

Tabled at Hearing on 17 November 2015

**BEFORE THE HEARING COMMISSIONERS
AT CANTERBURY**

IN THE MATTER

of the Resource Management Act
1991 ("**RMA or the Act**")

AND

IN THE MATTER

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

AND

IN THE MATTER

of Variation 3 to the Proposed
Canterbury Land and Water Regional
Plan – South Coastal Canterbury
Streams

LEGAL SUBMISSIONS FOR HORTICULTURE NEW ZEALAND

17 NOVEMBER 2015



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MAY IT PLEASE THE COMMISSIONERS:

INTRODUCTION AND OVERVIEW

1. The essence of Horticulture New Zealand's ("**Horticulture NZ**") submission on Variation 3 ("**Var3**") to the proposed Canterbury Land and Water Plan ("**LWRP**") is that the freshwater management regime proposed for the South Coastal Canterbury Streams catchment is not the most appropriate and will not give effect to the purpose of the Resource Management Act 1991 ("**RMA**").
2. Specifically, Horticulture NZ is concerned that Var3 will have unintended adverse effects on the horticultural sector. Horticulture is not a major farming type in the area, but potatoes, yams, berries, blackcurrants and pipfruit are grown in the Waihao-Wainono Plains area, and the industry contributes to the domestic and international food supply.¹ The impacts of Var3 may render horticulturalists unable to operate in a diverse manner which enables the activities to respond to market and demands and climatic conditions with agility and flexibility. This is a catchment dominated by pastoral land use and therefore the regime proposed is focussed on managing that activity's effects to the detriment of the horticulture sector.
3. Other than recognition of horticulture in the Introduction and some other very minor changes, the changes proposed in the s42A Officer's Report ("**s42A report**") do not adequately address Horticulture NZ's concerns, and Horticulture NZ remains concerned that:
 - (a) The data upon which the Look-Up Tables and provisions of Var3 are based is inaccurate, and is not aligned to the outcomes of OVERSEER® models which will be used to measure compliance.
 - (b) The uncertainty and limitations of the science and modelling underpinning Var3, including the Look-Up Tables and OVERSEER®, and limited use of the Matrix of Good Management ("**MGM**") project means that the Commissioners should:
 - i. Be cautious in over-applying rules that could have serious economic consequences and no proven environmental benefits;

¹ EIC Angela Halliday for Horticulture NZ at paragraphs [8] to [25]; EIC Donald Butler for Horticulture NZ at paragraphs [5] to [7].

- ii. Include sufficient flexibility in the provisions to cater for this uncertainty;
 - iii. Establish Var3 as an interim measure and include provisions to allow Var3 to be amended in the future once further information is available.
- (c) Var3 does not provide for sufficient land use flexibility for rotational cropping as it imposes nitrogen loss leaching limits based on a particular use of land at a particular time.
- (d) Water transfers where the quantity of water abstracted does not change are not provided for in the rules.
4. It is noted that the Commissioners have directed caucusing (Minute 2, dated 10 November 2015), which Horticulture NZ has expressed its interest at being involved in.

Overview of Horticulture New Zealand

5. On behalf of its 5,454 active grower members Horticulture NZ takes a detailed involvement in resource management planning processes as part of its National Environmental Policies. Horticulture NZ works to raise growers' awareness of the RMA to ensure effective grower involvement under the Act, whether in the planning process or through resource consent applications. The principles that Horticulture NZ considers in assessing the implementation of the RMA include:
- (a) The effects based purpose of the RMA;
 - (b) Non-regulatory methods should be employed by councils;
 - (c) Regulation should impact fairly on the whole community, make sense in practice, and be developed in full consultation with those affected by it;
 - (d) Early consultation of land users in plan preparation; and
 - (e) Ensuring that RMA plans work in the growers interests both in an environmental and sustainable economic production sense.
6. Late last year the Horticulture NZ Board adopted a set of principles in relation to the allocation of nutrients on production land. These are attached as **Appendix 1.**² These principles

² See also at <http://www.hortnz.co.nz/assets/Uploads/hortnz-nutrient-allocation-principles-2014.pdf>

provide the framework that Horticulture New Zealand uses to make submissions on resource management plans and policy.

Horticulture New Zealand Evidence

7. Horticulture NZ is calling evidence from the following six witnesses:
 - (a) **Angela Halliday** – Advisor, Natural Resources and Environment with Horticulture NZ. Ms Halliday provides an overview of horticulture in the Canterbury region and in the South Coastal Canterbury Streams catchment. She also outlines the main issues for horticulture under Var3 – the constraints on land use flexibility, and the issues and uncertainties in the rules.
 - (b) **Stuart Ford** – Agricultural and Resource economist and Director of the AgriBusiness Group. Mr Ford provides expert analysis of the cost of Var3 to the horticultural sector in the Canterbury region and concludes that data on which the Lookup Table is based is highly theoretical, inaccurate and an inappropriate basis for the Table.
 - (c) **Vance Hodgson** – planner with Hodgson Planning Consultants. Mr Hodgson's evidence in chief provides a planning assessment of the provisions on which Horticulture New Zealand submitted and addresses the s42A report.
 - (d) **Donald Butler** – Co-owner and -operator of Butler's Fruit Farm. Mr Butler describes the importance of clean water supply to berry production.
 - (e) **Alistair Boyce** – Co-owner of Woodland Farms Partnership. Mr Boyce describes his unirrigated yam operation, and provides a case study of the impact of Var3 on restricting the projected growth of his operation.
 - (f) **Jeff Bleeker** – Director of Bleeker Farms. Mr Bleeker provides a case study of the impact of Variation 3 on his operation, particularly in respect of being tied to 2009-2013 N-leaching levels, given the rotational and regularly changing nature of his land use.

LEGAL FRAMEWORK AND SPECIFIC LEGAL ISSUES

8. In this section I set out Horticulture NZ's views on the relevant legal framework before turning to consider two specific legal issues raised in the s42A report – the Matrix of Good

Management ("**MGM**") Project; and the legality of rules which have the effect of prohibiting the transfer of water permits.

Legal framework

9. The legal framework has been set out in some detail in section 6 of the s42A report (and presumably has been and/or will be in the legal submissions for other parties).
10. Horticulture NZ generally agrees with the s42A description of that framework but wishes to elaborate on two matters, notably:
 - (a) The interrelationship of the National Policy Statement for Freshwater Management ("**NPSFM**") and the New Zealand Coastal Policy Statement ("**NZCPS**") in light of the decision of the Supreme Court in *King Salmon*³; and
 - (b) Whether it is permissible to take an 'unders and overs' approach to water quality.

Interrelationship NPSFM, NZCPS and King Salmon

11. I agree with the s42A report that the overall judgement approach and Part 2 still have validity in considering how Var3 should give effect to the NZCPS and the Regional Policy Statement ("**RPS**") where there is uncertainty or those documents do not 'cover the field'.⁴
12. Moreover I agree that although the NPSFM may not in this case 'cover the field' as it "is not concerned with enabling activities that require water", the RPS does address this issue.⁵ The s42A report refers specifically to RPS Policy 5.3.12 - Rural Production, which Horticulture NZ supports [noting that the s42A report only references sub-policy (3) and not enabling sub-policy (2)]:

"Maintenance and enhance natural and physical resources contributing to Canterbury's overall rural productive economy in areas which are valued for existing or foreseeable future primary production, by:

...

(2) enabling tourism, employment and recreational development in rural areas provided that it ...; and

(3) ensuring that rural land use intensification does not contribute to significant cumulative adverse effects on water quality and quantity.

³ *Environmental Defence Society Incorporated v New Zealand King Salmon Company Limited* [2014] NZSC 38.

⁴ Refer s42A report at paragraphs [6.33] to [6.47].

⁵ Refer s42A at paragraphs [6.44] to [6.47].

Principal reasons and explanation

"The rural productive base of Canterbury is essential to the economic, cultural and social well-being of its people and communities. Enabling the use of natural and physical resources to maintain the rural productive base is a foreseeable need of future generations. ..."

13. I would also specifically note that the NPSFM is not written in the same directive language as the NZCPS. So while, ECan is required to set limits and targets under the NPSFM, the determination of what those targets are and when they need to be achieved by is to be guided by s 32. ECan has, in part, set the timeframe for the South Coastal Canterbury Area as 2025.⁶
14. In terms of s 32, it is my submission that the appropriateness of the provisions of Var3 (in achieving the objectives of the NPSFM and RPS) has to be assessed in the round which includes a consideration of all relevant factors including economic factors and employment. Horticulture NZ's position is that Var3 does not currently do this specifically for horticulture, for the reasons given later in these submissions.

Legitimacy of 'unders and overs' approach

15. The s42A report correctly notes⁷ that in the *Ngati Kahungunu*⁸ case the Environment Court determined that an 'unders and overs' approach to water quality is not permissible, and it is noted that a similar determination was made by a differently constituted Environment Court in *Sustainable Matatā v Bay of Plenty Regional Council* [2015] NZEnvC 90. However, Horticulture NZ submits that the Commissioners should be cautious about regarding that decision as the final word. This is because:
 - (a) Context is everything.
 - (b) Each case must be decided by reference to the relevant facts and legislative context applying to the circumstances of the case at the particular time.
 - (c) A decision of one division of the Environment Court does not bind another division, and different divisions of the Court can and do make different decisions on issues. Decisions of the Environment Court are not binding on this Commissioner Panel.

⁶ S42A Report at paragraph [6.96].

⁷ Paragraphs [6.100] to [6.101].

⁸ *Ngati Kahungunu Iwi v Hawkes Bay Regional Council* [2015] NZEnvC 50.

- (d) A differently constituted bench of the Environment Court in *Puke Coal*⁹ effectively found that in the context of that case total avoidance of degradation was not required but instead that each application had to show real benefit to the river in proportion to the impact of the proposal.¹⁰
- (e) The function of a regional council to maintain and enhance water quality of waterbodies¹¹ is not "unqualified",¹² but rather sits alongside the rest of the Act. Notably, the use of s30 RMA as a basis for a strict (and arguably unworkable) interpretation of Objective A2 ignores the proviso contained in s69(3) RMA:

69 Rules relating to water quality

...

(3) Subject to the need to allow for reasonable mixing of a discharged contaminant or water, a regional council shall not set standards in a plan which result, or may result, in a reduction of the quality of the water in any waters at the time of the public notification of the proposed plan **unless it is consistent with the purpose of this Act to do so.** [Emphasis added]

- 16. Therefore, in my submission, until there has been a definitive ruling on this issue by a superior court or such clarification has been provided through a legislative amendment, an unders and overs approach remains available but its appropriateness must be assessed in the context of the particular case.
- 17. In any event, and subject to the specific submissions made by Horticulture NZ, I generally agree with the officer's assessment that Var3 is designed to partially give effect to the NPSFM, with a review being required in time.¹³
- 18. This partial effect has caused Horticulture NZ some concern, as set out in the evidence of Vance Hodgson.¹⁴ A piecemeal approach to implementation of the NPSFM has somewhat overlooked the values of Māhi Mara/Cultivation, and has partially implemented methods relating to Good Management Practice ("**GMP**") without fully understanding the costs.

⁹ *Puke Coal Ltd v Waikato Regional Council* [2014] NZEnvC 223.

¹⁰ *Ibid*, at paragraph [92].

¹¹ S30(1)(c)(ii), RMA.

¹² As stated to be in s42A Report at paragraph [6.101].

¹³ Paragraphs [6.140] to [6.142].

¹⁴ EIC Vance Hodgson for Horticulture NZ, at paragraphs [26] to [32].

Matrix of Good Management Project

19. The s42A Report considers that the MGM project, subject to Plan Change 5, will be incorporated into the Var3 area by way of a future review or plan change.¹⁵
20. However, although the report writers consider that the MGM Project has not yet influenced Var3, in fact methods related to GMP have been incorporated somewhat into Var3.¹⁶
21. Thus, the situation is not as clearcut as the s42A Report makes out. The link between the MGM methods as incorporated in Var3 and the outcomes which are still being produced in the MGM Project is crucial and has not been assessed in the s42A report.

Legality of prohibition on water permit transfers

22. The s42A report assesses the legality of both prohibited activity status¹⁷ (in response to Ravensdown), and the application of this status to water transfers.¹⁸
23. In response to submissions from Horticulture NZ, Federated Farmers, Fonterra and Dairy NZ, the officers in the s42A report conclude that Council is entitled to include such provisions (planning merits aside) on the basis that:
 - (a) A transfer application under s136(2)(b)(ii) is not guaranteed to be granted;¹⁹
 - (b) As the intention of s136 is that transfer applications be treated 'as if' they are resource consent applications, it is appropriate for a regional plan to provide for circumstances in which such applications are treated 'as if' they are a certain class or type of activity; and
 - (c) Council can include such rules under s 68(1) as considering applications for the transfer of water permits is a function under the Act.
24. At face value, all of these points are correct. There is no guarantee that a site to site transfer application will be granted and rules can be included in a plan that provide for the activity status and assessment matters in relation to such transfers.

¹⁵ S42A Report at paragraph [6.251].

¹⁶ EIC Vance Hodgson for Horticulture NZ, paragraph [32].

¹⁷ S42A Report at paragraphs [6.252] to [6.254].

¹⁸ S42A Report at paragraphs [6.259] to [6.274].

¹⁹ S42A Report at paragraphs [6.270] to [6.274].

However, I submit that extreme care needs to be taken before accepting that transfers can be prohibited as a matter of law.

25. Section 136 clearly enables an application to be made for a transfer and sets out the process by which such a transfer will be assessed. A counter argument to the Council's approach is that as a matter of general statutory interpretation, where an activity is expressly provided for by the enabling statute there is no ability for a subordinate piece of regulation to overrule that enabling provision.
26. This interpretation is reinforced when the sustainable management purpose of the Act is considered.²⁰ Enabling water transfers gives effect to the sustainable management purpose of the Act as it allows the most efficient use to be made of the scarce water resource.
27. Having said this, no legal argument was made in relation to the 'claw back' transfer provisions in Variation 1 whereby 50% of the water was to be surrendered on transfer.
28. I also acknowledge that in the *Coromandel Watchdog* case,²¹ restriction of allocation of resources (in that case aquaculture) was one of the examples provided to the Court of Appeal of an activity which may be appropriate for prohibited activity status.²² However the Court, while acknowledging that some of the examples may be appropriate for prohibited activity status, did not specifically rule on that point, and therefore in my view the question about the vires of such an activity status remains live.
29. I raise this as a legal matter as no doubt you will be hearing from others on this issue. Horticulture NZ's substantive position is that site to site transfers are appropriate to be considered as part of the mix of tools available to users and the Council when dealing with a scarce and over-allocated resource, and should extend to all resource users, not merely community water supplies.²³ Largely prohibiting such transfers provides no opportunity to consider the merits of a transfer application on a case-by-case basis. I address the issue of what is the appropriate classification for water transfers in Var3 in the next section.

²⁰ Consideration of the text and purpose of the Act is one of the key principles of interpretation of legislation as set out in s 5 of the Interpretation Act 1999.

²¹ *Coromandel Watchdog of Hauraki Inc v Chief Executive of the Ministry of Economic Development* [2008] 1 NZLR 562.

²² *Coromandel Watchdog* at paragraph [34(e)].

²³ EIC Vance Hodgson for Horticulture NZ at paragraphs [110], [111].

30. In regards to caps, Mr Hodgson considers that in the circumstances a Prohibited Activity status may be appropriate for exceedance of Maximum Caps, so long as the science is certain.²⁴ Given the uncertainty of the science in the catchment model, as illustrated by Mr Ford, recalculation of the values would be required to reflect more accurate data before the Prohibited Activity status would be acceptable. However, Mr Hodgson does not hold this opinion for the Flexibility Cap in the Waihao-Wainono Plains area, as growers will not be motivated to adhere to the limit and would sooner relocate their operations, decreasing land use diversity and the productivity of the regional economy.²⁵ The flexibility cap is discussed in more detail later in these submissions.

HORTICULTURE NEW ZEALAND KEY CONCERNS AND PROPOSED AMENDMENTS

31. In this section I outline:
- (a) The key concerns that Horticulture NZ has with Var3; and
 - (b) The general thrust of the amendments Horticulture NZ proposes to deal with those concerns.
32. Further details of Horticulture NZ's position on the issues and the amendments are set out in the evidence in chief of Mr Hodgson.

Key areas of concern

33. The key areas of concern are:
- (a) Uncertainties and issues with science and modelling, particularly MGM and OVERSEER®;
 - (b) Land use flexibility;
 - (c) Farming Enterprise Systems and Nutrient User Groups;
 - (d) Water transfers; and
 - (e) Clarity of the Plan.
34. Mr Hodgson sets out in his evidence a step by step of the rules which apply in practice to a horticulture operation in the South Coastal Canterbury area outside of an irrigation scheme.²⁶ The problems and anomalies encountered are as follows:

²⁴ EIC Vance Hodgson for Horticulture NZ at paragraph [143].

²⁵ EIC Vance Hodgson for Horticulture NZ at paragraphs [143] to [144].

²⁶ EIC Vance Hodgson at paragraphs [50] to

- (a) To identify the nutrient baseline and nitrogen loss calculations: Not all crops are modelled in OVERSEER; outputs of versions of OVERSEER vary; and four years' worth of data is required.
 - (b) No permitted or controlled activity statuses apply in regards to nitrogen loss from Farming Enterprises or Nutrient User Groups, even if the operation has a low nutrient loss calculation;
 - (c) Land under 5ha is a permitted activity, but low-leaching horticultural activities are not;
 - (d) While 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, however 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 merely need to meet relevant maximum cap by 2030.
 - (e) A key matter of discretion in Rule 15.5.3 is whether the activity will cause total catchment nitrogen loads to be exceeded, which requires good quality information within a science and model understood to be unreliable;
35. It is noted that the s42A Report recommends a Discretionary Activity status (rather than a Prohibited Activity status) for activities outside of irrigation schemes, Farming Enterprises or Nutrient User Groups,²⁷ and this is supported by Mr Hodgson.²⁸

Uncertainties and issues with science and modelling

36. The ZIP Committee struggled with how to make Var3 a 'living document' given impending updates to OVERSEER; the uncompleted MGM Project; and uncertainty over augmentation. It is Horticulture NZ's position that these issues remain unresolved²⁹ with the potential to cause serious adverse effects to horticultural operations, and that there are additional issues in respect of the science and modelling underpinning Var3:
- (a) Interaction with the MGM Project;

²⁷ S42A Report, New Rule 15.5.4A, at paragraphs [10.208], [10.209], [10.214].

²⁸ EIC Vance Hodgson for Horticulture NZ at paragraph [68].

²⁹ EIC Vance Hodgson for Horticulture NZ at paragraphs [45] and [46].

- (b) OVERSEER Limitations and Version Control;
- (c) Disparity between OVERSEER and the Look-Up Tables;
- (d) Accuracy of soil mapping.

MGM

37. Horticulture NZ sought that the Council amend and completely review the Variation once the MGM project is complete, and ensure that the use of MGM is both reasonable and practical, and consistent with the new versions of OVERSEER®.³⁰
38. A number of submitters have raised similar concerns.
39. The s42A Report considers that:
 - (a) The purpose of the MGM Project was to inform changes to the region-wide nutrient management provisions, and was separate from the CIP Addendum produced for the South Coastal Canterbury Area. As such, Plan Change 5 may not be appropriate to address the specific issues in the Var3 area.³¹
 - (b) There are arguments both for and against delaying the process in the interim until more information is known about the MGM project presently underway and how the methods set out in PC3 may be applied to the NMPC framework.³²
 - (c) However, withdrawing the substance of the nutrient management provisions until the MGM Project is complete would fail to set out a path to achieve the outcomes for the South Coastal Canterbury Area as sought by the Zone Committee and supported by many submitters.³³
40. Horticulture NZ appreciates the indication that the results of the MGM Project are likely to be incorporated into Var3 in time. However, Horticulture NZ remains concerned that the partial introduction of MGM methods, without understanding their full costs, may have serious effects in the interim.

OVERSEER

41. Although Horticulture NZ supports OVERSEER and its development, it is Horticulture NZ's view that OVERSEER is a 'work in progress' system, rather than a reliable tool with known

³⁰ Horticulture NZ, V3pLWRP-274

³¹ S42A Report at paragraphs [10.21] to [10.22].

³² S42A Report at paragraph [10.26].

³³ S42A Report at paragraph [10.27].

accuracy.³⁴ In particular, the accuracy of the model in regards to horticulture is not known.

42. Horticulture NZ sought that there was adequate flexibility in the use of OVERSEER in Var 3, given the limitations of its use.³⁵
43. OVERSEER is particularly limited for horticultural crops for the following reasons:
 - (a) The programme does not take particularly well to rotations of crops as it is not possible to model sequential planting and harvesting of a paddock with the outputs averaged monthly.³⁶ As set out in the evidence of the growers,³⁷ horticultural land use is ever changing to suit market pressures, and to maintain soil quality, but this cannot be shown in OVERSEER.
 - (b) The MGM project has been focussing on vegetable and arable cropping rotations, but the results of this project will not be available for use in Var3.³⁸
 - (c) Some crops, such as blackcurrants, cannot be modelled in OVERSEER, and a surrogate crop must be selected to represent them.³⁹
44. These limitations mean that OVERSEER does not produce an accurate measurement of the nitrogen output of horticultural cropping. Horticulture NZ seeks that given the low leaching and difficulty in modelling fruit crops, these crops are excluded from being limited by unrepresentative OVERSEER baselines and reports until such time as OVERSEER can adequately model these, and in the interim to use an alternative such as SPASMO.⁴⁰
45. Version control of OVERSEER is an ongoing complexity. Ms Halliday has detailed the extent of disparities between different versions of the programme in her evidence.⁴¹

³⁴ EIC Stuart Ford for Horticulture NZ at paragraphs [5.1] to [5.5].

³⁵ Horticulture NZ V3pWRP-273

³⁶ EIC Angela Halliday for Horticulture NZ at paragraph [33].

³⁷ EIC Jeff Bleeker for Horticulture NZ at paragraph [12]; EIC Alistair Boyce for Horticulture NZ at paragraph [11]; EIC Donald Butler for Horticulture NZ at paragraph [2].

³⁸ EIC Angela Halliday for Horticulture NZ at paragraph [30].

³⁹ EIC Angela Halliday for Horticulture NZ at paragraph [30], [34].

⁴⁰ EIC Angela Halliday for Horticulture NZ at paragraphs [35] to [36].
NB 'SPASMO' stands for the 'Soil Plant Atmosphere System Model'.

⁴¹ EIC Angela Halliday for Horticulture NZ at paragraphs [38] and [39].

46. In particular, Var3 has not been updated from version 6.0 to version 6.2 except for one change.⁴² Extensive changes have been made between these versions, causing Var3's data to be out of date. In Ms Halliday's words:

[43] ... To lock in these numbers when the knowledge base and technical capacity to define soil, climate, plant and biophysical characteristics is developing is not a good proactive solution to the issues facing the catchment and the community, and will not help when implementation of the plan in terms of regulation and compliance is required in a practical on-farm setting.

Disparity between Look-Up Table values and values derived from OVERSEER

47. Horticulture NZ is concerned with a disparity between the data used in the Look-Up Table for Var3 and the data obtainable through the latest version of OVERSEER.
48. The values in Var3 are based upon the Lookup Table Report which was used to determine a range of Nitrogen loss factors. At the time it was initiated in 2007, the analysis was based on what could be modelled in a range of programmes (such as LUCI09 and SPASMO), and the other land uses and soil types filled in. However, the Report was not updated to reflect the vegetable and arable models once OVERSEER v6.0 was available (and used) in 2013.⁴³
49. Mr Ford's evidence sets out in detail his concerns with the basis of the data underpinning Var3.⁴⁴ In summary Mr Ford's concerns are:⁴⁵
- (a) The narrow base of OVERSEER models (and the number of modelled farming systems) actually used;
 - (b) The use of extrapolation factors across other land uses and soil types with little or no explanation of the factors that were used in determining the relationships, particularly the lack of any scientific explanation for the choices made;
 - (c) The apparently very outdated assumptions made in the setup of the OVERSEER land use models;
 - (d) The comparability of the LUCI09 and SPASMO results with OVERSEER.

⁴² EIC Angela Halliday for Horticulture NZ at paragraph [42].

⁴³ EIC of Stuart Ford for Horticulture NZ at paragraphs [4.3] to [4.4].

⁴⁴ EIC Stuart Ford for Horticulture NZ at paragraphs [4.1] to [4.23].

⁴⁵ EIC Stuart Ford for Horticulture NZ at paragraph [4.24].

50. The evidence of Mr Ford shows how the majority of land uses in place now in the area are already leaching more than will be allowed by Var3 in terms of both the flexibility cap and the maximum cap. Essentially, this compromises the Assessment of Environmental Effects which informed the ZIP limit setting process.⁴⁶ It is noted that Mr Chris Hansen for Ravensdown supports Mr Ford's evidence in this respect.⁴⁷

51. As was found by the s42A Report in regards to OVERSEER version control,⁴⁸ changes should be taken into account when testing exceedances:⁴⁹

"In the circumstances described above I consider the best available option is to provide for a new policy in PC3 that references how the catchment loads in Table 15(p) were calculated and acknowledges that OVERSEER® version changes should be taken into account when testing exceedance of the load limits."

52. It is Horticulture NZ's view that the same concern – ie that the best possible data ought to be used, applies to the Look-Up Table. Were more accurate forms of modelling used, the data would be vastly different.⁵⁰

53. Mr Ford has modelled the differences, with examples of berryfruit, pipfruit, yams and potatoes⁵¹ and finds that:⁵²

- (a) The majority of horticultural growers have not been considered in the ZIP or NARG analysis; and
- (b) N leaching of growers has been seriously underestimated because of the theoretical nature of the Look-Up Table, so that the concept of low-emitters being able to intensify to the flexibility cap is actually a fiction as these growers already exceed the flexibility and maximum cap values set in Var3. This was not an outcome analysed by the ZIP or NARG groups, and as such the conclusions reached by those groups were seriously misinformed and wrong.

Accuracy of Soil Mapping

54. Horticulture NZ has sought that the soil maps are amended and the nutrient limits recalculated based on a revised data set.⁵³ Var3 is based on a 2013 data set, since which, as is noted in the

⁴⁶ EIC of Stuart Ford for Horticulture NZ at paragraphs [6.1] to [6.9].

⁴⁷ Rebuttal Evidence of Chris Hansen for Ravensdown, at paragraphs [18] to [19].

⁴⁸ S42A Report at paragraphs [10.41] to [10.42].

⁴⁹ S42A Report at Appendix 2 – Technical Memoranda of Ned Norton, at page 304.

⁵⁰ EIC Stuart Ford for Horticulture NZ at paragraph [4.24].

⁵¹ EIC Stuart Ford for Horticulture NZ at paragraphs [7.2] to [7.11].

⁵² EIC Stuart Ford for Horticulture NZ at paragraphs [7.12] to [7.16].

⁵³ Horticulture NZ V3pLWRP-272.

ECan Var3 Questions and Answers, there has been “a significant update in the way a key soil property (Profile Available Water) is calculated”.⁵⁴

Summary in Regards to Data and Modelling

55. Horticulture New Zealand is keen to ensure that the Var3 provisions are realistic and workable for its growers in the interim period and this requires:
- (a) Deriving the models underpinning the rules from the same programme as will be used to measure compliance, and ensuring that this is the most robust and accurate data available;⁵⁵
 - (b) Being cognisant of the limitations of the models (particularly in relation to horticulture⁵⁶) and the impacts this may have in modelled outcomes;⁵⁷
 - (c) Adopting a precautionary approach to lower leaching activities, not only in relation to adverse environmental effects, but also to adverse economic and social effects;⁵⁸
 - (d) Providing sufficient flexibility in the planning framework to take these limitations into account, particularly for lower leaching growers who are not part of Nutrient User Groups or irrigation schemes.⁵⁹
56. Essentially, Horticulture NZ seeks that the values underpinning Var3 are recalculated in accordance with OVERSEER v6.2. Further details of the types of changes needed to address these concerns, in regards to crops which cannot be modelled in OVERSEER in particular, are set out in the evidence of Mr Hodgson.⁶⁰

Land use flexibility

57. The importance of retaining a sufficient degree of land use flexibility to horticulture cannot be overstated, and has been

⁵⁴ <http://ecan.govt.nz/our-responsibilities/regional-plans/lwrp/v3/Pages/faqs.aspx>

⁵⁵ EIC Stuart Ford at paragraphs [6.1] to [6.9].

⁵⁶ EIC Stuart Ford at paragraphs [7.1] to [7.16].

⁵⁷ EIC Angela Halliday for Horticulture NZ at paragraph [43].

⁵⁸ EIC Vance Hodgson for Horticulture NZ at paragraph [85].

⁵⁹ EIC Vance Hodgson for Horticulture NZ at paragraphs [50] to [68]; EIC Angela Halliday for Horticulture NZ at paragraphs [44] to [49].

⁶⁰ EIC Vance Hodgson for Horticulture NZ at paragraphs [69] to [85].

raised in all of the statements of evidence for Horticulture New Zealand.⁶¹

58. Horticulture within the South Coastal Canterbury area is generally part of a mixed farming system, where crops are grown on rotation, together with silage, and sheep and/or beef.⁶² This means that farmers/growers will often seek to change the mix and types of crops in response to market and other conditions so that the best most productive use can be made of their land.
59. The proposed framework lacks the flexibility for land uses, and lacks recognition of the rotational nature of some horticultural operations,⁶³ for the following reasons:
 - (a) The provisions of Var3 would significantly constrain the ability of farmers/growers to achieve the allocative efficiencies afforded by rotational cropping as it would impose nitrogen loss leaching limits based on a particular use of their land at a particular time, namely the period between 1 July 2009 and 30 June 2013.
 - (b) As the limits do not permit any exceedance, growers would essentially be locked into the current mix of uses, even though these uses may not be economic or efficient.
 - (c) Given most horticultural uses in this catchment are either low leaching or have an extremely small footprint as compared to other uses, the imposition of such a limit is inequitable and penalises low leaching activities at the expense of higher leaching operations.
 - (d) The impact of a recalculation of the flexibility cap values for horticulture (between OVERSEER Versions 6.0 and 6.2, and in some cases LUCI90, SPASMO, or approximations) is not known. For lower leaching activities a conservative approach should be adopted not only in terms of adverse environmental effects but adverse economic and social effects.⁶⁴

⁶¹ See for example: EIC Donald Butler at paragraph [2]; EIC Jeff Bleeker at paragraphs [11] to [13]; EIC Alistair Boyce at paragraphs [11] and [21].

⁶² See for example: EIC Vance Hodgson at paragraph [78]; EIC Angela Halliday at paragraph [25]; EIC Stuart Ford at paragraphs [8.3] to [8.7]; EIC Donald Butler at paragraph [2]; EIC Jeff Bleeker at paragraphs [11] to [13]; EIC Alistair Boyce at paragraphs [11] and [21].

⁶³ EIC Vance Hodgson for Horticulture NZ at paragraphs [69] to [85].

⁶⁴ EIC Vance Hodgson for Horticulture NZ at paragraph [85].

60. A restriction on land use flexibility will have adverse economic consequences on growers and the local economy.⁶⁵ Horticulture is decreasing across the country and it is of key concern to Horticulture NZ to maintain the ability and potential for horticultural operations in the catchment.⁶⁶
61. Horticulture New Zealand has therefore requested a series of changes to the Var3 provisions to ensure that this land use flexibility is able to be maintained. This includes provisions to allow for change in land use, an increase in the nutrient baselines to 15kg per hectare per year (and 17kg with augmentation), amending the definitions of 'existing farming activity', 'new farming activity' and 'baseline land use', and amendment to the activity status of a number of rules. The detail of these amendments is set out in the evidence of Mr Hodgson.⁶⁷
62. It is noted that the decisions on Variation 1 Selwyn-Waihora included farming enterprises in the definition of baseline land use, and this was also sought by Horticulture NZ for Variation 2 Hinds.
63. Horticulture NZ has two specific concerns in relation to the flexibility cap proposed for the Waihao-Wainono Plains area:
 - (a) The Prohibited Activity status for breaching the cap; and
 - (b) The impact of the current cap value on low-leaching horticultural operations.

Prohibited Activity Status

64. Mr Hodgson does not consider that 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.⁶⁸
65. The s42A Report does not agree:

"10.269 While the prohibited activity status afforded to Rule 15.5.8 (non-compliance with conditions 2, 3 or 4 in Rule 15.5.9) does appear to be restrictive, I believe that the purpose of the prohibited activity status, in this instance, is to:

⁶⁵ EIC Stuart Ford for Horticulture NZ at paragraphs [8.1] to [8.7].

⁶⁶ EIC Angela Halliday for Horticulture NZ at paragraphs [44] to [45].

⁶⁷ EIC Vance Hodgson for Horticulture NZ at paragraphs [87] to [109].

⁶⁸ EIC Vance Hodgson for Horticulture NZ at paragraph [144].

a. ensure that the N loss allowance does not exceed the limits set out in the plan, and

b. provide clear guidelines on who may form a Farming Enterprise (i.e. those located within the same Surface Water Allocation Zone and does not include anyone who is part of an Irrigation Scheme).

10.270 I believe it is important to retain the prohibited activity status to protect the integrity of the consent process for an application for the use of land that forms part of a Farming Enterprise."

66. The comment in the report may be valid for the primary production land use in the catchment (though other submitters have raised doubt in this regard), but for horticulture it is not the appropriate response and will likely see horticulture eventually not being undertaken in this area.

Impact of the Current Cap on Growing Operations

67. In addition, Mr Hodgson notes that it may be appropriate to provide a tailored flexibility cap response to growers in the Waihao-Wainono Plains area,⁶⁹ given the concerns expressed in the evidence of Messrs Bieker and Boyce that the proposed flexibility cap will severely restrict current and projected growth of horticultural operations.⁷⁰
68. Horticulture NZ would support moving the flexibility cap in the Waihao-Wainono Plains Area to 15kg/N/ha/yr now and 17 kg/N/ha/yr with augmentation. It is Mr Hodgson's view that 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.⁷¹
69. In particular, while supporting the augmentation of the Wainono Lagoon, Horticulture is concerned that there is uncertainty as to what the augmentation will achieve and when the augmentation will occur.
70. Using an uncertain timeframe as a threshold which limits the ability of growers to intensify or even continue to operate their farms is considered inappropriate. The tool purports to apply a polluter pays principle, but the threshold applies not matter what the leaching rate of an individual operation.
71. To address the uncertainty and import the precautionary principle not only in relation to adverse environmental effects, but also to adverse economic and social effects, Horticulture NZ

⁶⁹ EIC Vance Hodgson for Horticulture NZ at paragraph [140].

⁷⁰ EIC Jeff Bleeker at paragraph [14]; EIC Alistair Boyce at paragraphs [19] and [20].

⁷¹ EIC Vance Hodgson at paragraph [102].

seeks the opportunity for lower leaching activities to access the threshold which is set to come available upon augmentation of the Wainono Lagoon, now instead.

Farming Enterprise Systems and Nutrient User Groups

72. Mr Hodgson is of the view that there appears to be no reason why a more permissive activity status could not be adopted for Farming Enterprise Systems and Nutrient User Groups, to provide for nutrient sharing. This is particularly the case as the environment effects of nutrient management are clearly understood.⁷²
73. A Farming Enterprise comprised of properties not in the same Surface Water Allocation Zone is a Prohibited Activity.⁷³

Water transfers

74. Var3 limits the transfer of water permits to community water supplies only. Horticulture NZ sought the extension of this method to all users.
75. Mr Ford sets out the importance of irrigation to horticultural crops, and his view that horticultural irrigators should be treated differently to other irrigators as their reliance on irrigation is much greater.⁷⁴
76. The s42A report recommends an addition to Policy 15.4.3 to enable transfer where the transfer cannot occur where this proposes an increase in the total rate or volume of water abstracted, as striking a balance between managing allocation and efficiency and taking a conservative approach to enabling the transfer of groundwater in the area.⁷⁵ This is a different formulation than submitted by Horticulture NZ, but is supported.⁷⁶
77. However, no consequential change has been made to Method 15.5.39. The Horticulture NZ formulation is rejected in the report,⁷⁷ but a change to align with the Policy amendment has been

⁷² EIC Vance Hodgson for Horticulture NZ at paragraph [135].

⁷³ EIC Vance Hodgson for Horticulture NZ at paragraph [56].

⁷⁴ EIC Stuart Ford for Horticulture NZ at paragraphs [9.1] to [9.14]; EIC Donald Butler for Horticulture NZ at paragraphs [3] and [7].

⁷⁵ S42A Report at paragraphs [2.124] and [12.126].

⁷⁶ EIC Vance Hodgson for Horticulture NZ at paragraphs [110] to [111].

⁷⁷ S42A Report at paragraph [12.277] in regards to Horticulture NZ Submission V3pLWRP-333.

overlooked.⁷⁸ Changes have been made to Method 15.5.40, which has been replaced by two methods:

Rule 15.5.40

The permanent or temporary transfer of a water permit is to be considered as if it is a discretionary activity where the following condition is met:

1. The total volume of water retained and transferred does not exceed:

(i) For irrigation takes, the lesser of the volume of water which is reasonable for the existing land use for the transferor, calculated in accordance with Schedule 10 or the volume which the permit holder has demonstrated that they have abstracted on average each year over the last two years;

(ii) For other takes, the lesser of the volume which is reasonable for existing end use or the volume which the permit holder has demonstrated that they have abstracted on average each year over the last two years.

Rule 15.5.40A

The permanent or temporary transfer of water permits which does not comply with Rule 15.5.40 is a prohibited activity.

78. Horticulture NZ supports the change from Prohibited Activity status to Discretionary Activity status. However, it is considered that Discretionary Activity status is still a tough threshold, and that concerns could be equally met by a Restricted Discretionary status as well as providing crucial certainty for water users such as growers.
79. It is essential that the ability to transfer water permits is enabled, and keeping the transfers within the allocated levels ensures water quality goals are not compromised.

Clarity of the Plan

80. Horticulture NZ sought a minor amendment in section 15.3 Freshwater Outcomes, to clarify whether the outcomes were considered to be 'objectives' including for the purposes of the NPSFM.⁷⁹ The s42A Report provides clarification and Horticulture NZ supports the proposed change.⁸⁰
81. Horticulture NZ also sought clarification as to whether the values in Tables 15(a) and 15(b) are intended as targets under the

⁷⁸ S42A Report at paragraph [12.278].

⁷⁹ Horticulture NZ V3pLWRP-291.

⁸⁰ S42A Report at paragraph [9.13].

NPSFM, and as to how the two Tables will be updated.⁸¹ The s42A Report confirms that the values are targets or limits depending upon whether the threshold has been exceeded, and that the Table would need to be amended by way of a Plan Change.⁸²

Resolved Matters Following the Section 42A Report

82. There are a number of submissions sought by Horticulture NZ which have been addressed in the s42A Report, and Horticulture NZ supports the approach taken on these matters. These are set out in the evidence of Mr Hodgson.⁸³
83. In its submission, Horticulture NZ sought an addition to the Introduction to more appropriately recognise the horticultural activity that occurs in the plains of the South Coastal Canterbury Streams catchment Area. The horticulture sector in the area is small but nonetheless important to horticultural production in Canterbury, and providing diversity in the rural economy. Horticulture New Zealand is pleased that the s42A report has proposed adding a paragraph to the introduction section to recognise the importance of agriculture and horticulture and is happy with the wording proposed.⁸⁴

Submissions Not Pursued: Crop Survival Water

84. On further reflection, Horticulture NZ has chosen not to pursue its submissions on crop survival water.
85. In its submission, Horticulture New Zealand sought the inclusion of specific provisions to provide for crop survival water – i.e. to allow for water to be able to be taken during restrictions to enable capital root stock and food crops to be maintained.⁸⁵ The s42A report rejects Horticulture New Zealand's request for crop survival water.⁸⁶
86. However, on the basis of the nature and size of the growing operations in the area, Horticulture NZ chose not to commission technical studies to back up the necessity or otherwise of any crop survival water provision, as Horticulture NZ had done in

⁸¹ Horticulture NZ V3pLWRP-336; V3pLWRP-337.

⁸² S42A Report at paragraphs [9.23] to [9.25]; and [9.40].

⁸³ EIC Vance Hodgson at paragraphs [112] to [146].

⁸⁴ S42A Report at paragraph [8.27(v)].

⁸⁵ Submission Points V3pLWRP-275, V3pLWRP-276, V3pLWRP-277, V3pLWRP-278, V3pLWRP-279.

⁸⁶ S42A Report, at paragraphs [12.168] to [12.169].

Variation 1 Selwyn-Waihora and Variation 2 Hinds. Horticulture NZ is not pursuing these submissions for those reasons.

CONCLUSION

87. In conclusion, the key for Horticulture New Zealand is to ensure that Var3 is amended so that it is as robust and accurate as possible and is fit for purpose for horticulture.
88. As Var3 currently stands, it has not accounted for the fact that the values set for the flexibility and maximum caps mean that the majority of horticultural land users would have to reduce their operations immediately, rather than intensify up to the flexibility cap as was envisaged.

DATE: 17 November 2015

A handwritten signature in blue ink, appearing to read 'H A Atkins', is positioned above a horizontal line.

H A Atkins
Counsel for Horticulture New Zealand

APPENDIX 1: HORTICULTURE NZ NUTRIENT ALLOCATION PRINCIPLES



ALLOCATION OF NUTRIENTS TO PRODUCTION LAND PRINCIPLES

These principles have been developed by the HortNZ Board to guide the organisation's input into the development of a policy for the allocation of nutrients to productive land. The key objective in developing these principles is to assist in the development of a policy that meets environmental outcomes and supports the ongoing viability of horticulture businesses.

- 1. The flexibility of rural land use over time has provided significant benefits and must be maintained to the greatest extent practical.**
Explanation: The benefit provided by rural production is a result of the diversity represented in rural production and the opportunity to innovate as market conditions change. While limits need to be achieved, controls should seek to manage adverse effects on rural land use flexibility.
- 2. The allocation policy must take account of the national values contained in the National Policy Statement for fresh water management 2014.**
Explanation: This includes a range of values including irrigation and food production. The key being that the policy must respond to both environmental and economic values.
- 3. Both the "polluter pays" and "beneficiary pays" concepts should apply to the costs of managing to limits where catchments are judged to be over allocated.**
Explanation: All New Zealanders benefit from the use of water to produce goods and services. All New Zealanders have a responsibility to contribute to the improved management of water quality. This principle reflects the need for those polluting water, the customers and consumers of the goods and services produced using the water and those who benefit from cleaner water to all meet the costs where catchments are judged to be over allocated.
- 4. All sources of nutrients generated as a result of human activities should be managed.**
Explanation: All human derived sources of nutrients should be managed in an equitable way within a catchment nutrient limit. Significant natural sources of nutrients will be recognised.
- 5. Nutrient allocation decisions should be applied in the most efficient way to achieve the objectives identified in the National Objectives Framework for fresh water.**
Explanation: Activities need to be undertaken in a way that ensures efficient nutrient use. Nutrient allocation decisions and loss limits should be set with knowledge of natural capital and the associated opportunity to achieve best sustainable gains for communities. Amongst other things, the approach should incentivise more efficient use of nutrients and water.
- 6. The inherent properties of soil and their susceptibility to nutrient loss should be considered in the establishment of an allocation process.**
Explanation: There are significant differences in nutrient leaching and run-off risks between soil types and topography. The allocation approach taken should recognise these differences.

- 7. The allocation system(s) should be applicable at enterprise, community, sub-catchment and catchment levels and should be applied in defined management zones.**
Explanation: The allocation approach(es) chosen needs to be able to be applied at different catchment scales. The management zones should be based on catchment boundaries. Information on whether they are predominantly groundwater or surface water fed should be used to define boundaries of the zone.
- 8. The allocation system will be determined with considerations of the legitimate expectations of people and the law, natural justice principles, and applied adopting a transition process which allows balanced allocation.**
Explanation: Allocation systems will recognise the social and economic importance of allowing existing businesses to continue, and that existing land uses have made investment and undertaken their activities in compliance with relevant regulations and in the absence of nutrient load limits. This should not allow continuation of poor practice and should not adversely impact on the flexibility of low leaching businesses.
- 9. The allocation system should be technically feasible, simple to operate and understandable.**
Explanation: A high level of technical feasibility is fundamental to the allocation approach. At the same time the simpler the system, the more likely it is to be able to operate effectively. The approach must also be understandable by both land users and the wider community.
- 10. The administration and transaction costs associated with the implementation of a nutrient allocation approach should be assessed relative to the benefits, and compared with alternative approaches.**
Explanation: The nutrient allocation approach should minimise costs associated with administration, collection of information, and costs to land users and to the community.
- 11. The allocation policy should drive innovation and encourage and reward adoption of industry best practice.**
Explanation: The policy should drive investment in research and innovation and the adoption of industry best practice. This requires a measurement system that can differentiate between poor and good industry practice.
- 12. The allocation policy should be responsive to new science and technology.**
Explanation: Science and understanding in this area is developing quickly and we need a policy that will encourage the adoption of new science and technology. We need to ensure the policy does not lock us into old science and technology.
- 13. Measurement should as much as possible be outcome focused rather than input driven.**
Explanation: rather than simply driving a reduction in use of nutrients that could impact of productivity this will encourage growers to innovate to achieve reductions in leaching (e.g. by using different products, application techniques, etc) This also has the potential to better recognise the nutrient requirements and leaching susceptibility associated with specific crop/farm physical feature combinations.