

IN THE MATTER

of the Resource
Management Act 1991
(RMA) and the
Environment
Canterbury Temporary
Commissioners and
Improved Water
Management) Act 2010

AND

IN THE MATTER

of the Environment
Canterbury: Proposed
Canterbury Land &
Water Regional Plan
(PCLWRP)

TO BE HEARD BY

Canterbury Regional
Council

HEARING DATE

24 May 2013

**Statement of Evidence of Christopher Adrian Hansen on Behalf of
the Fertiliser Association of New Zealand – Hearing Group 2**

2 April 2013

Introduction

1. My name is Christopher Adrian Hansen and I am a Director and Senior Planning Consultant with Chris Hansen Consultants Ltd. My qualifications are a Bachelor of Regional Planning (Hons) from Massey University (1980). I am a full member of the New Zealand Planning Institute and a member of the Resource Management Law Assoc. I have over 30 years' experience in planning and resource management.
2. I have particular experience in the review and assessment of regional plans and the preparation of submissions, attendance at hearings providing expert planning evidence, and in mediation to resolve appeals.
3. I provide the following statement of evidence in support of the submission and further submission lodged by the Fertiliser Association of New Zealand (FANZ) (previously the New Zealand Fertiliser Manufacturers Research Association) to the Proposed Canterbury Land & Water Regional Plan (PCLWRP/proposed Plan). I assisted FANZ to prepare their submission(s).
4. I have read the Code of Conduct contained in the Environment Court's Practice Notes for Expert Witnesses and agree to comply with it.

Outline of Evidence

5. In Hearing Group 2, the key matters of interest to FANZ is:
 - Nutrients: Chapter 9 of the Officer Report and in particular:
Farming and nitrogen discharges Rules 5.39 – 5.51
Policies 4.28 to 4.38, 4.76
Schedule 7
Schedule 8
Map layers
 - Fertiliser Use: Chapter 7 of the Officer Report and in particular Rules 5.52 – 5.54
 - Other: Definitions
6. The Officer Report has recommended substantial changes to the policies and rules relating to Nutrient Discharges. My approach today is to provide you with a commentary on the recommended objectives and policies in the Officer Report in PART ONE of my evidence.
7. In PART TWO of my evidence I will provide an overview of the planning matters raised by FANZ, and the relief they sought, in relation to the

provisions contained in the notified Plan. I also note that the FANZ is a supporter of the technical expert evidence presented by Dr Roberts, and I reference his evidence below when it is relevant to the matters raised by FANZ.

PART ONE - Officer Report Approach to Nutrient Discharges Policies & Rules

8. As mentioned above, the Officer Report has recommended substantial changes to the approach relating to Nutrient Discharges (Chapter 9 of the Officer Report). In PART ONE of my evidence I will provide comment on the overall approach to nutrient discharges, and the more detailed objectives and policies that are to implement this approach.

Officer Report – Introduction (Pages 69 – 70)

9. In my view, the key points (as stated in the Officer Report) are:
- There are a variety of mechanisms used to manage nutrients – submissions have canvassed these mechanisms;
 - The PCLWRP approach adopted a form of ‘enhanced grand-fathering’ for the management of nutrients – there is a significant reliance on ‘*industry articulated good practice*’ overlaid by a sub-regional framework which enables location specific solutions to be developed and implemented;
 - The PCLWRP provisions are strongly based on a ‘*pre-2017 and post-2017*’ framework which provides a holding pattern and the opportunity for Schedule 8 provisions to be completed;
 - After 2017 the region-wide controls would shift to a ‘*industry articulated good practice*’ framework based on different stocking types, climate and soil characteristics, and whether or not the property is irrigated;
 - The PCLWRP framework focussed strongly on nitrogen whereas other nutrients are also contributing to water quality issues;
 - OVERSEERTM is most developed with respect to nitrogen but subject to limitations of both accuracy and input management and as yet may

be inappropriate to use in a number of farming situations (including arable, horticulture, and pig farming).

10. **Comment:** The above matters provide a good summary of the notified PCLWRP approach to nutrient discharges. The matters identified fairly represent the issues raised in submissions.

Officer Report – Overall Analysis (Pages 70 – 76)

11. The Officer Report provides an analysis of the nutrient discharge issues facing the region. One conclusion is that: *“Overall, it is difficult to avoid the simple logic of increased irrigation leading to increased water and nutrient leaching through the root zone or surface run-off”*. This is contrasted by the NPS requirement to identify water bodies that are degraded from a water quality perspective, the setting of water quality limits, maintaining or improving the overall quality of fresh water within a region, and the requirement for resource consents to ensure those water quality limits will be met.
12. The Officer Report goes on to state: *“The dichotomy between providing for significant additional irrigation and the inherent effects with respect to nutrients, along with requirements to set allocation limits and avoid over-allocation with respect to water quality, is the fundamental difficulty to be addressed through the pLWRP provisions.”*
13. **Comment:** Overall I support the approach recommended in the Officer Report, and in particular the need to take a step back to review the directions the proposed Plan has taken to date, and accept the need to review these directions.
14. Notwithstanding this, I am concerned about the simplistic nature of the ‘*simple logic*’ that increased irrigation leads to increased water and nutrient leaching through the root zone or surface run-off. There appears to be an inherent assumption that irrigation will automatically result in an increase in nutrient discharge and subsequent water quality issues. While it is accepted that irrigation may lead to land use change, in my view it is not correct to make the quantum leap that all land use change resulting from irrigation leads to water quality issues. In particular this does not recognise the opportunity to adopt best management practices or mitigation, and also does not recognise that in time there will be an improvement in technology and knowledge that all may

contribute to reducing nutrient discharges. There are also a range of factors that need to be included when forming a view including the receiving environment; the nature of the land use activity; the degree of change; other factors that contribute to water quality issues; and other nutrients.

15. I acknowledge the contrast expressed in the Officer Report regarding water quality outcomes. I consider there is an overall '*balancing*' required between meeting the enabling principles of the Resource Management Act regarding social and economic wellbeing and the need to safeguard the life-supporting capacity of fresh water.
16. The Officer Report continues by providing a commentary on the nature of submissions received, and noted submissions often expressed the need for fundamental changes to the nutrient management provisions and philosophy but only requested relatively minor word changes to existing policies and rules.
17. The Officer Report identified a range of issues that have consistently attracted a significant number of submissions. These include:
 - use of various forms of audited self-management or other voluntary mechanisms;
 - the use of OVERSEERTM;
 - the focus on nitrogen alone;
 - the complexity or inability to manage some farming types;
 - the need to allow for some development and investment certainty;
 - a lack of connection between outcomes in Table 1 and the rule framework.
18. **Comment:** Addressing these issues forms the basis for the revised approach recommended in the Officer Report. I will summarise each area and comment accordingly below.

Use of various forms of audited self-management or other voluntary mechanisms

19. The Officer Report identifies that a range of submitters have suggested that various self-management, voluntary approaches or audited self-management ought to be adopted, instead of policy and rule regimes that may require resource consents or set limits. The Officer Report concludes: "*Overall, the*

industry-led initiatives are seen to be a significant and positive contribution towards managing nutrients. However, there needs to be a regulatory framework within which all parties, whether they choose to adopt an industry-led initiative, or operate outside of a voluntary process, are accommodated.”

20. The Officer Report notes that many of the audited self-management or industry-led initiatives are at present in a relatively early state or still under development. On this basis, the Officer Report recommends, as a 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, people who choose to not adopt an audited self-management framework or where such a framework does not exist.*” The Officer Report recommends permitted activity status be provided due to the number of farms affected.
21. **Comment:** Overall I support the views expressed on this matter and the recommendation to adopt a self-management and industry-led approach backed up by a regulatory approach that includes provision for permitted activities with timeframes identified.

The use of OVERSEERTM

22. The Officer Report comments on the purpose of OVERSEERTM, and highlights issues including: the margin of error, is subject to manipulation of inputs; introduction of Version 6; and how it is unsuited to use with some farming types, particularly arable, horticulture, and pig farming. The Officer Report suggests the “... *confidence in the nutrient management system and its applicability across all farms in Canterbury has been brought into question.*”
23. As a result, the Officer Report recommends that in the transitional phase, before the introduction of a “lookup table” in Schedule 8, there is an opportunity to step back from OVERSEERTM 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 OVERSEERTM.
24. **Comment:** I note Dr Ants Roberts address the matters raised above in his expert evidence. In particular Dr Roberts concludes: “*no model is perfect*

The OVERSEER[®] owners are keen to bring the arable and horticultural models and validation of same up to the same level of robustness as the pastoral model, where possible. [Taken from paragraph 98, Dr Roberts evidence.]

The focus on nitrogen alone

25. The Officer Report notes that it became apparent through the submissions and subsequent analysis is that the focus on nitrogen, while being comparatively easy when numeric thresholds and the use of OVERSEERTM are utilised, is not appropriate for all waterbodies.
26. The emphasis in the revised recommended policy and rule framework in the Officer Report is toward good practice implemented through farm environment plans. These are not specifically nitrogen focused, and indeed other environmental effects, beyond nutrient management, are intended to be managed through farm environment plans.
27. **Comment:** I am aware that it became clear from the conferencing of scientific experts as part of Hearing Group 1 that the concentration on nitrogen solely was not appropriate, and that other elements, such as phosphorus, contributed significantly to water quality issues. The review of the concentration on nitrogen is supported, as is the adoption of good practice through farm environment plans, subject to matters raised in my evidence relating to FEP.

The complexity or inability to manage some farming types

28. The Officer Report records that a number of submitters (particularly in the arable and horticultural sectors along with some intensive farming activities) consider their activities are too complex to be managed under the nitrogen and OVERSEERTM focused policy and rule regime in the PCLWRP – this point is accepted by ECan.
29. The Officer Report response is that: “... *broadening of the provisions toward farm environment plans and wider nutrient management may assist this matter*”. Notwithstanding this, the Officer Report notes that: “...*the horticultural sector, in particular with movement around different properties*

leased seasonally, will be difficult to manage and no obvious solution to this problem is foreseen.”

30. **Comment:** It is accepted that there are some farming sectors that require specific management policies and rules to provide for their circumstances. The broadened farm management plans approach with good management practices is supported to manage these activities, subject to matters raised in my evidence relating to FEP.

The need to allow for some development and investment certainty

31. The Officer Report records concerns of submitters that 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 Officer Report notes this approach was to be a ‘holding’ pattern until sub-regional sections are completed. This approach is now considered potentially unrealistic, some policies are unachievable even with mitigation, and the non-complying status for activities is too high a hurdle. Submitters considered such an approach will not encourage on-going investment in primary production in Canterbury, and the need for investment certainty.
32. The Officer Report response is to have further development providing it is based on the adoption of “*advanced mitigation activities*”, so that the nutrient discharges are minimised (I discuss these ‘*advanced mitigation measures*’ in PART TWO of my evidence). The Officer Report considers this framework, along with additional requirements for existing high nutrient risk activities, will provide the basis that improvements across farming in an entire area will be a relatively low cost opportunity to allow for some additional development to occur prior to comprehensive solutions developed at a sub-regional level.
33. **Comment:** I agree that the existing policy and rule regime places undue restrictions on further development on properties, not only in the ‘Red’ zone, and has the potential to hinder investment in the industry in the future. I support an alternative approach that would provide for low cost opportunities while the sub-regional regime is worked through.

A lack of connection between outcomes in Table 1 and the rule framework

34. The Officer Report identified submitters have raised questions regarding whether Table 1 will ever be able to be achieved, particularly given the rule framework that is based on good practice and managing high risk activities. The Officer Report acknowledges that the lack of connectivity between the Table 1 outcomes and the nutrient rule regime is an issue for the region-wide regime and could be overcome with further work on these matters, particularly with a movement toward sub-regional planning.
35. **Comment:** I agree with the concerns that the Table 1 outcomes will not be achieved while a region wide regime is proposed. Individual catchments need to be assessed, and the sub-regional approach will achieve this. Only then will achieving the Table 1 outcomes be possible. Until then, the proposed Plan needs to make it clear the Table 1 outcomes are aspirational and the sub-regional approach will establish the regime to meet these outcomes.

The timeframe for implementation

36. In this section the Officer Report addresses the question of the timeframes associated with implementing the rule regime post-2017. The Officer Report recognises that developing Schedule 8 and the rule regime to apply post-2017 as initially proposed may not be achievable within the 2017 timeframe, the net result being uncertainty at this point for the long term nature of the policy and rule regime at a region-wide level. To respond to this, it is recommended there be more emphasis on the interim framework in the policy and rules, with only limited identification of how the policy and rule framework may appear under a future regime.
37. **Comment:** I agree with the concerns of submitters that the implementation of the rule regime post-2017 is a concern, with not enough time to develop the regime properly. I therefore support an emphasis of ensuring Schedule 8 and the final rule regime is done properly, and moving away from the 2017 requirements.

A minimum size limit or discharge quantity below which there are no compliance requirements

38. The Officer Report notes a large number of submitters requested a change to the rule regime such that particularly small properties, or those undertaking low risk activities, be omitted from the rule regime. The Officer Report records that there are approximately 17,000 “*farms*” in Canterbury and accepts the need for the rule regime to more particularly focus on the significant nutrient contributors.
39. On this basis, it has been recommended that the regime not apply to small properties (less than 5 hectares) and also to larger properties (up to 50 hectares) that are undertaking low risk activities, such as dry-land sheep and beef farming. The Officer Report estimates this is likely to remove around 10,000 “*farms*” from the rule regime, and make for a far more implementable framework.
40. The Officer Report also acknowledges that a minimum nitrogen leaching value (for example 10kg/ha/pa as requested by many submitters) could also be used, meaning that large properties with low contribution to catchment nutrient levels could be excluded. The Officer Report notes this option would require more people to use Overseer, which raises issues as have been identified above. Some combination of the two options may also be workable.
41. **Comment:** Overall I agree with the intent which is to only focus on properties that are significant contributors to nutrient discharges. I note the Officer Report uses the term ‘*farms*’ which is not defined in the PCLWRP – the Hearing Group 1 s.42A Officer Report has recommended a definition of ‘*property*’ instead of ‘*farms*’, and I assume the results of the assessment using the ‘*property*’ definition is the same or similar. I note the suggestion that 10,000 “*farms*” in Canterbury are under 5 ha or under 50ha with no high nutrient risk activity and can be taken out of the rule regime as proposed. I understand these numbers are derived from Table 3 of Appendix 1 of the Section 32 Report. As I understand, the interpretation that there are 10,000 ‘*farms*’ is based on the Table 3 representations for lifestyle and miscellaneous farm categories. The number of ‘*farms*’ which will be captured by the new proposed rules and resources required to meet requirements remains uncertain

to submitters. I discuss this matter further in my evidence in PART TWO (para. 259).

The difference between “site” and “property”

42. The issues around ‘property’ and ‘site’ have been addressed in the Volume 1 Section 42A Report, and it was concluded in that Report that a definition of ‘property’ needed to be included, and for it to be used within the policy and rule framework. The Officer Report notes there has been a strong theme in the submissions that many farms are operated as a single unit, but may comprise various land holdings (sites). The property definition proposed in the Volume 1 Report required these land holdings to be adjacent. It is recognised that such a definition will not satisfy all parties, particularly those in the horticultural and arable sectors, who often lease a range of properties. The property definition may have wider implications but from a nutrient management perspective, property units would not need to be immediately adjacent provided they are in the same catchment. Other options may be workable.

Officer Report – Recommended Policies

43. As can be seen from the above analysis, the recommended policy framework on Nutrient Management is a substantial refinement of the as-notified policy position. In particular it intends to:
- Reduce the emphasis on the pre-2017/post-2017 framework in the PLWRP;
 - Increase certainty for consent applicants and processing officers as to the acceptability of different types of proposals in different areas;
 - Increase the emphasis on farm environment plans and increase flexibility in areas that are near or over-allocated in terms of nutrients.
44. The following are comments on the particular policy and rule recommendations contained in the Officer Report:

Recommended Policies

45. The Officer Report recommends new Policies 4.27A and 27B:

“Policy 4.27A

To meet water quality outcomes, implement an approach to the management of nutrient discharges from farming activities that incorporates:

1. Raising awareness, gathering information and encouraging good practice through the preparation, implementation and auditing of farm environment plans;

2. Identifying relevant limits for nutrient discharges, based on good practice;

3. Promulgating a plan change that introduces into Schedule 8 nutrient discharge limits based on good practice, along with a rule regime to implement the limits, so that the limits and rule regime have effect from 1 July 2017; and

4. Engaging in catchment-based collaborative planning processes which will result in plan changes being promulgated to introduce catchment-specific solutions that prioritise those areas that currently do not meet water quality outcomes and, when it is incorporated into this Plan, use Schedule 8 as the starting point for catchment specific limit setting.”

“Policy 4.27B

Base the good-practice limits in Schedule 8 on the nutrient discharges resulting from good practice farming activities, taking into account the variety of farming types, climatic conditions and soil types across Canterbury.”

46. **Officer Report:** The Officer Report states: “These two recommended policies outline the overall framework for nutrient management in the LWRP, including the criteria for identification of limits in the currently blank Schedule 8, the promulgation of a rule regime to take effect after 1 July 2017, and emphasis on sub-regional solution development for areas currently identified as over-allocated for nutrients.”
47. **Comment:** Overall I support the intent of the new recommended Policies 27A and 27B. In particular I support the mix of non-regulatory and regulatory mechanisms that intended to be used, and the setting of a timeframe for the setting of limits based on good practice, along with a rule regime to implement the limits, by 1 July 2017. While I consider it would also be useful and provide certainty if a target date for the introduction of catchment-specific solutions was established, I accept the emphasis to concentrate on the

Schedule 8 process in the interim. I do consider there is a need to prioritise those areas that currently do not meet water quality outcomes (i.e. 'Red' zones first) in the plan change process once the limits in Schedule 8 are established.

48. **Recommendation:** I recommend the Commissioners adopt the new Policies 27A and 27B recommended in the Officer Report, subject to consideration of a target date for the introduction of catchment-specific solutions that prioritise those areas that currently do not meet water quality outcomes.

49. The Officer Report recommends a new Policy 4.28:

"Policy 4.28

In all areas, the loss of nutrients to water is minimised through:

1. raising awareness of the nutrient losses by requiring record-keeping;

2. all activities that discharge nutrients operating at good practice or better;

3. requiring the provision of information to enable better decision-making;

and

4. supporting the use of farm environment plans to achieve and demonstrate good practice or better."

50. **Comment:** In general I consider the amended Policy 4.28 recommended in the Officer Report has taken on board FANZ's submission and has included support for good management practice, while removing references to setting nutrient discharge allowances in the sub-regional sections of the plan. Overall I support this amended policy.

51. Notwithstanding this, I note some matters raised by FANZ may still need addressing, including the question of whether the capability to deliver immediately farm management plans exists within the primary industry, and reporting the 'advanced mitigation measures' (discussed later in this evidence). In particular, I have provided in Appendix 1 an assessment undertaken by a FANZ member Company of the likely resources (in terms of additional full time staff required) that might be required to meet the requirements of the PCLWRP, post 2017 and after 2017. This assessment demonstrates that there may be some significant capability issues within the industry, particularly when considering the nation-wide requirement for FEMs and advice on mitigation measures.

52. **Recommendation:** I recommend the Commissioners adopt the Officer Report recommendation to introduce the amended Policy 4.28, subject to addressing

the outstanding matters raised by FANZ relating to the capability to deliver immediately farm management plans exists within the primary industry, and reporting the *'advanced mitigation measures'*.

53. The Officer Report recommends a new Policy 4.29:

"Policy 4.29

Prioritise improving the performance of higher nutrient risk activities and farming and other activities in the catchments of waterbodies that are more sensitive to increases in nutrients."

54. **Comment:** Overall I support in principle the need to prioritise improving the performance of high nutrient risk activities (a new definition is recommended – I discuss this in PART TWO of my evidence). This support is subject to clearly defining *'catchments of waterbodies that are more sensitive to increases in nutrients'* as this could relate to the 'Red' and 'Orange' zones, or the 'Lake Zones', or both.

55. **Recommendation:** It is recommended the Commissioners adopt the new Policy 4.29 recommended in the Officer Report, subject to a clear statement defining *'catchments of waterbodies that are more sensitive to increases in nutrients'*.

56. The Officer Report recommends a new Policy 4.30:

"Policy 4.30

Support industry and irrigation scheme-based initiatives to improve land and water use practices, reduce nutrient discharges and facilitate consenting, including group and irrigation scheme-wide initiatives, reporting and auditing of their constituent farmers."

57. **Comment:** Overall I support in principle the intent of the new policy, and in particular I support incentives to improve land and water use practices and to reduce nutrient discharges. While I also support audited self-management in principles, I note there may be situations where auditing by primary industry is not appropriate, and Council may have to step in in such cases.

58. **Recommendation:** I recommend the Commissioners adopt the intent of the new Policy 4.30 recommended in the Officer Report.

59. The Officer Report recommends a new Policy 4.31:

"Policy 4.31

In areas where regional water quality outcomes are at risk of not being met, as shown by an Orange colouring 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 quartile of nutrient discharge minimisation practices when measured against practices in the relevant farming industry, and that in any event the regional water quality outcomes are still being met.”

60. **Comment:** I note this new Policy 4.31 relates to the requirements of Rule 5.45 (new or changed farming activities in the ‘Orange’ zone). I also note the new policy seems to link the farming activity with proving that there will not be an increase in nutrient loss from the property, presumably compared with the previous land use activity (grand parented to 2010 – 2013) or that the farm adopts one or more of the defined advanced mitigation measures so that it operates in the top 25% of nutrient discharge minimisation practices when measured against practices in the relevant farming industry, which I presume is reference to the Schedule 8 process.
61. While overall in principle I support the intent of the new Policy 4.31, I consider clarification is needed regarding how Council will determine how a farm operates in the top 25% of its industry best practice, as the Schedule 8 process is at least 3-4 years from being completed.
62. **Recommendation:** I recommend the Commissioners adopt the new Policy 4.31 recommended in the Officer Report, subject to clarification regarding how Council will determine how a farm operates in the top 25% of its industry best practice, as the Schedule 8 process is at least 3-4 years from being completed.
63. The Officer Report recommends a new Policy 4.32:

“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.”

64. **Comment:** I note Policy 4.32 addresses similar matters as Policy 4.31 in the notified Plan. In particular, I consider clarification is needed regarding how Council will determine how a farm operates in the top 10% of nutrient discharge practices, as the Schedule 8 process is at least 3-4 years from being completed. Overall I support the intent of the new Policy 4.32 which introduces a best practice and good performance approach. However, the clarification regarding how reporting on the ‘*advance mitigations*’ is achieved discussed above applies (I discuss ‘*advanced mitigation measures*’ in PART TWO of my evidence).
65. **Recommendation:** I recommend the Commissioners adopt the new Policy 4.32 recommended in the Officer report subject to clarification regarding how reporting on the ‘*advance mitigations*’ is achieved.
66. The Officer Report recommends a new Policy 4.33:
“Policy 4.33
In areas where regional water quality outcomes are not being met, as shown by a Red colouring on the Series A Planning Maps, priority will be given to collaborative catchment management processes that culminate in the promulgation of plan changes to set local water quality outcomes, and methods and timeframes to achieve those outcomes, including nutrient discharge allowances, pro-rata reductions in nutrient discharges, or other methods beyond good practice.”
67. **Comment:** I note this new policy sets out the catchment-based sub-regional limit setting process that is currently occurring in the Selwyn and Hinds areas. Overall I support the collaborative catchment management processes intent of new policy (which is similar to Policy 4.29 in the notified Plan).
68. However, as Policy 4.33 provides for plan changes and through consultation, the most appropriate methods could be proposed and agreed at that stage (noting also the Freshwater Reforms and RMA review indicate better national guidance on Managing Water Quality). In my view potential methods do not need to be written into the policy at this stage.
69. **Recommendation:** I recommend the Commissioners adopt the new Policy 4.33 recommended in the Officer Report, subject to the following amendment:

70. *“In areas where regional water quality outcomes are not being met, as shown by a Red colouring on the Series A Planning Maps, priority will be given to collaborative catchment management processes that culminate in the promulgation of plan changes to set local water quality outcomes,~~and methods and timeframes to achieve those outcomes including nutrient discharge allowances, pro rata reductions in nutrient discharges, or other methods beyond good practice.~~”*
71. The Officer Report recommends an amendment to the notified Policy 4.35 to read (now Policy 4.34):
“Policy 4.34~~5~~
To minimise the loss of nutrients ~~nitrogen~~ 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 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.~~”
72. **Comment:** I note Policy 4.34 amends Policy 4.35 of the notified Plan. FANZ opposed the original policy as it proposed the bundling of existing water permits and nutrient consents. However, I note the new policy has changed in 3 ways: firstly it applies to nutrients not nitrogen; secondly the prior to 2017 has been deleted; and thirdly, it intends as a minimum compliance with the nutrient management conditions and ensuring good practice is being achieved. I support this approach and the recommended amendments.
73. **Recommendation:** It is recommended the Commissioners adopt the amendments to Policy 4.34 (was Policy 4.35) as recommended in the Officer Report.
74. The Officer Report recommends an amendment to the notified Policy 4.36 (now Policy 4.35):
“Policy 4.35~~6~~
Irrespective of the nutrient allocation status of a catchment as shown on the Series A Planning Maps, to allow the following discharges, provided the

design and management of the discharge treatment system minimises the discharge of nutrients that may enter water:

(a) wastewater discharge from a marae;

(b) community wastewater treatment schemes; or

(c) wastewater discharge from a hospital, a school or other education institution.”

75. **Comment:** I note Policy 4.35 amends Policy 4.36 of the notified Plan. FANZ did not submit on Policy 4.36 of the notified Plan. The proposed amendments to Policy 4.36 (now Policy 4.35) are considered appropriate.

76. **Recommendation:** It is recommended the Commissioners adopt the amended Policy 4.35 (was Policy 4.36 in the notified Plan) as recommended in the Officer Report.

77. The Officer Report recommends an amendment to the notified Policy 4.37 (now Policy 4.36):

“Policy 4.376

All activities shall 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.”

78. The Officer Report recommends an amendment to the notified Policy 4.38 (now Policy 4.37):

“Policy 4.387

If the measured or predicted nutrient load from land uses and discharges exceeds the nutrient load limit for the catchment, where a load limit or nutrient discharge allowance is set, in Sections 6-15 of this Plan, the loss to water of nutrients from land uses in the catchment will be reduced to achieve the nutrient load limit for the catchment.”

79. **Comment:** I note FANZ linked Policies 4.37 and 4.38 (now Policies 4.36 and 4.37) together. While FANZ originally supported the intent of the policies, it considered that it should be noted the term nutrient ‘load’ in this instance is interpreted to mean nutrient load in the water body, not nutrient load to the land area. To make this distinction clear, the term nutrient ‘loss’ limit was preferred, particularly if applied to industry defined limits based on Good Management Practice.

80. Notwithstanding this, as per my comments on Policy 4.33 above, it is considered more appropriate that the issue of using discharge limits and nutrient discharge allowances be decided by consultation through the plan change process, and should not be pre-empted in policy now to apply to all of sub-regional sections 6 to 15.
81. From this perspective, I consider the new Policy 4.36 should be accepted to achieve catchment limits with flexibility to give effect to the Officers Report emphasis on industry defined limits and good management practice.
82. The new Policy 4.37 is supported in principle.
83. **Recommendation:** I recommend the Commissioners accept the Officer Report recommendation to adopt a revised Policy 4.36 (previously 4.37 in the notified Plan) and adopt the revised Policy 4.37 (previously Policy 4.38 in the notified Plan). Consistent with FANZ submission on Policy 4.33, flexibility should be provided on the most appropriate methods to achieve the outcomes.
84. The Officer Report recommends a new Policy 4.38:
“Policy 4.38
Farm environment plans are used as a primary means of identifying and delivering good practice across a range of farming activities, including nutrient discharge management, efficient and effective use of water for irrigation, stock movements across waterways, offal and farm rubbish pits, effluent storage and application and fertiliser use.”
85. **Comment:** I note this new policy directs that a FEP will be used as the main tool to monitor on-farm good management practice. I support this new policy in principle, although the concerns I raised earlier over the capacity of resources for preparing and auditing of the FEPs remain. As discussed above, it is considered necessary for Council to be undertaking the auditing process (where primary industry self-audited management is not conducted).
86. **Recommendation:** It is recommended the Commissioners adopt the new Policy 4.38 noting the concerns regarding the capacity of resources to undertake the auditing process, and the need for Council to undertake the auditing process for primary industry where self-audited management is not conducted.
87. The Officer Report recommends a new Policy 4.38A:
“Policy 38A

Resource consents are required for activities that discharge nutrients where:
1. auditing of farm environment plans shows the farm environment plan is inadequate or there is poor performance in terms of its implementation;
2. farm environment plans are not prepared or audited; or
3. where the potential effects of nutrient discharges are greater.”

88. **Comment:** I note this new policy is related to the FEP audit process which places emphasis on the importance of the FEP. While I support in principle the first two points of Policy 4.38A, it is not clear what point 3 intends to achieve. If a resource consent has been granted for an activity, then any potential effects of the nutrient discharges has been assessed for the activity consented (even if the potential effects are ‘greater’). If the activity changes so that the effects of the nutrient discharge changes to be greater than the activity originally consented, then a new consent is required.
89. **Recommendation:** It is recommended the Commissioners adopt the new Policy 4.38A as recommended in the Officer Report, and amend it by clarifying the intent of point 3, or deleting it.
90. The Officer Report recommends a new Policy 4.38B:
“Policy 4.38B
Applications for resource consents for farming activities will routinely be accompanied by a farm environment plan and the conditions of any resource consent granted will specify:
1. Procedures and criteria for timely review and updating of the Farm Environment Plan;
2. A requirement to meaningfully implement the Farm Environment Plan;
3. Monitoring and information provision; and
4. Requirements for the independent auditing of the Farm Environment Plan and the implementation of it and remedying of compliance issues raised.”
91. **Comment:** I note this new policy is directly related to the requirements of a FEP for consent applications. While I support the overall intent of Policy 4.38B, I consider the term “A requirement to meaningfully implement the Farm Environment Plan” included in point 2 either needs to be clarified or deleted. I also consider it is necessary to clarify which resource consents require a FEP. Presumably there will be farming activities that might need

consent that do not relate to nutrient discharges and therefore the FEP may have no relevance.

92. **Recommendation:** It is recommended the Commissioners adopt the new Policy 4.38B recommended in the Officer Report subject to either clarifying or deleting point 2, and clarifying the nature of resource consent that requires a FEP.

Officer Report – Recommended Rules

93. The Officer Report recommends Rules 5.39 – 5.51 be amended as follows:

Recommended Rules

94. The Officer Report recommends a new Rule 5.39 as follows:

“Rule 5.39:

The use of land for an existing farming activity, a changed farming activity or a new farming activity is a permitted activity provided the following conditions are met:

1. If the land is not in a Lake Zone as shown on the Series A Planning Maps and:

(a) the area of the property is less than 5 ha; or

(b) the area of the property is more than 5 ha and less than 50 ha and there is no high nutrient risk farming activity occurring on the property.

2. If the land is in a Lake Zone as shown on the Series A Planning Maps and:

(a) the area of the property is less than 5 ha; and

(b) there is no high nutrient risk farming activity occurring on the land.”

95. **Comment:** I support the permitted activity status of this new rule, the principle of setting a minimum area for a property (and a maximum for properties that are not ‘high nutrient risk farming activities’), and that there is no requirement for a permitted activity to submit any nutrient information to Council. I note FANZ originally sought in its submission 10ha as the minimum area for a ‘farm’. While I accept an ‘arbitrary’ number is being established here, I consider the implications of adopting 5ha vs 10ha should be closely assessed in consideration of the impact on resources and capability

- required for meeting the requirements of the rules which apply for the provision of FEP's, reporting and nutrient management for farming activities.
96. **Recommendation:** It is recommended the Commissioners adopt the new Rule 5.39 recommended in the Officer Report, subject to further consideration of setting the minimum area as 10ha as the most appropriate area.
97. The Officer Report recommends a new Rule 5.40 as follows:
"Rule 5.40
The use of land for an existing farming activity that is not permitted by Rule 5.39 in an area coloured Orange, Green or Pale Blue on the Series A Planning Maps is a permitted activity provided the following conditions are met:
1. Information on the farming activity, in accordance with Schedule 7 Part D is provided to the Canterbury Regional Council."
98. **Comment:** I support the permitted activity status of this new rule, and the reporting on farm information to Council as the only condition.
99. **Recommendation:** It is recommended the Commissioners adopt the new Rule 5.40 as recommended in the Officer Report.
100. The Officer Report recommends a new Rule 5.41 as follows:
"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."
101. **Comment:** I support the permitted activity pathway for existing farming in the red zone, subject to clarification of matters relating to the FEP discussed below in this evidence.

102. **Recommendation:** It is recommended the Commissioners adopt the new Rule 5.41 subject to addressing matters regarding the FEP raised below in this evidence.

103. The Officer Report recommends a new Rule 5.42 as follows:

“Rule 5.42

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 a Lake Zone as shown on the Series A Planning Maps, is a permitted activity provided the following conditions is met:

1. There is no high nutrient risk activity occurring on the land; and
2. 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.”

104. **Comment:** Similar to above, I support the permitted activity status provided in Rule 5.42, subject to addressing a number of matters relating to the FEP discuss below in my evidence.

105. **Recommendation:** It is recommended the Commissioners adopt the new Rule 5.42 recommended in the Officer Report subject to addressing matters regarding the FEP raised below in this evidence.

106. The Officer Report recommends a new Rule 5.43 as follows:

“Rule 5.43

The use of land for an existing farming activity, where the property is partly or wholly in a Lake Zone as shown on the Series A Planning Maps and there is a high nutrient risk farming activity occurring on that part of the property within the Lake Zone, is a restricted discretionary activity provided the following conditions is met:

1. A farm environment plan is prepared, implemented and audited in accordance with Schedule 7 Parts A and C.

The CRC will restrict the exercise of discretion to the following matters:

1. The content of, compliance with, and auditing of the Farm Environment Plan;
2. The potential effects of the land use on surface and groundwater quality, and sources of drinking water;
3. The contribution of nutrients from the proposed activity to the nutrient allocation status of the management zone.

4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to nutrient management and water quality.”

107. **Comment:** I support the restricted discretionary activity status and the focus on FEPs (subject to FEP matters being clarified as discussed below in my evidence) for high nutrient risk activity that occurs on the property within the Lake Zone as this is appropriate and pragmatic.

108. **Recommendation:** I recommend the Commissioners adopt the new Rule 5.43 as recommended in the Officer Report, subject to addressing the matters relating to FEPs discussed below in my evidence.

109. The Officer Report recommends a new Rule 5.44 as follows:

“Rule 5.44

The use of land for a changed or new farming activity that is not permitted by Rule 5.39, where the property is wholly in an area coloured Green or Pale Blue on the Series A Planning Maps, is a permitted activity provided the following condition is met:

1. Information on the farming activity, in accordance with Schedule 7 Part D is provided to the Canterbury Regional Council.”

110. **Comment:** I support the permitted activity pathway for changed and new farming activities in the ‘Green’ and ‘Blue’ Zones that are not defined as high nutrient risk activities, and the information to be provided to Council does not include a nutrient budget.

111. **Recommendation:** I recommend the Commissioners adopt the new Rule 5.44 as recommended in the Officer Report.

112. The Officer Report recommends a new Rule 5.45 as follows:

“Rule 5.45

The use of land for a changed farming activity or a new farming activity, where the property is partly or wholly in an area coloured Orange on the Series A Planning Maps, is a restricted discretionary activity provided the following condition is met:

1. A farm environment plan is prepared, implemented and audited in accordance with Schedule 7 Parts A and C.

The CRC will restrict the exercise of discretion to the following matters:

1. The content of, compliance with, and auditing of the Farm Environment Plan;

2. The potential effects of the land use on surface and groundwater quality, and sources of drinking water;

3. The contribution of nutrients from the proposed activity to the nutrient allocation status of the management zone.

4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to nutrient management and water quality.”

113. **Comment:** I support the restricted activity status provided for in the new Rule 5.45, subject to the FEP matters identified below in my evidence being addressed. I also consider Rule 5.45 needs to apply to those activities not already permitted under Rule 5.39, as Rule 5.44 does.

114. **Recommendation:** It is recommended the Commissioners adopt the new Rule 5.45 recommended in the Officer Report, subject to addressing the matters relating to FEPs discussed below in my evidence, and amending the rule to read (additional words in **bold**):

“The use of land for a changed farming activity or a new farming activity **that is not permitted by Rule 5.39**, where the property

115. The Officer Report recommends a new Rule 5.46 as follows:

“Rule 5.46

The use of land for a changed farming activity or a new farming activity, where the property is partly or wholly in a Lake Zone as shown on the Series A Planning Maps or coloured Red on the Series A Planning Maps is a discretionary activity.”

116. **Comment:** I support the discretionary activity status provide for in the new Rule 5.46. Similar to above, I consider it is appropriate for the new Rule 5.46 to apply to those activities not already permitted under Rule 5.39.

117. **Recommendation:** It is recommended the Commissioners adopt the new Rule 5.46 recommended in the Officer Report, subject to amending the rule to read (additional words in **bold**):

“The use of land for a changed farming activity or a new farming activity **that is not permitted by Rule 5.39**, where the property

118. The Officer Report recommends a new Rule 5.47 as follows:
“Rule 5.47
The use of land for an existing farming activity, a changed farming activity or a new farming activity that does not meet the relevant conditions of Rules 5.39 to 5.45 or is not classified by Rules 5.39 to 5.45 is a discretionary activity.”
119. **Comment:** I do not support the principle that any condition that cannot be complied with in Rules 5.39 – 5.42 and Rule 5.44 defaults to a discretionary activity. I would have thought controlled activity status would be appropriate in some instances, and restricted discretionary activity being the default status, with Council’s discretion restricted to the matter of non-compliance.
120. **Recommendation:** I recommend the Commissioners review the activity status for those activities that cannot comply with one or more of the permitted activity standards in Rules 5.39 – 5.42 and Rule 5.44, and adopt controlled activity or restricted discretionary activity as appropriate, with Council’s discretion being restricted to the permitted activity conditions that is not complied with.
121. The Officer Report recommends Rule 5.50 be amended as follows:
“Rule 5.50
The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA is a permitted activity, provided the following condition is met:
1. The land use activity associated with the discharge is authorised under Rules 5.39 to 5.46-5.49.”
122. **Comment:** FANZ supported this rule in its submission and I consider the minor amendment to reflect the new rules can also be supported.
123. **Recommendation:** I recommend the Commissioners adopt the amendment to Rule 5.50 as recommended in the Officer Report.
124. The Officer Report recommends Rule 5.51 be amended as follows:
“Rule 5.51
The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA and does not meet the condition in Rule 5.50 is a non-complying discretionary activity.”

125. **Comment:** I note FANZ supported the notified wording (discretionary activity). I do not consider there is strong reasoning for amending the activity status to non-complying, and I consider the original discretionary activity status is appropriate and warranted.
126. **Recommendation:** I recommend the Commissioners reject the Officer Report recommendation to amend Rule 5.51 and retain the activity status as discretionary as included in the notified Plan.

PART TWO – Plan Provisions Submitted on by FANZ

127. The following evidence addresses specific matters raised by FANZ in its submission and identified the Officer Report comment and recommendation, my comment, and a recommendation.

Plan Provision: Nutrient Zones (Policies 4.31, 4.33, 4.34, Rules 5.42 to 5.49 and Planning Map (Page 4-8)

128. **Submission:** The Nutrient Zones Planning Map (refer to Attachment A) sets out Nutrient Allocation Zones for the Canterbury Region. These zones determine activity status for the use of land for farming activities in the rules.
129. It is noted that the determining of the Nutrient Zones is a key mechanism in the proposed Plan, and requires high level of confidence in the robustness of zone allocation and how the boundaries are decided.
130. It is unclear how accurate the Nutrient Zones are or what levels of confidence can be placed around boundaries. It is also not clear what process is in place to address those nutrient zones that are '*unclassified*'.
131. In addition, FANZ considers that given the size of some catchments and the varying land use within them, a sub-catchment / catchment approach is desirable, and not just apply in part for certain '*sensitive lakes*'. A sub-catchment approach also better accord 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).
132. FANZ submitted that there should be some flexibility in the setting of, and amendments to, zone boundaries as new information and science becomes available. FANZ sought the inclusion of provisions for a sub-catchment approach to setting limits.
133. **Officer Report:** The Officer Report does not appear to directly refer to FANZ submission points, and the relief it seeks. The Officer Report notes that 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 Officer Report considers 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. The Officer Report recommends that the Nutrient Allocation Zone mapping be retained without amendment.

134. **Comment:** While I note that the Officer Report does not really address the matters raised by FANZ in its submission, it has recommended substantial changes to the rules and subsequent activity status associated with the various Nutrient Allocation Zones contained on the map. As discussed above in PART ONE of my evidence, I generally support the rules recommended in the Officer Report, subject to some matters that need to be addressed.
135. I am conscious that the policies and rules contained in the Officer Report are recommendations, and you as Commissioners are not obliged to accept these recommendations. Should you decide not to accept the new rules recommended in the Officer Report, the matters raised in FANZ submission would remain, and I would continue to question level of confidence in the robustness of zone allocation and how the boundaries are decided. In addition, I would support FANZ request for the inclusion of provisions for a sub-catchment approach to setting limits.
136. **Recommendation:** It is recommended the Commissioners in the first instance accept the new rules recommended in the Officer Report relating to nutrient discharges. However, should these new rules not be adopted, I recommend the Commissioners address the concerns raised regarding the robustness of the zone allocation and how the boundaries are decided, and I would seek for the inclusion of provisions for a sub-catchment approach to setting limits.

Policies

Plan Provision: Policy 4.28 (Page 4-7)

137. *“The loss of nitrogen to water is minimised through first, raising awareness of the nitrogen losses from farming by requiring record-keeping on existing farms, secondly, supporting the use of industry articulated good practice and finally, introducing, through plan changes to Sections 6-15 of this Plan, nutrient discharge allowances to achieve collaboratively agreed catchment-based water quality outcomes.*

138. **Submission:** FANZ submitted that overall the general intent of this policy is pragmatic and is supported. The approach advances a form of *'audited self-management'*, thus embracing an acceptable degree of flexibility and innovation, while also providing for ongoing farm production and growth in the farming sector. The support given to good practice (as defined by industry) in addressing nutrient management and the ability to achieve nutrient discharge allowances through a collaborative process is supported, given that it is both enabling and accords with the purpose of the Act.
139. As discussed above, there is a need to better define the terms *'nutrient discharge'* and *'catchments'*.
140. Alternative methods also could be provided for as well as determining nutrient discharge allowances.
141. FANZ supported the overall intent of Policy 4.28, subject to better defining the terms *'nutrient discharge'* and *'catchments'*, and sought for Policy 4.28 to be amended as follows:
- "...introducing, through plan changes to Sections 6-15 of this Plan, nutrient discharge allowances and/or established alternative methods to achieve collaboratively agreed catchment-based water quality outcomes."*
142. **Officer Report:** The Officer Report acknowledges the relief sought by FANZ relating to Policy 4.28, but not the request for better defining the terms *'nutrient discharge'* and *'catchments'*.
143. The Officer Report recommends a definition of *'nutrient discharge'* but not *'catchments'*.
144. The Officer Report recommends a new suite of Policies as discussed above in PART ONE of this evidence.
145. **Comment:** In essence Policy 4.28 is replaced by the new policies discussed in PART ONE above. A new definition of *'nutrient discharge'* has been recommended, and I comment on that matter below when considering the definitions. I consider the definition of *'catchment'* is still required, and I refer to my Hearing Group 1 evidence (relating to Ravensdown's submission) that suggests a possible definition. To assist the Commissioners further, I would recommend the following definition of *'catchment'* be considered:
- "Area of land with defined boundaries where water runoff and drainage flow to a specified water body."*

146. **Recommendation:** It is recommended the Commissioners adopt the new policies as discussed in PART ONE above. Should the Commissioners decide to retain the existing Policy 4.28, I would recommend the amendment be adopted as sought by FANZ in its submission, and a definition of ‘catchment’ as recommended above also be incorporated into the Plan.

Plan Provision: Policy 4.29 (Page 4-7)

147. *“Priority will be given to collaborative catchment management processes to introduce plan changes to set nutrient discharge allowances where regional water quality outcomes are not being met, as shown on the Planning Maps, and in the interim risks to the environment from the loss of nitrogen to water will be managed through compliance with industry articulated good practice or, in the absence of any such articulation, granting, subject to conditions, or refusing applications for resource consents.”*
148. **Submission:** Similar to above, the general intent of Policy 4.29 to set nutrient discharge allowances through a collaborative process is supported, subject to better defining the terms ‘nutrient discharge’ and ‘catchments’.
149. FANZ also sought alternative methods to be provided for as well as determining nutrient discharge allowances.
150. The Association supported the overall intent of Policy 4.29, subject to better defining the terms ‘nutrient discharge’ and ‘catchments’, and amending Policy 4.29 as follows:
“Priority will be given to collaborative catchment management processes to introduce plan changes to set nutrient discharge allowances and/or established alternative methods where regional water quality outcomes are not being met,…”
151. **Officer Report:** The Officer Report acknowledges the relief sought by FANZ relating to Policy 4.29, but not the request for better defining the terms ‘nutrient discharge’ and ‘catchments’.
152. The Officer Report recommends a new definition of ‘nutrient discharge’, but not ‘catchments’. The Officer Report recommends a new suite of Policies as discussed above in PART ONE of this evidence.
153. **Comment:** The same comments above relating to Policy 4.28 apply.

154. **Recommendation:** It is recommended the Commissioners adopt the new policies as discussed in PART ONE above. Should the Commissioners decide to retain the existing Policy 4.29, I would recommend the amendment be adopted as sought by FANZ in its submission, and a definition of ‘catchment’ also be incorporated into the Plan (as per my suggested definition above).

Plan Provision: Policy 4.30 (Page 4-7)

155. *“Until 1 July 2017 the loss of nitrogen to water from existing farming activities will be minimised by raising awareness of the actions and activities that give rise to these discharges and the effects of these discharges on the environment and as a result of nitrogen discharges being recorded by each farming enterprise.”*
156. **Submission:** The general intent of Policy 4.30 to take a non-regulatory approach to existing farming activities that discharges nitrogen to water prior to 2017 is supported.
157. **Officer Report:** The Officer Report does not identify the support provided by FANZ. The Officer Report recommends a new suite of Policies as discussed above in PART ONE of this evidence.
158. **Comment:** Similar to above, FANZ supported Policy 4.30 as it was written. However, a suite of new policies have been recommended in the Officer Report, and I comment on these new policies in PART ONE of this evidence.
159. **Recommendation:** It is recommended the Commissioners adopt the new policies as discussed in PART ONE above. Should the Commissioners decide to retain the existing Policy 4.30, I would recommend the Commissioners retain Policy 4.30 as written in the notified Plan.

Plan Provision: Policy 4.31 (Page 4-7)

160. *“Minimise the loss of nitrogen to water from any change in farming activities in an area coloured red on the Planning Maps, by demonstrating the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved or the nitrogen discharges from the property are a significant and enduring reduction from existing levels.”*

161. **Submission:** While the Association understands the intention of Policy 4.31 is to limit a further reduction in water quality within areas already identified as *'Not meeting Water Quality Outcomes'*, there is concern with the terminology used within Policy 4.31, and it is opposed.
162. The phrase *'significant and enduring reduction'* in Policy 4.31 is not easily defined or frequently used in resource management instruments, such as the Canterbury Regional Policy Statement or National Policy Statement for Freshwater Management. While it is appreciated that policies are not rules, and thus should not have to be definitive, they do, however, need to import as much certainty as they can and avoid ambiguity.
163. In addition to not being clear how *"a significant and enduring reduction from existing levels"* might be measured, the policy would be difficult if not impossible to achieve, as there is a need before any change in farming activity to know and understand the effects of other land use or discharges. It may be difficult if not impossible to determine the effects of other land uses and discharges and whether the water quality outcomes of Table 1 are not prevented.
164. Furthermore, there are no timeframes for the policy, unless they are introduced to Policy 4.1.
165. The Association considers that the policy is open to divergent interpretation by parties giving effect to it and as such is neither concise nor clear. Good planning practice would dictate that any ambiguity in this policy is removed.
166. FANZ opposed to Policy 4.31 and sought for it to be deleted. As an alternative, FANZ sought Policy 4.31 be amended as follows:
"Minimise the loss of nitrogen to water from any change in farming activities in an area coloured red on the Planning Maps, by demonstrating the nitrogen loss from the proposed activity, ~~when assessed in combination with the effects of other land uses or discharges,~~ will not prevent the water quality outcomes of [new Objective XX] Policy 4.1 being achieved. ~~or the nitrogen discharges from the property are a significant and enduring reduction from existing levels.~~"
167. **Officer Report:** The Officer Report acknowledges that *"the Fertiliser Assn. and Ravensdown seek to make a sub-catchment approach to setting limits. Flexibility is sought in setting and amending zone boundaries as new science*

and information becomes available.” While the Officer Report identifies the amendments sought to Policy 4.31, it does not address the questions of clarity raised by FANZ.

168. The Officer Report recommends a new suite of Policies as discussed above in PART ONE of this evidence.
169. **Comment:** The concerns raised by FANZ in relation to Policy 4.31 have been removed as a result of the new suite of policies proposed in the Officer Report. Should the Commissioners decide to reject the Officer Report recommendation, the concerns raised by FANZ would be valid, and in my view should be addressed in order to ensure clarity and ensure the policy is workable. The amendments sought by FANZ should be adopted accordingly.
170. **Recommendation:** It is recommended the Commissioners adopt the new policies as discussed in PART ONE above. Should the Commissioners decide to retain the existing Policy 4.31, I would recommend the Commissioners amend Policy 4.31 as sought by FANZ in its submission to address the particular concerns raised.

Plan Provision: Policy 4.32 (Page 4-9)

171. *“To minimise the risk of the outcomes in Policy 4.1 not being achieved, where there is no industry articulated good industry practice nitrogen discharge limit for a particular industry sector included in this Plan prior to 1 July 2017 then all farming activities in that industry sector will be required to obtain a resource consent to continue the farming activity and any proposal will be required to demonstrate the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved or the nitrogen discharges from the property are a significant and enduring reduction from existing levels.”*
172. **Submission:** FANZ considered this is a confusing policy and seems to contradict the Rules 5-39 and 5-40 which provide for permitted activities prior to 2017 and without the Schedule 8 Industry Derived Nitrogen Discharges limit. Similar comments above on Policy 4.31 also apply.

173. As discussed above, FANZ submitted that this policy includes a currently difficult if not impossible requirement:

“...to obtain a resource consent to continue the farming activity and any proposal will be required to demonstrate the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved”

174. FANZ opposed the intent of Policy 4.32, and the policy should be either re-written to reflect the provisions of Rules 5-39 and 5-40, or deleted.

In the alternative, amend Policy 4.32 as follows:

“To minimise the risk of the outcomes in [new Objective XX] ~~Policy 4.1~~ not being achieved, where there is no industry articulated good industry practice nitrogen discharge limit for a particular industry sector included in this Plan prior to 1 July 2017 then all farming activities in that industry sector ~~will be required to obtain a resource consent to continue the farming activity and any proposal, will be required to demonstrate the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges,~~ will not prevent the water quality outcomes of [new Objective XX] ~~Policy 4.1~~ being achieved. ~~or the nitrogen discharges from the property are a significant and enduring reduction from existing levels.~~”

175. **Officer Report:** The Officer Report recognises the FANZ submission and the relief sought. The Officer Report recommends a new suite of Policies as discussed above in PART ONE of this evidence.
176. **Comment:** Similar comments apply as per Policy 4.31 above. Should the Commissioners decide to reject the Officer Report recommendation and retain Policy 4.32, I consider it is important the matters raised by FANZ are addressed. In particular I consider the policy as currently written confusing and contradictory, and needs to be rewritten to provide clarity and certainty.
177. **Recommendation:** It is recommended the Commissioners adopt the new policies as discussed in PART ONE above. Should the Commissioners decide to retain the existing Policy 4.32, I would recommend the Commissioners amend Policy 4.32 as sought by FANZ in its submission to address the particular concerns raised.

Plan Provision: Policy 4.34 (Page 4-9)

178. *“Prior to 1 July 2017, to minimise the loss of nitrogen to water from any change in farming activities in an area coloured red or within a Lake Zone as shown on the Planning Maps, an applicant for resource consent must demonstrate that the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved and show that the nitrogen discharges from the property are a significant and enduring reduction from existing levels.”*
179. **Submission:** The concerns with Policy 4.34 are the same as for Policy 4.31 and 4.32 above. In particular, it is not clear how *“a significant and enduring reduction from existing levels”* might be measured, and the policy would be difficult to achieve as it is currently not possible for any farming activity to know and understand the effects *“when assessed in combination with the effects of other land use or discharges”*.
180. It is not clear why this policy requires a consent application to demonstrate it will not prevent Water Quality outcomes of Policy 4.1 being achieved AND show that nitrogen discharges are a significant and enduring reduction from existing levels.
181. Further, there are no timeframes for implementation of the policy, unless they are introduced through Policy 4.1.
182. At this stage it is difficult to determine what amendments to the policy may satisfy these concerns as a re-write is required.
183. FANZ sought Policy 4.34 be deleted. In the alternative, amend Policy 4.34 as follows:
- “Prior to 1 July 2017, to minimise the loss of nitrogen to water from any change in farming activities in an area coloured red or within a Lake Zone as shown on the Planning Maps, an applicant for resource consent must demonstrate that the nitrogen loss from the proposed activity, ~~when assessed in combination with the effects of other land uses or discharges,~~ will not prevent the water quality outcomes of [new Objective XX] ~~Policy 4.1~~ being achieved. ~~and show that the nitrogen discharges from the property are a significant and enduring reduction from existing levels.~~”*

184. **Officer Report:** While the Officer Report identifies the amendments sought to Policy 4.34, it does not address the questions of clarity raised by FANZ. The Officer Report recommends a new suite of Policies as discussed above in PART ONE of this evidence.
185. **Comment:** The same comments relating to Policies 4.31 and 4.32 above apply, and the same amendments are sought to address the issues raised.
186. **Recommendation:** It is recommended the Commissioners adopt the new policies as discussed in PART ONE above. Should the Commissioners decide to retain the existing Policy 4.34, I would recommend the Commissioners amend Policy 4.34 as sought by FANZ in its submission to address the particular concerns raised.

Plan Provision: Policy 4.35 (Page 4-9)

187. *“To minimise the loss of nitrogen 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, 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, the regular audit of that plan and to record, on a per enterprise basis, nitrogen discharges”.*
188. **Submission:** While FANZ understands the good intent, it opposes the approach advanced within Policy 4.35 which seeks to bundle nutrient management conditions with existing water permits.
189. FANZ supported the principles that underlie the permitted activity status (Rules 5.39 and 5.40), including the use of ‘Farm Environment Plans’ and ‘Nutrient Management Plans’ and employing ‘Best Management Practices’ in order to maximise farm production and minimise adverse effects of nutrient in the environment (subject, of course to the Council making amendments that were referred to in the Association’s earlier submission points. The reliance on a form of ‘audited self-management’ allows an appropriate level of flexibility and should foster innovation in the manner that they are adopted in managing nutrient discharges. It also provides for ongoing farm production

and growth in the farming sector. This is consistent with the purpose of the RMA.

190. However, FANZ opposed these conditions being bundled with existing water permits and believes the requirements are met by the rules and policies proposed, without the need for bundling.
191. Given the above, FANZ opposed Policy 4.35 and sought for it to be deleted.
192. **Officer Report:** The Officer Report does not appear to record FANZ opposition to Policy 4.35, and the relief it sought to delete the policy. The Officer Report recommends amendments to Policy 4.35 as discussed in PART ONE above.
193. **Comment:** The comments made to Policy 4.35 in PART ONE above apply.
194. **Recommendation:** It is recommended the Commissioners adopt the new policy as discussed in PART ONE above. Should the Commissioners decide to retain the existing Policy 4.35, I would recommend the Commissioners delete Policy 4.35 as sought by FANZ in its submission.

Plan Provision: Policies 4.37 and 4.38 (Page 4-9)

195. *“All activities shall achieve the nutrient load limit and nutrient allowance for the catchment in Sections 6-15 of this Plan.” and*
196. *“If the measured or predicted nutrient load from land uses and discharges exceeds the nutrient load limit for the catchment in Sections 6-15 of this Plan, the loss to water of nutrients from land uses in the catchment will be reduced to achieve the nutrient load limit for the catchment.”*
197. **Submission:** FANZ noted that Policy 4.37 and Policy 4.38 establish the policy framework for the setting of nutrient ‘load’ limits for each catchment (and which are to ultimately be inserted into Sections 6-15 of the Plan). FANZ supported this approach in principle on the basis that they are based on industry benchmarks for good management practices and specifies discharge limits to be met that respond to both catchment and sub-catchment requirements.
198. FANZ noted that Policies 4.37 and 4.38 should reflect reference to ‘catchment and sub-catchment’ nutrient ‘load’ limits, should these be developed as part of

the limit setting approach promulgated for each of the catchments set out in Sections 6-15 of the Plan.

199. For this reason, FANZ supported (in part) Policy 4.37 and 4.38 and considered that it should be noted the term nutrient ‘load’ in this instance is interpreted to mean nutrient load in the water body, not nutrient load to the land area. To make this distinction clear, the term nutrient ‘loss’ limit is preferred. FANZ sought an amendment to Policy 4.37 and Policy 4.38 as follows:

“Policy 4.37 All activities shall achieve the nutrient ~~load~~-loss limit and nutrient allowance for the catchment and sub-catchments in Sections 6-15 of this Plan.”

“Policy 4.38 If the measured or predicted nutrient ~~load~~-loss from land uses and discharges exceeds the nutrient ~~load~~-loss limit for the catchment and sub-catchments in Sections 6-15 of this Plan, the loss to water of nutrients from land uses in the catchment will be reduced to achieve the nutrient load limit for the catchment.”

200. **Officer Report:** The Officer Report does not appear to record FANZ partial support for Policies 4.37 and 4.38, and the relief it sought to amend these policies. The Officer Report recommends amendments to Policies 4.37 (now 4.36) and 4.38 (now 4.37) as discussed in PART ONE above.
201. **Comment:** The comments on the amendments recommended in the Officer Report in PART ONE above apply.
202. **Recommendation:** I recommend the Commissioners accept the Officer Report recommendation to adopt a revised Policy 4.36 (previously 4.37 in the notified Plan) and adopt the revised Policy 4.37 (previously Policy 4.38 in the notified Plan). Consistent with FANZ submission on Policy 4.33, flexibility should be provided on the most appropriate methods to achieve the outcomes.

Plan Provision: Policy 4.76 (Page 4-13)

203. *“Resource consents for the use of land for farming activities and the associated discharge of nutrients in catchments that are coloured red on the Planning Maps and resource consents for water take and use in catchments or groundwater allocation zones that are over-allocated will generally be subject to a 5 year duration if the land use and associated nutrient discharges or*

water take and use may impede the ability of the community to find an integrated solution to manage water quality and the over-allocation of water.”

204. **Submission:** As discussed in the General Assessment section above, the PCLWRP introduces a Planning Map that shows Nutrient Zones, and colours areas ‘red’ where the water quality outcomes are not being met. There are serious implications if the zone allocation and decision on boundaries are not robust.
205. Policy 4.76 introduces a new concept that land use and associated nutrient discharges (as discuss above this term needs to be better defined) or water take and use ‘*may impede the ability of the community...*’.
206. This concept ‘*may impede the ability of the community...*’ is not defined and there are no criteria to assess whether such an outcome may eventuate. Notwithstanding this, the policy intends a 5 year duration on resource consents, which will have deleterious effect on business confidence. As discussed above, the definition of ‘*catchment*’ needs clarity.
207. FANZ sought subject to receiving technical advice on the appropriateness of the Nutrient Zones on the Planning Map, the term ‘*may impede the ability of the community...*’ to be defined with measurable assessment criteria, or for this reference to be deleted. Any amendments should also be subject to clarity around how ‘*catchment*’ is defined.
208. **Officer Report:** The Officer Report does not appear to address Policy 4.76.
209. **Comment:** I note the Hearings Group 2 ‘Farming’ topics on the Environment Canterbury website identified Policy 4.76 as being dealt with under the Nutrients section. However, the Officer Report does not appear to address Policy 4.76. Without a commentary and recommendation in the Officer Report, it is difficult to comment on the issues raised with the policy. I consider the matters of concern raised by FANZ as important to get clarity and certainty with the policy, should it remain in the PCLWRP.
210. **Recommendation:** It is recommended the Commissioners clarify the Officer Report position on Policy 4.76 and, should it remain in the proposed Plan, amend the policy to address the concerns raised by FANZ accordingly.

Rules

Plan Provision: Rule 5.39 (Page 5-11)

211. *“Prior to 1 July 2017, the use of land for any farming activity existing at 11 August 2012 and outside of the Lake Zone shown on the Planning Maps, is a permitted activity if the following condition is met:*
1. *A record of the annual amount of nitrogen loss from the land, for the period from 1 July in one year to 30 June in the following year, calculated using the OVERSEERTM nutrient model, is kept and is provided to the CRC upon request.”*
212. **Submission:** The Association supports the intent of permitted activity, but is opposed to some of parts of this policy.
213. The rule provides for any farming activity (outside of the Lake Zone) that existed prior to the proposed Plan being notified to continue as a permitted activity until 2017, subject to a condition. The industry supports planning process which allows farming activities to proceed under permitted activity status. It is noted that land-use activities not included in Overseer will under this rule however, by default, fall to restricted discretionary activity. Consideration should be given to accommodating those land uses under a permitted activity regime.
214. While this rule appears pragmatic and reasonable, there are a number of uncertainties that arise from the terms used. For example, it is not entirely clear what the *‘Lake Zone shown on the Planning Maps’* refers to, and there is no definition included in the PCLWRP. The Nutrient Zones Planning Map (refer Attachment A) includes *‘Sensitive Lake Catchments’*, and this could be what the rule refers to as the Lake Zone. In addition, the rule uses the term *‘any farming activity’* which is also not defined, and is all-inclusive.
215. The fertiliser industry is opposed to annual production on Nutrient Budgets, as the Overseer model provides for long term equilibrium and average farm system outputs. It is not necessary to produce annual nutrient budget, unless there has been a significant farm system change. To require annual nutrient budgets without significant farm system changes, provides little additional

environmental benefit, but adds unnecessary burden on farmers, council staff and service industries.

216. FANZ supported the general intent of Rule 5.39, while seeking clarification of what the Lake Zone is, and certainty regarding what ‘*any farming activity*’ might mean. Annual Nutrient budgets should be valid for up to three years, unless there is a significant farm system change.
217. **Officer Report:** The Officer Report recognises the matters raised by FANZ and the clarification it sought. The Officer Report recommends a new suite of rules as discussed in PART ONE of this evidence.
218. **Comment:** In essence Rule 5.39 is replaced by the new rules discussed in PART ONE above, and the matters raised by FANZ no longer apply to these new rules. However, should the Commissioners decide to reject the Officer Report recommendation, the concerns raised by FANZ would be valid, and in my view should be addressed in order to ensure clarity ensure the rule is workable. The amendments sought by FANZ should be adopted accordingly.
219. **Recommendation:** It is recommended the Commissioners adopt the new rules as discussed in PART ONE above. Should the Commissioners decide to retain the existing Rule 5.39, I would recommend the Commissioners amend Rule 5.39 as sought by FANZ in its submission to address the particular concerns raised.

Plan Provision: Rule 5.40 (Page 5-12)

220. *“Prior to 1 July 2017, the use of land for a farming activity existing at 11 August 2012 and within the Lake Zone shown on the Planning Maps, is a permitted activity if the following conditions are met:*
- 1. A record of the annual amount of nitrogen loss from the land, for the period from 1 July in one year to 30 June in the following year, calculated using the OVERSEERTM nutrient model;*
 - 2. A Farm Environment Plan is prepared and implemented in accordance with Schedule 7;*
 - 3. The Farm Environment Plan is externally audited each year for the first three years by a Farm Environment Plan Auditor. Following three consecutive years of full compliance, the audit shall occur once every three years; and*

4. A record of the audit compliance grading and the average annual loss of nitrogen for the property is provided to the CRC by 31 August of that year.”

221. **Submission:** Rule 5.40 intends to complement Rule 5.39 by providing for farming activities within the Lake Zone as permitted subject to a number of conditions. Similar comments apply as above regarding defining the ‘Lake Zone’, and unnecessarily requiring annual nutrient budgets.
222. In addition, while conditions 3 and 4 require an audit of compliance with the Farm Environment Plan, there is no indication of what happens if non-compliance is identified, and what an ‘audit compliance grading’ might mean. Such uncertainties need to be addressed.
223. Furthermore, it is noted that Bullet Point 1 and the PCL&WRP in general refer to recording annual nitrogen loss for the period 1 July to 30 June in the following year when using the OVERSEERTM nutrient model. This presents a considerable conflict, in particular with Dairy industry programmes based on the production year 1 June to 31 May. There is potential for major capability difficulties if industry programmes and Regional Council are demanding different time periods to apply to nutrient budgets, as will be the case with this rule.
224. FANZ supported the general intent of Rule 5.40, subject to:
- clarification of what the Lake Zone is;
 - certainty regarding what ‘a farming activity’ might mean;
 - clarification of the purpose and implications of the ‘audit compliance grading’;
 - nutrient budgets being valid for 3 years;
 - reporting of nitrogen losses 1 June to 31 May, to remain consistent with farming season
225. **Officer Report:** The Officer Report recognises the matters raised by FANZ and the clarification it sought. The Officer Report recommends a new suite of rules as discussed in PART ONE of this evidence.
226. In essence Rule 5.40 is replaced by the new rules discussed in PART ONE above, and the matters raised by FANZ no longer apply to these new rules. However, should the Commissioners decide to reject the Officer Report recommendation, the concerns raised by FANZ would be valid, and in my

view should be addressed in order to ensure clarity ensure the rule is workable. The amendments sought by FANZ should be adopted accordingly.

227. **Recommendation:** It is recommended the Commissioners adopt the new rules as discussed in PART ONE above. Should the Commissioners decide to retain the existing Rule 5.40, I would recommend the Commissioners amend Rule 5.40 as sought by FANZ in its submission to address the particular concerns raised.

Plan Provision: Rule 5.41 (Page 5-12)

228. *“The use of land for a farming activity that does not comply with one or more of the conditions of Rules 5.39 or 5.40 is a restricted discretionary activity.*

The CRC will restrict discretion to the following matters:

- 1. The proposed management practices to avoid or minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land;*
- 2. The potential effects of the land use on surface and groundwater quality, sources of drinking water;*
- 3. The contribution of nutrients from the proposed activity to the nutrient allocation status of the management zone.*
- 4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to nutrient management and water quality.*

Notification

Pursuant to sections 95A and 95B of the RMA an application for resource consent under this rule will be processed and considered without public or limited notification.

Note that limited notification to affected order holders in terms of section 95F of the RMA will be necessary where relevant, under section 95B(3) of the RMA.”

229. **Submission:** Land use activities not included in Overseer will under this rule however, by default, fall to restricted discretionary activity. In other respects the restricted discretionary activity status of the rule is pragmatic and

reasonable within the context of land use which is included within OVERSEERTM, and is supported.

230. Notwithstanding this, the term ‘*management zone*’ is not defined, and needs to be clarified. FANZ supported the intent of Rule 5.41 as a restricted discretionary activity, while seeking the term ‘*management zone*’ to be defined.

Officer Report: The Officer Report does not appear to identify or address the matters raised by FANZ. As discussed in PART ONE above, the Officer Report recommends a new suite of rules relating to nutrient discharges.

231. **Comment:** In essence Rule 5.41 is replaced by the new rules discussed in PART ONE above, and the matters raised by FANZ no longer apply to these new rules. However, should the Commissioners decide to reject the Officer Report recommendation, the concerns raised by FANZ would be valid, and in my view should be addressed in order to ensure clarity ensure the rule is workable. The amendments sought by FANZ should be adopted accordingly.

232. **Recommendation:** It is recommended the Commissioners adopt the new rules as discussed in PART ONE above. Should the Commissioners decide to retain the existing Rule 5.41, I would recommend the Commissioners amend Rule 5.41 as sought by FANZ in its submission to address the particular concerns raised.

Plan Provision: Rule 5.42 (Page 5-12)

233. *“Prior to 1 July 2017 the use of land for a change to an existing farming activity is a permitted activity if the following conditions are met:*

- 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;*
- 2. The property is outside a Lake Zone as shown on the Planning Maps;*
- 3. A record of the annual amount of nitrogen loss from the land, for the period from 1 July in one year to 30 June in the following year, calculated using the OVERSEERTM nutrient model;*

4. A Farm Environment Plan is prepared and implemented in accordance with Schedule 7;

5. The Farm Environment Plan is externally audited each year for the first three years by a Farm Environment Plan Auditor. Following three consecutive years of full compliance, the audit shall occur once every three years; and

6. A record of the audit compliance grading and the average annual loss of nitrogen for the property is provided to the CRC by 31 August of that year.”

234. **Submission:** Several of the comments made above in relation to Rules 5.39 and 5.40 apply, in particular relating to defining the ‘Lake Zone’, the purpose of the ‘audit compliance grading’, and the definition of ‘change’. A key factor in Condition 1 is whether the land holder has a water permit that is subject to conditions that specify the maximum amount of nitrogen that may be leached. The Association has a concern regarding the practicality and legality of this requirement, (for example, adding additional conditions relating to nutrient management, to an existing water permit) as it is likely not many existing farming operations (that may wish to change) would have a maximum amount of nitrogen that could be leached on any water permit they hold.
235. As discussed above reporting of nitrogen losses should be from 1 June to 31 May, to remain consistent with farming season.
236. FANZ supports the intent of Rule 5.42 subject to clarification of a number of terms used, alignment of reporting dates for the year to 1 June to 31 May and establishing the practicality of the requirement for a maximum amount of nitrogen that could be leached being on an existing water permit.
237. **Officer Report:** The Officer Report identifies the matters raised by FANZ. The Officer Report recommends a new suite of rules to address nutrient discharges as discussed in PART ONE above.
238. **Comment:** In essence Rule 5.42 is replaced by the new rules discussed in PART ONE above, and the matters raised by FANZ no longer apply to these new rules. However, should the Commissioners decide to reject the Officer Report recommendation, the concerns raised by FANZ would be valid, and in my view should be addressed in order to ensure clarity ensure the rule is workable. The amendments sought by FANZ should be adopted accordingly.

239. **Recommendation:** It is recommended the Commissioners adopt the new rules as discussed in PART ONE above. Should the Commissioners decide to retain the existing Rule 5.42, I would recommend the Commissioners amend Rule 5.42 as sought by FANZ in its submission to address the particular concerns raised.

Plan Provision: Rule 5.43 (Page 5-12)

240. *“Prior to 1 July 2017, the use of land for a change to an existing farming activity that does not comply with Condition 1 in Rule 5.42 and is within an area coloured pale blue or green on the Planning Maps is a restricted discretionary activity.*
241. *The CRC will restrict the exercise of discretion to the following matters:*
- 1. The proposed management practices to avoid or minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land;*
 - 2. The potential effects of the land use on surface and groundwater quality, and sources of drinking water;*
 - 3. The contribution of nutrients from the proposed activity to the nutrient allocation status of the management zone.*
 - 4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to nutrient management and water quality.”*

242. **Submission:** This rule identifies non-compliance with Condition 1 on Rule 5.42, therefore previous comments above also apply for this rule.

243. It may be questioned why Unclassified Zones should default to restricted discretionary status if there is little risk to water quality identified for these zones. In other respects, subject to the concerns raised Condition 1 of Rule 5.42, as the rule addresses a change in land use, restricted discretionary activity is accepted. FANZ supports the intent of Rule 5.43.

244. **Officer Report:** The Officer Report does not directly reference FANZ’s submission points, but does record a number of submissions sought controlled

activity status. The Officer Report recommends a new suite of rules to address nutrient discharges, as discussed in PART ONE above.

245. **Comment:** In essence Rule 5.43 is replaced by the new rules discussed in PART ONE above, and the matters raised by FANZ no longer apply to these new rules. However, should the Commissioners decide to reject the Officer Report recommendation, the concerns raised by FANZ would be valid, and in my view should be addressed in order to ensure clarity ensure the rule is workable. The amendments sought by FANZ should be adopted accordingly.
246. **Recommendation:** It is recommended the Commissioners adopt the new rules as discussed in PART ONE above. Should the Commissioners decide to retain the existing Rule 5.43, I would recommend the Commissioners amend Rule 5.43 as sought by FANZ in its submission to address the particular concerns raised.

Plan Provision: Rule 5.46 (Page 5-13)

247. *“From 1 July 2017, the use of land for any farming activity, is a permitted activity if the following conditions are met:*
- 1. The land is outside a Lake Zone shown on the Planning Maps; and*
 - 2. The average annual loss of nitrogen does not exceed the rate for the relevant farming activity in Schedule 8; and*
 - 3. The annual average loss of nitrogen, averaged over three consecutive years is less than 20 kilograms per hectare a record of the annual amount of nitrogen loss from the land, for the period from 1 July in one year to 30 June in the following year, calculated using the OVERSEERTM nutrient model, is kept and is provided to the CRC upon request;*
- or*
- 4. If the annual average loss of nitrogen, averaged over three consecutive periods from 1 July in one year to 30 June in the following year, is 20 kilograms per hectare or more:*
- (a) a Farm Environment Plan is prepared and implemented in accordance with Schedule 7;*
 - (b) the Farm Environment Plan is externally audited each year for the first three years by an Farm Environment Plan Auditor. Following three*

consecutive years of full compliance, the audit shall occur once every three years; and

(c) a record of the audit compliance grading and the average annual loss of nitrogen for the property is be provided to the CRC by 31 August of that year.”

248. **Submission:** The rule is opposed in part, however the general intent of this rule is supported.
249. It is understood Council believes the 20 kg N loss limit will provide for 92 % of land area to continue with existing land use as a permitted activity. The Fertiliser Association does not have confidence that this is the case.
250. Comments above regarding to better defining the ‘Lake Zone’ apply to this rule also.
251. Notwithstanding this, there are some uncertainties regarding the implications of this rule as it is not known what will be in Schedule 8, and the limit of 20kg limit is considered to be unduly restrictive. It is considered that compliance with Schedule 8 should be all that is required. If nitrogen loss is over Schedule 8 limits then further requirements may be appropriate.
252. While the Company appreciates that from 1 July 2017, the default position will require all properties leaching on average more than 20 kg nitrate/ha/yr to prepare a farm plan, beyond this interim period the consequence of not complying can result in a resource consent as a discretionary activity under Rule 5.48(c). This is a significant consequence, particularly in relation to the increased cost and risk that is associated with it. As such, the Association considers that the 20 kg nitrate/ha/yr limit must be deleted and replaced with a limit that is both valid and robust.
253. As discussed earlier, it is noted that land-use activities not included in OVERSEERTM will under this rule however, by default, fall to restricted discretionary activity. Consideration should be given to accommodating those land uses under a permitted activity regime.
254. Earlier comments on nutrient budgets remaining valid for 3 years unless there is a significant farm system change, also apply to this rule and comments about the purpose and relevance of the audit compliance grading are also relevant.

255. As discussed above reporting of nitrogen losses should be for 1 June to 31 May, to remain consistent with farming season.
256. FANZ opposed in part Rule 5.46, subject to clarification of the matters outlined above and replacement of the 20 kg N limit with a more practical nitrogen discharge value which will provide for permitted activity for existing farm practices when following best management practices for nutrient management as follows:

“From 1 July 2017, the use of land for any farming activity, is a permitted activity if the following conditions are met:

- 1. The land is outside a Lake Zone shown on the Planning Maps; and*
- 2. The average annual loss of nitrogen does not exceed the rate for the relevant farming activity in Schedule 8; and*
- 3. ~~A~~ The annual average loss of nitrogen, averaged over three consecutive years is less than 20 kilograms per hectare ~~a~~ record of the annual average amount of nitrogen loss from the land, for the period from ~~1 July~~ 1 June in one year to ~~30 June~~ 31 May in the following year, calculated using the OVERSEERTM nutrient model, is kept and is provided to the CRC upon request.*

~~or~~

- 4. ~~If the annual average loss of nitrogen, averaged over three consecutive periods from 1 July in one year to 30 June in the following year, is 20 kilograms per hectare or more:~~*

~~(a) a Farm Environment Plan is prepared and implemented in accordance with Schedule 7;~~

~~(b) the Farm Environment Plan is externally audited each year for the first three years by an Farm Environment Plan Auditor. Following three consecutive years of full compliance, the audit shall occur once every three years; and~~

~~(c) a record of the audit compliance grading and the average annual loss of nitrogen for the property is be provided to the CRC by 31 August of that year.”~~

Note: Annual N loss calculated by OVERSEERTM, would be valid for three years unless there is a significant change to the farm system.

257. **Officer Report:** The Officer Report does not record the matters of concern expressed by FANZ in its submission. It does however, record the amendments sought by FANZ to Rule 5.46. The Officer Report recommends a new suite of rules to address nutrient discharges, as discussed in PART ONE above.
258. **Comment:** In essence Rule 5.46 is replaced by the new rules discussed in PART ONE above, and the matters raised by FANZ no longer apply to these new rules. However, should the Commissioners decide to reject the Officer Report recommendation, the concerns raised by FANZ would be valid, and in my view should be addressed in order to ensure clarity ensure the rule is workable. The amendments sought by FANZ should be adopted accordingly. In particular, I have a lack of confidence in the fall back position of 20 kg/N/ha/yr as it applies in this rule and as in Table 3 of appendix 1 of the section 32 Report. As I understand it, and using the figures provided in Table 3, 22% of agricultural farms cannot meet this target (the Section 32 Report [p67] suggests 8% of land owners in the region), and taking another step further and looking at the dairying activity, 68% of dairying is above 20 kg/N/ha/yr. I am concerned that the 20 kg/N/ha/yr figure will capture a much greater number of farming activities (including dairying) than suggested in the proposed Plan. I acknowledge that the further work that needs to occur to define the ‘*numbers*’ is through the Schedule 8 process. If the intent is to manage only 8% of properties, then another approach is required, and I support the Officer Report recommendation.

Recommendation: It is recommended the Commissioners adopt the new rules as discussed in PART ONE above. Should the Commissioners decide to retain the existing Rule 5.46, I would recommend the Commissioners amend Rule 5.46 as sought by FANZ in its submission to address the particular concerns raised.

Plan Provision: Auditing of Information flowing out of Nutrient Management Rules (Rules 5.39 – 5.54)

259. **Submission:** The Association notes that the rules implementing the ‘nutrient discharges’ policy framework are principally 5.39 to 5.54. While supporting

the general approach advanced in providing for the continuation of farming activities, under Rules 5.40, 5.42, and 5.46 the PCLWRP imposes a significant burden for each and every property to have information available that demonstrates the annual amount of nitrogen loss from their properties.

260. The Association is concerned that given the extensive number of farming properties within Canterbury that there will simply not be the resources available to undertake Nutrient Budgets and Nutrient Management Plans on every property every year.
261. Furthermore it places an unnecessary burden on the farming community and Council staff alike, with little benefit over a scheme where nutrient budgets are valid for up to three years unless there is a significant farm system change, and /or only significant scale farming systems are being addressed. Average annual data is sufficient in order to understand the long term overall impacts of farming systems.
262. Requiring an annual nutrient management plan on each and every property, every year combined with the auditing process, upon which this evaluation system is based, could potentially be comprised or significantly delayed, with subsequent flow on effects to the administration of this nutrient management approach.
263. While auditing of farm practices against the FEP's annually and then once every three years may be feasible under industry schemes, the provision of Nutrient Budgets and Nutrient Management Plans every year is an unnecessary burden, and should only be required every three years unless there has been a significant farm system change. The basis for this is two-fold; firstly it reduces the costs incurred to both farmer and service support industry, with no environmental detriment (or cost), secondly, and touching upon the point raised above, it will reduce the potential administrative costs associated with having to implement auditing of all FEP's (for those landowners who do not comply with the 20kg nitrate/ha/year limit).
264. Given the foregoing, FANZ opposed the requirements for annual nutrient budgets and nutrient management plans, presented within Rules 5.40, 5.42, and 5.46 of the PCL&WRP.
265. FANZ sought the requirements for nutrient budgets and nutrient management plans in Rules 5.40, 5.42, and 5.46 be amended to once every three years.

266. **Officer Report:** The Officer Report records the FANZ concern and request. The Officer Report recommends a new suite of rules to address nutrient discharges, and addresses a number of concerns raised by FANZ in its submission.
267. **Comment:** In essence the new rules discussed in PART ONE above incorporate auditing of Farm Environment Plans, and comments on these matters in PART ONE apply. However, should the Commissioners decide to reject the Officer Report recommendation, the concerns raised by FANZ would be valid, and in my view should be addressed in order to ensure clarity ensure the rule is workable. The amendments sought by FANZ should be adopted accordingly.
268. **Recommendation:** It is recommended the Commissioners adopt the new rules as discussed in PART ONE above. Should the Commissioners decide to retain the existing auditing provisions in Rule 5.39 – 5.54, I would recommend the Commissioners amend these rules as sought by FANZ in its submission to address the particular concerns raised.

Plan Provision: Rule 5.48 (Page 5-13)

269. *Plan Provision: Rule 5.48 (Page 5-13)*
“From 1 July 2017, the use of land for any farming activity is a discretionary activity where either:
(a) The activity does not meet Condition 2 in Rule 5.46 or there is no rate for the relevant farming activity specified in Schedule 8 and where the property is within an area coloured orange on the Planning Maps; or
(b) The activity complies with Condition 2 but not Condition 1 in Rule 5.46; or
(c) The activity does not meet Condition 3 or 4, whichever is relevant, in Rule 5.46.”
270. **Submission:** The use of the different terms ‘any farming’ and ‘relevant farming activity’ are noted. The rule also cross-references conditions with issues such as defining the ‘Lake Zone’, the 20 kg leaching limit in Rule 5.46, and the relevance of the audit compliance grading as discussed above. Overall, the discretionary activity status is considered reasonable for activities in the orange Nutrient Zone.

271. FANZ generally supported the intent of Rule 5.48 subject to addressing the concerns identified above in regards to definitions, and deleting clause (c) as follows:

“From 1 July 2017, the use of land for any farming activity is a discretionary activity where either:

(a) The activity does not meet Condition 2 in Rule 5.46 or there is no rate for the relevant farming activity specified in Schedule 8 and where the property is within an area coloured orange on the Planning Maps; or

(b) The activity complies with Condition 2 but not Condition 1 in Rule 5.46; or

~~(c) The activity does not meet Condition 3 or 4, whichever is relevant, in Rule 5.46.~~”

272. **Officer Report:** The Officer Report records (as Ravensdown) the matters raised by FANZ, and the relief to delete Clause (c). The Officer Report recommends a new suite of rules that replaces Rule 5.48, as discussed in PART ONE above.

273. **Comment:** In essence Rule 5.48 is replaced by the new rules discussed in PART ONE above, and the matters raised by FANZ no longer apply to these new rules. However, should the Commissioners decide to reject the Officer Report recommendation, the concerns raised by FANZ would be valid, and in my view should be addressed in order to ensure clarity ensure the rule is workable. The amendments sought by FANZ should be adopted accordingly.

274. **Recommendation:** It is recommended the Commissioners adopt the new rules as discussed in PART ONE above. Should the Commissioners decide to retain the existing Rule 5.48, I would recommend the Commissioners amend Rule 5.48 as sought by FANZ in its submission to address the particular concerns raised.

Plan Provision: Rule 5.49 (Page 5-13)

275. *‘From 1 July 2017, the use of land for any a farming activity that does not meet Condition 2 in Rule 5.46 or where there is no rate for the relevant farming activity specified in Schedule 8 and where the property is within an area coloured red or within a Lake Zone shown on the Planning Maps is a non-complying activity.’*

276. **Submission:** The Association is opposed to the non-complying activity status that arises from Rule 5.49.
277. While the Association supports the broad nutrient management approach adopted within the PCL&WRP (including enabling land uses), it is nonetheless concerned about the social and economic effects of the non-complying activity status underpinning Rule 5.49.
278. As is reinforced within the section 32 Report, *“a discretionary activity is generally considered acceptable provided the adverse effects arising from the activity proposed are avoided, remedied or mitigated, as distinct from a non-complying activity where the presumption is that the activity is generally unacceptable.”*
279. For those existing farming operations that are unable to comply with the average annual loss of nitrogen rates prescribed within Schedule 8 (which is still to be developed) or are located within an area ‘coloured red’ or are located within a Lake Zone, there is a significant chance that consent will not be approved. This introduces a significant hurdle for those land managers who are unable to comply by the 1st July 2017 and could result in significant adverse social and economic impacts on individual properties and the individuals and families that are supported by these farming operations. In the Association’s view, the section 32 report, does not adequately address these adverse socio-economic consequential effects. It is difficult to support the approach that is being advanced in the absence of such information.
280. The section 32 report states that; *“a non-complying activity status generally indicates that a new activity is an exception and is not condoned but it would allow an applicant to make the case that their proposal is acceptable. A strong case must be made to allow the activity. The Environment Court has endorsed such a policy approach in both Variation 5 (Lake Taupo) and Variation 6 (water allocation) promulgated by the Waikato Regional Council.”*
281. In summary, therefore, the Association considers that that the Council has the ability to refuse consent under a discretionary activity, while giving the farming community greater certainty. A non-complying activity status provides little certainty for existing landowners that may be affected by this rule, nor does the section 32 report (which assesses the nutrient management approach) sufficiently account for the existing level of investment on many of

the farms that may be compromised by the imposition of a non-complying activity status under this rule.

282. The Association therefore seeks that any non-compliance with Rule 5.49 should be discretionary activity.
283. **Officer Report:** The Officer Report records FANZ submission request. The Officer Report recommends a new suite of rules to address nutrient discharges as discussed in PART ONE above.
284. **Comment:** In essence Rule 5.49 is replaced by the new rules discussed in PART ONE above, and the matters raised by FANZ no longer apply to these new rules. However, should the Commissioners decide to reject the Officer Report recommendation, the concerns raised by FANZ would be valid, and in my view should be addressed in order to ensure clarity ensure the rule is workable. The amendments sought by FANZ should be adopted accordingly.
285. **Recommendation:** It is recommended the Commissioners adopt the new rules as discussed in PART ONE above. Should the Commissioners decide to retain the existing Rule 5.49, I would recommend the Commissioners amend Rule 5.49 as sought by FANZ in its submission to address the particular concerns raised.

Plan Provision: Rules 5.50 and 5.51 (Page 5-13/14)

286. *“Rule 5.50 : The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA is a permitted activity, provided the following condition is met:*
- 1. The land use activity associated with the discharge is authorised under Rules 5.39 to 5.49.*
- Rule 5.51 : The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA and does not meet the condition in Rule 5.50 is a discretionary activity.”*
287. **Submission:** These intent of these rules is supported and the rules should be retained as written.

288. **Officer Report:** The Officer Report does not directly record FANZ support. The Officer Report recommends amendments to Rules 5.50 and 5.51 as discussed in PART ONE above.
289. **Comment:** The comments on Rules 5.50 and 5.51 in PART ONE above apply.
290. **Recommendation:** I recommend the Commissioners reject the Officer Report recommendation to amend Rule 5.51 and retain the activity status as discretionary as included in the notified Plan.

Plan Provision: Rule 5.52 (Page 5 - 14)

291. *“The discharge of fertiliser onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:*
- 1. There is no fertiliser discharged when there is water ponding on the surface of the land; and*
 - 2. Fertiliser is not discharged directly into or within 10 m of the bed of a permanently flowing river, lake, artificial watercourse or within 10 m of a wetland boundary or any identified significant indigenous biodiversity site unless the equipment used has a current Spreadmark Certificate, in which case the setback distance is reduced to 5m.”*
- Note: The discharge of fertiliser may also be restricted by Rules 5.39 to 5.51.”*
292. **Submission:** Permitted activity status is supported. It is also noted that Condition 1 prevents application to water ponding on the surface of land.
293. While this practice is discouraged, a regulation to this effect may be unreasonable for some cropping situations which maintain crop productivity through carefully timed fertiliser application to match crop growth stages. Failure to meet demands could result in significant yield reduction. Application is an essential requirement. Slight ponding where there is no surface water flow should not be a barrier to maintaining crop production.
294. FANZ supported the intent and permitted activity status of Rule 5.52, however, sought rule condition 1 be amended as follows
- “1. There is no fertiliser discharged when there is water flow associated with water ponding on the surface of the land; and ...”*

295. **Officer Report:** The Officer Report records the amendment sought by FANZ. No amendment is recommended to Rule 5.52 to address the issue of ponding raised by FANZ.
296. **Comment:** Overall I support the permitted activity status for the discharge of fertiliser, and the intent of the rule. While I consider it would be appropriate to distinguish between flowing water and ponding, I note the Officer Report has not picked up this point, and I do not wish to pursue this matter any further.
297. **Recommendation:** It is recommended the Commissioners adopt the intent of Rule 5.52 as it is written in the notified Plan.

Plan Provision: 5.53 (Page 5-14)

298. *“The discharge of fertiliser from an aircraft onto or into land in circumstances where a contaminant may enter water and into any river is a permitted activity provided the following conditions are met:*

- 1. There is no fertiliser discharged when there is water ponding on the surface of the land;*
- 2. The equipment used has a current Spreadmark Certificate;*
- 3. The discharge is be carried out by a person who holds a GROWSAFER Pilots’ Agrichemical Rating Certificate or an AIRCARE™ Accreditation;*
- 4. Fertiliser is not discharged directly into or within 10 m of the bed of a permanently flowing river or artificial watercourse that is more than 2m wide, any lake, or any wetland boundary ;and*
- 5. The flight paths are recorded by an on-board differential global positioning system and this record is kept for at least 12 months following the discharge and made available to the CRC upon request.”*

Note: The discharge of fertiliser may also be restricted by Rules 5.39 to 5.51.”

299. **Submission:** As per Rule 5.52, an amendment is requested to Condition 1, as shown below, and the permitted activity status provided by this rule is supported. FANZ supported the intent and permitted activity status of Rule 5.53, however, sought rule condition 1 be amended as follows

“1. There is no fertiliser discharged when there is water flow associated with water ponding on the surface of the land; and ...”

300. **Officer Report:** The Officer Report records FANZ request to amend Condition 1, and recommends some minor amendments to Rule 5.53, none of which address the matter raised by FANZ.
301. **Comment:** Similar to Rule 5.52 above, overall I support the permitted activity status for the discharge of fertiliser from an aircraft, and the intent of the rule. While I consider it would be appropriate to distinguish between flowing water and ponding, I note the Officer Report has not picked up this point, and I do not wish to pursue this matter any further.
302. **Recommendation:** It is recommended the Commissioners adopt the intent of Rule 5.53 as it is written in the notified Plan.

Plan Provision: Rule 5.54 (Page 5-14)

303. *“The discharge of fertiliser onto land, or onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions in Rule 5.52 or rule 5.53 is a discretionary activity.”*
304. **Submission:** The Association is opposed to discretionary activity applying for this rule. It is considered restricted discretionary activity, with Council restricting its discretion to the condition not met, is more appropriate, being consistent with other rules above.
305. FANZ opposed the discretionary activity status of Rule 5.54 and sought restricted discretionary activity status, with Council restricting its discretion to the condition not met.
306. **Officer Report:** The Officer Report records FANZ request for restricted discretionary activity status for Rule 5.54, and recommends the following amendments:
- “Rule 5.54*
- The discharge of fertiliser onto land, or onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions in Rule 5.52 or rule 5.53 is a restricted discretionary activity.*
- The CRC will restrict discretion to the following matters:*
- 1. The effect of not meeting the condition or conditions of Rules 5.52 or 5.53.*
- 2. The adverse effects of the activity on Ngai Tahu values;*

3. The preparation, compliance with and auditing of the Farm Environment Plan; and

4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to water quality.”

307. **Comment:** Overall I support the Officer Report recommendation to amend Rule 5.54 to adopt restricted discretionary activity status. I do note that clause 3 requires the preparation, compliance with and auditing of the Farm Environment Plan, which appears to be in all circumstances. It may be there are situations where a FEP is not necessary, and the clause should clarify this point.
308. **Recommendation:** It is recommended the Commissioners amend Rule 5.54 as recommended in the Officer Report, and add the words “*where required*” to the end of Clause 3.

Schedule 7

Plan Provision: Schedule 7 – Farm Environment Plans (Page 16 – 13)

309. **Submission:** Schedule 7 provides the requirements of a Farm Environmental Plan which applies to a number of rules relating to farming activities. The Association supported the voluntary use of farm planning tools and audited self-management.
310. In order to achieve successful, practical application of farm planning tools and audits it is important that there is national consistency for the industry systems and procedures. Therefore it is necessary that Regional Council have regard to national consistency and consistency in industry programmes when ratifying sub regional schemes.
311. Overall the principles included in a Farm Environment Plan appear reasonable and appropriate, and the voluntary use of farm planning tools and audited self-management is supported.
312. However there is a need for a clear definition of the farm for which the Farm Environment Plan and Schedule 8 limits apply. If accredited professional practitioners are required to produce and audit Farm Environment Plans for

properties down to 4 ha, then it will present an entirely impractical requirement.

313. FANZ sought for the Regional Council have regard to national consistency, and consistency in industry programmes, for the application of farm planning tools and audits when ratifying sub regional schemes. FANZ also sought for a clear definition of “farms”, for which the Farm Environment Plan and Schedule 8 limits apply, and that definition should exclude small ‘hobby’ farms to ensure the provision can be applied practicably as described by accredited and qualified practitioners.
314. **Officer Report:** The Officer Report records the matters raised by FANZ in its submission. The Officer Report notes that: *“With 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.”* The Officer Report goes on to state that: *“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.”*
315. **Comment:** Overall FANZ is seeking national consistency for farm planning tools and industry programmes, and is working around New Zealand with different councils and organisations to achieve this aim. It is noted that the PCLWRP might create the format for this national consistency, and I note the Freshwater Reform 2013 recommends immediate reform to provide national direction for accounting for sources of nutrients by regulation (page 52). It is with these thoughts in mind I make the following comments on the various Parts of Farm Environment Plans recommended in the Officer Report.

Part A – Farm Environment Plans

316. *“A Farm Environment Plan can be based on either of:*
1. Industry prepared Farm Environment Plan templates and guidance material that:

(a) Include the following minimum components:

(i) The matters set out in 1, 2, and 3 of Part B below;

(ii) Contains a methodology that will enable development of a plan that will identify environmental effects and risks specific to the property, addresses those effects and risks and has a high likelihood of appropriately avoiding, remedying or mitigating those effects;

(iii) Performance measures that are capable of being audited as set out in Part C below; and

(b) Has been approved as meeting the criteria in (a) and being acceptable to the Canterbury Regional Council by the Chief Executive of the Canterbury Regional Council.

OR

2. The material set out in Part B below.”

317. **Comment:** Overall I support the recommended *Part A*. In particular I support the allowance to use industry-prepared FEP templates and guidance, either in part or in full. I also support the intention of the FEP's to support industry good practice, audited self-management and development of industry defined limits. In my view, these are all important components of a FEP that will ensure they are effective and appropriate.
318. The only one concern I have is expressed in PART ONE of my evidence above, which relates to whether there is capacity within the primary industry to prepare and audit these FEP, and an evaluation of the costs (in terms of a Section 32 evaluation) of building capability to comply with the requirements and timeframes set. I consider these matters need to be taken into account, particularly if seeking annual reporting and annual auditing with consideration of auditing being extended to once every three years once a FEP is in place and working.
319. **Recommendation:** I recommend the Commissioners adopt *Part A* as recommended in the Officer report, subject to a s.32 evaluation that considers the costs of building the capacity of the primary industry to prepare and audit these FEPs, and the costs of building capability and compliance.

Part B – Farm Environment Plan Default Content

320. “The plan requirements will apply to:

(a) a plan prepared for an individual property; or

(b) a plan prepared for an individual property which is part of a collective of properties, including an irrigation scheme, an Industry Certification Scheme, or catchment club.

The plan shall contain as a minimum:

1. Property details

(a) Physical address

(b) Description of the ownership and name of a contact person

(c) Legal description of the land and farm identifier

2. A map(s) or aerial photograph at a scale that clearly shows:

(a) The boundaries of the property

(b) The boundaries of the main land management units on the property.

(c) The location of permanent or intermittent rivers, streams, lakes, drains, ponds or wetlands.

(d) The location of riparian vegetation and fences adjacent to water bodies.

(e) The location on all waterways where stock access or crossing occurs.

(f) The location of any areas within or adjoining the property that are identified in a District Plan as “significant indigenous biodiversity”.

3. The full text of any resource consents held for the property and the conditions of the consents.

4. An assessment of the environmental effects and risks associated with the farming activities on the property and how the identified effects and risks will be managed, including irrigation, application of nutrients, effluent application, stock exclusion from waterways, offal pits and farm rubbish pits.

5. A description of how each of the following will, where relevant, be met.

(a) Nutrient management: To maximise nutrient use efficiency while minimising nutrient losses to water.

(b) Irrigation management: To operate irrigation systems efficiently and ensuring that the actual use of water is monitored and is efficient.

(c) Soil management: To maintain or improve the physical and biological condition of soils in order to minimise the movement of sediment, phosphorus and other contaminants to waterways.

(d) Collected animal effluent management: To manage the risks associated with the operation of effluent systems to ensure effluent systems are compliant 365 days of the year.

(e) Livestock management: To manage wetlands and water bodies so that stock are excluded as far as practicable from water, to avoid damage to the bed and margins of a water body, and to avoid the direct input of nutrients, sediment, and microbial pathogens.

(f) Offal pits and rubbish pits: To manage the number and location of pits to minimise risks to health and water quality.

6. The plan shall include for each issue in 5 above:

(a) detail commensurate with the scale of the environmental effects and risks;

(b) defined measurable targets that clearly set a pathway and timeframe for achievement, and set out defined and auditable “pass/fail” criteria;

(c) a description of the good management practices together with actions required;

(d) the records required to be kept for measuring performance and achievement of the target.

7. Nutrient budgets are prepared by a suitably qualified person using a nutrient budget model, (such as OVERSEERTM), for each of the identified land management units and the overall farm.”

321. **Comment:** Overall I support in principle *Part B*. The reason for this partial support is because there are a number of matters that need clarification, including the following:

- In clause (b) there is a reference to an “*irrigation scheme, Industry Certification Scheme or catchment club*” – there is no definition in the Proposed Plan relating to a ‘catchment club’;

- In relation Clause 3, it is assumed the requirement for full details of any resource consents held for the property only refers to regional consents and not district or city council consents;
- Clauses 5 and 6 of the FEP are very descriptive and require a high level of detailed information – the issue raised above regarding the capability of preparing and auditing these FEPs is relevant when considering these information requirements;
- Clause 6 (b) requires that for each issue in (5) defined measurable targets that clearly set a pathway and timeframe for achievement and set out defined auditable “pass/fail” criteria. If discrete values are established (as opposed to processes and systems criteria) there may be significant issues in equitability. Single value numbers should not be presented for nutrient efficiency or nutrient loss if being presented as pass/fail targets. An auditable process that demonstrates nutrient use efficiency is being sought and achieved, should be meaningful. The Freshwater Reform 2013 document seeks national guidance on accounting systems for nutrient management, so in my view some caution is needed in progressing these criteria;
- Clause Schedule 7 B (7) only requires a nutrient budget prepared ‘*by a suitably qualifies person*’. This should state, that where Nutrient Budgets are prepared using Overseer, it should be prepared or prepared with supervision by a Certified Nutrient Management Adviser – such a wording will allow for less demanding Nutrient Budget procedures where appropriate (e.g. orchards).

322. **Recommendation:** It is recommended the Commissioners adopt the intent of *Part B* of Schedule 7 as recommended in the Officer Report, subject to addressing the particular concerns raised above (including capability and timeframes to achieve requirements).

Part C – Farm Environment Plan Audit Requirements

323. *“The Farm Environment Plan must be audited by a Farm Environment Plan Auditor who is independent of the farm being audited (is not a professional adviser for the property) and has not been involved in the preparation of the*

Farm Environment Plan, either personally or as an employee or contractor of the industry group, supplier or consultancy that has prepared the Farm Environment Plan.

The Audit framework will give a grade of A, B or C for the Farm Environment Plan itself, and a grade of A, B or C for performance against the Farm Environment Plan actions.

The Farm Environment Plan will be assessed against the following minimum criteria:

1. Whether the Plan is technically sound and feasible
2. Does the Plan identify and address the principal environmental effects and risks?
3. Does the Plan enable all statutory obligations, including resource consents, to be met?
4. Is the detail in the Plan, actions and timeframes for achievement commensurate with the scale of the environmental effects and risks?

The farming activity occurring on the property will be audited against the following minimum criteria:

1. Compliance with all relevant statutory requirements;
2. An assessment of the performance against the targets, good practices and timeframes in the Farm Environment Plan;
3. An assessment of the robustness of the nutrient budget/s;
4. An assessment of the efficiency of water use (if irrigated).

Farm Environment Plans shall be audited annually and the audit results provided to the CRC no later than 31 December for the previous 1 July to 31 June year, or such other annual period nominated. Once a farm environment plan review and audit period is nominated, each successive audit may be no more than 12 months apart.

A grade of “A” for the Farm Environment Plan itself and “B” for performance against the Farm Environment Plan actions is considered an “A-B” grade in terms of Rules 5.39-5.51.

Any audit result that does not result in an “A-B” grade may be submitted with a revision of the farm environment plan, 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.”

324. **Comment:** Overall I support in principle *Part C*. This support is subject to a number of matters that require clarification or comment:

- I consider there is a strong emphasis on the qualifications of the auditor, more so than who prepares the FEP (as discussed above, Schedule 7 B (7) only requires a nutrient budget prepared ‘by a suitably qualifies person’ – see comments on this matter above). As mentioned in PART ONE of my evidence above, the audit process is perhaps an area where Council should take the lead, particularly for activities where the primary industry does not self-audit. Issues raised above regarding the capability of primary industry to audit the FEPs also apply.
- It appears that is a requirement to only prepare on FEP, and then to audit this FEP annually - presumably once the FEP is prepared it will only need to be updated with the relevant information, such as nutrient budgets and other variables.
- As discussed in previous evidence provided by FANZ, it is the Associations view that the nutrient management plan component (and nutrient budget) should be valid for at least 3 years unless there is a significant change in the farm system. An annual audit can be conducted to ensure the farm is operating as described.
- As discussed above in relation to *Part A*, I also have concerns which relate to whether there is capacity within the primary industry to prepare and audit these FEP, and an evaluation of the costs (in terms of a Section 32 evaluation) of building capability to comply with the requirements and timeframes set. I consider these matter need to be

taken into account, particularly if seeking annual reporting and annual auditing. To assist in addressing the capability issues, it could be that rewards are introduced for a consistent record of successful audit results which means a reduced frequency of auditing is permitted. This provides an added incentive for good performance and assists in the capability demands. More immediately, staged introduction of reporting and audit requirements based on priority catchments will also assist in enabling a more practical scaling up of resources and capability. Support is given to the Officers Report recommendation where audits are required only for priority areas, (Lake Catchments and Red Zones high nutrient risk activity, or changed or new activity in Orange zones).

325. **Recommendation:** It is recommended the Commissioners adopt the intent of *Part C* of Schedule 7 as recommended in the Officer Report, subject to addressing the particular concerns raised above.

Part D – Farming Information

326. “Whenever one of Rules 5.39-5.51 requires information to be submitted, the following information is to be provided either in writing or via the Canterbury Regional Council’s website:

1 The site area to which the farming activity relates;

2 A map or aerial photograph marked to identify the different blocks within the farm and the area in hectares of each;

3 Identification of any wetlands, watercourses, drains and swales on or adjacent to the property;

4 Monthly stocking rates (numbers, types and classes) including breakdown by stock class;

5 Annual yield of arable or horticultural produce;

6 A description of the farm management practices used on each block including:

(a) Ground cover – pasture, crops, fodder crops, non-grazed areas (including forestry, riparian and tree areas);

(b) Stock management – lambing/calving/fawning dates and percentages, any purchases and sales and associated dates, types and age of stock;

(c) Fertiliser application – types and quantities per hectare for each identified block;

(d) Quantities of introduced or exported feed;

7 Farm animal effluent, pig farm effluent, feed pad and stand-off pad effluent management including:

(a) Area of land used for effluent application;

(b) Annual nitrogen loading rate and nitrogen load rate per application;

(c) Instantaneous application rate;

8 Irrigation – areas, rates, monthly volumes and system type.

The information is to collated for the period 1 July to 31 June in the following year and be provided annually, no later than the 31st of October.”

327. **Comment:** Overall I support in principle *Part D*. This support is subject to addressing the following matters:

- Clause 6c needs to be better defined so that the fertiliser purchase records, fertiliser recommendation and soil testing records are only items described/required.
- Similar to concerns raised in *Part A* in relation to capacity within the primary industry to prepare and audit these FEP, and an evaluation is needed of the costs and benefits (in terms of a Section 32 evaluation) of providing detailed monthly farm information for each year's activity.
- Part D does not acknowledge the flexibility needed for a different annual reporting and audit period as is provided in Part C, which allows “or such other annual period nominated,”

328. **Recommendation:** It is recommended the Commissioners adopt the intent of *Part D* of Schedule 7 as recommended in the Officer Report, subject to addressing the particular concerns raised above.

Plan Provision: Schedule 8 – Industry Derived Nitrogen Discharges

329. **Submission:** FANZ noted that Schedule 8 remains blank. The Schedule signals the development of industry derived nitrogen discharge values which are understood will be specific to rural industry sector groups and will apply region wide.
330. Schedule 8 currently references the Technical Report No. R10/127 *“Estimating nitrate-nitrogen leaching rates under the rural land uses in Canterbury”*. FANZ does not believe this report and its recommendations were developed for application to a regulation and considers is not suitable for regulatory purposes at farm scale. Indeed page 13 of the report itself says; *“while these values are suitable for exploration of regional or large catchment scale land use scenarios and for screening the effects of proposed changes in land uses, they are not suitable for use at the farm scale (e.g in a consent process)”*.
331. For this reason, FANZ sought reference to the report be deleted.
332. As a key industry group, with extensive knowledge, expertise, tools, service capability and research commitments relating to nutrient cycling on farms and nutrient management; FANZ welcomed engagement with the Council and the industry groups for developing Industry Derived Nitrogen Discharges.
333. FANZ considers itself a key stakeholder in ensuring the practical and successful application of the recommendations which arise.
334. Officer Report: The Officer Report does not specifically identify FANZ submission on Schedule 8. The Officer Report states: *“It is still an essential component of the overall approach to nutrient management within the Plan and while at this stage there is some uncertainty as to the exact final outcome of the Schedule 8, it is recommended to be retained as a specific location to include the good practice information, as it is developed.”* The Officer Report recommends the following amendment to Schedule 8:
335. *“Schedule 8 – Nutrient Management ~~Industry Derived Nitrogen Discharges~~*
“This Schedule is currently blank, but will be established, to articulate ~~industry developed~~ good-practice nutrient management. ~~discharge allowances, and build upon Report No. R10/127 Estimating nitrate nitrogen leaching rates under rural land uses in Canterbury~~”
336. **Comment:** I support the Officer Report to delete reference to *“Report No. R10/127 Estimating nitrate nitrogen leaching rates under rural land uses in*

Canterbury” as sought by FANZ in its submission. I note the Officer Report also recommends deleting the phrase: “*industry developed*” when referring to good practice. FANZ would seek for engagement with primary industry to articulate industry developed good-practice nutrient management.”

337. **Recommendation:** It is recommended the Commissioners adopt the officer Report recommendation to delete the reference in Schedule 8 to Technical Report No. R10/127 “Estimating nitrate-nitrogen leaching rates under the rural land uses in Canterbury, and for Council to engage with the Fertiliser Industry representatives in the development of ‘Industry Derived Nitrogen Discharges’.

Definitions

Plan Provision: Definition - Changed

338. **Submission:** The Association considered that the proposed definition of ‘*change*’, and the manner in which it is used in the PCLWRP, posed a number of potential administrative and monitoring/enforcement difficulties which have not been addressed within the Plan or the supporting section 32 report.
339. The Association expressed opposition to the definition of ‘*changed*’ in reference to part 2, as more than 10 % in loss of Nitrogen from the same land. FANZ is concerned as to the practicable application of this definition as it relates to Rules 5.42 to 5.45. In particular, the Association is of the view a 10 % change is an arbitrary selection, not necessarily linked to adverse effects.
340. Such a change may be of quite variable significance depending on the current losses. For example a farm with N loss of 50 kg N/ha/yr could affect a relatively significant change, increasing average loss by up to 5 kg N/ha/yr without registering land use change, while inequitably, a low intensity farm with N loss of just 10 kg N /ha/yr would trigger a requirement for consent under this definition with relatively mild N loss increase of just 1 kg N /ha/yr.
341. In addition, considering the accepted margin of error for Overseer of 20-30 % the selection of 10 % N loss as a definition of land use change seems inconsistent with the accepted bounds of system variability.
342. Furthermore the establishment of the data inputs for the period 1 July 2011 to 30 June 2013, will introduce in effect, a cap which is not necessarily linked to effects but will inhibit on-going growth and development. The Association is

opposed to this. In some cases data for the period will be difficult to verify, making the requirement difficult to enforce.

343. Under these circumstances consent would be unduly onerous, costly and would achieve no resource management purpose. The definition, if amended and retained, should specifically be for measures which apply prior to 2017.
344. It is also noted '*changed*' is to be measured on a '*per property*' basis, and the definition of '*property*' is not included in the proposed Plan. The Association believes a broad definition of '*property*' is needed (for example it would not be restricted to land title but area of farm operations) to ensure the determination of change is appropriate and associated with a particular farming activity. (The clear and practical definition for a farm is required also for application of the Farm Environment Plan under Schedule 7).
345. Given the foregoing, the Association opposed the definition of '*changed*' under the PCLWRP.
346. FANZ sought for the deletion of the current definition of '*changed*' within the PCLWRP and for consideration to be given to an alternative approach/definition with application specifically for those rules which apply prior to 2017, with any definition adopting a broad definition of '*property*' that relates to the area being farmed.
347. An alternative definition for '*change*' could be:
- Greater than 20 % of the farm area changing from one of the listed farm activities to another farm activity, or*
- increase in average Nitrogen loss/ha/yr as estimated by Overseer of more than 6 kg N/ha/yr*
- Listed farm activities being; dairy, drystock grazing, cropping, horticulture, irrigated farming.*
- Note: The rationale for selecting a change of 6 kg N loss/ha/yr as a definition of land use change is made on the basis of there being 20 % of an arbitrary 30 kg N/ha/yr benchmark N loss for most farms, (assuming 20 kg N /ha/yr is too low to be practicable for most farms, using Overseer Version 6).*
348. **Officer Report:** The Officer Report records the amendments sought by FANZ (as Ravensdown). The Officer Report states: "*Overall, 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.”

349. The Officer Report goes on to state that the recommendation is to move away from the use of Overseer as a mechanism to calculate whether a threshold has been reached, and instead have a mechanism based on stocking rates or arable production, or an increase in the amount of water consented to be applied to the property. The definition along with the other aspects of the policy and rule framework is recommended to be based on a property rather than site.
350. The other notable change is to an increase in the averaging timeframe, so that greater variability in seasons can be accommodated within the changed definition. The Officer Report recommends the deletion of the previous definition, and replacing it with the following:
351. “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;
2. an increase in the consented volume of water available to be used on the property compared with that consented at 11 August 2012;
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.”
352. Comment: Overall I support in principle the new definition of ‘change’. I agree with the Officer Report that this definition is a critical for defining the activity status for rules. I consider the new definition is more appropriate than the notified Plan definition as it includes stock unit and horticultural/arable yield increases which are more of a true land use change.
353. Notwithstanding this support in principle, there are a number of matters that require addressing in order to ensure an appropriate definition is achieved. These matters include:

- I note that some farming activities (such as arable/horticulture) may still require some allowance for long term crop rotation cycle;
- I am concerned that Council are seemingly ‘grand parenting’ inputs to the farming system, and not placing any focus on adverse effects.
- The removal of the 2017 timeframe may mean be a large number of FEPs are required relatively quickly – as I have already discussed in my evidence above, this may put pressure the capability of the primary industry to respond with appropriately certified people – one way to address such capability issues may be to adopt a 5 year allowance to scale up may be required, and to particularly target as a priority those activities in the ‘Red’ zone where water quality outcomes are not being met.

354. **Recommendation:** It is recommended the Commissioners adopt the new definition of ‘*change*’ recommended in the Officer Report, subject to addressing the matters raised above and elsewhere in this evidence.

Plan Provision: Definition - Environmental Management Strategy for Irrigation

355. **Submission:** FANZ opposed the definition of ‘*Environmental Management Strategy for Irrigation*’ being included in the Plan. FANZ noted that the term does not appear in the objectives, policies or rules and thus questions why it has been defined within the PCLWRP.
356. FANZ was concerned that should it be used to inform the development of Farm Environment Plans (including nutrient management plans), that adopting the template contained in the material “*An Environmental Management System for Irrigation in NZ*” for auditing and standards for nutrient management may cause a fragmented approach within the primary industry.
357. In addition, there are aspects of the nutrient management templates that the industry does not agree with. For example, the draft version on which feedback was sought was an incomplete document. It also included input limits for nutrient application, making the system contradictory to an ‘output’ based approach. Furthermore, while the irrigation companies and individual sector groups (such as the dairy industry) may be taking responsibility for managing and auditing their member farmer clients /customers environmental

performance, it is essential there is a consistency and synergy with the fertiliser industry in its delivery of nutrient management plans. This means a nutrient management plan should be regionally and, preferably, nationally consistent, and should be nested within the farm environmental plan.

358. It is not clear why this particular system should be included in ‘*definitions*’ within the plan, when other audit systems and assurance programmes are not. FANZ sought the deletion of the definition of “*Environmental Management Strategy for Irrigation*” within the proposed Plan.
359. **Officer Report:** While not directly referenced, the Officer Report identifies a number of submitters sought deletion of the reference to the ‘*Environmental Management Strategy for Irrigation*’. The Officer Report recommends this definition be deleted.
360. **Comment:** I support the deletion of the definition of ‘*Environmental Management Strategy for Irrigation*’.
361. **Recommendation:** It is recommended the Commissioners accept the Officer Report recommendation and delete the definition ‘*Environmental Management Strategy for Irrigation*’.

Plan Provision: Farm Environment Plan Auditor

362. FANZ submitted that while the Certificates in Sustainable Nutrient Management and Advanced Sustainable Nutrient Management in New Zealand Agriculture as given above are endorsed and supported by the Fertiliser Industry, and while they represent components of the certification of an Accredited Nutrient Management Adviser currently under development, the definition presented is not entirely consistent with the requirements of certification of a Nutrient Management Adviser.
363. Furthermore, the fertiliser industry would not consider the certification requirements for the Nutrient Management Adviser would necessarily be the same as those required for a Farm Environment Plan Auditor.
364. FANZ sought for deletion the definition for “*Farm Environment Plan Auditor*”, and the PCLWRP give recognition to Industry Certification as they apply for their given purpose.

365. **Officer Report:** The Officer Report records the matters raised by FANZ and the relief sought. The Officer Report goes on to state: *“The audit process for farm environment plans is critically important to the integrity of the outcomes and the community acceptance of the process. On this basis, the qualifications and experience of the auditors is considered to be important. The Ravensdown and Fertiliser Association submission that seek to rely on industry certification is not considered appropriate, in the absence of clarity and precision as to what that industry certification entails and the ongoing robustness of the industry process.”* The Officer Report recommends the definition be amended as follows:
366. **“Farm Environment Plan Auditor** means a person who can provide evidence of at least 5 years professional experience in the management of pastoral, horticulture or arable farm systems and holds ~~has either:~~
1. ~~a Certificate of Completion in Sustainable Nutrient Management in New Zealand Agriculture and a Certificate of Completion in Advanced Sustainable Nutrient Management in New Zealand Agriculture from Massey University; or~~
 2. ~~a Certificate of Completion in Sustainable Nutrient Management in New Zealand Agriculture from Massey University and can provide evidence of at least 5 years professional experience in the management of pastoral, horticulture or arable farm systems; or~~
 3. such other qualification that has been approved by the Chief Executive of the Canterbury Regional Council as containing adequate instruction and assessment on agricultural sciences or nutrient management, ~~a tertiary qualification in agricultural sciences and can provide evidence of at least 5 years professional experience in nutrient management for pastoral, horticulture or arable farm systems.”~~
367. **Comment:** I have a number of concerns with the definition of “Farm Environment Plan Auditor” and the amendments proposed in the Officer Report, as follows:
- With regards to qualifications and experience, as I have discussed above in my evidence, I have concerns about the capacity within the region for like-qualified people to undertake the audit process,

especially if they cannot be employed by the supplier of the FEP.

Does this mean that suitably qualified Council staff can be auditors?

- Following on from this point, as there will no doubt be a cost to the farmer to use an auditor's service, this raises questions around reliability of the audit process. In particular, who will audit the auditors to ensure that any variability of the audit method is reduced? In some ways it would be more practicable to have the auditors working for Council, who could then control the quality of the audit process.

368. The Officer Report identifies that the qualification and experience of the auditor is important, and in the absence of clarity and precision as to what the new industry certification entails, has proposed certification based on years of experience and the well established courses in 'Sustainable Nutrient Management in New Zealand Agriculture'. These are prerequisites to Industry Certification and have been accepted as an industry standard for their given purpose.
369. It is assumed the Certification of Nutrient Management Advisers as per the industry programme, and Certification of an Auditor can be the same qualification. -
370. If different, a separate training and definition for a Certified FEP Auditor is required. Further, if different, capability to provide annual audits within the required timeframe is an issue to be considered.
371. If the qualifications are to be the same, then I would oppose the terms "either" and "or" in the provision of; either Advanced NM Course or Sustainable NM Course (intermediate), as the intermediate course is a prerequisite for the advanced. The term "or" means the advanced course is not required. It should be required for a qualified nutrient management adviser. It is in the advanced SNM course that the competent development of Nutrient Management Plans (within the context of challenging agricultural production within limits and Regional Council regulations) is demonstrated and critiqued.
372. If FEP auditor qualifications are to be different to those of a certified nutrient management adviser, in my opinion, the definition for a farm environment plan auditor should be deleted and replaced with the audit process being undertaken by a suitably qualified person at ECan for the above reasons.

373. **Recommendation:**

374. An entirely different definition for a Farm Environment Plan Auditor may be required.

If the Officer Report recommendation for the definition of a Farm Environment Plan Auditor is to be retained, it should be amended (shown in bold) as follows;

“means a person who can provide evidence of at least 5 years professional experience in the management of pastoral, horticulture or arable farm systems and holds ~~has either~~:

- 1. ~~a Certificate of Completion in Sustainable Nutrient Management in New Zealand Agriculture and a Certificate of Completion in Advanced Sustainable Nutrient Management in New Zealand Agriculture from Massey University; and~~ ~~or~~ 2. a Certificate of Completion in **Intermediate** Sustainable Nutrient Management in New Zealand Agriculture from Massey University ~~and can provide evidence of at least 5 years professional experience in the management of pastoral, horticulture or arable farm systems; or~~*
- 3. such other qualification that has been approved by the Chief Executive of the Canterbury Regional Council as containing adequate instruction and assessment on agricultural sciences or nutrient management. ~~a tertiary qualification in agricultural sciences and can provide evidence of at least 5 years professional experience in nutrient management for pastoral, horticulture or arable farm systems.~~”*

Plan Provisions: Nutrient discharge

375. While FANZ supported the intent of this definition, the definition in the context of the wider plan may not be practical. Not all land use activities are included in Overseer, and therefore, by this definition those land use activities not in Overseer, would remain outside the definition for nutrient discharge.

376. FANZ sought for the definition of Nutrient Discharge to be amended so that it may have meaning regardless of the land use activities.

For example:

“Nutrient Discharge: Nutrient loss from the farm system boundary by surface run off or by leaching below the root zone”.

377. **Officer Report:** The Officer Report records the concerns raised by FANZ, and recommends the definition be amended as follows:

“Nutrient discharge means nutrient loss from the property by surface runoff or by leaching below the root zone ~~the modelled discharge of nutrients using OverseerTM~~.”

378. **Comment:** I support the amendment to the definition of ‘nutrient discharge’ as this is directly from the FANZ submission.
379. **Recommendation:** I recommend the Commissioners amend the definition of ‘nutrient discharge’ as recommended in the Officer Report.

Plan Provision: Existing farming activity

380. *“Existing farming activity means the use of land for primary production (excluding forestry) that is not a “changed farming activity”.*
381. **Comment:** This is a new definition that is required following the new ‘changed’ definition. I support the recommended definition as I consider it is appropriate and necessary.
382. **Recommendation** It is recommended the Commissioners adopt the new definition of “Existing farming activity” as recommended in the Officer Report.

Plan Provision: New farming activity

383. *“New farming activity means the use of land for primary production (excluding forestry) where no primary production has occurred on that land in the previous three years.”*
384. **Comment:** This is a new definition that is required following the new ‘changed’ definition. I support the recommended definition as I consider it is appropriate and necessary.
385. **Recommendation** It is recommended the Commissioners adopt the new definition of “New farming activity” as recommended in the Officer Report.

Plan Provision: High nutrient risk farming activity

386. *“High nutrient risk farming means any one or more of:*

- *Feeding cattle on a fodder crop that has been established on irrigated land;*
 - *Arable farming or horticulture (excluding grapes);*
 - *Farmed pigs; or*
 - *Irrigated dairy.”*
387. **Comment:** Overall I support in principle the new definition of “*High nutrient risk farming*”. However, I note there may be uncertainty about how the rules apply to a mixed operation where an extensive sheep or cattle farm has an area of arable or horticulture crops or an area where fodder crops are feed to cattle. Does undertaking one of these activities mean that the rules apply to the entire farm or is it proportional? To avoid uncertainty, orchards and vineyards should be excluded from the definition by referring to arable and commercial vegetable production together and excluding other horticulture. ..
388. I also note that Dr Roberts in his evidence comments on ‘*High Nutrient Risk Farming Activity*’ (paragraph 98; Page 22) supports this exclusion.
389. **Recommendation:** It is recommended the Commissioners adopt the new definition of ‘*High nutrient risk farming activities*’ as recommended in the Officer Report, but amend to refer to arable and commercial vegetable production together, and exclude other horticulture.

Plan Provision: Advanced mitigation measures

390. “*Advanced mitigation measures means the adoption of multiple techniques from the following list to minimise nutrient losses from a property:*
- 1. Winter shelter*
 - 2. Restricted grazing*
 - 3. No winter grazed fodder crops*
 - 4. Reduced stocking rates*
 - 5. Low N feed*
 - 6. Reduced/Nil fertiliser*
 - 7. Improved animal efficiency*
 - 8. Improved irrigation efficiency (better than 80%)*
 - 9. Nitrification inhibitors*
 - 10. Optimum Olsen P*

11. *Low solubility P fertiliser*
12. *Effluent management*
13. *Reduced water use*
14. *Catch cropping*
15. *Improved soil physical condition to reduce erosion*
16. *Natural wetlands*
17. *Floodplain wetlands*
18. *Constructed wetlands*
19. *Riparian margins*
20. *Grass buffers*
21. *Swales*
22. *Sediment traps/ponds”*

391. **Comment:** I note the purpose of this new definition seems to be to provide farmers with a list of techniques for higher levels of nutrient loss mitigation than can be adopted into their FEP and implemented. While overall I support the intent of the new definition to provide a list of advanced mitigation measures for what it is – simply a list of available options for farmers to reduce nutrient losses – I am cautious over its use in regulation. If there is a net increase in nutrient discharge, then high level of performance in mitigation relative to peers is expected.
392. Adoption of these advanced mitigation measures are referenced not in the rules but in the nutrient management policies (Policies 4.31 and 4.32) that discuss ‘*changed*’ or ‘*new*’ farming in the orange and red zones whereby farmers will be required to show that adoption of advanced mitigation farming practices lead to the property operating in the top quartile (Orange zones), or top 10% (Red zones) of nutrient discharge minimisation practices when measured against practices in the relevant industry.
393. The proposed new Policy 4.31 states “*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 quartile of nutrient discharge minimisation practices when measured against practices in the relevant farming industry, and that in any event the regional water quality outcomes are still being met*”.

394. It is presumed that this means that farming practices will be measured against the Schedule 8 good practice nutrient management information; although that is still a few years away from being developed. In my view, there will have implications during the interim period as there is nothing to be measured against.
395. While overall I support in principle the new definition, I consider there needs to be further detail on how it is to be applied in practice, and a lead in time should be provided to introduce the programme meaningfully.
396. Consideration also needs to be given to how new future mitigations will be encouraged and acknowledged in the planning framework.
397. **Recommendation:** I recommend the Commissioners adopt the proposed new definition of “*Advanced mitigation measures*” recommended in the Officer Report while addressing the matters of concern raised above including providing further detail on how it is to be applied in practice, and a lead in time should be provided to introduce the programme meaningfully.

Chris Hansen

2 April 2013

Estimates of 'Effort' to deliver PCLWRP as publically notified

Introduction

The table presented reflect a member company's experience in preparing Nutrient Budgets (NBs) and Nutrient Management Plans (NMPs) for its existing clients, and estimates the 'effort' that will be needed to implement the PCLWRP, as publically notified.

To assist the Commissioners, the Company has first estimated the 'effort' (estimated in '*person days per year*') to complete three nutrient budgeting and management planning scenarios, being:

- a. The pre-PCLWRP nutrient management plan and NB regime.
- b. The NB and FEP regime that is advanced within the PCLWRP (as publically notified).
- c. The NB and FEP regime the Company has proposed as an alternative.

The outcomes of this analysis are set out within **Table 1** below.

Findings

In essence the assessment undertaken by the Company demonstrates that 16 full time staff would be required once the PCLWRP became operative prior to 2017, and 34 full time staff are required after 2017.

This compares with 3 full time staff pre-PCLWRP and 8 full time staff if the alternative is adopted.

Table 1: Assessment pre and post PCLWRP vs. proposed alternative

PCLWRP Requirements	Pre PCLWRP:	Post PCLWRP notification & pre 2017 (interim): <u>Annual</u> NBs "any existing farming activity"; & <u>Annual</u> FEPs Lake Zone (c.80) & new/change farms (c.100/yr)	Post PCLWRP notification & at July 2017: <u>Annual</u> NBs "any existing farming activity"; & <u>Annual</u> FEPs Lake Zone (c.80), new/change farms (c.100/yr) & those above 20kgN/Ha/yr losses (22% of 6298)	ALTERNATIVE: <u>Three yearly</u> NBs & <u>Three yearly</u> FEPs, limited to Lake Zone (c.80); new/change farms (c.100/yr); & an alternative FEP requirement threshold than that of the 20kgN/Ha/yr (i.e. to achieve 10% of farms or less – such as e.g. “High Nutrient Risk Farming Activity”)
Farm System Focus	All Canterbury Focus Dairy	All Canterbury Large Scale/ Commercial Farms "Principal Agriculture Land Uses"	All Canterbury Large Scale/ Commercial Farms "Principal Agriculture Land Uses"	All Canterbury Large Scale/ Commercial Farms "Principal Agriculture Land Uses"
Number of 'Principal Agriculture Land Uses'	750	6300	6300	6300
Nutrient Modelling (Person Days Per Year) 3hrs Dairy 4hrs (avg) All	281	3150	3150	1050
NMP Production (Person Days Per Year) 4hrs Dairy	375			
FEP Production (Person Days Per Year) 3 Days / FEP		540	4698	810
NMP Audit (Person Days Per Year)	20			
FEP Audit (Person Days Per Year)		13	40	28
Total (Person Days Per Year)	676	3703	7888	1888
Full Time Equivalent Staff (at 229 Working Days per year)	3	16	34	8

In order to conduct this analysis a number of assumptions were made, which are listed (for completeness) on the following page. In developing these assumptions the collective opinions of the Company staff as they apply to Scenarios (b) and (c), and, in one instance, the recent experience of agricultural consultants were drawn on. As a consequence, while the Company accepts that Table 1 cannot (and, indeed, should not) be treated as being definitive, it is confident that it is both a reasonable and robust estimation of the relative 'effort' that is expended, and that which would be expended.

Assumptions Used In Deriving Table 1

- Section 32 report (Appendix 1, page 58 & 68) which identifies a total 16,137 'landowners' in Canterbury.
- Section 32 report (Appendix 1, page 58 & 68) which identifies 6298 'landowners' by principal agricultural land use. Being Arable (896) Beef (890) Dairy (750) Deer (554) Grazing (396) Sheep (1547) Sheep and Beef (1265). 6298 excludes those undertaking 'lifestyle' (9459) and forestry (380) land uses.
- Section 32 report utilises both statistics NZ and Landcare Research data to provide total 'landowner' numbers ranging from 16,000 to 17,000.
- Rules 5.39 to 5.49 pLWRP do not discriminate between types of agricultural uses or endeavour, but rather refer to (and thus apply to) '*any farming activity*'. The Company therefore understands that these rules would apply to 16,137 rural land holdings.
- For the dairy industry, the fertiliser industry has been preparing nutrient budgets using OVERSEER™ for some time. Experience suggests that preparing a NB (using OVERSEER™) takes at least 1 hour for a 'straight' dairy unit where a base nutrient budget already exists. However, many other sectors have not placed emphasis on nutrient budgeting, hence, the base files do not exist and need to be created. Experience suggests this can take around 4 hours for a Sheep/Beef/Deer unit, 4 hours for a dairy unit, and 8 hours for an arable unit. Arable systems tend to take the longest currently due to the dynamic nature of these systems with various stages of different crop rotations. Currently the Arable industry is looking to develop protocols to better manage such data input requirements
- Experience suggests that NMP production takes at least 2 hours per farm, depending on level of complexity required and objectives of the NMP. Extremely complex NMPs with multiple scenario analysis can take much longer than this. To maintain a relatively simple NMP over time, may require an additional hour per year. Please note that these numbers are conservatively based on the reviews being limited to 'sample based auditing', which by its very nature confines the effort that needs to be applied. Moving to a more comprehensive auditing protocol could, potentially quite dramatically, increase the effort that would be needed here.
- It has been very conservatively estimated that FEP production will take at least 3 days (up to two days on site and one day preparing the FEP). Please note, however, that this assumes that the agricultural endeavour that is being undertaken is reasonably 'straight-forward' and that templates will be developed by the industry in response to the obligations set out within the PCLWRP. It is also expected that the FEP maintenance / review process will consume 1 day (again, this assumes 'sample-based auditing').
 - *It is noted a recent FEP example took in excess of 80 person hours to prepare, and that the associated OVERSEER™ analysis consumed in excess of 120 hours. This FEP & OVERSEER™ report were prepared in accordance with the structure set out in Schedule 7 of the pLWRP, for Ohau Downs Station in the Mackenzie Basin. The FEP was prepared by Katherine McCusker, a well-known and well-respected agricultural consultant with the 'The AgriBusiness Group'. The OVERSEER™ report was produced by Ms Nicola Waugh & Mr James Allen, both of whom are well respected & experienced agricultural consultants with 'AgFirst Limited'.*
- It is recognised that the current PCLWRP definition "*any existing farming activity*" would currently also include "lifestyle" customers, the numbers of which have not been used in these calculations.
- For the purpose of the assessment it has assumed that Canterbury will have 100 new or 'change' proposals to farming operations each year.
- Section 32 report Appendix 1 p.68 which identifies 22% of 'principal agricultural land use' losses are expected to be above 20kgN/ha/yr.
- It has been assumed 229 'working days' per year. This figure has been derived by excluding weekends, public holidays, four weeks of annual leave and one week of sick leave. Equally, an 'eight-hour' working day is assumed.
- "The Alternative" has assumed that a requirement to produce FEPs for more than 10% of farms would be expected to have diminished productivity and environmental returns.