

IN THE ENVIRONMENT COURT AT WELLINGTON

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

AND

IN THE MATTER of clause 14 of the First Schedule of the
 Act

BETWEEN **FEDERATED FARMERS OF NEW ZEALAND**

ENV-2010-WLG-000148

AND

DAY, MR ANDREW

ENV-2010-WLG-000158

AND

MINISTER OF CONSERVATION

ENV-2010-WLG-000150

AND

HORTICULTURE NEW ZEALAND

ENV-2010-WLG-000155

AND

WELLINGTON FISH & GAME COUNCIL

ENV-2010-WLG-000157

Appellants

AND

**MANAWATU-WANGANUI REGIONAL
 COUNCIL**

Respondent

**STATEMENT OF REBUTTAL EVIDENCE BY CHRISTOPHER MARTIN
 KEENAN FOR HORTICULTURE NEW ZEALAND IN RELATION TO THE
 APPEALS ON THE PROPOSED ONE PLAN FOR MANAWATU
 WANGANUI REGIONAL COUNCIL ON SURFACE WATER QUALITY**

(20 APRIL 2012)

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QUALIFICATIONS AND EXPERIENCE

1. My name is Christopher Martin Keenan and I prepared a statement of evidence dated 15 March 2012. In that statement of evidence I have set out my qualifications and experience and reaffirm that they are correct and I will not repeat that information here.

SCOPE OF THIS REBUTTAL STATEMENT

2. In this statement of rebuttal I comment on a number of issues raised, particularly in the evidence given by Gerard Willis on behalf of Fonterra, and Corina Jordan, Gina Sweetman and Helen Marr on behalf of the Wellington Fish & Game Council. I also comment on the evidence provided by Dave Kelly for the Minister of Conservation.

EQUITY AND GRANDPARENTING

3. I generally agree with Mr Willis¹ where he outlines the relevant principles in planning decisions. Mr Willis² outlines how these principles apply to Variation 5 and 6 of the Waikato Regional Plan.
4. In this regard, I note that Variation 5 developed rules and conditions based on the presence of a limited number of primary production systems. Particularly, none of the horticultural or arable systems were present within the catchment under consideration. For that reason, the horticulture industry was not involved in Variation 5.
5. I also note that the development of the allocation system for water quality, established in Variation 5 was assisted by government grants in the order of \$95 million to compensate for the loss of development rights.
6. For both these reasons (ie that horticulture as not involved and the government grant) I do not consider that Variation 5 is a relevant example that can be used as a precedent for the proposed Horizons One Plan.
7. Horticulture New Zealand was involved in Variation 6. Mr Willis is right that the Court determined to grant controlled activity status to around 3500 unlawful takes for dairy shed washdown and milk cooling. However, I disagree that this

¹ Paragraph 15 EIC

² Ibid paragraphs [20] – [24]

was done to provide equity or social durability. In the Matamata/Piako area alone, over \$55 million worth of horticultural production reliant on lawfully established existing consents has been put at risk by the decision.

8. In my opinion, Mr Willis is right that Variation 6 was essentially a "practical" response (my words not his) to over 15 years where Environment Waikato had not enforced permitted activity conditions. Part of the package involved environmental compensation of riparian planting on all permanent streams, where controlled activity consent for dairy shed washdown and milk cooling was applied for. In my opinion the combination of Council culpability through lack of enforcement, and the environmental compensation offered by the dairy industry were significant aspects of the Court's decision.
9. I do not recall throughout the Variation 6 process that the Court expressly referred to equity or social durability. The loss of the key growing area of Matamata/Piako for horticultural production and significant reduction in the potential to grow in Pukekohe/Pukekawa as a result of Variation 6 has, in my opinion, validated Horticulture New Zealand's need to have domestic food supply values, that are not necessarily economic values alone, recognised alongside other values in Schedule AB in the POP.
10. I do not consider that Variation 6 concerning water allocation is a particularly relevant consideration in this case. Whilst I agree that some consistency of approach across the country has merit there are important regional differences that warrant different approaches.
11. Mr Willis appears to use Variation 6 as justification to develop an allocation system for nutrients based on grandparenting which is not something that Horticulture New Zealand anticipated would be advocated in the context of the appeals and section 274 notices to the surface water quality topic. I am therefore, questioning whether there is any scope to consider these matters. More specifically, I have not seen these matters raised in any of the appeals or, to my knowledge in original submissions on the POP, or in the section 274 notices of Fonterra.
12. I note that while LUC has been challenged as an allocation system, I do not consider that it is appropriate to seek a

totally different and detailed alternative allocation regime at this stage, without there being an opportunity for everyone with an interest to be involved via a full public consultation process. The allocation system proposed by Fonterra was not proposed at the first instance hearing.

NUTRIENT MODELLING

13. In his evidence in chief and amendment to his evidence in chief, Dr Roygard puts horticulture and cropping together in his modelled nutrient leaching and provides a combined value of approximately 80kg N/ha/yr. The horticulture industry is wary of this approach.
14. Horticulture New Zealand spent some considerable time explaining to the Commissioners on the hearing panel the difference between horticultural production systems and arable / cropping systems. These differences were also explained to the Court in the context of the hearing on the land chapter which at the time of writing this rebuttal had just concluded.
15. Horticultural production systems are all covered under the Commodity Levies (Fruit and Vegetables) Order 2007. There are some 110 crops listed in the order. A distinguishing feature is that these crops are entirely produced as food for human consumption.
16. Some arable crops such as wheat and barley are also produced for human consumption. Other crops are grown, for example as fodder for animals or as biofuels.
17. There are some distinguishing features (as compared to arable crops) of horticultural production systems that need to be clarified:
 - Most horticultural produce is prepared within NZGAP: an industry led food safety and quality assurance framework that has been continuously improved since it was initially developed in the 1990's.
 - NZGAP contains an array of good management practices that are supported by a continuous improvement programme as identified in my evidence in chief.

- The continuous improvement programme is supported by levy funds from Horticulture New Zealand and 22 product groups that are affiliated to Horticulture New Zealand – all these groups have their own levies that are often applied to developing good management practise.
 - The largest driver for compliance is the customer, and industry standards developed in NZGAP are being reviewed regularly as increased compliance is demanded from domestic and overseas customers (mainly supermarkets).
 - NZGAP is externally audited on a regular basis by independent auditors.
18. I have seen no evidence that such a programme exists for the arable or cropping industries. While I have seen no evidence regarding absolute figures, it is the view of Horticulture New Zealand that based on the figures of horticulture land under production in the region (0.2%) that horticultural production is going to be a significantly smaller area of land than is involved in other arable or fodder crop rotations.
19. I note that the arable sector was also involved in development of NMEA (the OVERSEER® tool development programme for the horticulture industry). I note that in Table 1 of Stuart Ford's evidence in chief³ shows some significant differences in the one off measures of leaching for three arable crops (maize, wheat and barley) compared to common broadacre horticultural crops listed.
20. For these reasons I consider it would be a fairer assessment to split arable and fodder cropping from the horticultural crops. For this reason I do not support Dr Roygard's assessment of the modelled nutrient leaching which combines horticulture and cropping.
21. In general, Horticulture New Zealand supports the use of OVERSEER® as the relevant modelling tool to measure nutrients. The industry is cognisant of the issues with the tool, however is not aware of any alternatives that have been tried and tested to the same degree that OVERSEER® has. I note that the Regional Council was an investor and

³ Paragraph 28

supporter of the development of the vegetable modelling component of OVERSEER®.

INTENSIFICATION OF HORTICULTURE

22. Corina Jordan for Wellington Fish and Game⁴ suggests horticulture has been intensifying. I can find no evidence available to Horticulture New Zealand that would support this statement.
23. The case study of Ian Corbett⁵ notes that there are significantly fewer growers in the Rangatikei involved in seed potato production than there were historically. In other areas, Horticulture New Zealand has seen some consolidation of businesses. By way of evidence, we have seen this in overall levy numbers as grower numbers have decreased since 2009 from approximately 7000 to 6000 across New Zealand. I also note that grower organisations from Otaki to the Rangatikei have amalgamated in response to decreasing grower numbers. In short, no data I have seen has indicated a significant increase in the intensification of horticulture.

SCHEDULE D AND LIMITS

24. I disagree with Ms Sweetman (Para 16) that the numerics represented in Schedule D approximate to limits as proposed in the National Policy Statement for Freshwater Management. The POP referred to "standards". The decisions version referred to "targets". To change the terminology now to "limits" gives the numerics an entirely new meaning. It is the meaning that could not have been envisaged at the time when submissions were first received on the POP, because the National Policy Statement for Freshwater Management did not exist.

DOMESTIC FOOD SUPPLY VALUE

25. Ms Marr⁶ disagrees with the inclusion of a domestic food supply value in Schedule AB. Ms Marr notes she has seen no evidence to support the inclusion of this value. In my evidence in chief⁷ I consider that I do provide evidence (and the reasoning of Horticulture New Zealand) for inclusion of this value.

⁴ Paragraph 4.3 EIC

⁵ Attached to the EIC of Stuart Ford

⁶ Paragraphs [79] – [82] EIC

⁷ Paragraphs [28] – [38] and [73] – [75]

26. I also note in paragraph 41⁸ the key factors horticulture is reliant on to continue producing food for the domestic market within and outside the Horizons region. The use of water is critical to the ongoing viability of horticultural production. This is reflected in the agreed memorandum signed between Horticulture New Zealand and the Council.
27. In attach as Appendix 1 the document I produced (amended slightly for these proceedings) for the Council when the value was discussed. I note that this was provided to Wellington Fish and Game on 4 April 2012.
28. The growers have requested this value be included in a schedule of "Values" because they consider it is relevant, to any conversations and regulations that are developed in relation to land use, surface water quality and allocation. I cannot argue with this view. It is simply an expression of the values they hold.
29. I note that while the Council has recognised and provided priority in times of water restriction to almost all other industries (including industrial, domestic and municipal supply, stock drinking water, dairy shed washdown and milk cooling water) it has not done so for any horticultural uses. So I consider it very appropriate to provide some recognition for the value of water to domestic food supply.
30. I disagree that there is a lack of specificity provided in respect to how the value will apply. The schedule is quite explicit that the value applies to the production of "vegetables" and "seed potatoes" in the case of one catchment.
31. I do not consider it likely that the focus of horticulture in the Horizons region will change from domestic food production in the future because it is such an integral part of the domestic food supply system.

DEPOSITED SEDIMENT STANDARDS

32. Associate Prof Russell Death⁹ refers to the applicability of new deposited sediment standards to be used as an assessment of ecological health in the Horizons region.

⁸ EIC

⁹ Paragraphs 37-41 Evidence in Chief

33. Horticulture New Zealand is a section 274 party to Fish and Game appeal point 6.44 which sought a deposited sediment standard. Our comment in our 274 notice reads:

The appellant seeks that a deposited sediment standard be introduced to the Plan. Any such standard should be added via a Plan Change process and full public consultation.

34. This particular appeal point in the Fish and Game appeal came as a complete surprise to Horticulture New Zealand, because in the initial submission of Fish and Game Schedule D was supported as notified, that is without a deposited sediment standard.
35. I have discussed this matter with the grower members and they were also unaware that such change was being proposed by Fish and Game as it did not arise in the context of the hearings in front of the Hearings Panel.
36. From the discussions I have had with growers they are currently unwilling to commit to a new set of sediment standards in Schedule D without an appropriate level of scrutiny from all parties being undertaken. This is particularly important for the growers because their activities will be measured against the standard in terms of ongoing state of the environment monitoring.
37. I note also that the introduction of this deposited sediment standard has not been discussed in any mediations that have involved Horticulture New Zealand. Given our stated interest in this, and the lack of mediation regarding this topic our position adopted in our section 274 notice remains in opposition of adopting these new deposited sediment standards without a full process of discussion being undertaken.

COLLABORATION

38. In her statement of evidence in chief on the Water Quality topic, Ms Clare Barton for the respondent Council notes¹⁰:

Before delving into the specific issues, I wish to preface this statement of evidence by noting the following, matters that I had in my mind as guiding principles in arriving at the proposed amendments to the rules and policies:

¹⁰ Clare Barton EIC Water Quality Chapter Paragraph 10

There is no such thing as “perfect” environmental science in the field of managing contaminants to air or water there will always be an element of uncertainty both as to the precise environmental risks of various options and the precise environmental benefits that will be created. This is particularly so in the complex field of managing land use to achieve surface water quality outcomes. Nevertheless the science is compelling (and multi-disciplinary) as to the relationships between land use and surface water quality and outcomes that are likely based on the various options available and requires a coherent management regime in light of the statutory tests in the RMA.

There are limitations in any management approach that is taken and it is the ‘best management fit’ option or ‘most appropriate’ option that should be selected. This should be a principled regime that will achieve the desired planning goals. Like any regime it will have a methodology with small scale contradictions or fact specific limitations that do not make the regime flawed. These limitations should be analysed and addressed as required.

There needs to be a realistic weighing of the economic impacts of a regime with the benefits there will be in relation to environmental outcomes. In addition rates of change should recognise social and cultural and economic matters relevant to the industries affected and the communities that rely upon those industries.

The policy approach can allow for improvements to be a journey over time i.e. immediate improvement or comprehensive coverage of the regulatory regime is not necessary or indeed always possible. There are also resource capacity issues at the Council level to consider when introducing new regulation.

39. I fully concur with the comments made by Ms Barton. In the course of preparing evidence on behalf of growers for these appeals I have endeavoured to understand the view of the growers by seeking the information and asking many questions about how they work within the region.
40. I am also aware that there is much to learn from the experience, practical limitations and values that are typical of the community as a whole. This is why Horticulture New Zealand is supporting changes to the policy and methods regarding Lake Horowhenua, to ensure that there is a practical and realistic opportunity to make a significant difference to the water quality in these lowland lakes.

41. Dr David Kelly for the Minister of Conservation notes¹¹ that the Horowhenua catchment is 12% urban. Dr Fung refers¹² to the relatively small percentage of land area devoted to horticultural production in the catchment. He also notes¹³ that the main source of phosphorus entering Lake Horowhenua is via Queen Street drain, a largely urban source.
42. In my opinion it is beyond the ability of the targeted land uses to resolve the issues of Lake Horowhenua, without the involvement of all parties that contribute to the issues. It is still not clear what the key sources of contaminants are, and what role legacy contaminants have.
43. Horticulture New Zealand seeks to work with all stakeholders to determine the best solution to result in the water quality issues in Lake Horowhenua. The Manawatu River has been the focus of a collaborative approach to establish an accord relating to river water quality outcomes. The EIC of Lynette Wharfe seeks changes to Policy 6-7B to provide a framework for such a collaborative process.
44. I note in a recent article Horizons Regional Council Chief Executive Michael McCartney agrees with the Horticulture New Zealand position that there should be a similar approach taken to Lake Horowhenua.¹⁴ That is what Horticulture New Zealand is seeking in revising the method and the policies to include all sources and a program to establish a collaborative, catchment-based solution.

C M Keenan

20 April 2012

¹¹ Paragraphs [26] and [27]

¹² Paragraph [27] EIC

¹³ Ibid paragraph [35]

¹⁴ <http://www.stuff.co.nz/national/6390665/Lake-Horowhenua-toxic-enough-to-kill-a-child>

APPENDIX 1

SCHEDULE AB INSERTION OF DOMESTIC FOOD SUPPLY VALUE

Comments regarding a Domestic Food Supply value in planning instruments:

Versatile soils are rare in New Zealand, (accounting for only about 5.5% of New Zealand) and of high value for food production. It is recognised that where practicable these should be reserved for horticulture and agriculture and protected from urban development.

Most agricultural production is in surplus to domestic requirements. The efficiency of agricultural systems ensures that agriculture remains the backbone of our foreign exchange earnings.

Unusually, for horticulture: export is only a little more than half of the 6 billion dollar value of the industry each year. Roughly \$2.9 Billion worth of horticultural food products are consumed domestically. This is because:

- Fruit and vegetables are staples in the New Zealand family diet.
- Horticultural production systems produce these goods efficiently, safely and cost – effectively.
- Many of these goods are either partially or fully non substitutable with imports¹⁵; for example:
 - Potatoes
 - Leafy greens (ie. lettuce / spinach)
 - Carrots
 - Brassicas
 - A range of fruits.

Domestic food production chains rely on **production nodes**.¹⁶ Climatic conditions vary so nodes are distributed to **provide distribution over different parts of the year**. There is a degree of redundancy¹⁷ required to maintain security of supply. The **degree of**

¹⁵ This is particularly the situation in the “fresh” category - ie. processed vegetables may be imported or exported. It is more likely that imported (canned or processed) potatoes or carrots could replace domestic production than imported spinach or lettuce.

¹⁶ Nodes do not contain all production and production outside of these nodes can be significant locally, or regionally. However, the nodes as identified are a significant proportion of the domestic production.

¹⁷ Redundancy is required due to the uncertainty of production, for reasons such as drought, flood, hail, disease, pest outbreak, transport failure, labour shortage etc.

redundancy is a key influence on the price of fruit and vegetables for consumers.

The key domestic production nodes in New Zealand are:

- Kerikeri (Fruit)
- Whangarei (Fruit)
- Dargaville (crop specific: Kumara)
- Auckland (Covered crops)
- Pukekohe / Pukekawa (Vegetables)
- Matamata (Vegetables)
- Katikati / Tauranga (Fruit)
- Gisborne (Vegetables)
- Hastings (Fruit / Vegetables)
- Ohakune (Vegetables)
- Levin / Otaki (Vegetables)
- Richmond (Fruit / Vegetables)
- Selwyn / Rakaia (Vegetables)
- Oamaru (Vegetables)
- Central Otago (Fruit)

While domestic horticultural production occurs in a greater number of locations, the significant majority (> 80%) occurs within these areas. All the nodes are significant to the supply chain and the growers responsible for a high degree of the production volume operate across many nodes.

These horticultural nodes rely on a unique range of factors – the range of factors includes soil, but was more comprehensively define by Justice Treadwell in *Canterbury Regional Council v Selwyn District Council [1997]* NZRMA 25. These factors are as follows:

- Soil texture
- Soil structure
- Soil water holding capacity
- Soil organic matter stability
- Site's slope
- Site's drainage
- Temperature of the site
- Aspect of the site
- Storm water movements
- Flood plain matters
- Wind exposure
- Shelter planted
- Availability of irrigation water
- Transport, both ease and distance
- Effect of the use on neighbours
- Effects of the neighbours on the use
- Access from the road
- Proximity to airport
- Proximity to port

- Supply of labour
- Quality of that labour
- Previous cropping history
- Relevant contamination
- Sunlight hours
- Electricity supply
- District Scheme
- Economic and resale factors

Along with the community that provides the skills and intellectual capital, these factors are required to be present. These factors, or a subset of these factors are not currently present in most other areas.