

**BEFORE THE HEARING COMMISSIONERS
AT CHRISTCHURCH**

IN THE MATTER of the Resource Management Act
1991 ("**the Act**")

AND

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

AND

IN THE MATTER of the hearing of submissions on Variation
3 to the Proposed Land and Water
Regional Plan

**STATEMENT OF EVIDENCE BY VANCE ANDREW HODGSON
FOR HORTICULTURE NEW ZEALAND**

25 SEPTEMBER 2015



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QUALIFICATIONS AND EXPERIENCE

1. My full name is Vance Andrew Hodgson. I am a director of Hodgson Planning Consultants Ltd, a resource management consultancy based in Waiuku. I have been employed in resource management related positions in local government and the private sector since 1994 and have been in private practice for 10 years. I hold a Bachelor of Resource and Environmental Planning (Hons) degree from Massey University.
2. For the public sector I was employed in student, assistant and senior policy planning roles by the Franklin District Council. I provided continuous in-house resource management consultancy services to the Papakura District Council from 2004 to 2010. Since 2010, I have been providing services to the Auckland Council. The scope of work for the public sector has been broad, covering plan change processes, submissions to national standards/regulations/policy statements and regulatory matters. Of note I was project manager and expert witness for rural plan changes in Franklin and Papakura, and provided rural subdivision advice to the Auckland Council for the preparation of the Proposed Auckland Unitary Plan.
3. I have worked in geographic information system positions in the United Kingdom and worked for CKL Surveying and Planning Limited in Hamilton.
4. In private practice I regularly advise a range of private clients on statutory planning documents and prepare land use, subdivision, coastal permit, water permit and discharge permit resource consent applications. I have considerable experience in resource consent applications, hearings and appeals on a range of activities, particularly for activities in the rural environment.
5. Living and working in the rural environment of South Auckland / North Waikato, I have had a continuous association with the rural production sector and in particular the horticultural industry. From 2012 I have been providing resource management advice to Horticulture New Zealand on policy matters across New Zealand.
6. I have read the Environment Court's Code of Conduct for Expert Witnesses, and I agree to comply with it. My qualifications as an expert are set out above. I confirm that

the issues addressed in this brief of evidence are within my area of expertise, except where I state I am relying on what I have been told by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

7. I am familiar with the Proposed Canterbury Land and Water Regional Plan ("**pLWRP**") and Variation 3 ("**Var3**") to that document, to which these proceedings relate.

SCOPE OF EVIDENCE

8. This evidence provides a planning assessment of those provisions on which Horticulture New Zealand ("**Horticulture NZ**") submitted and addresses the Section 42A report prepared by Environment Canterbury and dated 04 September 2015.

THE PLANNING FRAMEWORK

9. The relevant planning documents that Var3 must give effect to¹ are:
 - (a) The National Policy Statement for Freshwater Management ("**NPSFM**");
 - (b) The National Coastal Policy Statement ("**NZCPS**");
 - (c) The operative Canterbury Regional Policy Statement 2013 ("**RPS**").
10. The relevant planning documents that the Plan must not be inconsistent with² are:
 - (a) The Canterbury Natural Resources Plan;
 - (b) The Proposed Canterbury Land and Water Regional Plan;
11. The relevant planning documents that the Plan must have particular regard to³ are:

¹ In accordance with Section 67 (3) of the RMA.

² In accordance with Section 67 (4) of the RMA.

³ In accordance with Section 63 of the Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010.

- (a) The Vision and Principles of the Canterbury Water Management Strategy (“**CWMS**”).
12. The relevant plans and planning documents that the Plan must take into account⁴ to are:
- (a) Kati Huirapa Iwi Management Plan 1992
 - (b) Te Runanga o Ngai Tahu Freshwater Policy 1999.
 - (c) Te Whakatau Kaupapa – Ngati Tahu Resource Management Strategy for the Canterbury Region 1990.
 - (d) Sports Fish and Game Birds Management Plan for the Central South Island.
13. Other statutory matters include:
- (a) The National Environmental Standard for Sources of Human Drinking Water 2007;
 - (b) Canterbury Earthquake Recovery Act 2011.
14. In setting out these documents I broadly agree with the analysis set out in Appendix 1 and 2 of Environment Canterbury’s Section 32 Report dated 16 April 2015 and the analysis in the Section 42A Report.
15. Given the general agreement I do not repeat the analysis of the applicability of those planning instruments or the compliance of Var3 with those instruments. Rather the evidence sets out where I depart from the views expressed in the Section 32 or Section 42A Reports or consider that an alternative planning provision would better give effect to, be not inconsistent with, or have regard to (as the case may be) the various relevant documents.

NPSFM 2014

16. As the section 42A report addresses the NPSFM in Section 6. The legal status of the NPSFM relative to Var3, will be addressed by other parties at the hearing including legal counsel for Horticulture NZ.
17. With those introductory comments and on the basis that the legal analysis is that the NPSFM is in force and must be

⁴ In accordance with Section 66 (2A) (a) of the RMA.

considered now, I have set out my planning analysis of that policy in this section of my evidence.

18. Key to considering whether Var3 gives effect to the new NPSFM, I focus on the following objectives and policies while not overlooking the relevance of the NPSFM in its entirety.

A: Water Quality

Objective A2 – The Overall Quality of Freshwater

19. The objective states:

The overall quality of fresh water within a region is maintained or improved while:

- a) *protecting the significant values of outstanding freshwater bodies;*
- b) *protecting the significant values of wetlands; and*
- c) *improving the quality of fresh water in water bodies that have been degraded by human activities to the point of being over-allocated.*

20. The key outcomes specified in Objective A2 are that:

- The significant values of outstanding water bodies and wetlands are to be protected.
- Degraded water bodies are to be improved.

21. As I understand it there are no outstanding freshwater bodies by definition of the NPSFM and pLWRP in the South Coastal Canterbury Area but the area does contain degraded freshwater bodies including the Wainono Lagoon.

22. Remaining water bodies (i.e. not outstanding freshwater bodies, wetlands, or degraded water bodies) are required to be managed (sustainably – but not necessarily protected or improved at an individual level).

23. A balanced approach is required to achieve the bottom lines set out in Objective A2(a-c) while observing the intent of maintaining or improving the 'overall' quality of the regions fresh water.

Policies A1, A2, A3 – Managing Freshwater Objectives, setting Limits and Adopting the Best Practicable Option

24. The NPSFM requires that regional councils establish freshwater objectives and set freshwater limits for all freshwater management units.
25. Policy A1 states:
- By every regional council making or changing regional plans to the extent needed to ensure the plans:*
- a) *establish freshwater objectives in accordance with Policies CA1-CA4 and set freshwater quality limits for all freshwater management units in their regions to give effect to the objectives in this national policy statement, having regard to at least the following:*
- i. the reasonably foreseeable impacts of climate change*
 - ii. the connection between water bodies; and*
 - iii. the connections between freshwater bodies and coastal water; and*
- b) establish methods (including rules) to avoid over-allocation.*
26. Var3 was notified after the new NPSFM was gazetted. The National Objectives Framework set out in section CA of the NPSFM was not followed. Notwithstanding this, the section 32 material identifies a process that considers the value setting approach for defining the freshwater objectives for Var3.
27. Of particular focus to the Horticultural sector is how the values of Mahi Māra / Cultivation are addressed in Var3. The values is set out as follows:

Appendix 1: National values and uses for fresh water

Additional Natural Values

Mahi māra / cultivation

Irrigation and food production – The freshwater management unit meets irrigation needs for any purpose.

Water quality and quantity would be suitable for irrigation needs, including supporting the cultivation of food crops, the production of food from domesticated animals, non-food crops such as fibre and timber, pasture, sports fields and recreational areas. Attributes will need to be specific to irrigation and food production requirements.

28. Based on the assessment below and in particular relying on the case studies presented by Horticulture NZ, and the

evidence of Stuart Ford and Angela Halliday, it is not clear to me that these values have been sufficiently recognised. In particular, I note the balanced consideration required under the RMA and importantly the requirement to have regard to the need to use water for economic and social well-being.

29. Policy A2 then requires Council to set out a programme for where freshwater objectives are not met. The section 32 material is again sufficient to identify that in this catchment, targets are to be specified and methods (regulatory and non-regulatory) implemented to address contaminants within a defined timeframe.
30. Policy A3(b) requires the regional council to, where permissible, make rules requiring the adoption of the best practicable option to prevent or minimise any actual or likely adverse effect on the environment of any discharge of a contaminant into fresh water.
31. One of the best practicable options that has been highlighted in the section 32 and supported by Horticulture NZ is the introduction of methods relating to Good Management Practice (GMP) – discussed in depth in the evidence of Stuart Ford and Angela Halliday.
32. The project to define GMP is yet to be completed yet in its absence Var3 has proposed GMP policy and methods without understanding the impacts. I have concerns that in doing this the plan does not meet the requirements set out in s32 of the RMA.

B Water Quantity

Objective B2

33. Objectives B2 is unequivocally a clear, concise and directive objective of avoiding further over-allocation of freshwater and phasing out existing over-allocation.
34. If the science proves that this catchment is over-allocated then there is no debate.
35. If there is uncertainty I support a precautionary approach with the caveat that the policy and method platform should address the uncertainty and provide for adaption and change should the uncertainty be reduced over time.

Objective B3

36. Objective B3 is also clear, concise and directive and requires improvement and maximising efficient allocation and efficient use of water.
37. In my opinion Objective B2 and B3 should not be read in isolation of each other. In an over allocated situation water can still be efficiently used while addressing the over-allocation. An example being the transfer of water permits which is provided for in Var3 but not in a format or method that in my opinion will support achieving this objective.

APPROACH TAKEN IN VARIATION 3

38. Variation 3 has been developed through a collaborative planning approach resulting in the ZIP Addendum adopted by a Zone Committee that sets out a 'solutions package' for the South Coastal Canterbury Area.
39. The background to the Zone Committee and its role in the process is set out in Section 4 of the s42A Report. The role of the Nitrogen Allocation Reference Group ("**NARG**") in the process to define methods is also described.
40. Var3 is designed to deliver the outcomes sought by the Zone Committee.⁵ Paragraph 10.14 of the s42A report sets out the Var3 response, which is a package that relies on the following key concepts developed from the ZIP Addendum:
 - (a) All farming activities operate at good management practice (or better);
 - (b) Augmentation of Wainono Lagoon to assist in improving water quality;
 - (c) High N emitters reduce N losses to a "Maximum Cap" to improve water quality and to provide headroom for low emitters to increase their N loss;
 - (d) Low N emitters may increase their N losses to a "Flexibility Cap" if augmentation occurs and water quality outcomes are met;

⁵ Pg 3-4 South Coastal Canterbury Streams ZIP Addendum September 2014

- (e) Consented irrigation schemes are able to continue to develop within set N load limits;
 - (f) Collectively manage N losses through Irrigation Schemes, Farming Enterprises or Nutrient User Groups, which provide an opportunity for greater flexibility in farming practices and nutrient losses.
41. Policy 4.9 in the pLWRP sets out how reviews of the sub regional sections will be undertaken. Clause c) requires:
- Have particular regard to collaboratively developed local water quality and quantity outcomes and methods, and timeframes to achieve them, including through setting limits and targets.*
42. The policy seeks that 'particular regard' be given to the collaborative planning process outcomes. It does not limit the ability of the Council to amend Var3 as a result of submissions and evidence.
43. While the solutions package may be considered to represent a *balance* it does not mean that it is the only balance between the range of competing interests that could be reached.
44. The submissions process and hearing of evidence provides an opportunity to reassess the range of interests and the package that will meet the outcomes sought for the South Canterbury Coastal Streams Area, while still ensuring the economic viability of those who undertake activities in the area.
45. Of note the Zone Committee made the statement that an issue they grappled with at the end, and were unable to resolve, was how to make the subsequent plan a 'living document' given impending:
- Updates to OVERSEER;
 - MGM project competition; and
 - Uncertainty over augmentation.
46. In my opinion these matters remain unresolved and while I support a precautionary approach to nutrient management, I am not convinced the right balance has yet been struck in providing for horticultural activities and their effects in this environment.

MY UNDERSTANDING OF HORTICULTURE NEW ZEALAND'S SUBMISSIONS

47. The Horticulture New Zealand submission on Var3 and the evidence of Stuart Ford and Angela Halliday identify a number key matters for the horticultural sector:
- (a) Horticultural activity is located on the plains of the South Coastal Canterbury Area.
 - (b) The horticulture sector in the South Coastal Canterbury Area is small, but none the less important in terms of contribution to horticultural production in Canterbury. The horticultural presence provides diversity in the rural economy.
 - (c) Horticultural operations can vary from year to year and season to season, with rotations and leased land being common components of the operations.
 - (d) The operations may be either operated on one property or across a number of properties, either leased or owned. The latter (namely operation across a number of owned properties) are regarded in Var3 as 'farming enterprises' as defined in the pLWRP.
 - (e) Many of the operations currently have relatively low nutrient loss rates and the provisions unfairly penalise such operations.
 - (f) The Variation is primarily focussed on dairy and dairy support as these have been identified as the key contributors to nutrient loads in the catchment.
 - (g) The resulting framework leads to challenges for existing growers to operate, as the adverse economic effects are likely to outweigh any environmental effect from these activities.
 - (h) There are a number of uncertainties which contribute to the challenge of being able to meet the requirements of the Variation, including uncertainties in the science-based approach and modelling and confirming outcomes can be achieved.
48. These matters are reflected in the submission and addressed in this evidence and that provided by other Horticulture NZ experts, industry representative and experts.

49. Horticulture NZ also submitted an extensive number of further submissions. I address any specific relevant further submissions in this evidence but my main response to further submissions will be appropriately considered in my rebuttal evidence as Horticulture New Zealand's position will be affected by what submitters are saying about its position in their evidence.

HOW VARIATION 3 REQUIREMENTS FOR NUTRIENT MANAGEMENT WOULD APPLY TO VEGETABLE, FRUIT AND BERRY GROWERS

50. To understand how Var3 would apply to a growing operation a number of steps need to be taken to determine which rules would apply. In this section of my evidence I have undertaken a synopsis of the rule framework and assessed it to see how it may apply practically to a horticulture operation in the South Coastal Canterbury area outside of an irrigation scheme.
51. **Step 1 – Identify nutrient baseline.** This step is based on the definition of nutrient baseline in the pLWRP and requires:
- (a) The modelling of the discharge of nitrogen below the root zone using OVERSEER® or an equivalent model approved by the Chief Executive of Environment Canterbury.
 - (b) Data for four years from 1 July 2009 – 30 June 2013, averaged over that time frame.
 - (c) If OVERSEER® is updated the most recent version is to be used for recalculate the nitrogen baseline using the same input date for 1 July 2009 – 30 June 2013.
52. As stated in the evidence of Stuart Ford for Horticulture NZ there are challenges for growers in meeting step 1 of this process, including that not all crops are in OVERSEER® so approval for an equivalent model would need to be sought. In addition there are issues with the variation between versions of OVERSEER® and also the requirement for four years of data from 2009 -2013.
53. **Step 2 – Identify nitrogen loss calculations for the property as set out in the definition for nitrogen loss calculations in the pLWRP.** This requires:
- (a) Modelling of the discharge of nitrogen below the root zone on OVERSEER® or an equivalent model

- approved by the Chief Executive of Environment Canterbury;
- (b) Averaged over the most recent four years 1 July – 30 June;
 - (c) If OVERSEER® is updated the most recent version is to be used.
54. As with Step 1 there are challenges with the use of OVERSEER® and meeting the requirements to establish the nitrogen loss calculation.
55. **Step 3 – Is the operation to be classified as a ‘farming enterprise’⁶?** If so, Rule 15.5.6 will apply as a discretionary activity. No permitted or controlled activity status applies, even if the operation has a low nutrient loss calculation. The nutrient loss calculation and nutrient baseline need to be established for each parcel of land in the farming enterprise and aggregated across the farming enterprise.
56. Non-compliance with the maximum cap, or where a Nitrogen Loss Calculation (“**NLC**”) that exceed the Nitrogen Baseline (“**NB**”) is a Prohibited Activity. A Farming Enterprise comprised of properties not in the same Surface Water Allocation Zone is also a Prohibited Activity.
57. **Step 4 – Is the operation part of a Nutrient User Group⁷?** If so, Rule 15.5.6 will apply as a discretionary activity. No permitted or controlled activity status applies, even if the operation has a low nutrient loss calculation. The nutrient loss calculation and nutrient baseline need to be established for each parcel of land in the Nutrient User Group and aggregated across the Nutrient User Group.
58. **Step 4 – A farming activity that is not a Farming Enterprise, not in a Nutrient User Group operations, and not supplied by irrigation scheme water needs to determine the activity status under the following rules 15.5.1 – 15.5.5.**

Permitted Activity Status

⁶ Being an aggregation of land parcels in single or multiple ownership that constitutes a single operating unit for the purpose of nutrient management

⁷ Being a group of properties in multiple ownership forming a collective for the purposes of nutrient management.

59. Permitted Activities that do not require resource consent need to be determined through by navigating through the conditions set out in Rules 15.5.1 and 15.5.2.

Rule 15.5.1

60. Rule 15.5.1 simply states that the use of land for a farming activity is a Permitted Activity where the property is less than 5 hectares. Horticultural activities, which have the same low discharge effect as small scale farms, are not a Permitted Activity.

Rule 15.5.2

61. Rule 15.5.2 is more complex and relies on users interpreting water quality limits and targets set out in part 15.7.6 of Var3, as set out in the table below.

Permitted Activity Conditions (15.5.2)	Restricted Discretionary Activity (15.5.3)	Prohibited Activity (15.5.5)
1. Nitrogen loss calculation does not exceed the greater of either the: <ul style="list-style-type: none"> - Nitrogen baseline OR - Flexibility cap in Table 15(m) 	Waihao-Wainono Plains	
	1b) Exceeding Flexibility Cap 15kg/N/Ha/Yr (only available through augmentation) OR Exceeding Flexibility Cap 17kg/N/Ha/Yr (only available after augmentation & 2030)	1a) Exceeding Flexibility Cap 10kg/N/Ha/Yr (from May 2015)
	Northern Stream Plains	
	1b) Exceeding Flexibility Cap 15kg/N/Ha/Yr (from May 2015) OR Exceeding Flexibility Cap 17kg/N/Ha/Yr (available after 2030)	
	Waihao-Wainono Hills	
		1c) Exceeding Flexibility Cap 5kg/N/Ha/Yr (from May 2015)
Northern Stream Hills		
	1c) Exceeding Flexibility Cap 5kg/N/Ha/Yr (from May 2015)	
And 2. Nitrogen loss calculation for Morven Sinclairs area does not exceed nitrogen	Where nitrogen baseline exceeded.	

Permitted Activity Conditions (15.5.2)	Restricted Discretionary Activity (15.5.3)	Prohibited Activity (15.5.5)
baseline (no flexibility cap)		
And 3. Existing farming activity Northern Streams and Waihao Wainono where Maximum cap for the relevant soil type in Table 15(n) is not exceeded (until 2030)	Where maximum cap exceeded. Light Soils = 35kg/N/Ha/Yr Med Soils = 25kg/N/Ha/Yr PD Soils = 35kg/N/Ha/Yr	
Or 4. New farming activity Northern Streams and Waihao Wainono where Maximum cap for the relevant soil type in Table 15(n) is not exceeded (achieve immediately)		Where maximum cap exceeded. Light Soils = 35kg/N/Ha/Yr Med Soils = 25kg/N/Ha/Yr PD Soils = 35kg/N/Ha/Yr
And 5. Farming activity operating at GMP as set out in Shc 24b)	Where not operating at GMP	

62. It is my interpretation of the provisions that for a horticultural activity likely to have a low nitrogen loss calculation, the land use is stuck with immediate compliance with a low allocation with room only to move within the limitation of the flexibility caps:
- In the Waihoa-Wainono Plains flexibility is only achieved through augmentation of the Wainono-Lagoon and water quality improvements. Exceeding the 01 May 2015 (10kg/N/ha/yr) flexibility cap is a Prohibited Activity.
 - In the Northern Stream Plains, exceeding the 01 May 2015 (15kg/N/ha/yr) or 1 January 2030 (17kg/N/ha/yr) flexibility cap is a Restricted Discretionary Activity.
63. An existing farming activity with a high nitrogen baseline can continue to discharge as a Restricted Discretionary Activity in any area even if their nitrogen loss calculation is greater than

the flexibility caps or maximum caps. They need to meet relevant maximum cap by 2030.

Rule 15.5.3

64. Rule 15.5.3 Sets out the conditions and matters of discretion for Restricted Discretionary Activities, captured as per the table above. The only condition is the submission of a Farm Environment Plan.
65. One of the key matters of discretion is whether the nitrogen loss from the farming activity will result in the total catchment loads specified in Table 15(p) being exceeded. This matter relies on good quality up to date information within a science and model that I understand is somewhat unreliable.

Rule 15.5.4

66. Rule 15.5.4 sets out the Prohibited Activities, captured as per the table above and repeated as follows:⁸
- It is a Prohibited Activity to exceed the flexibility caps in the Waihou-Wainono Area from 01 May 2015 – pre augmentation.
 - It is a Prohibited Activity to exceed the flexibility caps in the Northern Streams Hills from 01 May 2015.
 - It is a Prohibited Activity for new farming activities to exceed the maximum caps for the relevant soil type.
67. There is certainty in adopting a Prohibited Activity status and I support its use where there is accuracy in the information to support the platform and certainty in the environmental outcomes anticipated. The evidence of Stuart Ford for Horticulture NZ casts doubt on whether this certainty exists in this case.
68. I note the s42A report states that adopting a Prohibited Activity status is overly restrictive for discharges already lawfully established (by consent or rules within the LWRP). I agree and support the recommendation that a new Discretionary Activity (Proposed Rule 15.5.4A) is adopted to enable consideration of situations where the flexibility cap is exceeded by lawfully established discharges (prior 24 April 2015) in the Waihao-Wainono Area or Northern Stream Hills.

⁸ Noting that these rules have had legal effect since 24 April 2015.

THE NUTRIENT MANAGEMENT FRAMEWORK

69. Key concerns that Horticulture NZ have identified with the nutrient management framework relate to:
- (a) Establishing baseline land use;
 - (b) Deriving nutrient baseline and limiting operations to that baseline;
 - (c) Use of OVERSEER®; and
 - (d) Use of Good Management Practices.
70. The use of OVERSEER® and Good Management Practices have been addressed in the evidence of Angela Halliday and Stuart Ford.
71. Given their evidence I consider that there needs to be caution in the use of these tools in regulatory frameworks and I understand the rural sector has repeatedly expressed this concern to ECAN through the regional plan change processes⁹.
72. The authors of the s42A report have also recognised the limitations of OVERSEER® and the difficulties in progressing a plan change when the MGM project has not concluded and GMP is not defined. It affects all rural land users when nutrient management targets and limits are set using these methods but none more so than the horticultural sector whose activities do not fit within the OVERSEER® model and where GMP will freeze a low leaching land use resulting in a loss of flexibility and rural production diversity in the area through the policy and rules set in Var3.
73. The existing footprint of horticulture in the South Coastal Canterbury Area is not extensive and has in fact reduced from previous years, giving way to arable and agricultural activity. Notwithstanding this the existing activity provides diversity in the rural economy, employment, and retains a part of the social web in Waimate – as reflected in the Strawberry Fare attracted 14,000 visitors annually. <http://www.waimatestrawberryfare.co.nz/>
74. As I understand Var3 it looks to address legacy nutrient loads, provide for existing high nutrient leaching activities (typically

⁹ LWRP Var1 Selwyn Te Waihora and Var2 Hinds.

agriculture) while working these back to lower limits, and provide some flexibility for low leaching activities to increase discharges within limits. All these seek to achieve relevant environmental, economic, social and cultural outcomes and address an element of equity and fairness.

75. In principle I have no issue with this intention and as previously expressed I support a precautionary approach to nutrient management given the unknowns and uncertainties. What is not clear to me is whether the limitations imposed on the horticultural sector are commensurate to the potential environmental effects from the activity. Considering this and the issues with the data used for limit setting as explained by Mr Ford, it seems to me that a precautionary approach can still be adopted while providing increased flexibility to low leaching horticultural activities.
76. Low leaching activities require flexibility, which encourages diversity of land use, important in a rural economy that is currently so heavily weighted towards dairy.
77. Overall improvements in water quality will be supported by the requirements of Farm Environment Plans and Schedule 24b. As identified by the evidence of Angela Halliday, the Horticultural Sector is well on its way with farm environment planning and improved practice.
78. In the synopsis of the rule framework in paragraph 61 of this evidence it is apparent that the framework lacks flexibility for land uses, and lacks recognition of the rotational nature of some horticultural operations, even if they are currently undertaking operations that have low nutrient loss calculations. These operations are limited by the proposed rules because:
 - (a) They are tied to the land use in that was on the property between 1 July 2009 and 30 June 2013;
 - (b) They are tied to the nutrient baseline from 1 July 2009 and 30 June 2013;
 - (c) There is no recognition of the rotational nature of horticulture operations and hence variability in nitrogen loss calculations.
79. Through previous plan changes, Horticulture NZ has sought that the definition of baseline land use be amended to

provide for horticultural crops over the crop rotation and farm enterprises and inclusion of a policy to enable reconsideration of nutrient baselines:¹⁰

Amend the definition of Baseline land use: means that land use, or uses, on a property or farming enterprise either between 1 July 2009 and 30 June 2013, or for horticultural crops over the crop rotation, and used to determine the 'nitrogen baseline' as defined in section 2.9 of this Plan.

Add a new policy: The nitrogen baseline for a property or enterprise can be reassessed where it can be demonstrated that the 4 years 2009-2013 do not accurately reflect the nature of the operation.

80. Essentially the nutrient baseline and baseline land use is contingent on what stage of the crop rotation was being undertaken between 2009 and 2013. That may, or may not, have been the highest leaching part of the rotation. If it happened to be the highest leaching part of the rotation then the grower is fortunate and grand parented with a larger allocation, however if the lowest leaching, then the grower's future land uses are restricted.
81. I note that the decisions on Variation 1 for Selwyn-Waihora included farming enterprises in the definition of baseline land use, as was also sought by Horticulture NZ for Variation 2 for the Hinds Plains Area.
82. It is also noted that the decisions on Variation 1 have included a new Policy 11.4.12A that enables reconsideration of the nitrogen baseline.
83. The s42A Report addresses the definition of nitrogen baseline at Paras 13.81 – 13.88. Responding to the submission by Butlers Fruit Farm Ltd, the report states that the existing definition of Nitrogen Baseline appropriately provides for an alternative model to OVERSEER® to be used and therefore does not recommend any further amendments to provide for alternative methods to be used to calculate nitrogen losses for orchards.
84. I agree, an alternative model to OVERSEER® can be used but the period (01 July 2009 – 30 June 2013 remains fixed. This does not reflect the practical rotations of horticultural land use and effectively handicaps the nutrient allocation. This issue is

¹⁰ Horticulture NZ Submissions on Variation 2 to the LWRP: Hinds.

critical for the horticultural sector and further supports the need to consider more flexibility.

85. As I understand it, LUT-OVERSEER V6.0 was used to determine the flexibility caps. The technical memoranda in Appendix 2 of the s42A report demonstrates the effect of recalculating these figures using OVERSEER V6.2 for agricultural activities. The impact of a recalculation for horticultural activities is not known which suggests to me that a precautionary approach for lower leaching activities should be adopted. This should not just be conservative in terms of avoiding adverse effects but also in terms of avoiding adverse economic and social effects.

RELIEF SOUGHT BY HORTICULTURE NEW ZEALAND

86. In the context of the issues discussed above, the following section deals with the key submission points and changes sought (Part A Key Submission Points) and other submission matters (Part B Other Submission Matters).

PART A: KEY SUBMISSION POINTS

87. The key submissions points and changes sought include:
- Supporting changes to the introduction (15A) to identify the importance of food production and contributions to social and economic wellbeing from rural production.
 - Agreement that Var3 sets up a framework by which a future Nutrient Management Plan Change could be incorporated.
 - Support for Var3 to address OVERSEER® version issues by:
 - Including a footnote to specify the OVERSEER® version used to the load limits in Table 15(p).
 - Including a new policy to provide discretion in the application of load limits taking into account OVERSEER® updates.
 - Update the flexibility and maximum cap limits in Tables 15(m)&(n).
 - That the timeframes of Var3 be aligned with those set out in the ZIP Addendum.

- Grand parenting the definition of an Existing Farming Activity to all activities undertaken during the period 01 July 2009 - 30 June 2013.
- Whether a Discretionary Activity status for Farming Enterprise Systems and Nutrient User Groups is the most appropriate activity status.
- Whether moving the flexibility cap in the Waihao-Wainono Plains Area to 15kg/N/ha/yr now and 17 kg/N/ha/yr with augmentation is an appropriate option.
- The ability to transfer water permits.
- The inclusion of a reference to the Horticulture NZ Erosion and Sediment Control Guidelines for Vegetable Production June 2014 in Schedule 24.

Section 15A

88. Section 15 provides an introduction to the Waitaki and South Coastal Canterbury Area. It was the submission of Horticulture NZ (V3pLWRP-281) that the introduction could be improved through introducing text to identify the importance of food production and contributions to social and economic wellbeing from rural production.
89. The s42A report¹¹ recommends new text to address this and I support the recommendation which provides a suitable introduction to the issues in the catchment.
90. Horticulture NZ (V3pLWRP-282) also requested that Var3 be amended to be consistent with the 'solutions package' in the ZIP Addendum and NARG allocation framework.
91. This relief supports the NARG agreement and ZIP Addendum and it is my understanding that the intent was:
- GMP benchmark N loss numbers from the MGM project should replace maximum caps.
 - VAR3 should be a "live" document and adjust to updates to OVERSEER, soil mapping data.

¹¹ Para 8.27 PC3 LWRP – Section 42A Report

- The timeframe for achieving maximum caps should be 2025 (as opposed to 2030 as set out in Var3).
92. The s42A report provides a useful analysis of this issue, and in brief the recommendations are:
- a) **On Aligning with the MGM Project**, that Var3 sets up a framework by which a future Nutrient Management Plan Change could be incorporated. No changes are required to Var3 on this matter now.
 - b) **On Updates to OVERSEER**, that ECAN is aware of the update issues and the following amendments to Var3 are recommended:
 - Include a footnote to specify the OVERSEER® version used to the load limits in Table 15(p).
 - Include a new policy to provide discretion in the application of load limits taking into account OVERSEER® updates.
 - Update the flexibility and maximum cap limits in Tables 15(m)&(n).
 - c) **On Timeframes for Meeting Limits**, that the timeframes of Var3 be aligned with those set out in the ZIP Addendum.
93. I am generally supportive of the recommendations and discuss these in more detail relative to the Horticulture NZ submissions below.

Existing Farm Activity and New Farming Activity

94. The submission of Horticulture New Zealand (V3pLWRP-284) sought changes to the definitions of Existing Farming Activity and New Farming Activity to include recognition of crop rotation.
95. The assessment in the s42A report¹² agrees that in not providing for routine or seasonal variations in farming practices, the definitions do not provide sufficient direction for plan users. The recommendation is to amend the definition of an Existing Farming Activity and tie this to all activities undertaken during the period 01 July 2009 - 30 June 2013

¹² Para 13.59 PC3 LWRP – Section 42A Report

whether seasonal or rotation, consistent with the Nitrogen Baseline.

96. I support the seasonal or rotational references however grand-parenting a farming activity to what happened over a four year period is from my understanding not representative of a farming system involving horticultural activities. As with the Nitrogen Baseline definition, horticulturalists would be locked into a narrow window of activity on a property when the reality of the farming system is much more diverse and rotational.

Farming Enterprise Systems and Nutrient User Groups

97. The Nutrient User Group method (V3pLWRP-285) is supported by Horticulture NZ. The method provides a useful collaborative tool for rural production activities to operate as a collective for the purposes of nutrient management.
98. Horticulture NZ (V3pLWRP-324) sought a Restricted Discretionary Activity status for Farming Enterprise Systems and matters of discretion to take into account the rotational nature of cropping.
99. I understand that the Discretionary Activity status for Farming Enterprises in Var3 is carried over from the pLWRP, however I am not clear on the rationale. Full discretion appears unnecessary and I would propose that matters of discretion could be developed to support a restricted discretionary activity status for a useful nutrient management tool that supports rural production systems.

Policies 15.4.7, 15.4.8, 15.4.9

100. Policies 15.4.7-15.4.9 were supported by Horticulture NZ through submissions (V3pLWRP-296-298) within the qualifier that changes were made to the definitions of flexibility cap and maximum cap to provide for updates to OVERSEER®.
101. Policy 15.4.8 provides a framework for adjustments of the flexibility cap when augmentation of the Wainono Lagoon has occurred. The approach is supported by Horticulture NZ but I question as to whether there is an opportunity for the lower leaching horticultural activities to access the 15kg/N/ha/yr limit now to maintain diversity and variation in the rural economy without compromising steps to improved water quality.

102. Moving the flexibility cap in the Waihao-Wainono Plains Area to 15kg/N/ha/yr now and 17 kg/N/ha/yr with augmentation appears an appropriate option. This would be a valid approach within the ambit of maximum caps and timelines, pending the completion of the MGM project and introduction of GMP defined limits through a future variation consistent with Policy 4.11 of the LWRP.
103. The method used to derive the existing flexibility cap numbers is set out in Appendix 2 of the s42A report. It specifically clarifies that there is sufficient load in the “flexibility bucket” to enable all current N emitters losing less than 15 kg/ha/yr to increase up to 15 kg/ha/yr (based on the LUT land use/soil/climate nitrogen loss relationships).
104. The 10 kg/ha/yr limitation in the Waihao-Wainono Plains Area is imposed to achieve the following:
- To encourage the community to contribute to the augmentation regime; and
 - To ensure the environmental gains are achieved, as anticipated under augmentation.
105. There are a number of issues with this approach:
- There is uncertainty in what the augmentation will achieve.
 - There is uncertainty as to when or if the augmentation will occur including who will pay.
106. The flexibility cap above 10 kg/ha/yr is unavailable until lagoon augmentation is achieved and lagoon water quality improves.
107. In my opinion this approach loads the potential solution onto a smaller catchment than necessary. Improving the lagoon water quality is a regional issue requiring a regional response. Furthermore, it purports to adopt a polluter pays principal but applies the limitation across all activities no matter what their leaching rates.
108. Rather than pay for augmentation to achieve unknown water quality improvements over an unknown timeframe, growers are already expressing a desire to leave the area and/or the industry.

109. Even without lagoon augmentation there should be an improvement in water quality in the catchment and ultimately the lagoon. If not there is no point in Var3. The lagoon augmentation may improve the lagoon water quality more quickly but this will likely be at the expense of rural production.

Policy 15.4.30 and Rule 15.5.39 Transfer of Water Permits

110. Policy 15.4.30 limits the transfer of water permits to community water supplies only. Horticulture NZ (V3pLWRP-317) sought the expansion of the method to all users. The s42A recommendation¹³ supports this outcome with a method that ensures the transfer cannot occur where this proposes an increase in the total rate or volume of water abstracted. I support the recommendation.
111. Despite the policy change, no change is supported to method 15.5.39 in the s42A report¹⁴. This appears to be an oversight.

Schedule 24

112. Horticulture NZ expressed general support for the Farm Practice requirements set out in Schedule 24, but sought changes (V3pLWRP-352) to clause (d) cultivation and the imposition of a default requirement for a 3m uncultivated vegetation strip by sought that 'or other appropriate sediment control measures' be added.
113. The reasoning was stated as:
- It is acknowledged that potential for sediment loss should be managed, but there are a range of tools available to manage sediment. Reliance on requiring only one method means that the most suitable method may not be used.*
114. Horticulture NZ has developed a Code of Practice for Sediment and Erosion management that details a range of 'other methods' that are available to be used to address the potential for sediment loss. A vegetated strip is only one such method and may not be the most appropriate for the situation.
115. A better environmental outcome can be achieved by ensuring that the most appropriate and responsive tool is used

¹³ Para 12.126 PC3 LWRP – Section 42A Report

¹⁴ Para 12.278 PC3 LWRP – Section 42A Report

for the environmental conditions of the site. A site with topography that ensures no potential runoff of contaminants into an adjacent waterbody will not require an additional buffer. Crop type and seasonal activity may also affect the risk of runoff and dictate more appropriate tools.

116. The s42A assessment agrees with the Horticulture NZ evidence and recommends¹⁵ that a reference to the Horticulture NZ Erosion and Sediment Control Guidelines for Vegetable Production June 2014 be included in clause (d). I support this recommendation.

PART B OTHER SUBMISSION MATTERS

Access to an Irrigation Scheme

117. The submission of Horticulture NZ (V3pLWRP-283) queried whether the definition and subsequent rule framework would be applied to a land area even if access to an irrigation scheme is not utilised. It is my understanding that this is the intent and that this enforces the environmental flow and allocation limits.

Flexibility Cap and Maximum Cap Definitions

118. Horticulture NZ submissions (V3pLWRP-273, 286, 288, 346-348) seek changes to the definitions of Flexibility Cap and Maximum Cap to provide for adjustments reflecting changes to OVERSEER®.
119. The s42A recommendations do not support changes to these definitions, however as already described at paragraph 90(b), three key changes are proposed to address shortcomings associated with a fixed limit calculation using a specific version of OVERSEER®. I support the recommendations and anticipate that this approach will provide the necessary discretion for more accurate assessments and adjustments to the plan in the future.

15.3 Freshwater Objectives

120. In submissions V3pLWRP-286, 291, 336, 337 Horticulture NZ queried whether the freshwater outcomes in Tables 15A and 15B are freshwater objectives under the NPSFM.

¹⁵ Para 10.438 PC3 LWRP – Section 42A Report

121. The s42A report¹⁶ clarifies that they are and a change is recommended to make this explicit in the plan. I support the amendment.

Policy 15.4.2

122. Horticulture NZ (V3pLWRP-292) noted that Policy 2 implied that all water quality outcomes will be achieved through the nitrogen load limits. The suggested amendment was to change the policy from an 'achieve' to an 'improve' water quality approach.
123. It is the recommendation in the s42A report¹⁷ that Policy 15.4.2 now be captured under a new policy 15.4.1. The load limit matters formally address by Policy 15.4.2 are now referenced in the new policy, supported by the recommended qualifier to the OVERSEER® version number. I support the approach.

Policy 15.4.3

124. Horticulture NZ (V3pLWRP-293) sought the deletion of Policy 15.4.3 on the basis it looked to address the movement of nitrogen between the plains and hills areas. The intent of the policy was to restrict the sharing of N loss across properties in the different environments.
125. The recommendation in the s42A report¹⁸ is that Policy 15.4.3 is amended to remove the ambiguity. I support the recommendation.

Policy 15.4.4

126. Horticulture NZ is a strong supporter of Farm Environment Plans and as set out in the evidence of Angela Halliday has significant experience in implementation of the method elsewhere in NZ. As set out in the submission (V3pLWRP-294) the policy is supported and consideration could be given to its application outside of resource consent situations.

Policy 15.4.5

127. Policy 15.4.5 sets out the timeframes for maximum caps with Horticulture NZ (V3pLWRP-295) seeking that the policy be

¹⁶ Para 9.10 PC3 LWRP – Section 42A Report

¹⁷ Para 10.66 PC3 LWRP – Section 42A Report

¹⁸ Para 10.75 PC3 LWRP – Section 42A Report

amended to include Farming Enterprises and Nutrient Management Groups.

128. As clarified through the s42A report¹⁹, the policy provides for all farming activities whether or not they are part of a farming enterprise or nutrient user group. No changes to the policy are necessary on this matter.

Policy 15.4.10

129. Horticulture NZ (V3pLWRP-296-299) sought the deletion of the limitation in Policy 15.4.10 for Farming Enterprises and Nutrient User Groups to access flexible N limits in the Northern Stream Hill and Waihao-Wainono Hill areas. Further analysis of grower distribution and operations has confirmed this is no longer an area of interest for Horticulture NZ.

Policy 15.4.11

130. Policy 15.4.11 limits Farming Enterprises or Nutrient User Groups to the same Surface Water Allocation Zone. Horticulture NZ (V3pLWRP-296-300) sought the replacement of this term with Nutrient Discharge Allocation Area. The change is not necessary and the submission not pursued by Horticulture NZ.

Policy 15.4.12

131. Horticulture NZ (V3pLWRP-301) sought the amendment of Policy 15.4.3 on the basis that while the intent of the policy was to restrict the sharing of N loss across properties in the different environments, this was not clear in the policy itself.
132. Changes recommended in the s42A report²⁰ to provide the clarity sought are supported.

Policy 15.4.13

133. Horticulture NZ (V3pLWRP-302) sought amendments to Policy 15.4.13 to require the matters set out in (a)-(d) to be conditions for Rule 15.5.9. I don't see this as being necessary with the matters set out in the policy being relevant in the assessment for an activity under Rule 15.5.9 as a Discretionary Activity.

New Policy and Rule for an N Transfer System

¹⁹ Para 10.101 PC3 LWRP – Section 42A Report

²⁰ Para 10.248 PC3 LWRP – Section 42A Report

134. The introduction of a transfer regime for nitrogen was proposed by Horticulture NZ (V3pLWRP-304, 335) as a Permitted or Controlled Activity. The system would be overseen by Council and require demonstration that the transfer will not cause an increase in N losses that exceed the load limits.
135. The s42A report reconfirms the approach of adopting a Discretionary Activity status for Farming Enterprise Systems and Nutrient User Groups to provide for nutrient sharing. While I support the approach the issue for growers is certainty in the consent process, something a Discretionary Activity status does not provide. I support the Farming Enterprise Systems and Nutrient User Group methods but query why, when the environmental effects of nutrient management are understood, a more permissive activity status could not be adopted.

Policy 15.5.16

136. Policy 15.4.16 sets out the framework for improving water quality in the Wainono Lagoon, subject to a number of conditions. Horticulture NZ (V3pLWRP-305) raised concern with the 'avoid' references relative to the King Salmon decision and requested the addition of a mitigation rider in the conditions. The request is rejected in the s42A report²¹. On Review of the policy and the application of the avoid principal the submission will not be pursued.

Policy 15.4.19

137. The submission of Horticulture NZ (V3pLWRP-307) sought changes to Policy 15.4.19 to clarify that the reallocation of water is to be avoided until such time as the zone is no longer over allocated. The recommended change in the s42A report²² provides the clarity sought.

Demonstrated Use

138. Horticulture NZ (V3pLWRP-308-311) sought the deletion of the term Demonstrated Use from Policies 15.4.20 – 15.4.23. While not opposed to accuracy achieved in metering and record keeping, the flag from Horticulture NZ was that providing

²¹ Para 11.16 PC3 LWRP – Section 42A Report

²² Para 12.25 PC3 LWRP – Section 42A Report

evidence of demonstrated us will be difficult. Some discretion in how this is assessed is needed.

Policy 15.4.35

139. The common expiry date for water permits set out in Policy 15.4.35 was opposed by Horticulture NZ (V3pLWRP-308-319) on the grounds that it unfairly penalises existing users. While this may be the case, Horticulture NZ agrees that it is a useful method to manage clawback where required.

Rules 15.5.2 and 15.5.3

140. Rules 15.5.2 and 15.5.3 and the applicable consent status matrix are supported by Horticulture NZ (V3pLWRP-320-321). Notwithstanding this I note the general concerns with the effect of Var3 on horticulturalists set out in the evidence of Alastair Boyce and Jeff Bleeker for Horticulture NZ and the need to consider if the special circumstances and effects of these rural production activities should have a tailored response in the Waihao-Wainono Plains Area in terms of the flexibility cap.

Rule 15.5.4 and 15.5.7

141. Rule 15.5.4 and 15.5.7 (for Farming Enterprises) defines a Non-Complying Activity status where a farm environment plan is not prepared in accordance with Schedule 7 Part A. Horticulture NZ (V3pLWRP-322) sought a Discretionary Activity status.
142. Angela Halliday has set out the industry experience and practice Horticulture NZ has had with preparation of Farm Environment Plans around NZ. As a key method to support water quality outcomes in the South Coastal Canterbury Streams Area I support the plans approach.

Rule 15.5.5 and 15.5.8

143. The Section 42A report provides useful analysis around the use of a Prohibited Activity status. While I am sympathetic regarding the effect that Prohibited Activity status has on land users, I am of the opinion that prohibiting N loss greater than the maximum caps is appropriate in this circumstance. This submission of Horticulture NZ is predicated on the uncertainty of the science in the catchment model and I note that other submitters address this point. If the numbers in the tables are

incorrect or to be altered, then it would appear prudent to me to revisit the Prohibited Activity status.

144. I am less convinced that the Prohibited Activity status for failing to meet the Flexibility Cap in the Waihao-Wainono Plains Area is an appropriate method for the horticultural sector. These land owners are very unlikely to be motivated on their own to advance lagoon augmentation and have a minor impact on the environment in terms of nutrient leaching.

Rules 15.5.27 and 15.5.30

145. Horticulture NZ (V3pLWRP-331-332) sought the addition of the 'demonstration of efficient use' as a matter of discretion for surface or groundwater takes as Restricted Discretionary Activities. The submission was concerned that the conditions were optional. I don't read these as optional conditions and agree with the s42A report that this is sufficiently addressed in the existing conditions which need to be met.

Table 15(c) Water Quality Limits for Rivers

146. On the basis these are interim limits, changes to the table are not necessary at this time.

Vance Hodgson

25 September 2015