high level of uncertainty as to whether existing farming activities are permitted under the Plan or not.

7.40 While the rationale behind Part C grading system is, in my opinion, appropriate, the lack of detail around how a grade of 'A' for the FEP itself and 'B' for performance against the FEP actions is to be derived is again, in my opinion, unacceptable. In this regard, as things stand, Schedule 7 (Part C) presently creates considerable uncertainty. In my opinion, this is a significant short-coming and should be remedied prior to the approach being employed. To make a fair and equitable

[17] A grade of 'A' for the FEP itself and 'B' for performance against the FEP actions is considered an 'A-B' grade in terms of Rules 5.39-5.51.

process, it stands to reason that I consider that the criteria should be the subject of a variation or Plan Change process.

Lack of Assessment of Audit Cost Implications

7.41 As set out in the Company's submission the costs associated with implementing the auditing process has not been appropriately weighed in the section 32 report. Further, I note here that the costs associated with implementing this additional auditing requirement has not been discussed in the Officer's Report either.

7.42 I note the section 32 states *"[f]armers that exceed nutrient limits, or introduce additional nutrients into near or fully allocated areas or sensitive lake catchments will need a resource consent so will incur whatever costs are involved, implementation of mitigation and ongoing auditing and monitoring costs. Many other farmers will incur costs through requirements for monitoring and farm plans."*[18] Further, the section 32 report states *"regional rule will require properties with an average leaching rate of more than 20 kg nitrate / hectare/ year to prepare a farm plan and be subject to auditing. It is estimated that this would apply to approximately 7% of the land owners in the region, the remaining landowners would be required to monitor their nutrient losses."* [19]

7.43 Rather disappointingly, I note that the Officer in advancing the recommended relief covering the new annual audit regime does not discuss the implications of this change in the case of costs to farmers. In my opinion, this does not allow the Commissioners to gain an understanding of (i) the true costs and benefits of implementing the Officer's suggested auditing regime, and (ii) how far reaching this change may be, especially given the fact that new definitions have been recommended by the Officer that have the potential to influence those farming activities that may previously not have been caught by the rules in the Regional Plan, as notified. While this may not raise the need for the recommended auditing provisions to be re-notified (on the basis that audit process as notified provided for a three-year consecutive audit review process), it does nonetheless raise issue as to whether the Officer has accurately considered the socio-economic effects of this recommendation and its consequences and potential flow on effects to the rural communities of Canterbury.

7.44 The definition of 'high risk farming activity' and 'changed', (both of which are referred to in the rules linking to annual audit requirements recommended by the Officer) have the potential to influence the number of properties affected by these rules. In my opinion, a more comprehensive assessment should be advanced by the Officer setting out the implications of the auditing requirement before the Commissioner can be adequately satisfied that the costs and benefits of this annual auditing approach have been appropriately considered in accordance with section 32 of the Act. I reach this conclusion on the basis of the likely impact of these ongoing annual costs will have on the social and economic wellbeing of local rural communities in Mid-Canterbury having to bear these costs.

[18] Page 67 of the section 32 report.
[19] Page 5 of the section 32 report.

Recognition given to nutrient management approach advanced under Scheme Management Plans

7.45 In relation to Rules 5.40, 5.42, and 5.46 (which all have auditing requirements associated with them) the RDRML considers that the Plan should be amended to reduce the annual auditing requirement for those properties that form part of an irrigation or a scheme operated by a Principal Water Supplier that are managed through individual Scheme Management Plans.

7.46 I note that Rule 5.42 has been recommended for deletion by the Officer and a similar rule has not been included. In particular, I note that Rule 5.42(1) stated:

> *"1. The land holder has been granted a water permit, or holds shares in an irrigation company that has been granted a water permit, that authorises irrigation on the land and the land is subject to conditions that specify the maximum amount of nitrogen that may be leached;"*

7.47 Condition 1 of Rule 5.42 acknowledges situations where a property may form part of an irrigation scheme and may be subject to a water permit which contains conditions that specify the maximum amount of nitrogen that may be leached. As you have heard from Mr Curry (at paragraph 7.4), the RDRML is currently going through a land use consent approval process which seeks to establish conditions on irrigation activities which prescribe the maximum amount of nitrogen that may be leached over the properties governed by the consent. The land use consent sought by the RDRML also reflects that the RDR will be operated under a Scheme Management Plan which will prescribe ongoing matters similar to those set out under Schedule 7 of the Regional Plan to be addressed in individual FEP's. In my opinion, where a scheme provider (such as RDRML) is seeking to manage the nutrient discharges from a collection of properties (in this case some 400 properties) and is able to demonstrate compliance with nutrient management conditions set for that scheme, then it would be wholly appropriate for the Regional Plan to recognise and provide for by way of a reduced auditing requirement.

7.48 The RDRML sought that a new condition be added to Rules 5.40, 5.42, and 5.46 that recognises and provides for the auditing of properties that are part of an established irrigation scheme or Principal Water Supplier which is managed through a Scheme Management Plan and sought the following condition be added to the above rules:

"For those properties who form part of an irrigation scheme or scheme operated by a Principal Water Supplier (where these schemes are managed under a Scheme Management Plan) following the first annual audit, every property shall be audited at least once every 5 years, with at least 20% of Farm Management Plans being audited each year within each Scheme Management Plan. The results of the audits shall be reported to the Council by the 31st of October of each year."

7.49 In my opinion, this type of approach has merit as it seeks to give effect to Policy 4.34 (as amended). Further, it will reduce the costs for larger schemes (such as the RDR), and also stagger the resources that has to be applied to this auditing process. Further still, I note that the RDR is administered in such a way that all shareholders who take water from the RDR or its associated irrigation scheme are subject to contractual obligations that require the adoption of FEP's and that farm management practices are implemented in accordance with these FEP's. The consequences of not complying may mean that the water to individual properties can be shut off or restricted until compliance is demonstrated. This means, in my

opinion, that under a Scheme Management Plan approach, the Council can have greater confidence that the individual FEP's are being appropriately implemented through the schemes governance structure. It also follows that it would be appropriate for individual properties to be subject to less onerous auditing processes under this structure.

7.50 I set out in **Annexure B** my recommended amendments to proposed Rule 5.41 and Schedule 7(C).

Definition of 'Changed'

7.51 The RDRML made a submission opposed to the definition of 'changed' under the Regional Plan. The RDRML was concerned as to the practicable application of this definition as it relates to Rules 5.42 to 5.45. In particular the Company stated that it was concerned that the application of OVERSEER (and its margin of error) could result in existing farming operations (who are not effecting change on their properties) being caught by this definition and the rules that it is associated with. Such an outcome would seem to be counter intuitive and would secure no resource management purpose.

Officers' Report

7.52 The Officer states that *"the definition of changed is critical to the interpretation of the rules, and the thresholds beyond which resource consent is required for activities, particularly in orange and red zones and sensitive lake catchments as shown on the planning maps. The definition of changed is therefore required to be particularly certain and not open to interpretation or input errors.*

7.53 Further, the Officer also states his preference, which *"…is to move away from the use of Overseer as a mechanism to calculate whether a threshold has been reached. This is for a variety of reasons, including the desirability of moving away from a strict nitrogen-based framework, the lack of support for Overseer within the submissions, acceptability of the input issues and margin of error, and the relatively arbitrary nature of a percentage change in modelled nitrogen discharges."*[20]

Comments

7.54 I note here that the definition of 'changed' raises a number of broad issues as to how this can be adequately amended to address all concerns raised by submitters. Based on the Officer's own considerations and those reached by Dr Edmeades and Dr Roberts I fully support a movement away from the use of OVERSEER as a mechanism to calculate whether a threshold has been reached. Simply put, as reflected within the RDRML's submission to this definition (and as reinforced by Dr Robert's and Dr Edmeades) OVERSEER contains a margin of error which would not give any confidence or certainty such that it could be used in this context.

7.55 Further, I am generally supportive of the suggested amendment under clause 3 of the amended definition which refers "greater than a 10% increase in the annual average stock units carried on the property, compared with the annual average stock units averaged over 1 July 2010 to 30 June 2013." My support for this part of the definition is based on its transparency and ease of interpretation, but also because it seeks to average out this increase in stock units over what I deem to be

[20] Refer page 82 of the Officer's Report.

an appropriate period of time and the averaging of any change in stock units over this period would likely accommodate normal farm operational responses to stock management.

7.56 I am, however, concerned that clauses 1 and 2 of the amended definition may be inappropriate and represent a 'catch all' response to irrigation activities that may not have any adverse effects of the receiving environment. Equally, I am concerned that the amendments recommended by the Officer may have an unintended consequence of capturing situations where properties that are part of an irrigation scheme or a scheme operated by a Principal Water Supplier (which has been granted a water permit that authorises irrigation on the land) and where individual properties may gain benefit from the use of this water. The two clauses of concern state:

> *"1. irrigation of all, or any part of, a property that was un-irrigated at 11 August 2012;*
> *2. an increase in the consented volume of water available to be used on the property compared with that consented at 11 August 2012;"*

7.57 I understand that recommended clause 1 is aimed at capturing unirrigated properties from the date of notification of the Regional Plan and, in my opinion, represents an 'area' based trigger. Put another way, I understand that clause 1 is intended to capture all new irrigation activities on properties that have not previously been irrigated. I do not interpret clause 1 as including properties (or parts of properties) that have previously been irrigated, although I think that the provision could be worked to make this intended meaning clearer.

7.58 Equally, I understand that clause 2 represents a 'volume' based trigger and is aimed at any increase in 'consent volume of water available to be used'. I understand that this clause is intended apply to situations where a new resource consent has been secured and that water is to be applied to land.

7.59 In my opinion, both of the new clauses have the potential to be open to divergent interpretations. The basis for reaching this conclusion is as follows.

7.60 In terms of clause 2, the term 'increase in consented volume' may, I believe, be interpreted differently to the interpretation set out in paragraph 7.58 of this statement when it is applied to properties that are part of an irrigation scheme or a scheme operated by a Principal Water Supplier (which has been granted a water permit that authorises irrigation on the land). In these situations, while the consented volume of water may not increase (such that there is no actual increase in the volume of water provided to be taken as part of the water permit), there may be the ability for the scheme to utilise that water over an increased area or to improve the reliability on some properties through associated land use consents. Under this scenario, there could be an unintended consequence of capturing those properties that directly benefit from this scheme management approach through the purchase of shares and water available to that property through this purchase process. Put another way, I am concerned that the application of more 'consented water' from a Scheme to a property could be captured by clause 2, even though there is no increase in the volume of water that has been abstracted under a water permit.

7.61 I set out below a number of examples that I consider should be exempted from the definition of 'changed' and my rationale for this. These include:

- Properties that already hold shares in an irrigation scheme or a scheme operated by a Principal Water Supplier and these shares were purchased before 11 August 2012;
- Properties that already hold shares in an irrigation scheme or a scheme operated by a Principal Water Supplier and these shares were purchased before 11 August 2012, but have not utilised this water;
- Properties that already hold shares in an irrigation scheme or a scheme operated by a Principal Water Supplier and these shares were purchased after 11 August 2012, and these shares result from efficiency improvement works which do not increase the existing command area over which the scheme is authorised to irrigate, nor increase the 'volume of consented water'.

7.62 Where a property (or part thereof) is irrigated but purchases additional water (to improve its reliability or increase the area of the property under irrigation), in my opinion, this should not a represent an increase in 'consented water'. By way of example, if one of the RDRML shareholder properties ('**Property Y**') has historically been irrigated (before 11th August 2012), however the RDRML is granted a land use consent that provides for the ability to expand the irrigable area over which it serves, then any increase in the volume of water available to Property Y (through an increase in water purchased by that shareholder) should be exempt from this definition of 'changed'.

7.63 Further, I note that the definition recommended by the Officer does not acknowledge situations where properties governed by irrigation schemes may have purchased water from that company prior to 11 August 2012, but have yet to utilise this water. I believe that this scenario should also be exempt from the definition of 'changed' on the basis that there has been no actual increase in the 'consented volume' that has been abstracted from a watercourse and while the property (or part thereof) may not have historically been irrigated, it holds shares in a company that is enabling irrigation within a defined 'command area'. Put another way, the application of the water is legally authorised, insofar as it can occur as of right or as a consequence of a resource consent being in place. I note that, in relation to the latter, where water can be taken and applied, it will form part of the 'existing environment'.

7.64 Further still, and linked to the scenario discussed in paragraph 7.63, there are also situations where irrigation schemes are being upgraded to implement efficiency improvements and shares in these schemes (which seek to underpin these upgrade works) have been purchased after 11 August 2012. A case in put is the Ashburton Lyndhurst Irrigation Scheme Limited, which is advancing a $95 million upgrade of the irrigation scheme. Underpinning these upgrade works is a share offer to existing properties governed within the command area of the scheme, which offers the shareholder rights to water gained through efficiency measures implemented within the scheme itself. While the benefits of accessing this water will not be realised until after the upgrade works have been completed it seems logical to me that these existing shareholders should not be included within the definition of 'changed' because (a) these properties are located within a command area which can already be irrigated and (b) there is no increase in 'consented volume of water' (rather the

increase in water available to shareholders is derived from efficiency improvements implemented at a scheme level).

7.65 Lastly, I understand (from Mr Curry) that there are examples where individual properties that form part of the irrigation schemes associated with the RDRML having already purchased water to enhance reliability on farm, but have yet to utilise the additional water due to the lead time associated with the development of on-farm infrastructure. In my opinion, and for the reasons that I have already given, the definition of the term 'changed' should be amended such that this outcome does not constitute a 'change' under the pL&WRP.

7.66 Given the foregoing, the definition of 'changed' should be further amended to address the issues I have discussed above. I set out in **Annexure B** my recommended amendments to proposed definition of 'changed'.

8.0 NEW PROVISIONS INCLUDED BY THE OFFICER

8.1 I note here that the Reporting Officer has included a number of additional provisions within his report, which I would like to comment on here.

8.2 The Officer recommends new Policy 4.32 be added to section 4.0. While I do not have any objections to this policy, I think it would be helpful for the policy to link back to Schedule 8 at the end of the policy, as opposed to simply referring to "practices in the relevant farming industry".

8.3 I set out in **Annexure B** my recommended amendments to proposed Policy 4.32.

9.0 SUMMARY

9.1 In summary, I recommend that those provisions discussed within Sections 5 to 8 of this statement be further amended to ensure that they are consistent with the Resource Management Act 1991 and the direction of the National Policy Statement on Freshwater Management and the operative Canterbury Regional Policy Statement. I consider that my recommended changes promote both good resource management and planning practice and accord with the purpose of the Act and the manner that is should be applied.

9.2 For the reasons set out in this statement I do not believe that aspects of the proposed Canterbury Land & Water Regional Plan, as publicly notified or as amended in the recommendations of the Officers', achieve either of these requirements.

9.3 I thank the Panel for its consideration of this statement.

Nigel Roland Bryce, B.REP, NZPI.

2nd of April 2013

ANNEXURE A

RECOMMENDED AMENDMENTS MADE BY THE OFFICER WHICH THE RDRML SUPPORTS

New Policy 4.28

New Policy 4.29

New Policy 4.30

New Policy 4.33

Amended Policy 4.36

Amended Policy 4.37

New Policy 4.38

New Policy 4.38A

Amended Policy 4.60

Amended Policy 4.62

New Rule 5.39

New Rule 5.46

New Rule 5.47

Amended Schedule 7 (Part A and B)

Annexure B – Recommended Changes Proposed by Nigel Bryce to the Provisions of the Proposed Canterbury Land & Water Regional Plan

Track Change Colour Code
Relief sought by the RDRML retained
Recommended amendments of Nigel Bryce
Recommendations of the Officer retained

Policy 4.32
In areas where regional water quality outcomes are not being met, as shown by a Red colouring on the Series A Planning Maps and in Lake Zones as shown on the Series A Planning Maps, a changed or new farming activity will be required to show that there is no net increase in nutrients discharged from the property or that advanced mitigation farming practices are applied such that the property operates in the top 10% of nutrient discharge minimisation practices when measured against practices in the relevant farming industry as set out in Schedule 8.

Policy 4.34
To minimise the loss of nutrients ~~nitroge~~n to water ~~prior to 1 July 2017~~, where the land owner holds an existing water permit to take and use water, or is a shareholder in an irrigation scheme or Principal Water Supplier that holds a water permit to take and use water, and there are conditions on the water permit that address nutrient management, any change in farming activities will be enabled subject to requirements to prepare and implement a farm environment plan that, as a minimum, enables compliance with the nutrient management conditions and ensures good practice is being achieved, ~~the regular audit of that plan and to record, on a per enterprise basis, nitrogen discharges.~~

Policy 4.35A
In setting catchment specific nutrient limits under Sections 6-15 of the Plan, to recognise and provide for discharges from:
(a) community wastewater treatment schemes in the first instance, and
(b) other discharges within each catchment that are identified as supporting important community uses; provided
that in all instances (including the renewal of these discharge consents) where these uses are advanced within catchments that are subject to degraded water quality to the point of being over-allocated, that the best practicable option is utilised to maintain or improve the quality of the water bodies within these catchments.

Note: In determining the appropriateness of the uses set out in Policy 4.35A (a) and (b), consideration shall also be given to those outcomes set out in Policies 4.9, 4.10, 4.11, 4.12 and Policy 4.36.

"Rule 5.41
The use of land for an existing farming activity that is not permitted by Rule 5.39, where the property is partly or wholly in an area coloured Red on the Series A Planning Maps, is a permitted activity provided the following conditions are met:

1. *If there is no high nutrient risk farming activity occurring on the property, information on the farming activity, in accordance with Schedule 7 Part D is provided to the Canterbury Regional Council.*
2. *If there is high nutrient risk farming activity occurring on the property, then a farm environment plan is prepared and audited in accordance with Schedule 7 Parts A and C and the audit grade is "A-B" or better, excluding those activities governed by scheme management plans and nutrient management conditions addressed under Rule 5.41A.*

Rule 5.41A
Where there is high nutrient risk farming activity occurring on the property, and the property is partly or wholly in an area coloured Red on the Series A Planning Maps, and where that property forms part of an irrigation scheme or a scheme operated by a Principal Water Supplier (which has been granted a water permit that authorises irrigation on the land), then the activity is a permitted activity provided the following conditions are met:

(a) a farm environment plan is prepared and audited in accordance with Schedule 7 Parts A and C and the audit grade is "A-B" or better; and
(b) compliance with any approved nutrient management condition/s associated with this water permit can be demonstrated, where this is applicable.

Rule 5.41B
In accordance with Rules 5.41 and 5.41A and Schedule 7(C), where a property has been audited and that audit identifies that an audit grade of "A-B" or better has not been achieved, then the property has a further 6 months to submit a revised farm environmental plan which demonstrates an audit grade of "A-B" or better. The existing farming activity is permitted to continue until a revised environmental plan(s) has been submitted and a final audit grade has been issued by the Council.

Amendment to Schedule 7(C)
In situations where a property forms part of an irrigation scheme or a scheme operated by a Principal Water Supplier (which has been granted a water permit that authorises irrigation on the land), where that property has demonstrated compliance with Rule 5.41A(a) and (b) then the farm environment plan shall be audited once every two years thereafter.

Definition
Change in farming activity means any one or more of:
1. *irrigation of all, or any part of, a property that was un-irrigated at 11 August 2012, except that this clause does not apply to:*
   (a) those properties that hold shares in an irrigation scheme or a scheme operated by a Principal Water Supplier and these shares were purchased before 11 August 2012;
   (b) those properties that hold shares in an irrigation scheme or a scheme operated by a Principal Water Supplier and these shares were purchased after 11 August 2012, and the scheme holds a water permit that authorises the application of water (for irrigation) over the command area within which these properties are located;
2. *an increase in the consented volume of water available to be used on the property compared with that consented at 11 August 2012, except that this*

clause does not apply to:

(a) those properties that holds shares in an irrigation scheme or a scheme operated by a Principal Water Supplier and these shares were purchased before 11 August 2012;

(b) those properties that hold shares in an irrigation scheme or a scheme operated by a Principal Water Supplier and these shares were purchased after 11 August 2012, and the scheme holds a water permit that authorizes the application of water (for irrigation) over the command area within which these properties are located;

3. greater than a 10% increase in the annual average stock units carried on the property, compared with the annual average stock units averaged over 1 July 2010 to 30 June 2013; or

4. greater than a 20% increase in the annual horticultural or arable yield, compared with the annual horticultural or arable yield averaged over the period 1 July 2010 to 30 June 2013.

and "Changed" in relation to the nutrient management policies and rules has the same meaning