

**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**

**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**

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**STATEMENT OF REBUTTAL EVIDENCE BY LYNETTE PEARL WHARFE FOR  
HORTICULTURE NEW ZEALAND IN RELATION TO THE APPEALS ON THE  
PROPOSED ONE PLAN FOR MANAWATU WANGANUI REGIONAL COUNCIL  
ON SUSTAINABLE LAND USE/ACCELERATED EROSION**

**(2 April 2012)**

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## **QUALIFICATIONS AND EXPERIENCE**

1. My name is Lynette Pearl Wharfe and I prepared a statement of evidence in chief dated 17 February 2012 which sets out my qualifications and experience and confirms that I will comply with the Code of Conduct for Expert Witnesses contained in the Environment Court's Consolidated Practice Note dated 1 November 2011. I reaffirm that information and confirmation applies to this rebuttal evidence.

## **OVERVIEW OF THE MATTERS THAT THIS EVIDENCE RELATES TO**

2. The focus of this rebuttal evidence is on Rule 12-3 Cultivation. While some of the outstanding issues are generic across the Chapter 5 Objectives and Policies and Chapter 12 rules for vegetation clearance, land disturbance and cultivation the main issue of concern to Horticulture New Zealand is cultivation.
3. The overarching questions to be asked are:
  - (a) Do the effects of cultivation make it a significant issue?
  - (b) What form of regulation is required to address these effects?
4. The Planning Conferencing on Land dated 26 March 2012 records points of agreement and disagreement amongst the planners representing Horizons Regional Council, Wellington Fish and Game, Federated Farmers and Horticulture New Zealand. The main points of disagreement in terms of cultivation are in relation to:
  - (a) Should there be linkages between Chapters 5 and 12 to Chapters 6 and 13, including Schedule D numeric, and to what extent should Chapter 5 and 12 be linked to the water quality numeric? (Conferencing statement point 7);
  - (b) Should any setbacks in Rule 12-3 be 5 or 10m? (Conferencing statement point 8);
  - (c) Should the active bed width in terms of applying setbacks in Rule 12-3 be 1m or 2m? (Conferencing statement point 9);
  - (d) Should there be a new Schedule D standard for sediment – as proposed in Russell Death's evidence? (Conferencing statement point 1);

- (e) Should the permitted activity rule conditions in Rule 12-3 require compliance with the Code of Practice for Commercial Vegetable Growing ("**COP**") and/or Schedule D numeric and whether the COP can/ or should meet Schedule D standards? (Conferencing statement point 10);
  - (f) Can ancillary activities, such as sediment control measures be undertaken within a setback? In other words, is it the setback **plus** measures or the setback **or** measures? (Conferencing statement point 8).
5. I will address each of these matters and will also refer to the rebuttal evidence of Chris Keenan, Stuart Ford, Andrew Barber and Lindsay Fung who address the technical matters pertaining to each of these issues.
  6. Where I refer to the evidence of Phillip Hindrup, Phillip Percy and Shane Hartley I am referring to the planning evidence in chief filed on behalf of the respective organisations, Horizons Regional Council, Wellington Fish and Game or Federated Famers of NZ on the topic of Sustainable Land Use and Accelerated Erosion.
  7. The modified version of the POP provisions attached to my evidence in chief only included Rules 12-3 and 12-4. This is because I supported the Chapter 5 Objectives and Policies in the decisions version ("**DV**"). Wellington Fish and Game have sought significant changes to the Chapter 5 Objectives and Policies, as attached to the evidence in chief of Phillip Percy.
  8. These changes were discussed at Planning Conferencing, with some changes being agreed and others outstanding. An agreed version of the relevant plan provisions arising from Planning Conferencing has not been agreed prior to this rebuttal evidence needing to be lodged. The planners intend to continue to work on these provisions with a view to filing an agreed statement of position in due course.
  9. I will now turn to consider each of the outstanding matters from planning conferencing as noted in paragraph 2 above.

**SHOULD THERE BE LINKAGES BETWEEN CHAPTERS 5 AND 12 TO CHAPTERS 6 AND 13, INCLUDING SCHEDULE D NUMERICS, AND TO WHAT EXTENT SHOULD CHAPTERS 5 AND 12 BE LINKED TO THE WATER QUALITY NUMERICS? (CONFERENCING STATEMENT POINT 7).**

10. The evidence of Phillip Percy for Wellington Fish and Game seeks to include linkages between Chapters 6 and 13 Water Quality and Chapters 5 and 12 – Land. (Para 51-53 and Para 133).
11. This matter was unresolved at planning conferencing. The main reasons recorded for disagreement are:
  - (a) The Chapter 6 and 13 provisions are still subject to change and the relationship between Chapters 5 and 12 is contingent on potential changes to Chapters 6 and 13.
  - (b) There are questions about how the Chapter 6 and Schedule D numerics could apply to non-regulatory approaches, such as SLUI, which were not designed to achieve the water quality numerics in Chapter 6 and Schedule D.
12. The notified version (“**NV**”) of the POP had a linkage to Chapter 6 in Objective 5-1 b):
 

*Sediment loads entering waterways as a result of accelerated erosion are reduced to the extent required to be consistent with the water management objectives and policies set out in Chapter 6 of this Plan and the target established in Schedule D for those water management zones with elevated sediment levels.*
13. This is the only link to Chapter 6 in the NV of Chapter 5.
14. However Objective 5-1b) was deleted in the DV and replaced with new Objectives 5-1 and 5-2. The Hearing Panel did not include the reference to Chapter 6 in the new objectives. Their decision is based on restructuring the objective to distinguish between regulatory and non-regulatory methods (Decisions Report 4.7.6 Pg 4-25).
15. The link to Chapter 6 was also decoupled through the deletion of NV Policy 12-1e): “the degree of compliance with the standards for managing surface water turbidity as set out in Chapter 6, to the extent that this is necessary and can be reasonably determined.”
16. The reasons are given in the Hearing Report (4.7.20 Pg 4-31):

*"We also deleted (e) and g) from Policy 12-1. Clause (e) referred to the use of turbidity standards which are no longer included in Schedule D. Clause g) referred to the use of best practicable option (BPO) if numerical standards were difficult to establish. The Chapter 12 rules do not necessitate that degree of specificity. The rules simply restrict certain land uses and ancillary diversions and discharges. The permitted activity conditions in the rules relate to the application of best management land use practices rather than the application of BPO or numerical discharge standards. Even if a consent were required for the primary land use activity due to its not meeting the permitted activity conditions, it is unlikely that a BPO or numerical standards approach would ever be used to set conditions on the ancillary diversion and discharge activities."*

17. Wellington Fish and Game's appeal seeks that Objective 5-1 b) be reinstated as per the NV of the POP. They have not appealed the decision to delete Policy 12-1 e). However the changes sought in the evidence of Phillip Percy to provide linkages to Chapter 6 are more extensive than what the NV provided for.
18. The Wellington Fish and Game appeal includes an appeal point relating to Anticipated Environmental Result 5.6 which seeks to introduce a deposited sediment standard or other scientifically appropriate sediment standard into Schedule D, then refer to the water quality standards (with respect to sediment as Objective 5-1b) did).
19. I do not consider that this very general appeal point, which is dependent on inclusion of a deposited sediment standard, is sufficient to base the inclusion of a wide range of linkages to Chapter 6. Fish and Game did not seek such links in their submission to the POP.
20. There is currently no agreement between the parties on Chapter 6 and 13 Surface Water Quality – non-point source discharges on the wording of Policy 6-3 and 6-4. There is a Memorandum regarding mediation agreement on Policies 6-4 and 6-5 dated 6 October 2011 but Horticulture NZ, and a number of other parties, did not sign the memorandum and Federated Farmers of NZ stated a reservation regarding the numeric. These are key policies in terms of application of the Schedule D numerics into Chapter 5.
21. The DV of Policy 6-4 sought that:

... activities must be managed in a manner which, beyond the zone of reasonable mixing:

- (i) enhances existing water quality where that is reasonably practicably or otherwise maintains it, and
- (ii) has regard to the likely effect of the activity on the relevant Schedule AB Value that the water quality target is designed to safeguard.

22. Unresolved discussion at mediation included the following wording changes:

... water quality within that sub-zone must be managed in a manner that enhances existing water quality in order to meet (in a manner consistent with Policy 6-7 and 6-8):

- (i) the water quality numeric for the Water Management Zone in Schedule D; and/or
- (ii) the relevant Schedule AB Values and management objectives that the water quality numeric is designed to safeguard.

23. The implications of applying the Chapter 6 policies to Chapter 5 is therefore:

- (a) Contingent on the wording of the policies in Chapter 6;
- (b) Assessing the appropriateness of applying the policies;
- (c) Undertaking a s32 analysis of applying the Chapter 6 policies to Chapter 5.

24. In addition the water quality numerics in Schedule D have not been set based on what is achievable within the policy framework of the POP but rather on the basis of what would be required to achieve the values. That is, they were established as aspirations, not as absolute numbers that would be met immediately through the POP provisions.

25. Phillip Percy<sup>1</sup> states:

*Schedule D sets out the water quality aspirations for the Region and they therefore form a reference point for managing activities.*

26. Objective 6-1 seeks to 'advance the achievement of the values in Schedule AB'. Schedule D numerics are used to support and inform achievement of the Schedule AB values.

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<sup>1</sup> Paragraph 47 EIC

The objective is not absolute but indicates that this is a 'journey' with an ultimate goal.

27. The mediation Memorandum regarding the Objectives of Chapter 6 POP relating to water (October 2011) states:

*The words "advances the achievement of" recognises that the rate and speed of achievement needs to be considered in the broader context of the meaning of sustainable management and its relevance to the region and its people. It also recognises that specific timeframes for achievement of specific Values have not been the subject of detailed community consultation as part of the plan development and notification except to the extent covered in Tables 13-1 and 13-2, Rules 13-1 and 13-2 and Policy 6-11 as notified.*

28. The Memorandum regarding Policies 6-1, 6-2, 6-3 and Table 6.2 in POP (October 2011) discusses the use of the term numerics:

*Policy 6-2 and 6-3 both refer to 'numerics'. All parties agree to that terminology except the Minister of Conservation and Wellington Fish and Game who advocate for the term 'limits' instead of 'numerics'. The Plan as notified referred to the Schedule D numeric as standards and there were a number of submissions by parties in relation to that terminology with the consequence that the hearing panel changed the term to 'targets'. All parties agree that the position reached at mediation was that the Schedule D numeric were not formulated to operate as standards in the sense in which that terms was used in Section 69 RMA and that some numerics are unsuitable for use as standards in the sense that term is used in s69 and were not derived for that purpose.*

29. The matter of Chapter 6 objectives and policies, Schedule AB values and Schedule D are subject to a separate hearing as part of the Surface Water Quality topic, where these details will be canvassed as well. Therefore, in my opinion, to take such numerics and seek to apply them in an absolute manner through linkages from Chapter 5 and 12 to Chapter 6 is inappropriate at this stage. From a planning perspective, the meaning cannot be inferred due to the uncertainty of the Surface Water Quality hearing process.

**SHOULD ANY SETBACK APPLIED IN RULE 12-3 BE 5 OR 10M?  
(CONFERENCING STATEMENT POINT 8)**

30. The evidence of Phillip Percy seeks to require a setback for cultivation of 10 metres from certain waterbodies (Para 201).
31. The Planning Conferencing statement records that three of the four planners agreed that 5 metres was appropriate as it provides for the most efficient use of land for productive and other purposes.
32. There does not appear to have been any section 32 analysis undertaken comparing 5 metres to 10 metres.
33. Phillip Percy (Para 192) considers the potential for costs to land owners of not being able to undertake activities within these areas without first obtaining resource consent. He considers that the impacts will only be an issue for cultivation, as it is the only activity regularly occurring in the recommended setback zone. But he does not attempt to quantify the impact. Bather Mr Percy seeks to limit its impact through the definition of cultivation excluding direct drilling and no-tillage practices. This does not address the core issue of the costs associated with applying a 10 metre setback.
34. Stuart Ford has undertaken analysis of the economic cost if a 10 metre setback was to apply to all land that is cultivated for horticultural operations in the region. Mr Ford also notes that the horticulture industry has, in effect accepted a 5 m setback but seeks that ancillary mitigation activities be conducted within this setback<sup>2</sup>.
35. This analysis has demonstrated that significant additional losses arising from applying a 10 metre setback.
36. The DV of Rule 12-3 provided for cultivation within 5 metres of certain water bodies, subject to conditions.
37. The modified version of Rule 12-3 attached to my evidence in chief provides for a 5 metre setback for all cultivation from certain water bodies. In proposing such a setback there has already been a forgone opportunity cost by growers. The addition of a further 5 metres will add significantly to that cost.
38. The rebuttal evidence of Andrew Barber questions the effectiveness of a setback for channelised flows – which is the

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<sup>2</sup> Ford rebuttal Para. 17.

predominant type of flow from cultivated paddocks. His evidence demonstrates that there are a range of other mechanisms that are more effective in managing potential for sediment run-off from cultivated paddocks and this was recorded in the technical caucusing on land (Paras 12-17).

39. The evidence of Phillip Percy (Para 200) acknowledges that riparian buffers are one of a range of methods to manage erosion and sediment.
40. The Technical Caucusing referred to an analysis by Collier (1995) regarding setbacks. It is noted that the methodology is complex and not suited for a rule. It should also be noted that the Collier work was for pastoral farming and is not relevant to be applied to other situations such as cultivation for horticultural operations. Mr Barber discusses this in detail in his rebuttal<sup>3</sup>.
41. Therefore, I consider that a 5 metre setback for cultivation is appropriate. I discuss below provision for ancillary activities to be undertaken within the 5 metre setback,

**SHOULD THE ACTIVE BED WIDTH IN TERMS OF APPLYING SETBACKS IN RULE 12-3 BE 1 METRE OR 2 METRES? (CONFERENCING STATEMENT POINT 9)**

42. The DV of the POP included Rule 12-3 to provide for cultivation within 5 metres of the bed of a river that is permanently flowing or has an active bed width greater than 2 metres. Cultivation outside of the 5 metres was provided for as a land use under s9 of the RMA.
43. The evidence of Phillip Percy seeks that the width of an active bed be amended to 1m (Para 210). Phillip Hindrup for the Council has also sought a 1m active bed width in the provisions attached to his evidence in chief.
44. Active bed is defined in the POP as:
 

*Means the bed of a river that is intermittently flowing and where the bed is predominantly unvegetated and comprises, sand, gravel, boulders or similar material.*
45. The application of the active bed width is therefore dependent on the nature of the 'bed'.

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<sup>3</sup> Barber rebuttal Paras 12 to 17.

46. I reserved my position on the width of an active bed at caucusing as I considered that the effects of applying a 1m rather than 2m width had not been adequately considered.
47. I note in the statement from Technical Caucusing dated March 2012 Point 25 states:

*All parties agree that setbacks apply to all perennial streams and to ephemeral streams but there is disagreement as to the width of ephemeral streams that are to be protected. All parties wish to have the definition of an active bed clarified.*
48. It appears that there was concern about what would be included within the definition of active bed width and how it would be applied. For instance it would appear not to include overland flow paths and swales which are intermittent, as they are predominantly vegetated, but this is not explicit. The definition also uses the term 'or similar material' which does not provide certainty for users.
49. I am also concerned that there are 'grey' areas about whether a watercourse may be modified or artificial. Many watercourses have been changed historically and it may be hard to determine whether they are 'modified' (and hence included) or artificial (and hence excluded) from the provisions.
50. The rebuttal evidence of Chris Keenan (Paras 15 – 19) addresses the matter of the active bed width and details the difficulty the growers encountered in determining what watercourses should be included for any analysis.
51. Stuart Ford has undertaken analysis of the economic cost of taking land out of production or requiring resource consent which demonstrates that if an active bed width of 1 metre was to apply to all land that is cultivated for horticultural operations in the region then the economic costs will be considerable.
52. In my opinion these costs are significant and were costs unanticipated in the section 32 analysis for the POP.
53. This lack of certainty along with concerns regarding the economic costs of including active beds with a width greater than 1 metre means that the implications of the change sought have not been adequately assessed.

**SHOULD THERE BE A NEW SCHEDULE D STANDARD FOR SEDIMENT – AS PROPOSED IN RUSSELL DEATH'S EVIDENCE? (CONFERENCING STATEMENT POINT 1)**

54. The evidence of Associate Professor Russell Death on behalf of Wellington Fish and Game includes in Appendix 1 a standard for deposited sediment.
55. The evidence of Phillip Percy (Para 101) sets out the Fish and Game appeal point relating to the deposited sediment standard in Schedule D and that this will be addressed in evidence of the water quality topic. Given that it has implications for Chapter 5 and 12 it is relevant to also be addressed within the context of these chapters.
56. The Planning Conferencing Statement (Point 1) noted that there may be a potential scope issue relating to the reference to a new deposited sediment standard.
57. This proposed sediment control standard is addressed in the rebuttal evidence of Lindsay Fung (Paras 3-7) and Chris Keenan (Paras 4- 9), which raise concerns with the inclusion of such a standard in the POP at this stage.
58. There appear to be varying opinions as to how the proposed deposited sediment standard would be used. The evidence of Phillip Percy (Para 104) seems to indicate that it would be used to reduce sediment discharges to achieve the Schedule D targets, while the standard proposed appears to be more a monitoring tool. (Refer to Table D.5A Water Quality Targets Key: Footnote 6).
59. The footnote also states that the protocols in Clapcott et al 2010 should be used to determine deposited sediment for resource consent applications. The research of Clapcott et al is recent and has not been part of the Schedule 1 process so it is inappropriate to now apply it to the POP. In addition I note the comments in the rebuttal evidence of Lindsay Fung regarding the protocols in Clapcott et al.
60. While there may be benefit from such a standard, given the matters raised in both statements of rebuttal evidence I do not consider it appropriate to include a deposited sediment standard as proposed by Associate Professor Russell Death through the appeals on the POP.

**SHOULD THE PERMITTED ACTIVITY RULE CONDITIONS IN RULE 12-3 REQUIRE COMPLIANCE WITH THE COP FOR COMMERCIAL VEGETABLE GROWING AND/OR SCHEDULE D NUMERIC AND WHETHER THE COP CAN/ OR SHOULD MEET SCHEDULE D STANDARDS? (CONFERENCING STATEMENT POINT 10)**

61. The Planning Conferencing Statement notes (Point 10) that there was not agreement about the application of the Code of Practice for Commercial Vegetable Growing with some parties also seeking the use of a Schedule D visual clarity water quality numeric as a standard.
62. The nature of the water quality numerics have been addressed earlier in this evidence (Paras 9-28) and will not be repeated here; other than restating my opinion, that it is inappropriate to use the Schedule D numeric as a standard which imposes a fixed limit not to be exceeded, or apply for resource consent.
63. Part of the concern at Planning Conferencing related to the ability to confirm that measures in the Code of Practice will meet the requirements of Schedule D numerics.
64. The rebuttal evidence of Andrew Barber addresses the Code of Practice and Schedule D standards (Paras 4-11) which details how implementation of the Code of Practice results in low sediment discharge rates and the reasons why it is difficult to state categorically that the measures in the COP will always meet the Schedule D standards.
65. Mr Barber also notes that in his opinion none of the best management practice guidelines can state with certainty that the water quality outcomes intended by Schedule D will be consistently achieved.
66. The rebuttal evidence of Chris Keenan (Para 12) observes that:

*The simple reality is that a grower on a tractor will not be able to determine whether or not they are meeting the standards in Schedule D.*
67. While inclusion of a fixed number may appear to provide certainty in terms of rule structure the practicability of applying such an approach is limited (Refer Percy Para 130).
68. For permitted activity conditions to be effective they need to be simple and able to be implemented. The evidence of Phillip Percy (Para 92) comments in this regard that where there are complex conditions associated with permitted activities then

there is less likelihood of them being complied with and so increases the burden on the Council to resolve breaches of the conditions.

69. Requiring compliance with a standard that has no linkage to the practicalities in the paddock is imposing a complex condition.
70. The provisions sought by Horticulture NZ are:
  - (a) To apply Rule 12-3 to all cultivation, not just that adjacent to specified water bodies;
  - (b) Require all growers to undertake a paddock assessment prior to the cultivation activity;
  - (c) Implement sediment and erosion control measure to address matters identified in the paddock assessment;
  - (d) Including a 5 metres setback from certain water bodies; and
  - (e) Including a 10 metre setback from wetlands, sites of Significance – aquatic and trout spawning sites.
71. In addition Dr Fung notes, the industry has already invested significantly and continues to do so, in developing good management practices and the Code of Practice<sup>4</sup>.
72. These measures are considered to be far more practical and effective measures of managing potential for sediment loss and work as 'the fence at the top of the cliff' rather than 'the ambulance at the bottom.' (Refer Evidence in chief of Phillip Hindrup Para 109).
73. The changes are considerably more than provided for in the DV of the POP and have been proposed to address the matters raised by appellants and ensure that best management practices are used by all growers. This will be applied through the NZGAP programme as described in the evidence in chief of Chris Keenan.
74. There are also issues as to how enforceable a requirement to meet Schedule D would be. Permitted activity conditions need to be both achievable and enforceable. To determine a breach of Schedule D an enforcement officer would have to take measurements before and after a discharge event

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<sup>4</sup> Fung rebuttal Para. 10.

occurred. In my opinion this is unlikely to be a practical option for an enforcement officer. These potential issues with measurement and others, including determining the source of the sediment and the contribution of others, mean that such measurement is not necessarily a precise science. This would not necessarily provide the certainty anticipated in the evidence of Phillip Percy (Para 130).

75. It is interesting to note that Policy 12-1e) of the NV and deleted by the Hearing Panel required consideration of the degree of compliance with the standards for managing surface water turbidity as set out in Chapter 6, to the extent that this is necessary and can be reasonably determined." (Emphasis added). This indicates that the NV recognised that the levels of turbidity may be difficult to determine.
76. For these reasons I consider well-structured permitted activity conditions based on the Code of Practice for Commercial Vegetable Growing in the Horizons Region to be the most efficient and effective mechanisms to achieve the objectives and policies in the POP regarding cultivation and management or potential sediment loss.

**CAN ANCILLARY ACTIVITIES, SUCH AS SEDIMENT CONTROL MEASURES BE UNDERTAKEN WITHIN A SETBACK? THAT IS: IS IT A SETBACK PLUS MEASURES OR A SETBACK OR MEASURES? (CONFERENCING STATEMENT POINT 8)**

77. The modified version of Rule 12-3 attached to my evidence in chief sought that the setback condition c) apply only to 'cultivation' (as defined in the Plan) rather than 'the activity'. The purpose of this condition is to provide for sediment control measures to be undertaken within any required setback distance.
78. The Planning Conferencing Statement (Point 8) notes that the issue of whether or not erosion and sediment control measures should be able to be undertaken with the setbacks was not discussed.
79. The evidence in chief and rebuttal evidence of Andrew Barber discusses various sediment control measures and concludes that it is appropriate for them to occur within a setback area where they are the mechanism for sediment control, rather than the setback buffer itself.

80. If a grower was to be required to have a setback distance of, say 5 metres, and then install sediment control measures beyond that it has the potential to take significant area out of production for no, or little, environmental benefit.
81. For instance: there would be little to be gained from having a setback of 5 metres with a bund in front of that. The setback won't be used as a sediment control measure as the bund will be used for that. It makes the setback area superfluous and not a good use of horticultural land.
82. As Mr Keenan notes in his evidence in chief (Para 28) horticultural land makes up approximately 0.2% of the land area in the region.
83. The benefits of establishing appropriate sediment control measures are considerable. But in my opinion a setback distance is not required between such measures and the specified waterbodies.

#### **VEGETATION CLEARANCE DEFINITION**

84. The Planning Conferencing Statement (Point 23) noted that there is an outstanding Horticulture New Zealand appeal point relating to the definition of vegetation clearance and the exemption for certain pest species.
85. The decisions definition excludes clearance of some pest plants and those referred to in the Regional Council's Regional Pest Plan Management Strategy. (Attached as Appendix 1) The DV exclusion is clause I):
- ...clearance of pests thistles, ring ferns, carpet ferns, rushes, ink weed, briar rose, barberry, introduced pampas grass (other than toetoe), mingimingi, wilding pinus species, Japanese poplar, Japanese walnut, and pest plants referred to in the Regional Council's Regional Pest Plant Management Strategy.*
86. The list does not include a significant number of pest plant species that horticultural operations need to remove. A list is attached as Appendix 2. Horticulturalists want it to be clear that the pest plants that they may need to remove are provided for, particularly where land may be included within an at-risk habitat.
87. Changes have been made to rules which refer to the definition of vegetation clearance and the pest plant provisions (such as

Rule 14-2, 13-23 and 12 – 6) but the definition itself has not been changed.

88. It is sought that the definition be amended by adding the following words:

*... and clearance of other pest plants for the purpose of habitat maintenance or enhancement or the for the purposes of horticultural production.*

89. This would ensure that there is clarity that growers can remove plants for horticultural production without impacting on plants that are sought to be retained for biodiversity purposes, such as manuka and other indigenous vegetation.
90. The Planning Conferencing Statement stated that the parties would seek to caucus on this matter and provide a supplementary caucus statement setting out the outcomes on this matter. It has not been possible to caucus on this matter prior to rebuttal evidence being filed so the matter is included here in the event that a supplementary caucusing statement is not completed and filed with the Court.

#### **OTHER MATTERS**

91. My evidence in chief at Para 14 identified significant changes to the DV recommended by Mr Hindrup in the RV to Rule 12-3 that were of concern. These included:
- a. *Applying the cultivation rule to all land, not just to the land within 5m of the bed of a river that is permanently flowing or has an active bed width greater than 2m, or the bed of a lake or a wetland;*
  - b. *Deleting the provision for bunding, silt traps, interception drains or other alternative methods to minimise sediment run-off to water as an ancillary activity to cultivation;*
  - c. *Including a condition requiring that any ancillary discharge of sediment into water must not, after reasonable mixing, cause the receiving water body to breach the water quality numeric for visual clarity set out in Schedule D for that water body;*
  - d. *Deleting provisions requiring that methods such as bunding, silt traps, interception drains or other alternative methods to minimise sediment run-off to water be installed prior to and maintained during cultivation;*

- e. *Adding a requirement that the activity must not occur within a rare habitat, threatened habitat or at-risk habitat;*
  - f. *Including a provision that does not provide for cultivation as a permitted activity within:*
    - i. *5m of the bed of a river that is permanently flowing or has an active bed width greater than 1m, or the bed of a lake;*
    - ii. *10m of a wetland or sites valued for trout spawning as identified in Schedule AB;*
  - g. *Amending the width of an active bed from 2 metres to 1 metre (although I note that in 11(c) Mr Hindrup states 2 metres and in the strikethrough version it is 1 metre.)*
  - h. *Retaining the Advice Note (regarding the Code of Practice for Commercial Vegetable Growing in the Horizons Region (Version 2010/2) Horticulture New Zealand), but no longer linking it to conditions on 'alternative methods' as these clauses have been deleted.*
92. Points a), b), c), d), e) and h) have been addressed through the planning caucusing and is anticipated that they will be incorporated in the amended version of Rule 12-3 that will be filed with the Court. (Unfortunately an agreed set of provisions following planning conferencing was not available at the time of submitting rebuttal evidence.)
93. In addition the planning conferencing agreed to amend Rule 12-4 Restricted Discretionary Rule (Refer Para 116- 120 of my evidence in chief and Planning Conferencing record point 21) to include the COP as a matter of discretion in the Restricted Discretionary Rule.

## **CONCLUSION**

94. I asked two over-arching questions in Para 3 of this evidence:
- (a) Do the effects of cultivation make it a significant issue?
  - (b) What form of regulation is required to address these effects?

95. While there are potential effects arising from cultivation there has been no quantification that the effects of cultivation on flat land is a significant issue for the region.
96. However in order to ensure that potential for adverse effects do not occur a permitted activity rule framework is proposed that will require best management practices to avoid or minimise such effects. I consider this to be the most effective and efficient manner to advance the achievement of the objectives and policies of Chapter 5 and 12 in the POP.

**Lynette Wharfe**

**2 April 2012**

## Appendix 1 – Definition of vegetation clearance

**Vegetation clearance** means the cutting, crushing, spraying, burning, or other means of removal or destruction of vegetation, including indigenous and exotic plants (including trees). **Land disturbance** means the disturbance of the *land*<sup>^</sup> surface by any means including by blading, blasting, contouring, cutting of batters, filling, excavating, ripping, root raking, recontouring, or moving or removing soil or earth. *Vegetation clearance*<sup>\*</sup> and *land disturbance*<sup>\*</sup> excludes:

- (a) *cultivation*<sup>\*</sup>
- (b) *forestry*<sup>\*</sup>
- (c) clearance or disturbance by animals including grazing
- (d) activities undertaken for the sole purpose of establishing a fence line and not located within a *rare habitat*<sup>\*</sup>, *threatened habitat*<sup>\*</sup> or *at-risk habitat*<sup>\*</sup>
- (e) the *maintenance*<sup>\*</sup> or *upgrade*<sup>\*</sup> of existing *tracks*<sup>\*</sup>, *structures*<sup>^</sup> (including fences), or *infrastructure*<sup>^</sup>
- (f) maintaining shelterbelts (including cutting of shelterbelt roots)
- (g) activities associated with fruit tree or fruit vine plantations (Added by Mediation agreement on Ch 12 dated 17 August 2011)
- (h) activities undertaken for the purpose of protecting, maintaining or enhancing areas of *rare habitat*<sup>\*</sup>, *threatened habitat*<sup>\*</sup> or *at-risk habitat*<sup>\*</sup>
- (i) clearance of vegetation that is fallen or dead and not located within a *rare habitat*<sup>\*</sup>, *threatened habitat*<sup>\*</sup> or *at-risk habitat*<sup>\*</sup> that is *forest*<sup>\*</sup> or *scrub*<sup>\*</sup> in Schedule E
- (j) activities undertaken within the boundaries of any area of *land*<sup>^</sup> held or managed under the Conservation Act 1987 or any other Act specified in Schedule 1 to that Act (other than *land*<sup>^</sup> held for administrative purposes) that are consistent with a conservation management strategy, conservation management plan, or management plan established under the Conservation Act 1987 or any other Act specified in Schedule 1 to that Act
- (k) activities undertaken within the boundaries of the New Zealand Defence Force Waiouru Military Training Area, provided that those activities are undertaken in accordance with a management plan that has the same or similar outcome as an *Erosion and Sediment Control Plan*<sup>\*</sup>
- (l) clearance of pests thistles, ring ferns, carpet ferns, rushes, ink weed, briar rose, barberry, introduced pampas grass (other than toetoe), mingimingi, wilding pinus species, Japanese poplar, Japanese walnut, and pest plants referred to in the Regional Council's Regional Pest Plant Management Strategy and clearance of other pest plants for the purpose of habitat maintenance or enhancement or the for the purposes of horticultural production.

NOTE: The change made to Rule 14-2 and similar changes to Rules 12-6 and 13-23 are:

There must be no *discharge*<sup>^</sup> within any *rare habitat*<sup>\*</sup>, *threatened habitat*<sup>\*</sup> or *at-risk habitat*<sup>\*</sup>, except for the control of a pest plants for the purposes of habitat maintenance or enhancement, described in item (k) of the Glossary definition of *vegetation clearance*<sup>\*</sup> and *land disturbance*<sup>\*</sup>, or a pest animal in the Council's Regional Pest Animal Management Strategy.

## **Appendix 2**

### List of plants in Horizons One Plan able to be sprayed or cleared

African Feather Grass	Grey Willow
Alligator Weed	Heather
Australian Sedge	Ink Weed
Banana Passionfruit	Introduced Pampas Grass (other than Toetoe)
Barberry	Japanese Poplar
Blackberry	Japanese Walnut
Blue Passion Flower	Knotweeds (Asiatic Knotweed and Giant Knotweed)
Blue-leaved Wattle	Mingimingi
Boneseed (Bitou Bush)	Moth Plant
Briar Rose	Nassella Tussock (including Narrow Needle Grass)
Broom	Nodding Thistle
Californian Bulrush	Old Man's Beard
Carpet Ferns	Purple Loosestrife
Cathedral Bells	Ragwort
Chilean Rhubarb (Giant Rhubarb)	Ring Ferns
Chinese Pennisetum	Rushes
Climbing Spindleberry	Thistle
Containment Aquatic Pest Plants	Tutsan
Contorta Pine	Variiegated Thistle
Darwin's Barberry	Wilding Pinus species
Evergreen Buckthorn	Woolly Nightshade
Ginger (Kahili Ginger and Yellow Ginger)	
Gorse	

### List of pest plants horticulture growers spray or clear

Note: Most of the weeds identified above are perennials. Growers have more issues with annual weeds.

In addition there are insecticides applied to manage insect pests.

Apple of Peru	Cornbind
Bathurst bur	Cotula
Bitter cress	Cress
Buttercup	Daisy
Calancriinia	Dandelion
Cape Gooseberry	Dock
Catchfly	Fathen
Catsear	Fennel
Chamomiles	Field pansy
Chickweed	Field madder
Chicory	Fumitory
Cleavers	Galinsoga
Clover	Grasses

Groundsel  
Hawkbit  
Hawksbeard  
Hemlock  
Henbit  
Mallow  
Mayweeds  
Mouse ear chickweed  
Nettle  
Nightshade  
Nipplewort  
Onhunga weed  
Ox tongue  
Oxalis  
Parsley piert  
Plantains  
Poanua  
Purple cudweed  
Redroot

Saw thistle  
Scarlet pimpernel  
Shepherds Purse  
Soldiers Button  
Sorrel  
Sparrow grass  
Speedwell  
Spurge  
Spurry  
Staggerweed  
Storkbill  
Thorn apple  
Vetch  
Wild portulaca  
Wild turnip  
Willowweed  
Wireweed