IN THE MATTER OF	**The Resource Management Act 1991**
AND	
IN THE MATTER OF	**A submission on the Proposed Land and Water Regional Plan**
BETWEEN	**DIRECTOR-GENERAL OF CONSERVATION**
AND	**CANTERBURY REGIONAL COUNCIL**

EVIDENCE OF PAMELA ANNE GUEST

FOR DIRECTOR-GENERAL OF CONSERVATION

Dated 2 April 2013

Director-General of Conservation

Private Bag 4715

Christchurch Mail Centre

CHRISTCHURCH 8140

Telephone: (03) 371-3700

Counsel: Tara Allardyce

STATEMENT OF EVIDENCE OF PAMELA ANNE GUEST

INTRODUCTION

1. My full name is PAMELA ANNE GUEST.

2. I have a Bachelor of Science (1st class Hons in Geography) from the University of Otago, with post-graduate papers from the University of Waikato in Environmental Planning and Law and Planning Theory.

3. I work as a Resource Management Planning consultant, with experience in regional and national resource management policy development, and a recent focus on water quality management.

4. At a regional level I have led the development of regional plans for both the Waikato and Canterbury Regional Councils since the inception of the Resource Management Act (RMA).

5. Most recently I have been involved in the review of policy to manage the effects of intensive land use on water quality in the Canterbury Region. I was responsible for preparation of the Environment Canterbury (ECan) Officer Report[1] that recommended the need for new regional nutrient management policies, including the establishment of catchment nutrient loads, property-level nutrient allocation methodologies, the integration of policies to manage water quality with water allocation, and the drafting of interim-provisions. I was also responsible for drafting new policies and methods to better manage stock access to water bodies.

6. From 2008 to 2011 I was part of the original ECan Land Use and Water Quality project team, during which time I:

[1] NRRP Hearing Stage 12, Officer Report No. 12, Chapter 4 Water Quality. Prepared by Raymond Ford, Barry Loe, Pam Guest and Chris Clarke. August 2007.

(a) prepared briefs and managed contracts to better understand various technical questions, including the review of the nitrate toxicity limit, the development of a detailed regional land use map, and a series of reports providing predictions of nitrate leaching rates for different land uses in Canterbury to form the basis of a nitrate leaching "look-up table" suitable for the Canterbury Region.

(b) prepared and presented reports focusing on ways to better manage diffuse source contamination, including:

- Guest, P.A. and Ford, R. 2011: "Managing Catchment Nutrient Loads: A review of different policy instruments." Land Use and Water Quality Project, Working Paper #2. Updated June 2011.
- Guest, P.A. 2011: "Environmental Management Systems as a tool to manage diffuse-source contamination: Criteria for Success." ECan Report No. R11/116.

7. Although this is not an Environment Court hearing, I have read the Environment Court's practice note "Expert Witnesses – Code of Conduct" and I agree to comply with it. My qualifications as an expert are set out above. Except where I state that I am relying upon the specified evidence of another person, the issues addressed in this brief of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SCOPE OF EVIDENCE

8. I have been asked by the Director-General of Conservation to prepare a planning assessment of the farming and nutrient management provisions of the Proposed Land and Water Regional Plan (PLWRP).

9. My evidence focuses on Policies 4.28-4.38, Rules 5.39-5.51, Schedules 7 & 8, and includes an evaluation of whether these provisions, within the context of the PLWRP policy framework, will effectively and efficiently give effect to the purpose and principles of the Resource Management Act (RMA).

10. In particular, I compare them against the requirements of s5, s32 and s70, the National Policy Statement for Freshwater Management (NPSFM), and the Canterbury Regional Policy Statement. I have also considered whether the proposed Plan has had particular regard to the "Purpose" and "Vision" of the Canterbury Water Management Strategy as required pursuant to the Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010 (ECan Act).

11. I take the same approach with respect to changes recommended by the section 42A report.

12. My evidence is grouped under the following headings:

- Summary of my evidence
- Background and context
- The legislative framework
  - RMA
  - NPSFM
  - CRPS
  - ECan Act and the CWMS
- The PLWRP objectives relating to freshwater quality
- The freshwater limits
- Evaluation of the nutrient management policies and rules
  - The pre-2017 regime and its effectiveness
  - The Pre-2017 Rules for change in use
  - Effectiveness of the pre-2017 regime
  - The post-2017 regime
  - Effectiveness of the post-2017 regime
  - The role of the sub-regional chapters in nutrient management

- Monitoring protocols in the PLWRP regime
- Schedule 7 – Farm Environment Plans

- Section 42A Recommendations
  - New Rules recommended by the s42A Report
- Conclusion
  - Recommendations

SUMMARY OF EVIDENCE

13. Environment Canterbury has presented two strategies for managing farm-related nutrients.

    (a) The first was incorporated in the PLWRP
    (b) The second was promulgated more recently and presented in the s42A report.

14. In my evidence I evaluate both strategies by comparing them with standard planning criteria.

15. In both cases I ask whether the strategies satisfy the following 6 tests:

Section 5 RMA 1991

16. Does the approach promote sustainable management as defined by section 5 of the RMA 1991? In particular, will the baseline tests (a)-(c) be met:

    (a) Is the potential of natural and physical resources sustained in order to meet the reasonably foreseeable needs of future generations?
    (b) Is the life-supporting capacity of (in this case) water, soil and ecosystems safeguarded?
    (c) Are the adverse effects from farming in terms of water quality avoided, remedied or mitigated?

Section 70 RMA 1991

17. Are the proposed permitted activity rules consistent with the requirements of section 70 RMA 1991?

    (a) Do they prevent discharges being permitted activities if those discharges are likely to have any significant adverse effects on aquatic life?

Section 32 RMA 1991

18. Is the strategy supported by a robust section 32 RMA analysis?

    (a) Does the section 32 report ask whether the plan's objectives are the most appropriate way of achieving the purpose of the Act?

    (b) Does the section 32 report analyse whether the policies, rules or other methods are the most effective and efficient way of achieving the objectives?

    (c) Has the section 32 report properly investigated the costs and benefits of each strategy?

    (d) Does the section 32 Report properly assess the risks of acting or not acting where there is uncertainty or insufficient information as to the subject matter of the policies, rules or methods.

The Canterbury Regional Policy Statement 2013

19. Does the strategy give effect to the Canterbury Regional Policy Statement 2013?

ECan Act 2010 and Canterbury Water Management Strategy

20. Does the strategy have particular regard to relevant principles of the Canterbury Water Management Strategy as is required by the ECan Act? In particular:

    (a) Is a consistent regulatory approach to water management being applied throughout the Canterbury region?[2]

[2] Principle 2

(b) Is a cautious approach being taken where information is uncertain, unreliable or inadequate?[3]

(c) Is the natural character of Canterbury's rivers, streams, lakes, ground water and wetlands being preserved and enhanced?[4]

(d) Is the restoration of the natural character and biodiversity of those water bodies being made a priority, where the waterway has been degraded?[5]

(e) Are the indigenous flora and fauna and their habitats in the water bodies being protected and valued?[6]

(f) Are recreational activities, like swimming, fishing, boating and other water sports, able to be enjoyed thanks to there being high quality water?[7]

(g) Are the water resources being used sustainably to enhance the quality of life and the discharges to waterways minimised so that the quality is not compromised?[8]

National Policy Statement: Freshwater Management

Does the strategy give effect to the National Policy Statement: Freshwater Management Specifically, its Objectives A1 and A2, and its Policies A1, A2 and A3?

21. In summary, my analysis of the two strategies shows that neither meets these tests. That said, I must note that the section 42A approach does offer some improvement on its predecessor by, firstly, expanding the scope beyond just Nitrogen and, secondly, presenting a more comprehensive Farm Environment Plan.

22. The shortcomings of the two approaches cannot simply be brushed aside as mere technicalities. The under-achievements of the two strategies have very real implications for Canterbury's water quality that will persist for years to come.

[3] Principle 2
[4] Principle 4
[5] Principle 4
[6] Principle 5
[7] Principle 8
[8] Principle 9

23. In light of the short-comings I have made a number of recommendations regarding the plan framework that, if implemented, would better address the 6 tests identified above.

BACKGROUND AND CONTEXT

24. In evaluating the policy framework, I consider the key question that needs to be satisfactorily answered is:

Will the combination of objectives, policies, and rules in the PLWRP achieve the desired water quality outcomes in Canterbury's water bodies, ensuring that existing water quality degradation is addressed in a timely manner and enabling land use development, but only while, and to the extent that, the life-supporting capacity of water and its associated ecosystems is safeguarded and the potential to meet reasonably foreseeable needs of future generations is sustained?

25. In considering this question, the following points provide critical background:

(a) Water quality in many Canterbury waterways is already in a degraded state with aquatic values adversely impacted by elevated concentrations of nitrogen, phosphorus, sediment and microbial pathogens. The nutrient status of many catchments is already "over-allocated" or "at risk" of being over-allocated.

(b) The primary cause of water quality decline is the cumulative effect of diffuse source contaminants from both extensive and intensive land uses[9].

[9] Lilburne, 2011

(c) There is significant pressure to develop new irrigation schemes and enable land use intensification across the Region[10, 11]. Assessments of the effects of 3% annual growth in Canterbury's agricultural production found that by 2050 the nitrogen lost by leaching would increase 3 fold.[12]

(d) Even if there is no increase in nutrient discharges, water quality in some catchments is likely to continue to decline for up to several decades due to the "lag effect" of nutrients moving through the catchment into surface water.[13]

(e) There is particular concern that development in high country basins will cause similar levels of water quality degradation as currently found across the Canterbury Plains[14].

(f) Water bodies can become fully or over-allocated within reasonably short periods of time. It can be difficult and costly to manage an over-allocated catchment back down to a limit, therefore over-allocation is best avoided.[15]

(g) In Canterbury, the predicted impacts of climate change on water quality makes the need for an effective water management framework even more urgent; with reductions in assimilative capacity

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[10] For example, "*The Government will play a leading role in ensuring the Canterbury plains are further irrigated so more wealth flows from the food basket.*" Finance Minister Bill English, 2012 quoted in "Irrigation plans high on Govt agenda" by Alan Wood, Fairfax Media 26/05/2012
In 2011 the Government signalled plans to invest up to $400 million in regional-scale irrigation schemes to encourage third-party capital investment.
http://www.beehive.govt.nz/release/government-earmarks-80m-irrigation-investment. Downloaded 12 March, 2012

[11] Canterbury Water Management Strategy, Targets

[12] Parfitt, R. L., Baisden, W.T., Schipper, L.A., MacKay, A.D. 2008: Nitrogen inputs and outputs for New Zealand at national and regional scales: past, present and future scenarios. *Journal of the Royal Society of New Zealand* 38(2): 71-87.

[13] Close, M. 2010: "Critical review of contaminant transport time through the vadose zone." Environment Canterbury Report R10/113. .June 2010.

[14] Stevenson, M; Wilks, T; Hayward S. 2010: "An overview of the state and trends in water quality of Canterbury's rivers and streams". Environment Canterbury Technical Report R10/117

[15] Third Report of the Land and Water Forum.

as river flows reduce and increased growth of aquatic plants and algal blooms as water temperatures increase.[16]

THE LEGISLATIVE FRAMEWORK

26. The legislative framework that provides the context for the PLWRP is well outlined in the PLWRP and its accompanying s32 report. This section is therefore constrained to setting out matters of key relevance to the points raised in my evidence.

Resource Management Act 1991 (RMA)

27. The RMA is the preeminent piece of legislation that the PLWRP provisions must be tested against In particular sections 5, 32 and 70 provide the key tests that the planning provisions must satisfy.

National Policy Statement for Freshwater Management 2011 (NPSFM)

28. The PLWRP must give effect to the NPSFM. This includes requirements to:

Policy A1:

*a. Establish **freshwater objectives** and set **freshwater limits** for **all** bodies of freshwater*

b. Establish methods to avoid over-allocation (allocated beyond a limit or used to a point where freshwater objective is no longer met).

Policy A2

Specify targets and implement methods to assist water bodies to meet targets where objectives are not met.

[16] O'Donnell, L 2007 Climate Change: an analysis of the policy considerations for climate change for the review of the Canterbury Regional Policy Statement. Environment Canterbury report No. R07/4, February 2007

Policy A3

a. Impose conditions on discharge permits to ensure limits and targets can be met; and

b. Where permissible, make rules requiring the adoption of the best practicable option to prevent or minimise adverse effects on the environment from discharges of contaminants.

29. Policies are to be implemented by 31 December 2014. However, where this is impracticable, a programme of defined time-limited stages is to be fully implemented by 31 December 2030. Any such staged implementation programme must have been publicly notified before 12 November 2012 and the extent of its implementation publicly reported upon annually.

Canterbury Regional Policy Statement (CRPS)

30. The PLWRP must give effect to the CRPS. Policies of particular relevance are:

Policy 7.3.6 – Fresh water quality

In relation to water quality:

(1) to establish and implement minimum water quality standards for surface water and groundwater resources in the region…

Policy 7.3.7 – Water quality and land uses

To avoid, remedy or mitigate adverse effects of changes in land uses on the quality of fresh water (surface or ground) by:

(1) identifying catchments where water quality may be adversely affected, either singularly or cumulatively, by increases in the application of nutrients to land or other changes in land use; and

(2) controlling changes in land uses to ensure water quality standards are maintained or where water quality is already below the minimum standard for the water body, it is improved to the minimum standard within an appropriate timeframe.

Policy 7.3.9 – Integrated solutions to fresh water management

To require integrated solutions to the management of fresh water by developing and implementing comprehensive management plans which address the policies of this Statement …

Policy 7.3.12 - Precautionary approach and allocation without a planning framework

To take a precautionary approach to the allocation of water for abstraction, the damming or diversion of water, or the intensification of land uses or discharge of contaminants, in circumstances where the effects of these activities on fresh water bodies, singularly or cumulatively, are unknown or uncertain.

Canterbury Water Management Strategy (CWMS)

31. Under s63 of the ECan Act, the PLWRP must have "particular regard to" the "vision" and "principles" of the CWMS. Also of relevance to the PLWRP, but without statutory obligation, are an extensive set of targets set following consultation with the Canterbury community.

32. The principles for natural water use are:
    - first order priority matters: the environment, customary uses, community supplies and stock water.
    - second order priority matters: irrigation, renewable electricity generation, recreation, tourism and amenity.

33. Two primary principles of particular relevance to the PLWRP are:

- A consistent regulatory approach to water is to be applied throughout the Canterbury region, recognising these principles.
- A cautious approach is to be taken when information is uncertain, unreliable, or inadequate.

34. Relevant second order principles include:

- The natural character (mauri) of Canterbury's rivers, streams, lakes, groundwater and wetlands is preserved and enhanced…the restoration of natural character and biodiversity is a priority for degraded waterways, particularly lowland streams and lowland catchments.
- Indigenous flora and fauna and their habitats in rivers, streams, lakes waterways and wetlands are protected and valued.

- High quality water ensures contact recreation such as swimming, fishing, boating and other water sports are able to be enjoyed throughout Canterbury.

- Water resources are used sustainably to enhance quality of life: land use, industry and business practices do not adversely impact on water quality…discharges to waterways are minimised and do not compromise quality.

THE PLWRP OBJECTIVES RELATING TO FRESHWATER QUALITY

35. Under the NPSFM (Policy A1), the PLWRP must establish freshwater objectives for **all** bodies of freshwater. The NPSFM Implementation Guide defines a Freshwater Objective as *"the environmental outcome sought for the water body."*

36. Defining freshwater objectives requires[17]:

(a) determining desired outcomes; and

(b) describing the environmental state required to enable these outcomes to be achieved.

37. The objectives in Section 3 of the PLWRP are set at a very high level (e.g., "The health of ecosystems is maintained or enhanced …"). These objectives establish neither the environmental outcomes nor the environmental state sought for specific water bodies. In my opinion, they add no value to the generic, high level objectives already set out in the RMA, NPSFM, the CRPS, and the CWMS.

38. Policy 4.1 specifies that fresh water outcomes will be set out in the sub-regional chapters or, where none have been established, the outcomes in Table 1 will be used.

39. Table 1 provides a comprehensive suite of environmental indicators for each of the Region's water body types though I am aware that wetlands are not included in the tables. I note that this table originates from the Natural Resources Regional Plan (NRRP), "Objective WQL1: Water quality outcomes for rivers and lakes". However, in the NRRP these state indicators are linked to specified purposes of management.

40. It is my understanding that an effective plan hierarchy works as follows:

(a) Objectives set the outcomes,

(b) Policies set out the course of action to achieve these outcomes,

(c) Rules and other methods deliver that course of action.

41. Objectives play an overarching or integrating function, ensuring that all policies and methods work together to achieve the desired outcomes.

[17] NPSFM Implementation Guide

42. There is no rationale provided in the PLWRP for choosing to implement Table 1 at a policy level rather than an objective level. In my view this is a retrograde step from the position taken in the NRRP. Establishing numeric water quality outcomes as objectives provides:

(a) Certainty for environmental outcomes;

(b) A basis for managing cumulative effects;

(c) Clarity about future resource availability;

(d) Clarity about future conditions of resource uses (e.g., permitted or discretionary activity status);

(e) Greater clarity about the way non-complying activities will be considered;

(f) An ability to effectively manage activities that affect water quality other than point-source discharges; and

(g) An ability to manage attainment of objectives and thus properly monitor the effectiveness of plan provisions through time[18].

43. I note the s32 analysis states that the NRRP water quality outcomes should continue to be used because they are: *"...comprehensive and were robustly developed, reviewed and modified through the NRRP hearing process*."

44. I also note Mr Meredith's evidence to Hearing Group 1 that concludes "*Table 1 (a,b) is an important part of the Plan in setting higher level outcomes*" and should be retained as "*deletion would leave the Plan without a context of measureable outcomes to be achieved over the life of the Plan*."[19]

[18] Norton, N., Snelder, T. 2009: "On measurable objectives and receiving water quality standards for Environment Canterbury's Proposed Natural Resources Regional Plan." Environment Canterbury Report No. R09/19.

[19] Memorandum dated 7 January 2013 from Adrian Meredith re. Submissions on Table 1(a)(b), PLWRP. Proposed Canterbury Land & Water Regional Plan, Section 42A Report - Volume 1

45. I note that Section 2.4 of the PLWRP states that the policies and rules in the sub-regional sections will apply instead of, or in addition to, the **policies or rules** in the region-wide section.

46. Thus it is possible that the only part of the PLWRP that will have relevance for managing individual catchments is Section 3, Objectives. In my opinion, the generalised nature of these objectives means that there can be very little confidence in the outcomes that will be achieved by the PLWRP planning framework.

47. For the reasons set out above, and because it is my understanding that Table 1 meets the NPSFM requirement to set freshwater objectives, in my opinion it is appropriate to elevate Table 1 to the level of PLWRP Section 3.1 Objectives, providing support to the existing, very general objectives and greater certainty as to the outcomes of the sub-regional chapters.

THE FRESHWATER LIMITS

48. As I noted earlier, NPSFM Policy A1 requires regional councils to:

> ***(a)*** Establish freshwater objectives **and set freshwater limits for all bodies of freshwater.**

49. This policy must be implemented by 31 December 2014 or a programme of defined time-limited stages must be publicly notified before 12 November 2012.

50. The NPSFM defines a limit as *"the maximum amount of resource use available, which allows a freshwater objective to be met". A common type of limit would be one that sets the maximum nutrient load entering a water body. …A limit needs to specify an actual maximum. The plan cannot allow for*

additional resource to be allocated above that maximum limit, even if the objective is still met."[20]

51. Section 2.6 of the PLWRP states that limits, as required by the NPSFM, are included in the rules, either by:

1. setting the maximum amount of a resource that can be allocated to those using the resource within a catchment; or

2. controlling activities by:

   (b) Permitting activities that the Council has determined can cumulatively occur while still ensuring that the objectives and the in-stream fresh water outcomes sought by the Plan will be achieved;

   (c) Prohibiting activities that the Council has determined will not enable the objectives and the in-stream fresh water outcomes sought by the Plan to be achieved;

   (d) Requiring resource consents for activities where the Council has determined that a case-by-case assessment is required to assess whether the objectives and the in-stream fresh water outcomes sought by the Plan will be achieved.

52. Section 2.6 also states that:

"The region-wide nitrogen limits in Section 5 of the Plan are designed to move from a regime of little or no statutory management of diffuse non-point source discharges of nutrients to a statutory regime that requires 'good management practice' across the region."

53. It is my opinion that only 2.6 (1) above meets the NPSFM definition of a limit. There are no maximum limits (i.e., N or P loads) set in the PLWRP.

[20] NPSFM 2011: Implementation Guide

54. From my review of the s32 report, I find no evidence that Environment Canterbury has carried out any analysis that could be used to show that managing activities in accordance with the different rule categories will achieve the objectives and the in-stream fresh water outcomes.

55. Presumably the reference to Section 5 nitrogen limits refers to the limits that are to be defined (eventually) in Schedule 8 – Industry Derived Nitrogen Discharges. This schedule is currently blank and, in any case, in my opinion would not meet the NPSFM definition of "limit."

56. For the reasons set out above, I find that the PLWRP does not include **any** freshwater limits (let alone limits for *all* bodies of freshwater), nor has Environment Canterbury publicly notified a staged programme to prepare these. While, on 12 November 2012, Environment Canterbury did notify a staged programme to develop some (but not all) of the sub-regional sections to the PLWRP, this was for the specific purpose of meeting the obligations of NPSFM Policies A2 and B6 and not for setting limits pursuant to Policy A1.[21] .

POLICIES REGARDING FRESHWATER QUALITY

57. The five groupings of policies that relate to the management of non-point source contaminants (*Strategic; Nutrient Discharges – General; Nutrient Discharges – Region-Wide; Nutrient Zones; Nutrient Discharges – Sub-Regional Chapters*) are disjointed and many of the policies essentially summarise the rules. In my opinion, the policies should be redrafted to provide a clear hierarchy of action and a strong framework to guide the assessment of resource consents.

[21] For completeness I have included excerpts from the Council meeting held on 1 November 2012 during which the original staged implementation strategy was amended. I enclose excerpts of the original strategy, the Council agenda item and the public notice announcing the changes in Appendix 1

58. I further note that the PLWRP acknowledges that Canterbury water bodies are adversely affected by a range of contaminants, but the policies focus only on nitrogen. It is my understanding that management of nitrogen alone is unlikely to achieve a number of the water quality outcomes in many catchments. This is confirmed by expert evidence presented to PLWRP Hearing Group 1 by Dr R Death[22] and Dr M James[23] who both conclude that management must focus on both nitrogen and phosphorus, not just one or the other.

59. I also note the Explanation to "Regulation Principle 6" set out in the PLWRP s32 report:

"Focusing on one type of nutrient is risky, as nutrient limitation may vary within different reaches of a river and over time, or a failure to manage the limiting nutrient adequately, could lead to algal blooms. Other contaminants, such as sediment and microorganisms, should also be integrated into a single management/policy framework."

60. Although Schedule 7, matters to be addressed by Farm Environmental Plans (FEPs), requires consideration be given to the effects and management of a range of contaminants, it is critical that the PLWRP objectives and policies provide overarching direction as to the desired outcomes and course of action to be taken to manage all contaminants of concern.

[22] Evidence to PLWRP, Hearing Group 1, of Dr Russell Death on behalf of The NZ Fish and Game Council, Point 59, pg 20
[23] Evidence to PLWRP, Hearing Group 1, of Dr Mark James on behalf of Meridian Energy, Point 83.2, pg 23

EVALUATION OF NUTRIENT MANAGEMENT POLICIES AND RULES

61. The nutrient management policies and rules in the PLWRP comprise three key components:

(a) **A Pre-2017 "transitional" regime** whereby existing users are permitted so long as they record their nutrient losses or, for those in a defined sensitive "Lake Zone", prepare farm environment plans (FEP). Changes in land use are subject to regional rules.

(b) **A Post-2017 regime** that applies in any catchment not addressed by a sub-regional chapter. Land uses are permitted if they comply with industry-derived N leaching rates, otherwise they require consent.

(c) **Sub-Regional Chapters** derived from the work of CWMS Zone Committees, the policies and rules of which will add to or supersede the region-wide provisions.

62. I understand that the PLWRP approach is based on the results of a pilot study in the Hurunui catchment known as the "preferred approach." However, the PLWRP s32 report evaluating the effectiveness and efficiency of this preferred approach does not include the type of technical evaluations that I would expect to address such a complex policy question at a regional level (refer to my key question posed in paragraph 24), including quantitative assessments of:

(a) the relative contribution of nutrients from different land uses, and the effect on total contaminant loads of different mixes of land uses across a catchment, to provide a basis for deciding what land uses to target and whether this should vary according to the catchment. For example, in catchments with a large upland area the main contribution of contaminant load may come from relatively extensive

uses. Whereas, in catchments with a significant lowland plains component, intensive uses are likely to make the main contribution;

(b) anticipated contaminant load reductions resulting from adoption of good management practices or contaminant mitigating solutions; and

(c) *expected or probable* reductions in contaminant load over various time increments given predictions of the willingness and capability (due to access to necessary skills and resources) of landholders to implement changes in use or practice.

63. Of critical significance, from a policy analysis perspective, are predictions of how (c) above would vary depending on the policy approach used. That is, how much nitrogen load reduction can be expected from requiring landholders to:

(a) simply record their N leaching loss; or
(b) prepare and implement a FEP; or
(c) prepare and implement a FEP to achieve specified nutrient leaching rates that correlate to Good Management Practices; or
(d) prepare and implement a FEP to achieve nutrient leaching losses that have been back-calculated from catchment nutrient load limits.

64. Moreover, in over-allocated catchments, there has been no analysis of how long it will take, given the expected reductions in contaminant loads, to achieve desired catchment outcomes.

65. I am aware that there were a range of technical reports prepared for the Hurunui case study, (e.g., definition of on-farm mitigation techniques, modelling of contaminant movement within a catchment). However, I can find no rigorous analysis of the information from these reports that

provides a basis for justifying the different nutrient management policy provisions set out in the PLWRP.

66. An effective s32 analysis must evaluate whether the proposed policies and rules are the most appropriate way to achieve the objectives. This evaluation must be based on a robust and well documented analysis of the alternatives, including an evaluation of the expected outcomes of the proposed policy package.

67. However, there appears to be no analysis setting out any predictions of the likely outcomes resulting from implementation of this proposed policy and rule framework.

68. From my reading, the s32 report accepts the philosophical approach of the "Preferred Approach" without any critical analysis. It goes on to describe the different elements of the policy package, and then simply concludes[24]:

> *"Therefore the combination of provisions included in the pLWRP is considered to provide a suitable balance between enabling land uses and discharges and requiring greater scrutiny of those that have the potential for more significant adverse effects or are in catchments that are at risk of, or are not, meeting the stated water quality outcomes. This approach is considered to provide a high degree of effectiveness for achieving the pLWRP's objectives."*

69. In terms of an assessment of "Efficiency" the s32 concludes[25]:

> *"The use of permitted activity rules to cover the majority of farming situations, particularly in the initial 5-year period is an efficient and cost effective way of managing nutrient discharges, with the costs of obtaining a resource consent only being incurred in the more difficult situations where the environment is more sensitive."*

[24] PLWRP, s32 Report Summary pg 66
[25] PLWRP, s32 Report Summary pg 67

70. However, in the Benefits/Cost table, the Environmental Costs are found to be:

> *"Likely further decline in ground and surface water quality, particularly due to lag in timeframe from implementation to identified water quality outcomes. Risk of reliance on industry and audited self-management as primary management tool for majority of farmers[26]."*

71. I note that the analysis of economic costs of the different policy options is limited to an assessment of the cost to farmers, for example, the cost of applying for resource consents and/or preparing FEPs. However, there are clearly economic costs of not addressing water quality degradation that must be factored into the decision making process.

72. For reasons that I will expand upon later, the permissive policy/rule matrix of the PLWRP fails on two further counts:

73. First, it will not further the stated objectives of this plan. Second, it falls short of the ECan Act's requirement to have particular regard to the principles of the CWMS.

The Pre-2017 Regime

74. I note that these policies and rules are essentially default provisions as PLWRP Section 2.6 provides for the policies and rules in the sub-regional sections to apply instead of, or in addition to, the policies or rules in this region-wide section[27].

75. Under Rule 5.39, until 1 July 2017, existing users in red, orange, green and blue zones (with the exception of those located in the "Lake Zone")

[26] PLWRP Section 32 Summary Report, pg. 67 Benefits-Costs Table,
[27] PLAWRP, Section 2.4 Regional and Sub-regional Sections

qualify as Permitted Activities, the only requirement being to record annual N losses using OVERSEER.

76. I note that nutrient management plans have been a compulsory requirement for all Fonterra suppliers to meet the requirements of the Dairying and Clean Streams Accord since 2007. Therefore many potentially high leaching farmers are already keeping records of their leaching.

77. There has been no analysis in the s32 report of how many extra farmers will be captured by the proposed PLWRP provisions and how much difference, if any, this will make to leaching across different catchments.

78. The s32 report itself comments:

> *"Experience has shown that only a small proportion of land owners voluntarily adopt GMPs (Good Management Practices) to minimise nutrient losses, as other factors, such as maximising production and/or profitability, are more influential in farm management decisions[28,29]."*

79. Under Rule 5.40, existing uses within the "Lake Zone" qualify as Permitted Activities subject to:

(a) recording annual N losses using OVERSEER;

(b) preparation and implementation of a Farm Environment Plan (FEP) according to Schedule 7; and

(c) FEP auditing requirements.

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[28] For example: Bewsell,D; Kaine,G. 2006: Adoption of environmental best practice amongst dairy farmers. Paper presented to Australasia Pacific Extension Network International Conference 2006 Practice change for Sustainable communities: Exploring foot prints, pathways and possibilities. 6-8 March 2006, Beechworth, Victoria, Australia.

[29] Referenced in PLWRP Section 32 Report, pgs 45-46

80. It is important to note that, until sub-regional plans set load limits or industry-derived nutrient discharge allowances are developed, there are **no** specified nutrient leaching allowances that would apply.

81. I can find no analysis that calculates the environmental outcomes expected from landholders either:

(a) recording their nutrient losses; or

(b) preparing FEPs in the absence of specified leaching loss limits.

82. The question therefore remains: under this regime, are catchment contaminant loads expected to reduce, remain the same, or continue to increase? The section 32 Report fails to adequately address that question.

83. I am not questioning the use of FEPs per se. However, if they are used it is critical that FEPs include clear links between management practices, property-level targets (in the form of farm nutrient leaching loss targets or limits) and catchment outcomes. Steger (2000) concluded that the lack of a "micro-macro link in the context of ecologically-driven limits" is one of the key weaknesses in the design of many Environmental Management Systems[30], undermining their credibility and long-term effectiveness. Until property-level targets are set, there can be little confidence that, even with full adoption of FEPs across a catchment, the use of FEPs will achieve desired catchment outcomes.

84. I also note that, in the absence of specific catchment outcomes, even if farm targets are specified, there is no basis for assessing their collective effect at a catchment level.

[30] Farm Environmental Plans are one type of Environmental Management System

85. I note Mr Brown's evidence[31] to the Hurunui-Waiau River Regional Plan hearing concluded that the use of ASM (audited self-management) to voluntarily reduce nutrient leaching had a high risk of failing to achieve the desired catchment nitrate reduction targets (20%) within a 5 year period, unless backed by the allocation of nutrient allowances at a farm level.

86. The s42A reports for the Hurunui Waiau River Regional Plan of both Mr Brown and Mr Norton conclude that the most effective way of managing the cumulative effects of land use on catchment nutrient loads is to establish a system to allocate nutrient discharge allowances (NDAs) at a property level.

> *"NDAs provide clear direction and certainty for landholders in terms of what they need to achieve and, by more clearly linking on-farm management with in-stream effects, provide greater confidence to other stakeholders that water quality objectives will be achieved*."

87. Both Mr Brown and Mr Norton clearly state that the absence of a system for allocating NDAs significantly hampers adequate management of nutrient loads.

88. I support the requirement for FEPs in the defined Lake Zone but consider that, because of the "particular vulnerability" of these lakes to nutrient enrichment, these areas should be prioritised for the definition of catchment load limits and a methodology developed to assign these load limits at an individual property level.

89. The provisions of Schedule 7 Farm Environmental Plans also need to be revised to include a requirement that, where property NDAs have been

[31] Brown, I. 2012: Proposed Hurunui and Waiau River Regional Plan And Proposed Plan Change 3 to the Canterbury Natural Resources Regional Plan. Creating nutrient headroom. Section 42A Report. September 2012

assigned, landholders must demonstrate how the combined use of land and water on their property will actually achieve their NDA.

90. A critical question is whether the suite of rules meets the test laid down in s70 of the RMA. I should acknowledge here that the focus of the rules is on land use activities rather than discharges. However, rule 5.50 is drafted as a discharge rule and makes any diffuse farming discharge a permitted activity so long as the land-use activity which created it was authorised by the preceding rules. In this sense Rule 5.50 can be seen as being entirely dependant on the land use rules.

91. Section 70 is therefore relevant to this analysis. Section 70 provides:

Section 70 Rules about discharges

(1) "Before a regional council includes in a regional plan a rule that allows as a permitted activity —

(a) a discharge of a contaminant or water into water; or
(b) a discharge of a contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water,—

*the **regional council shall be satisfied that none of the following effects are likely to arise in the receiving waters**, after reasonable mixing, as a result of the discharge of the contaminant (either by itself or in combination with the same, similar, or other contaminants):*

(c) the production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials:
(d) any conspicuous change in the colour or visual clarity:
(e) any emission of objectionable odour:
(f) the rendering of fresh water unsuitable for consumption by farm animals:
*(g) **any significant adverse effects on aquatic life**."[my emphasis]*

92. There is no specific mention of s70 in the s32 report.

93. However the report concludes:

"Given the potential costs, large number of landowners, and the practicality of implementing changes in land use activities, ECan considers a permitted activity rule to be the most appropriate level of control as an interim approach until catchment load limits are established in the sub-regional plans.[32]*"*

94. It would appear that the key test used to determine the appropriate rule category for existing uses has been heavily weighted to matters of convenience, rather than a consideration of environmental effects.

95. In catchments that are already over-allocated, and potentially in catchments that are "at risk" of outcomes not being met, it seems to me to be implicit in the definition of nutrient status category, that the cumulative effects of existing non-point source discharges will fail (or are close to failing) to meet the s70 test in terms of significant adverse effects on aquatic life.

96. It is my view therefore that the use of a permitted activity rule to manage existing land uses in red and orange catchments is inappropriate.

Pre-2017 Rules for Change in Use

97. In the absence of catchment nutrient load limits and NDAs, I support the requirement for intensifying land use to be subject to resource consent requirements, with the activity category linked to catchment nutrient status.

98. In my opinion a permitted activity status for a change of use within irrigated areas is only appropriate if the scheme's leaching limit relates to a maximum total yield (kg/ha/yr) defined within the context of achieving catchment-specific limits or outcomes, rather than a maximum leaching

[32] Appendix 1 to PLWRP Section 32 Report, pg. 57

rate. Otherwise there needs to have been analysis carried out to show that, if all land within a scheme area was leaching at the specified maximum rate, the catchment outcomes could still be achieved. I can find no analysis to show that existing irrigation scheme permits meet this test.

99. My key concern with the use of case-by-case assessment of consents is the lack of catchment limits to set a clear "line in the sand" against which decision-makers can assess the cumulative effect of activities within a catchment and ensure the catchment's assimilative capacity is not exceeded or, **incrementally eroded**.

100. As noted in the s32 report:

> "*Past experience with similar applications has shown that there are considerable uncertainties over the modelling of the additional contribution from changing land use to the nutrient load, creating an opportunity for dispute and litigation.*"

101. If a non-complying category is to be used for over-allocated catchments then, especially as there are no clear water quality outcomes set at a catchment-scale, a strong policy is required to guide the evaluation of applications for a resource consent. I note that Policy 4.6 provides direction for catchments where water quality limits have been set; in my opinion this Policy should apply to all catchments.

102. I note that Policy 8 from Waikato Plan Change 3: Lake Taupo[33] establishes case law around the use of non-complying activities coupled with directive policies that direct decision making after a consent application has gone through the 104D threshold.

[33] http://www.waikatoregion.govt.nz/Council/Policy-and-plans/Rules-and-regulation/Regional-Plan/Waikato-Regional-Plan/3-Water-Module/310--Lake-Taupo-Catchment/3103-Policies/ downloaded 25 March 2013

Effectiveness of the Pre-2017 Regime

103. The lack of catchment load limits and the absence of modelling work to evaluate the effectiveness of the proposed policy package results in much uncertainty regarding the likely change in catchment water quality status by 2017.

104. There is no evidence provided that shows that leaching will decline during this five year period. In my opinion it appears to be unlikely that a significant reduction in nutrient load would be achieved in those catchments classified as "water quality outcomes at risk" or "water quality outcomes are not met" under this regime.

105. At best, catchment nutrient status might remain the same, although the "load to come" in some catchments is likely to result in a water quality decline.

106. Pre 1 July 2017 policy therefore fails both:

(a) the objectives of the CRPS and the PLWRP, in terms of "maintaining and enhancing water quality"; and

(b) the timeframes of the NPSFM and CWMS targets, to set catchment nutrient load limits.

107. It is also difficult to see how these permissive rules can satisfy the stated Objectives set out in section 3 of the PLWRP. In particular:

(a) "3.1 Water is recognised as essential to all life and is respected for its intrinsic values.

(b) 3.7 The mauri of lakes, rivers, hapua and natural wetlands is **maintained or restored** and they are suitable for use by Ngai Tahu and the community.

(c) 3.8 The health of ecosystems is **maintained or enhanced** in lakes, rivers, hapua and wetlands.

(d) 3.10 The significant indigenous biodiversity values, mahinga kai values and natural processes or rivers are **protected**.

(e) 3.12 Groundwater continues to provide a sustainable source of high quality water for flows and ecosystem health in surface water bodies and for abstraction.

(f) 3.14 High quality freshwater is available to meet actual and reasonably foreseeable needs for community drinking water supplies."

108. Nor the second order principles of the CWMS, such as:

"Water resources are used sustainably to enhance quality of life: land use, industry and business practices do not adversely impact on water quality…discharges to waterways are minimised and do not compromise quality."

The Post-2017 Regime

109. From 1 July 2017 a new approach will prevail. Whether or not consent is required for a farming activity will depend largely upon whether the amounts of nitrogen being leached are within the limits that industry determines is appropriate for that type of farm, i.e., whether or not the farmer satisfies Schedule 8.

110. If the property is located outside the Lake Zone and it meets the Schedule 8 benchmark then it will be a permitted activity so long as either:

(a) the farm does not exceed 20kg of leached Nitrogen/ha/yr; or

(b) a FEMP is implemented and audited.

111. If the activity does not qualify under the "permitted" conditions then consent is needed and its status (non-complying, discretionary, or

restricted discretionary) depends on the location of the farm and the catchment's nutrient status.

Schedule 8: Industry-derived leaching limits

112. In my view industry-derived leaching limits provide a valuable tool to assist selection of effective management practices to include in FEPs and are therefore a useful part of a strategy to reduce contaminant leaching rates. However, I have a number of concerns with their use as the basis for a PA rule.

113. It is worth noting that, in my opinion, these limits do not meet the NPSFM definition of "limit".

114. The lack of any measurable link between property-scale leaching and catchment outcomes means that it is not possible to assess what effect this provision would have.

115. Even if all landholders meet Schedule 8 leaching limits and are below the 20kg/ha threshold, the section 32 analysis fails to show whether this would achieve catchment outcomes. The best that can be said is that there is likely to be a general trend of reduced nutrient leaching for a period while existing users improve their management practices.

116. Also of concern is what the additional effect would be of new uses that also meet these standards. In red catchments, for instance, would the likely reduction in nitrogen load be sufficient to achieve catchment outcomes?

117. Moreover, from a planning perspective, it is unacceptable to have a blank schedule as the foundation stone for the operation of all the post-2017

rules. Without knowing the content of the Schedule it is simply impossible to assess the impact.

The 20kgN/ha/yr Threshold

118. Post 2017, the 20kgN/ha/yr threshold plays a critical role in determining permitted activity status. The s32 report acknowledges that "setting a value for a nutrient threshold is difficult, and is likely to be challenged…. It requires a pragmatic judgement taking into account the following factors:[34]

(a) "the number of landowners likely to be affected.

(b) the potential transaction and implementation costs to ECan and land owners.

(c) the location of the land uses.

(d) the sensitivity of different water bodies to nutrient enrichment

(e) the current nutrient status of Canterbury's rivers, lakes and aquifers"

119. In my opinion, while these are important considerations, the critical point is what the cumulative effect of discharges at or above the 20kg/ha level will have on catchment nutrient loads, as compared to the cumulative effect of lower or higher discharge rates. I can find no analysis of this particular question.

120. The final choice appears to have been based primarily on the need to reduce transaction costs, with a choice made that captures the top 7-8% of leachers. Further work would be expected to understand what proportion of catchment nutrient load these top 7% of leachers contribute and what effect managing only the top 7% of leachers will have on catchment nutrient status.

[34] Appendix 1 to PLWRP Section 32 Report, pg.58

121. I also note the following issues raised in the s32 report:

> *"One difficulty is that a threshold would be based on average leaching losses from a property, consequently, losses from intensively farmed blocks in the vicinity of a river or lake or over a shallow aquifer would be obscured by losses from other, less intensively farmed, parts of a property. The assumption that land uses with low nutrient losses have little or no effect on water quality may not always be correct, as a large catchment with low intensity land use could generate relatively high nutrient load to a small receiving water body."*[35]

122. It is my understanding that work in the Hurunui catchment found that at least 50% of the total catchment N load for the Hurunui River originates in the upper catchment (an area with predominantly **extensive** land use). Reducing leaching rates from these areas, by even a small increment, would make a significant difference to the total load in the lower catchment, as well as improving quality in small hill and high country tributaries.

123. While recognising that all land use activities contribute to the non-point source pollution, an efficient management regime for addressing non-point source contaminant loads may well justifiably focus on those who are contributing the majority of the problem. However, the decision as to what land uses or leaching rates are targeted needs to be based on a robust technical analysis, considering the effects across a catchment.

124. Given that we know the nutrient status of many of Canterbury's lakes and rivers is "over-allocated" or "at risk" it cannot be appropriate to set a threshold that only captures a small percentage of the polluters.

[35] PLWRP Section 32 Report, pg.55

Effectiveness of the Post-2017 Regime

125. There are many difficult issues associated with estimating nitrate-N leaching rates for the main land uses on different soils and rainfall zones that can be applied at a farm-scale[36]. If industry-derived Schedule 8 values are to remain a key part of the PLWRP rule framework, then the details of the Schedule would need to satisfy an agreed process of scientific review to provide public confidence in their appropriateness.

126. The uncertainty surrounding the effectiveness of the Schedule 8 approach is simply compounded here by the lack of analysis surrounding the 20kgN/ha/yr threshold.

127. As with the pre-2017 policies, there has been no application of the s70 test to ascertain whether a PA rule is appropriate.

128. As a minimum, I find that Policy 4.32 is likely to be inappropriate for "over-allocated" catchments.

129. Further, in my opinion, given the lack of analysis and the incompleteness of Schedule 8, Policy 4.32 and its associated Rules (5.46-5.51) fails the s32 test.

The Role of the Sub—regional Chapters in Nutrient Management

130. Over time the expectation is that sub-regional chapters will be promulgated as part of the PLWRP and that catchment load limits will be established, with NDAs (kg/ha/yr) set for each property. There are two observations I wish to make regarding this process:

[36] Lilburne, L., Webb, T., Ford, R., Bidwell, V. 2010: "Estimating nitrate-nitrogen leaching rates under rural land uses in Canterbury." Environment Canterbury Report No. R10/127 September 2010

(a) First, a collaborative process is to be used to define catchment-based water quality outcomes and limits; and

(b) Second, no time frames are set but priority is given to areas classified as "water quality outcomes not met".

131. In my view[37] determining catchment load limits and allocating nutrient discharge allowances across individual or groups of properties is the most effective way of managing catchment nutrient concentrations. Without this framework there can be little confidence that water quality outcomes will be met across the region.

132. With the current water quality issues in Canterbury, combined with the pressure to enable land use intensification, urgent attention should be given to establishing a regional framework of catchment nutrient load limits, along with a methodology to allocate these loads at a property scale, rather than waiting for a series of individual plan changes to roll out catchment limits using the sub-regional plan process provided for in the PLWRP.

133. A regional framework of catchment limits should be required by 31 December 2014 (at the least in the form of provisional limits) to provide a meaningful framework for effectively managing nutrients in a more timely manner.[38]

134. The ECan s32 Report gives the following as a rationale for not including interim nutrient load limits in the LWRP:

"Although the inclusion of interim nutrient loads in the LWRP would satisfy the requirements of the NPS for Freshwater Management and the CWMS targets

[37] And clearly supported by the NPSFM, fora such as the Land and Water Forum, and other regional councils including Waikato, Horizons, Bay of Plenty, and Hawkes Bay.
[38] I note however that in the absence of a staged approach with respect to limits having been notified by 12 November 2012 the fall back date of Dec 2014 would apply under the NPSFM

for nutrients, the numbers are likely to be challenged on the grounds they will not have been subject to the same degree of rigour as the community consultative process being led by the zone committees. The prospect that zone NDAs may be reviewed and amended by a zone committee might create considerable uncertainty for land owners and discourage further investment, especially, if there is likely to be a significant change to the size of the interim NDA."[39]

135. However, this eventuality is anticipated by the Implementation Guide to the NPSFM[40] and is therefore not a compelling reason for not setting, at the least, a set of interim or provisional load limits:

"*Experience nationally and internationally suggests that limit setting, particularly in water quality, will be difficult to get right the first time. Once a limit is set, it is likely to be modified and fine-tuned in subsequent plan changes as better information is obtained."*

136. This issue was also anticipated by the Land and Water Forum[41]:

"It is important to note that the transition to a limits-based regime will need to be undertaken despite potential gaps in information. Limits will need to be set where uncertainty exists to establish the allocable quantum and the limits may need to be refined over time as more information comes to hand."

137. Setting limits despite information gaps is also supported by CRPS Policy 7.3.12

"Take a precautionary approach in circumstances where the effects of activities, including the intensification of land use, on fresh water bodies, singularly or cumulatively, are unknown or uncertain. This

[39] PLWRP Section 32 Report, pg.50.
[40] Ministry for the Environment. 2011. National Policy Statement for Freshwater Management 2011: Implementation Guide. Wellington: Ministry for the Environment.
[41] Third Report of the Land and Water Forum

enables the use of adaptive management, whereby consent holders have to adjust the scale or timing of their activity, or change other practices, to suit the conditions of the fresh water resource or the receiving environment, at any time."

138. And Principle 2 of the CWMS:

"*A cautious approach is taken when information is uncertain, unreliable, or inadequate*."

Use of a Collaborative Approach to Define Catchment Limits & NDAs

139. The PLWRP signals that CWMS Zone Committees will be responsible for setting and allocating catchment nutrient load limits[42]. I support the value of Zone Committees working together to identify community values and desired uses for water bodies and developing and implementing integrated solutions for meeting water quality objectives. However, I have a number of concerns with the devolution of the role of setting limits and NDA methodologies to these committees.

140. The process of setting load limits must be based on independent technical expertise that translates desired catchment outcomes into nutrient concentrations and then loads. This assessment must meet the tests of RMA s5 and 32, rather than the key focus being reaching consensus with local stakeholders. It is ECan's responsibility to ensure that all catchment water quality limits will achieve the purpose and principles of the RMA

141. The costs and benefits of the different allocation options are unlikely to differ between Zones and it is both inefficient and unnecessary for each Zone Committee to re-litigate the most effective and equitable approach

[42] PLWRP s32 Report. Appendix 1. 5.2. Assumptions underpinning the policy options. Pgs. 41-42

through separate plan changes. I note this same concern is shared by representatives of the Primary Sector:

> *"The LWRP should set the framework for nutrient management within each zone. It is inefficient and also creates much risk to have multiple (potentially ten) different nutrient management mechanisms operating within Canterbury. Many farming organisations work across multiple zones, and more importantly one zones nutrient management approach must not create unintended consequences for another"*[43].

142. The need for "a consistent regulatory approach to water" is one of the primary principles of the CWMS.

143. Debate regarding the most effective and efficient allocation methodology should be carried out **once** with the agreed methodology introduced to the PLWRP region-wide provisions by way of plan change. If circumstances require a different approach in specific areas then this would be an appropriate use of a plan change process.

144. It is my view that ECan must take responsibility for establishing technical catchment load limits and also lead the regional debate, informed by Zone Committee input, to develop an appropriate nutrient discharge allocation methodology.

Monitoring Protocols in the PLWRP Regime

145. It is my understanding that the success of partnership approaches to catchment management (where councils work closely with key

[43] Primary Sector Discussion Paper Nutrient Management within the Selwyn-Te Waihora zone. http://ecanECan.govt.nz/publications/Council/selwyn-waihora-50313.pdf Downladed 25 March 2013

stakeholder groups to implement management strategies), such as the Preferred Approach, depends on[44]:

a. clear objectives to measure the success, or otherwise, of the agreement;
b. ambitious targets to accelerate the adoption of best management practices;
c. a clear definition of the roles and responsibilities of all parties;
d. rigorous performance assessment and feedback to manage uncertainties with the implementation and delivery of measures;
e. adequate resources to support the implementation of the agreement;
f. monitoring of land use practices and water quality to provide timely feedback and enable continual improvement in the management plan.

146. Of critical concern in the PLWRP is the absence of (a) measurable objectives and (f) a well-defined monitoring programme. I have already discussed my concerns with respect to the lack of objectives in paragraphs 44-57.

147. While inclusion of a monitoring section in a regional plan is optional (RMA s67(2)), in its absence there can be no confidence in the rigour with which the plan is being implemented, assessed and reviewed. In particular, it is necessary to know whether each individual policy, and the methods to implement it, are contributing positively, neutrally or negatively.

[44] Guest, P. and Ford, R. 2011: Managing Catchment Nutrient Loads. A Review of Different Policy Instruments. Land Use and Water Quality Project, Working Paper #2: updated July 2011

148. Linked to this is the need to monitor the state of the environment and understand the causes of any changes, and the extent to which provisions in the plan may have brought about those changes.

149. In my opinion the PLWRP should specify monitoring provisions at both the catchment and farm level, including monitoring of:

(a) In-stream and riparian ecology;

(b) Water quality (surface and groundwater);

(c) The type and rate of land use change and intensification;

(d) Uptake of GMPs on-farm and compliance with FEPs.

Schedule 7 – Farm Environment Plan

150. In evaluating the use of FEPs as part of the PLWRP regulatory provisions[45] I refer to the critical importance of linking the FEP provisions to a farm-scale nutrient loss target which, in turn, is linked to catchment water quality outcomes. Where a landholder is required to meet a nutrient discharge limit (either an NDA linked to a catchment limit or an industry-derived leaching rate), Schedule 7, provision 5, should be amended to require landholders to demonstrate how all aspects of land and water use on a property will be managed to achieve the property nutrient leaching limit.

[45] Refer to para 88.

SECTION 42A RECOMMENDATIONS

151. I have read the s42A report. I note that the officers decided to take a "*relatively broad view of submission scope …, with only modest emphasis on the specific wording changes requested…*"[46]. I also note that the recommended changes are "*a substantial refinement of the as-notified policy position*"[47].

152. Although the approach adopted by the s42A report is very different to the one notified, the implications for water quality are likely to be similar since the problems which impinged on the notified approach persist under the revised one.

153. In my opinion, a series of basic planning tests were not satisfied by the PLWRP approach. If this new approach is to amount to an improvement on its predecessor then it would need to :

(a) satisfy the tests of sections 5, 32 and 70 RMA and give effect to the NPSFM and the CRPS and the ECan Act;

(b) be supported by a rigorous scientific analysis;

(c) link the level of regulatory control to the risk of adverse effects (e.g., permitted activity rules are not used in situations where activities are contributing to significant adverse effects).

154. For the reasons described below I consider that the new approach falls short of the mark

155. Given that many of the revised policies and rules are significantly different to those in the as-notified plan a revised section 32 analysis will

[46] s42A report pg.71
[47] s42A report, pg. 104

be required if they are to be adopted. This does not appear to be included in the section 42A report.

156. I briefly respond to individual provisions below and explain the concerns I have in some more detail. Before doing so however note that there are two elements of the new approach which I can support:

(a) First, the approach no longer just focuses on Nitrogen but "nutrients" more generally; and

(b) Second, the amendments to Schedule 7 which provide for development of more comprehensive farm plans.

New Rules Recommended by the s42A Report

157. What the proposal in the section 42A Report does is to focus regulatory attention on so-called "high nutrient risk" activities.

158. It also uses the transition from an existing farming activity to a "changed" or "new" farming activity as a trigger for consent being required.

159. To explore how these rules might operate I have considered a number of rough case studies in Appendix 2. These are simply intended to give a flavour of the problems.

160. By working through those examples I reach the following key conclusions about the s42A rule regime:

(a) The distinction between low and "high nutrient risk" activities seems arbitrary and I cannot locate the technical basis for the definition.

(b) The revised regime is essentially a permissive one. The examples I use in Appendix 2 all demonstrate that contamination of water bodies will continue and worsen and will do so within the context of permitted activity discharge rules.

(c) This largely permissive regime does not sustain the potential of natural and physical resources to meet the needs of future generations. It does not safeguard the life-supporting capacity of water nor of ecosystems and it fails to avoid or remedy the problems already in existence since its strategy is to continue to allow the same pollution to occur and for it to get worse in orange and green/blue areas. In particular:

- Existing leaching from "high nutrient risk farming activities" in the red zone will continue to present a problem.

- The cumulative effects of the existing activities which are not "high nutrient risk" will also continue virtually unabated in the red zones.

- The rules will not reduce the impact of nutrient leaching from existing activities in the orange, green and light blue zones. That is despite the orange zones already being "at risk of not achieving water quality outcomes" as a result of existing activities.

- In terms of introducing new activities or changing an existing activity in the red zone and in the orange zone, the rules and policies are confused and ambiguous. In my opinion it is not clear what scale of impact they will have on overall leaching rates in these at risk and over-allocated catchments.

Focus on certain "high nutrient risk" farming activities

161. The approach advocated by the s42A report is entirely predicated on there being grounds to focus on certain types of farming activity while largely ignoring others. The spotlight falls on those activities which are deemed to be "high nutrient risk".

162. *"High nutrient risk farming activity means any one or more of:*

1. *feeding cattle on a fodder crop that has been established on irrigated land;*
2. *arable farming or horticulture (excluding grapes);*
3. *farmed pigs; or*
4. *irrigated dairy."*

163. The rules are structured in such a way that great reliance is placed on this definition. However, I cannot locate the technical assessments which explain why these particular land uses were selected and why others were not.

164. Linda Lilburn's memo is the technical document referenced by the s32 report which attempts to determine the amount of Nitrogen contributed by different farm types[48]. This memo divides farms into the following types: arable, beef, dairy, deer, etc. Nowhere in this report is there a break-down which reflects the new categories of "high nutrient risk" as defined in the s42A report. Nor do these categories match the land use categories that form the basis for ECan's report "Estimating nitrate-nitrogen leaching rates under rural land uses in Canterbury"[49] and that were used in the Hurunui case study work[50].

[48] LWRP s32 Report, Appendix 1: Landcare Research Memo 'Nitrate- Nitrogen loss statistics for the region'. Memo Prepared by Linda Lilburne 26 July 2012

[49] Lilburne, L.; Webb, T., Ford, R.; Bidwell, V. 2010: "Estimating nitrate-nitrogen leaching rates under rural land uses in Canterbury". Environment Canterbury Report R10/127

[50] Brown I.; Norton, N; Wedderburn, L; Monaghan, R.; Harris S.; Hayward S.; Ford R. 2011: Nutrient Management in Hurunui: A Case Study in Identifying Options and Opportunities

165. Of the 4 classes of land use defined as “high nutrient risk” only "arable" is mentioned in the Lilburne analysis. The other 3 classes: "cattle fed on fodder crops", "farmed pigs" and "irrigated dairy" are not categorised and there is no data on which to assess their overall contribution to the nutrient problem.

166. The definition also leads to ambiguity. For instance beef cattle fed on irrigated grass would not, it appears, qualify under the definition since grass is not ordinarily understood to be a “fodder crop”.

167. I understand the significant administrative issues associated with capturing many hundreds of landholders by a rule and the importance of focusing on those activities that will make a difference to the outcomes. However, this is one of the key challenges of addressing cumulative effects. If a choice is made to target only some land uses, then this choice must be supported by a robust technical evaluation of the probable outcomes in terms of environmental, social and economic factors.

Policies

168. Below I look at a number of the recommended policies and discuss some of the problems that arise from the s42A approach. In many instances I find that the new policies cloud rather than illuminate the rules.

169. Before looking at the examples below though I would like to point out these policies really only have any application if/when consent is required. I have explained in the previous section that the new regime is essentially a permissive one so consent is only needed in limited circumstances and the policies really only “bite” once that occurs.

Policy 4.31

170. Policy 4.31 applies if a landholder in the orange zone wishes to change land use activity or introduce a new one. It requires that the farmer either show that there will be no net increase in nutrients discharged from the property OR:

> *"….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."*

171. There are several problems with interpreting this policy:

(a) It refers to a newly introduced group of "advanced mitigation farming practices", with landholders required to adopt "multiple techniques" from a list. Yet there is no specification of what "multiple" means nor the level of performance required. For instance, "reduce stocking rates": by how much, for how long? Moreover, the terminology is ambiguous: e.g., what is required to implement "floodplain wetlands"? The mitigation measures in this list bear no resemblance to those assessed by Monaghan as part of the background work for the Preferred Approach[51].

(b) A baseline requirement to meet **regional** water quality outcomes is essentially meaningless when considering change at a property level.

<u>Policy 4.32</u>

172. Similar criticisms can be levelled at this policy as were levelled at 4.31.

[51] Brown I.; Norton, N; Wedderburn, L; Monaghan, R.; Harris S.; Hayward S.; Ford R. 2011: Nutrient Management in Hurunui: A Case Study in Identifying Options and Opportunities

Policy 4.33

173. The Policy refers to a need *"…to set local water quality outcomes, and methods and timeframes to achieve those outcomes, including nutrient discharge allowances,…"*

174. This policy appears to have introduced a new term "local water quality outcome" that replaces the use of catchment water quality limits.

Schedule 7

175. I support the changes to Schedule 7 that provide a more comprehensive approach to farm plans. However, as for the "as-notified" version, where a landholder is required to meet a nutrient discharge limit (either an NDA linked to a catchment limit or an industry-derived leaching rate), Schedule 7, Section 1(a) should be amended to specifically require landholders to demonstrate how all aspects of land and water use on a property will be managed to achieve the property nutrient leaching limit.

CONCLUSION

176. Non-point source contamination has been recognised as an issue in the Canterbury Region since at least 1995[52,53] yet water quality in the Region has been allowed to continue to decline. The need for catchment nutrient load limits has been recognised by ECan since at least 2007, yet much of the technical analysis required to underpin this management approach is still to be completed, and the staged programme for

[52] Canterbury Regional Council, 1995: "Soils and Land Use Issues and Options". Environment Canterbury Report 95(4). May 1995.
[53] E.g., Lincoln Environmental, 1997: Nitrogen Inputs at Land Surfaces and Groundwater Quality. Notes from a Christchurch Workshop on 15 August 1997. Report to Canterbury Regional Council and MAF Policy. Report No.2776/3

developing sub-regional chapters indicates that some catchments will not have load limits notified until 2019/20.

177. Given the "over-allocated" and "at risk" status of many catchments, and the significant pressure for land use intensification, a revised policy framework should be implemented immediately to establish, at the least provisional, catchment load limits which will set clear guidance for the implementation of FEPs and resource consent assessments.

178. The foregoing analysis has demonstrated the shortcomings of strategy proposed in the PLWRP, the section 32 analysis which underpinned it and in the revised approach recommended by the section 42A report.

179. It is clear that neither of the strategies answers the statutory requirements imposed on the Regional Council.

180. In order to move the discussion forward I have made some suggestions below which would improve the quality of the rules and policies and which could be used to guide their future development, but I note that further technical evaluation is required to determine many of the underpinning details.

(1) Elevate the numeric water quality outcomes set out in Table 1 to become Freshwater Objectives as part of PLWRP Section 3.1.[54]

(2) Revise the policies to ensure that clear courses of action are established to achieve the objectives. In particular, provide clear guidance for the assessment of, and decision-making on, non-complying consent applications.

[54] An alternative is to redraft the Plan such that the water quality outcomes in Tables 1(a)-(c) have an enduring pan-regional effect. That strategy would also accord with relief sought by the Department in its submission on Table 1 and Policy 4.1.

(3) As recommended by the s42A report, policies should refer to the management of nutrients, rather just than management of Nitrogen.

(4) Specify a programme of action through the PLWRP's policies to achieve the following:

a. By 31 December 2014, establish catchment and, where possible, sub-catchment nutrient load limits for all Canterbury catchments;

Alternatively -

b. By 31 December 2014, establish catchment nutrient load limits for all over-allocated and "Lake Zone" catchments. For all other catchments, provisional load limits that sit outside the PLWRP to provide a basis for implementing catchment nutrient budgets.

And -

c. by 31 December 2014, establish a regional methodology for allocating catchment load limits for individual properties (NDAs).

d. Develop a revised rule framework based on an analysis that demonstrates that the rules:

- will be effective and efficient in achieving objectives and desired effects on the environment.
- will capture those activities that are/will have the greatest effect in terms of achieving objectives,
- will not capture those activities that have little environmental effect and would create an administrative burden for many land users.

- will incorporate the farm environment plan approach but in a way that clearly links the FEP with the need to satisfy nutrient discharge allowances.

(5) Insert a monitoring section setting out requirements for compliance and resource state monitoring.

(6) Adopt new Schedule 7 as recommended in the s42A report to replace Schedule 7 “as-notified”.

PAMELA ANNE GUEST

2 APRIL 2013

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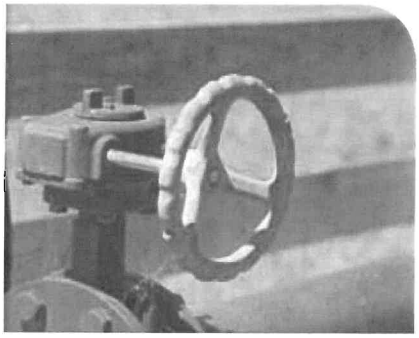
APPENDIX 1: ENVIRONMENT CANTERBURY'S MATERIALS RELATING TO THE STAGED IMPLEMENTATION APPROACH TO THE NPSFM

Levels of service

Levels of service show you how effective our work programmes are in delivering measurable benefits to ratepayers and the region.



Measures & Targets - Canterbury Water Management Strategy

Level of Service 1: Set environmental limits for water quality and quantity in Canterbury

Measure: A schedule of notified RMA plans is implemented.

Target: See table. *Achieved in 2010/11.*

Target	Notification
A Regional Land and Water Plan that sets freshwater objectives, environmental flows and water quality limits as required by the National Policy Statement on Freshwater Management	2012/13
Sub-regional components of the Regional Land and Water Plan to set environmental flows in the Ashburton river, the Orari River and Waihao River	2012/13
A sub-regional chapter for integrated land and water management in the Selwyn-Waihora catchment	2012/13
A sub-regional chapter for integrated land and water management in Hinds River and Ashburton-Rangitata groundwater	2013/14
A sub-regional chapter for integrated land and water management for Wairewa/Lake Forsyth	2013/14
A sub-regional chapter for integrated land and water management in Coastal South Canterbury streams, and Morven Glenavy groundwater	2013/14
A sub-regional chapter for integrated land and water management in the Waitaki catchment	2014/15
A sub-regional chapter for integrated land and water management for rivers and groundwater in the Orari-Opihi-Pareora zone	2017/18
A sub-regional chapter for integrated land and water management for the Ashley River and Waimakariri zone groundwater	2017/18

Level of service 2: Effectively identify and manage risks associated with quality of community water supplies

Measure 1: Information is available on an annual basis about the percentage of monitored groundwater wells where nitrate-nitrogen concentrations are at or below the maximum acceptable value of 11.3 milligrams of nitrate per litre of water.

Target 1: Information is up to date.

Measure 2: A joint work programme is developed with water supply and health authorities and CWMS committees.

Target 2: A joint work programme is produced and agreed.

This is a new level of service. We have changed this level of service to reflect how we identify and help manage these risks, to help ensure that nitrate concentrations meet the limits identified in level of service 1 above.

Level of service 3: Effectively identify and manage health risks at recreational water sites

Measure: Annual freshwater recreational water monitoring programme is implemented, incorporating microbiological quality and surveys for potentially toxic cyanobacteria.

Target: Monitoring information on our website is up-to-date.

This is a new level of service for this Long-Term Plan. It has been changed to reflect how we monitor, communicate and work with others.

401st MEETING OF THE
CANTERBURY REGIONAL COUNCIL

COUNCIL MEETING

TO THE CHAIR AND COMMISSIONERS OF THE
CANTERBURY REGIONAL COUNCIL

MEMBERSHIP OF THE COUNCIL

Dame Margaret Bazley (Chair)

David Caygill (Deputy Chair)
David Bedford
Donald Couch
Tom Lambie
Peter Skelton
Rex Williams

The 46th meeting of the Canterbury Regional Council Commissioners will be held on

Thursday, I November 2012 at 10.00 a.m.

VENUE: **Tutaepatu Room**
Ground Floor
Matthew Fraser House
5 Sir William Pickering Drive
Burnside
CHRISTCHURCH

BUSINESS: As per Order Paper attached.
Agendas are available on our website three days prior to the date of the meeting - http://ecan.govt.nz/news-and-notices/minutes/Pages/Default.aspx

Bill Bayfield
CHIEF EXECUTIVE

RECOMMENDATIONS IN REPORTS ARE NOT TO BE TAKEN AS COUNCIL POLICY UNTIL ADOPTED BY THE COUNCIL

AGENDA ITEM NO: 7.	SUBJECT MATTER: NOTIFICATION OF NATIONAL POLICY STATEMENT IMPLMENTATION PROGRAMME
REPORT: Council	DATE OF MEETING: 1 November 2012
REPORT BY: Tami Woods, Principal Planning Advisor	ENDORSED BY: Don Rule, Director of Planning and Consents
COMMISSIONER: Peter Skelton	

PURPOSE

The purpose of this report is to seek Commissioners' approval to publicly notify Canterbury Regional Council's staged program for implementing Policies A2 and B6 to the National Policy Statement: Freshwater Management 2011.

ATTACHMENT

1. Canterbury Regional Council's Staged program for implementing Policies A2 and B6 of the National Policy Statement: Freshwater Management 2011.

BACKGROUND

Every Regional Council is to implement the National Policy Statement for Freshwater as promptly as is reasonable in the circumstances, and so it is fully implemented by no later than 31 December 2030.

Where a regional council is satisfied that it is impracticable for it to fully complete implementation of a policy in the National Policy Statement by 31 December 2014, the Council may implement it by a programme of defined time-limited stages by which it is to be fully implemented by 31 December 2030.

Fully implemented is described in the Ministry for Environment Implementation Guide as a fully operative change to a policy statement or plan.

Under Clause 17 and 20 of the First Schedule to the Resource Management Act a plan or policy statement becomes operative after decisions have been released on a plan, any appeals resolved and the Council has approved to the Plan and resolved to make it operative.

Any programme of time limited stages needs to be formally adopted by Council within 18 months of the date of gazetting of the National Policy Statement, and publically notified.

Any staged implementation of policies in the National Policy Statement therefore would need to be notified prior to 12 November 2012.

Where a regional council adopts a programme of staged implementation, it is to publicly report, in every year, on the extent to which the programme has been implemented.

CANTERBURY REGIONAL COUNCIL IMPLEMENTATION

The proposed Regional Policy Statement, the proposed Land and Water Regional Plan along with existing catchment plans in the region will fully implement all but two policies (Policies A2 and B6) in the National Policy Statement for Freshwater prior to December 2014.

Policy A2 requires that where the quality of water in a water body does not meet a plans freshwater objective that targets and methods to improve water quality, within defined timeframes, are to be specified. Policy B6 requires that methods be set out in plans to phase out over-allocation of surface and groundwater quantity within defined timeframes.

Canterbury Regional Council has a program to collaboratively work with communities in partnership with Canterbury Water Management Zone Committees and Ngai Tahu to develop targets, methods and defined timeframes to eliminate over allocation of surface and groundwater where it has occurred. The first stage of this programme is recorded in the 'Level of service for setting environmental limits for water quality and quantity' outlined on page 108 of Canterbury Regional Council's Long-Term Plan 2012 to 2022. The second stage of the program is set out in Attachment 1.

Annual reporting of implementation of the Programme will form part of the Council's Annual Report under the Local Government Act, 2002.

RECOMMENDATION

1. *That the Canterbury Regional Council notes, in accordance with Policy E1 of the National Policy Statement: Freshwater Management 2011, that Canterbury Regional Council will fully implement all but two policies (Policies A2 and B6) to the National Policy Statement, by 31 December 2014.*

2. *That the Canterbury Regional Council resolves to notify, in accordance with Policy E1(d) of the National Policy Statement: Freshwater Management 2011, the attached Canterbury Regional Council's Staged Program of developing Sub-regional Sections to the Proposed Land and Water Regional Plan that will implement Policies A2 and B6 to the National Policy Statement: Freshwater Management 2011, on 10 November 2012.*

Attachment 1: Canterbury Regional Council's Staged Programme for Implementing Policies A2 and B6 to the National Policy Statement: Freshwater Management 2011

Stages	Target	Notification
Stage 1 (as set out in the Canterbury Regional Council Long Term Plan 2012 -2022)	A sub-regional chapter for integrated land and water management for the Selwyn-Waihora Catchment	2012/2013
	A sub-regional chapter for integrated land and water management in Hinds River and Ashburton-Rangitata Groundwater Zone	2013/2014
	A sub-regional chapter for integrated land and water management for Waiwera/Lake Forsyth	2013/2014
	A sub-regional chapter for integrated land and water management in South Canterbury streams and Morven Glenavy groundwater	2013/2014
	A sub-regional chapter for integrated land and water management in the Waitaki catchment	2014/15
	A sub-regional chapter for integrated land and water management for rivers and groundwater in the Orari-Opihi-Pareora zone	2017/18
	A sub-regional chapter for integrated land and water management for the Ashley River and Waimakariri zone	2017/18
Stage 2	A sub-regional chapter for integrated land and water management for the Ashburton-Rakaia Groundwater Zone	2018/19
	A sub-regional chapter for integrated land and water management for the Hurunui Waiau zone	2018/19
	A sub-regional chapter for integrated land and water management for the Kaikoura zone	2019/20
	A sub-regional chapter for integrated land and water management for the Christchurch West Melton zone	2019/20

PUBLIC NOTICE

Canterbury Regional Council's Staged Programme for Implementing Policies A2 and B6 to the National Policy Statement: Freshwater Management 2011

Pursuant to Policy E1 of the National Policy Statement: Freshwater Management 2011, the Canterbury Regional Council (Environment Canterbury) gives public notice of its Staged Programme for Implementing Policies A2 and B6 to the National Policy Statement: Freshwater Management 2011.

Canterbury Regional Council's programme involves collaboratively working with communities in partnership with Canterbury Water Management Zone Committees and TRONT to develop targets, methods and defined timeframes to eliminate over allocation of surface and groundwater. The first stage of this programme is recorded in the 'Level of service for setting environmental limits for water quality and quantity' outlined on page 108 of Canterbury Regional Council's 2012 Long-Term Plan 2012 to 2022. The full programme is available for public inspection at:

- The offices of Environment Canterbury at:
  - Ellesmere Centre, 24 Edward Street Lincoln;
  - 75 Church Street, Timaru; and
  - 73 Beach Road, Kaikoura.
- The Environment Canterbury website: www.ecan.govt.nz

Annual reporting on the Staged Implementation Programme will be described annually in the Council's Annual Report prepared under the Local Government Act 2002.

Mr Bill Bayfield
CHIEF EXECUTIVE

Environment Canterbury
Regional Council
Kaunihera Taiao ki Waitaha

APPENDIX 2:

WORKED EXAMPLES APPLYING THE RULES RECOMMENDED IN THE S42A REPORT

RE - EXISTING FARMING ACTVITIES

Example 1 – An existing high nutrient risk activity in a red zone area

1. The first hypothetical farm is a 100 ha irrigated dairy farm in a red zone.

2. Dairy farms are deemed to be "high nutrient risk" activities under the new regime. Since the farm is larger than 5ha it is covered by rule 5.41.

3. Although ECan acknowledges that this farm is likely to be producing 30^{+} kg/N/ha/yr [55] the only obligation under this PA rule is for the farmer to implement a FEP.

4. Evidence at the Hurunui hearings indicated that, given full mitigation measures, an optimistic N reduction might be around 20%. Assuming this farm reaches the 20% target for N reduction it would now be leaching 24kgN/ha/yr rather than 30kg.

5. **It is impossible to know whether that scale of reduction (30 to 24KgN/ha/yr) in the red zone by similar high nutrient risk activities will have any appreciable impact in terms of improving water quality outcomes**.

6. There is no scientific analysis in ECan's reports to demonstrate what the consequences might be.

Example 2 – Irrigated beef farm (i.e. not a high nutrient risk activity) in red zone area

1. Example 2 is another 100ha farm in the red zone, this time a beef farm.

2. It is notable that there are some 9,249 hectares of beef farm which operate within the 20kg-25kg N/Ha/yr category[56].

[55] See page 69 of the Appendix 1, s32 report – Table 5 of Linda Lilburn's evidence demonstrates that the majority of land used for dairy farms (i.e. 115,331ha) exceeds 30N kg/ha/yr

3. We will assume that this farm doesn't qualify as a "high nutrient risk" since it doesn't fit into the "feeding cattle on a fodder crop that has been established on irrigated land" thus sidestepping the “high nutrient risk” classification. Noting here that the s42A report fails to define fodder crop but general dictionaries indicate that grass is not a fodder crop. Thus irrigated grass pasture means this farming style is probably not “high nutrient risk”.

4. Rule 5.41 enables this farming activity to carry on in the red zone as a permitted activity and all the farmer needs to do is tell ECan where he is located and what he is farming (i.e. satisfy Part D of the FEP). **He has absolutely no obligation to take any steps to cut back on his nutrient leaching whatsoever**.

Example 3 – Existing farming activity in an orange zone

1. The same examples can be considered in the context of the orange zones, noting at the outset that orange areas are already “at risk” as a consequence of the effects of **existing** activities.

2. In this area (and in the green and blue zones) it is irrelevant whether you are high nutrient risk or not. Again, the only obligation is to provide ECan with information about where you are and what you farm. **There is no duty at all to make an effort to improve your nutrient performance whether you are a large farm, a smaller one, a big polluter or a modest polluter.** The farmer can carry on under the permitted activity rule. Remembering that this applies in a zone where existing activities have already imperilled the quality of the water.

RE - CHANGING THE FARMING ACTIVITY

Example 4 – Changing a farming activity in the orange zone

1. I use the irrigated beef farm we looked at above in example 2 as the case study. When it comes to **changing** farming activities or introducing a **new** activity this farmer will need to apply for a consent.

2. As an existing activity the landholder didn't need to do anything but tell ECan where the farm is located and what is being farmed (i.e. Part D of the FEP).

[56] Lilburn, p69, Table 5.

3. Assume now that the beef farm now wants to put a few more beef cattle on to graze the irrigated pastures. We already know its leaching between 20 and 25kg of N per ha. On the basis that there is no increase in the irrigation water consented, the farmer can increase his stocking rates by a further 10% before he actually qualifies as having "changed" the scale of his activity. **Assuming he does hit the 10% threshold or he seeks more water for irrigation then he will be required to implement a FEP <u>and</u> apply for resource consent on a restricted discretionary activity basis**.

4. What can we observe about this rule in practise?

   (a) First, the obligation is to implement a farm environment plan, something this farmer was not obliged to do in the past. However, there is uncertainty about when the plan need to be implemented. Is it before or after the change has occurred?

   - For a start, the farmer's increase in stock numbers is assessed over a 12 month period. Consequently, he won't know until the end of the 12 months whether he has "changed" or not.

   - Second, the FEP first needs to be implemented under this rule but it then needs to be audited on an annual basis.

5. **How the period of "change" meshes with the period of FEP audit and implementation is not clear. The timeframes are simply confusing.**

6. On a broader point though **the FEP does not require any particular scale of improvement in itself. There is no obligation for the farmer to "pass" the audit since the rule only requires that the FEP be implemented, and audited.** The rule is silent about whether an A or B audit grade is needed. In the absence of any such requirement one must assume the worst, i.e., that even those who fail the audit might be considered for consent. (Note that Policy 4.38B implies that consents will be drafted to oblige a "pass"when audited, but that is not certain.)

<u>The matters of discretions and the policies that might be applied to determine the application</u>

7. Let us assume that the farmer does manage to identify that he has "changed" his activity and also that he has implemented a FEP which he intends to get audited. He then needs to satisfy the **matters of discretion**. Those include, among others, the following matters:

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

We already know that there are no nutirient discharge allowances set by this plan and there are not likely to be any for some time in orange areas. Until then, **this matter of discretion is meaningless**. Moreover, the allocations will be set using the sub-regional plan process. **At that point this rule is likely to be irrelevant anyway since sub-regions are free to set their own policies and rules**.

(b) The next matter that the Council can turn its mind to is:

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

Where are those "water quality outcomes" to be found? Seemingly they are in Policy 4.1. However, the effect of that policy was reduced by the Section 42A report for Hearing Group 1.

The reworded policy provides that water quality outcomes will either be set by the sub-regional chapters OR, in the interim, the fall back standards mentioned in Tables 1(a)-(c) will operate. But note – the re-worded policy is now heavily caveated and says that the particular river, aquifer or lake type needs only meet the Table 1(a)-(c) outcomes **by 2023**: an entire decade from now.

Given the uncertainty about promulgation of sub-regional chapters, the timing of those, what standards might be set and the long-stop date of 2023 **it is easy to see that a farmer wanting to increase his production will be able to mount many arguments in favour of his activity being allowed to occur while the sub-regional issues are "ironed" out**.

(c) The only other policy which gives concrete assistance to the decision-maker faced with this RDA application is the newly proposed Policy 4.31. According to 4.31, in orange zones the farmer needs to show that:

"there will be no net increase in nutrients discharged from the property" but the policy then undoes this by saying "***or*** *that* ***advanced mitigation farming management 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*.

In other words, you can either make no net increase or make a net increase so long as, compared with your peers, you are behaving responsibly.

The s42A report provides a list of things which will qualify as advanced mitigation, but how does one assess what is the top quartile in any case and who sets those standards?

If all participants are performing at a low level then even the top quartile will be unimpressive.

It is interesting that the definition of advanced mitigation farming practices simply contains a list of things that can be done. A farmer might choose to do some or all of those. That begs the question though: does his performance have to be in the top 25% for each one he implements, or is it just the overall performance that needs to meet the 25% threshold?

The one safeguard that this policy does contain is the proviso that "*...and that in any event the regional water quality outcomes are still being met*".

Presumably that is intended as a cross reference to the default outcomes provided by Tables 1(a)-(c) which have been described by Adrian Meredith as only "aspirational" and which are discussed above.

Either that or they are a reference to the sub-regional standards which are not set and which may not be set for some time. In either case, to have any meaning this proviso should refer to catchment outcomes, rather than regional outcomes.

8. **What this scenario illustrates is that even when one does need to apply for resource consent the hurdles are low, the tests are uncertain and the policy guidance is confused**.

Example 5 – changing a farming activity in the red zone

1. **Similar observations can be made where the applicant seeks to change his farming activity in a red zone**.

2. The same issues around the definition of a "change in farming activity" arises.

3. The same problems abound regarding the policy framework (though one must acknowledge that it will likely be new policy 4.32 which is the focus for argument rather than policy 4.31).

   (a) It suffers from similar issues identified in relation to Policy 4.31, namely that there is to be no net increase OR that advanced

mitigation farming practises are applied such that the property operates in the top 10% of nutrient minimisation practices.

(b) The same issues arise regarding how to gauge whether a farm is performing in the top 10% or not as noted above

4. Notably there is no requirement that the water quality outcomes be met or even strived for in this particular policy. It should be said here that this would be a Discretionary Activity rather than a RDA of course so the scope for matters to be considered is broader.