BEFORE THE ENVIRONMENT COURT

In the matter of	appeals under clause 14 of the First Schedule to the Resource Management Act 1991 concerning proposed One Plan for the Manawatu-Wanganui region.
between	**FEDERATED FARMERS OF NEW ZEALAND** **ENV-2010-WLG-000148**
and	**MERIDIAN ENERGY LTD** **ENV-2010-WLG-000149**
and	**MINISTER OF CONSERVATION** **ENV-2010-WLG-000150**
and	**PROPERTY RIGHTS IN NEW ZEALAND** **ENV-2010-WLG-000152**
and	**HORTICULTURE NEW ZEALAND** **ENV-2010-WLG-000155**
and	**WELLINGTON FISH & GAME COUNCIL** **ENV-2010-WLG-000157**
	Appellants
and	**MANAWATU-WANGANUI REGIONAL COUNCIL** *Respondent*

REBUTTAL PLANNING EVIDENCE BY PHILLIP HARRY PERCY ON THE TOPIC OF SUSTAINABLE LAND USE AND ACCELERATED EROSION ON BEHALF OF WELLINGTON FISH & GAME COUNCIL

Dated: 30 March 2012

INTRODUCTION

1. My full name is Phillip Harry Percy. I prepared a statement of planning evidence on behalf of Wellington Fish and Game Council in this matter. In this evidence I rebut matters raised in the evidence of Lynette Wharfe (Horticulture New Zealand) and Shane Hartley (Federated Farmers of New Zealand).

2. I participated in planner conferencing on this matter and signed the planner conferencing statement dated 26 March 2012. A number of matters that were in contention between the planners based on their evidence in chief have been resolved during the course of conferencing. For this reason I will not provide rebuttal evidence on those agreed matters, but wish to reserve my position to do so should any of the conferencing parties choose to amend their positions on those matters.

WATER BODY SETBACKS

3. The evidence of Mr Hartley and Ms Wharfe recommend a 5m setback from water bodies for vegetation clearance, land disturbance and cultivation activities. Both of those planners have agreed in planner conferencing that a setback of 10m from specific water bodies is appropriate, however remain of the opinion that 5m is appropriate for other water bodies.

4. The technical conferencing statement records that the technical experts all agree that water body setbacks should be based on the recommendations of the Collier report[1]. The Collier approach applies a variable setback based on several parameters, including slope, drainage and soil characteristics. The setback is also specified as a percentage of slope length. Given the number of parameters involved and the reference to slope length, interpretation of the

[1]Collier K. J., Cooper A. B., Davies-Colley R. J., Rutherford J. C., Smith C. M. & Willamson R. B. (1995) *Managing riparian zones: A contribution to protecting New Zealand's rivers and streams vols. 1 & 2.* Wellington: Department of Conservation.

Collier approach into a rule is problematic due to its complexity. There are however similarities between the Collier approach and the setback methodology of the NV, which provided for larger setbacks based on the slope adjacent to the water body. In the NV, where there was a slope steeper than 15 degrees adjoining the water body, the applicable setback was whichever was the lesser of the distance to the point where the slope reduced to 15 degrees or 100m.

5. The NV riparian setback approach is certainly more complicated to apply than a single distance setback that is proposed by all of the planners (setback distances recommended are either 5m or 10m), however it does account for the greater risk of sediment discharge associated with slope that has been set out in the evidence of Associate Professor Death and Mr Ngapo, and which is mentioned in the Further Technical Conferencing Statement on this topic. On that basis, I am of the view that the NV setback approach could be applied as an alternative to a single setback distance (with the necessary amendments to fit into the modified rule stream).

6. The variable setback method also addresses the inflexibility of a single setback distance that may, in some instances, be excessive for a particular site. Ms Wharfe, Mr Hindrup and Mr Hartley state in the planner conferencing statement[2] that a 5m as opposed to a larger setback '*provides for the most efficient use of land for productive and other purposes*'. I agree that there may be circumstances where there is minimal slope present and that a setback in the region of 5m might be more appropriate than the 10m setback that I have recommended in my evidence in chief. However I do not agree with the other planners that this potential cost should be addressed by setting the permitted activity standard to provide for the lowest risk activities/situations. To do so neglects the potential costs in terms of environmental effects associated with providing an inadequate setback in other areas.

7. Reducing the setback to 5m to account for an exception impacts on the control necessary to manage the potential effects of the remaining situations (where there is a higher risk of adverse environmental effects). In my view, a

[2]See point 8 in the Planner Conferencing Statement

reduced setback, where it is appropriate, should be secured through a resource consent. A precautionary permitted activity setback standard provides for individual situations to be assessed on their merits through the consenting approach and lesser setbacks allowed where appropriate, but it does not allow inappropriate activities to occur largely unfettered.

8. The NV variable setback recognises that smaller setbacks are appropriate on flatter land. This flexibility provides a remedy to the concern raised by Ms Wharfe without compromising the management of the risk associated with slope.

9. In relation to Ms Wharfe's concern regarding costs to landowners resulting from lost productive land in larger setbacks, I do not consider that to be a significant issue. Non-compliance with a permitted activity standard only requires that a resource consent is obtained if land within those setbacks is to be used. There is of course the cost to the landowner of applying for the resource consent, however I do not agree with Ms Wharfe that larger setbacks result in loss of productive land.

10. If the NV setback approach is not applied, and a single water body setback is adopted, I remain of the view that a conservative setback is appropriate. This is because it needs to account for the higher risk situations, for example where activities have the potential for significant sediment discharges or where they will take place on sloping land (which also increases the risk of sediment runoff to water bodies). Given that scope is limited as to setbacks from water bodies other than those with adjacent sloping land, I consider that my recommendation of 10m remains appropriate[3].

WATER BODIES TO WHICH SETBACKS APPLY

11. During planner conferencing there was agreement between the planners, with the exception of Ms Wharfe, that the rivers to which setbacks should apply are rivers that are permanently flowing or rivers that are intermittently flowing but

[3] I note Associate Professor Death's recommendations in relation to larger fixed setbacks in his rebuttal evidence.

which have an active bed width greater than 1 metre.

12. The evidence in chief of Associate Professor Death emphasises the values associated with smaller streams, and also highlights the proliferation of smaller streams compared with larger rivers in the region. Contaminants entering a large number of small streams flow down into progressively larger rivers and therefore have a potentially significant effect on the contaminant loads in lower order rivers.

13. The river width applies only to intermittently flowing rivers and only those with an 'active bed', which is defined in the Glossary.

14. Associate Professor Death explains in his evidence in chief that limiting the focus of regulation to streams that meet the Clean Streams Accord width (wider than a stride and deeper than a redband), would result in at least 6000 km of stream length in the Manawatu catchment alone being excluded from regulatory management. Failure to ensure appropriate controls in regards to land use adjacent to these low order (1st, 2nd order) streams would compromise benefits derived from establishing regulation around land use adjacent to larger streams (high order streams eg 4th and 5th order), as water flows downhill from smaller headwater streams carrying sediment loads with it. In this way, sediment entering low order streams ultimately ends up in large lowland rivers.

15. While the Clean Streams Accord does not differentiate between permanently and intermittently flowing streams (although the depth aspect suggests permanently flowing), Associate Professor Death's evidence emphasizes that there is a very large proportion of the Region's rivers and streams that are narrower than 'a stride'. As he states in his rebuttal evidence '*There would be few ephemeral streams greater than 2m so a threshold of 2m would essentially mean no protection for ephemeral streams in the region'.*[4]

16. There will be a large number of intermittently flowing rivers that do not have active beds, including natural swales and channels that originate from small

[4] See para 6.2 of Rebuttal Evidence of Associate Professor Death

catchments where there is insufficient flow or energy to cause consistent bed erosion Mr Ngapo addresses this point in his rebuttal evidence[5] and confirms that setting the bed width at 2m would exclude many water bodies that carry significant water flows[6]. To restrict the water body setback to only intermittently flowing water bodies that have bed widths greater than 2m will not address the risk associated with discharges to many smaller intermittently flowing streams.

17. I therefore consider that, based on the technical evidence, 1m is the appropriate width for intermittently flowing streams for the purposes of the Chapter 12 water body setback provisions.

USE OF THE HORTICULTURE CODE OF PRACTICE FOR COMMERCIAL VEGETABLE GROWING AS A STANDARD IN A RULE

18. Ms Wharfe, in her evidence raised the question of whether cultivation should be regulated by a rule in the POP or could be suitably managed directly via sections 15 and 17 RMA[7]. Based on the Planner Conferencing Statement, Ms Wharfe's agrees that '*cultivation on flat land should be included within the permitted activity rule, however there is not agreement on the terms and conditions*'[8].

19. At para 115 of Ms Wharfe's evidence, she states '*I consider that a more pro-active and expedient approach is to include conditions requiring adoption of best management practices to ensure that growers, regardless of the proximity of water bodies, are undertaking all practicable measures to minimise sediment run-off from cultivation activities. This is 'putting the fence at the top of the cliff', which is a much more preferable and effects based approach'*. I understand, based on the recommended wording for Rule 12-3

[5] See paras 4.8 and 4.9 of the Rebuttal Evidence of Norm Ngapo
[6] See rebuttal evidence of Norm Ngapo
[7] See evidence of Lynette Wharfe, paras 55-69, pg 16
[8] Planner Conferencing Statement 26 March 2012, Point 18

that Ms Wharfe has included in Appendix 1 of her evidence, that the 'best management practices' she refers to are included in the Code of Practice for Commercial Vegetable Growing in the Horizons Region (Horticulture New Zealand) Version 2010/12 (Hort COP).

20. I agree with the sentiment of Ms Wharfe's statement that educating and enabling people to proactively manage their activities to avoid or minimise adverse effects is desirable. However I do not agree that such an approach, on its own, will achieve the resource management objectives. I also do not agree with Ms Wharfe that using the current Hort COP is more 'effects based' than rule standards specifying water quality outcomes

21. I have reviewed the Hort COP, which was attached to the evidence of Mr Barber. It appears to me to be a valuable guide to assist landowners to manage their activities to minimise soil loss and off-site discharges. It provides basic descriptions of the techniques suggested and brief explanation of the benefits (and in some cases, risks) for each of the techniques. The Hort COP also provides guidance on completing a 'paddock assessment' as a first step to identify areas of risk and to plan where particular erosion and sediment control measures will be placed.

22. However the Hort COP does not provide sufficient certainty to enable it to be consistently applied across the Region. There is very little detail on what the design requirements for the different measures are, in what circumstances they should be used, and how they should be used in conjunction with other measures. For example, the description of how to size a Grassed Swale[9] is '*The size is based on the catchment area above the paddock. As a minimum the swale should be at least 3m wide. The swale is shaped into a flat shallow saucer about 0.3m deep that can be easily driven across if it needs to intersect the cultivated rows'*. In my view, that description provides little assistance to landowners in determining how to size a swale. In particular, the reference to the swale being sized based on the catchment area provides no certainty to landowners that they have sized their swale appropriately and relies on an existing knowledge of catchment characteristics and flows to

[9]Section 2.5, pg 12

enable the swale to be properly sized to be effective. Mr Ngapo[10] and Mr Eyles[11] also identify limitations with the Hort COP in terms of its use as a permitted activity standard.

23. In terms of s70 RMA, the Court must be satisfied, before including a rule that permits a discharge of contaminants to water, that the listed effects are unlikely to arise after reasonable mixing. My understanding is that s70 RMA does not require that the listed effects must be included in the Plan as standards that must be achieved, or that some other numeric standard must be included. I acknowledge that the outcomes required by s70 RMA could be achieved by other means, such as compliance with an appropriate code of practice. However, such a code of practice would need to provide sufficient certainty that, in the majority of circumstances, its proper application will mean that the s70 RMA effects are unlikely to occur.

24. In my view, the Hort COP does not provide sufficient certainty that the implementation of some or all of the measures as described in the Hort COP will result in the relevant adverse environmental effects being avoided or mitigated and therefore I do not consider the Hort COP is suitable as a permitted activity standard. My view on this is supported by the Further Technical Conferencing Statement at point 17 where the experts agree that the Hort COP does not provide sufficient certainty that water quality outcomes intended by s70RMA / Schedule D (no conspicuous change in colour or visual clarity/<20% change in visual clarity after reasonable mixing, no significant adverse impacts on aquatic life) will consistently be achieved.

25. Ms Wharfe places some weight in her evidence on the ability of the Council to rely on sections 15 and 17 RMA should there be a water quality issue arising from cultivation activities. This argument could perhaps be made to address the shortcomings of the Hort COP that I have mentioned above. However that approach does not resolve the s70 RMA matter, and it also creates the contra to Ms Wharfe's 'fence at the top of the cliff' because the only time that those sections of the Act would be used would be "at the bottom of the cliff" once

[10] See Section 7 of the Rebuttal Evidence of Norm Ngapo
[11] See Section 5 of the Rebuttal Evidence of Garth Eyles

there has been an apparent environmental effect. Landowners would not have the surety that implementing the Hort COP would avoid enforcement action taken under sections 15 and 17.

26. Mr Barber states in his evidence '*All growers have control over the practices that they put in place to minimise soil erosion and sediment loss. Consequently the focus should be on engagement, problem recognition, and cooperatively developing solutions. Sending an abatement notice for breaching Schedule D, even if it could be attributed to a single source, is not going to achieve the goal of minimizing sediment loss from cultivated land*'. I agree with Mr Barber that there should be a focus on working with landowners to assist them in understanding the issues and educating them in appropriate management practices, however I do not agree with Mr Barber's proposition that regulation should not be part of the suite of management tools.

27. In my view, a properly balanced combination of non-regulatory and regulatory measures is most appropriate for addressing resource management issues such as this. Contrary to the interpretation Mr Barber has made of the passages he quotes from the evidence of Neels Botha and the conferencing statement of Mr Botha and Terry Parmenter, my reading of that evidence is that both Mr Botha and Mr Parmenter consider that a combination of methods are necessary to effect change. Their evidence suggests that adopting just one method is unlikely to work for all landowners. In the case of voluntary measures, these need to be supported by appropriate regulation to ensure that the landowners that do not respond to voluntary approaches do not have a free ride. Mr Barber appears to be suggesting that the regulation should only be put in place once non-regulatory methods have been implemented and given sufficient time to be effective. My understanding of the evidence of Mr Botha and Mr Parmenter is that regulation can be put in place at the same time as the non-regulatory measures.

28. As stated in my evidence in chief, I am of the view that inclusion of a numeric water quality standard is appropriate for a permitted activity rule relating to cultivation. It addresses the requirements of s70 RMA (if the numeric standard is unlikely to be met a resource consent is triggered) and it provides a

measurable level of achievement against which a wide range of avoidance or mitigation measures can be benchmarked. Associate Professor Death explains how a simple field technique can be used to measure compliance with visual clarity standards[12]. Such a standard can be used effectively in conjunction with tools like the Hort COP whereby landowners will need to design and size their erosion and sediment control structures to achieve a certain outcome. Where the Hort COP does not provide a landowner with sufficient information to determine whether implementation of its recommended measures will achieve the numeric water quality standard, I would anticipate that the landowner would seek further advice from a person with expertise in designing the measures.

29. In my view, the Hort COP is a valuable guidance tool for people undertaking cultivation activities associated with growing horticultural crops, but I consider that it is not sufficient as a permitted activity standard.

APPROPRIATE VISUAL CLARITY STANDARD

30. Mr Hartley in his evidence recommends that the reference to Schedule D numeric included in Mr Hindrup's proposed rules (and subsequently in my evidence) would be more appropriately a reference to a qualitative standard (noticeable change in colour and clarity[13]). I assume that Mr Hartley means the effects specified in s70(1)(c) RMA. His reasoning for this is that the s70 description is more easily understood and applied than a quantitative standard.

31. I am of the view that either Mr Hartley's approach (s70 RMA) or the approach put forward by Mr Hindrup and myself would be appropriate. In this case, the focus is on managing discharges of sediment to water and therefore effect on clarity in particular is of relevance. However I consider that Schedule D provides a local 'interpretation' of the s70 reference to change in clarity in that

[12] See para 5.3 of the Rebuttal Evidence of Russell Death

[13] Mr Hartley quotes Mr McConchie's evidence, which refers to 'noticeable change in colour and clarity'. S70(1)(c) says 'any conspicuous change in colour or visual clarity', which is a different standard to the recommended in Dr McConchie's evidence.

it refers to a specific % change in visual clarity. In my view, a specific and measurable version of the standard is preferable to a more subjective approach, as it provides greater certainty to both landowners and to the Council.

32. I therefore do not consider that direct reference to the s70 standard is the most appropriate way to define a standard for permitted activity rules and instead prefer the reference to the Schedule D numeric for change in visual clarity.

33. Mr Barber (Horticulture New Zealand) states at paragraph 20 of his evidence in chief '*Prescriptive performance standards as proposed by Hindrup while arguably measurable make no allowance for context or discretion*'. I largely agree with Mr Barber's statement when considered in isolation of the context of his evidence. In my view, a good standard for a permitted activity rule should be measurable and it should make no allowance for discretion. Those two aspects are necessary to provide certainty and also to ensure that the standard is enforceable. Standards can be designed to allow for context and I consider that the reference to the Schedule D limit for change in visual clarity makes some allowance for context. Because Schedule D sets limits for each water management zone, those limits are relevant to the area in which they are applied. The visual clarity standard is also measured as % change, which means that the discharge is measured in the context of the water quality at the time.

TRIGGER FOR LARGE-SCALE LAND DISTURBANCE IN EROSION MANAGEMENT AREAS

34. In my evidence in chief I have recommended that the area threshold trigger for land disturbance in Hill Country Erosion Management Areas should be $100m^2$ or $100m^3$. This trigger has been agreed by the planners in

conferencing[14].

35. The Further Technical Conferencing Statement records agreement between the technical experts that land disturbance on land at elevated risk of erosion is unlikely to result in adverse effects that are more than minor where the area of land disturbance involved is 2500m^2 or less. However this position is qualified in point 7 of the conferencing statement where the experts state '*All parties agree to the need for an 'appropriate' level of water, erosion and sediment control to avoid sediment contaminated discharge to water. All parties agree to the use of the word "appropriate" because of variability throughout the region and consequently the need for site specific management decision making*.'

36. My reading of the technical conferencing statement on this matter is that the technical experts consider that 2500m^2 would only be an appropriate threshold for permitted activity land disturbance on Hill Country Erosion Management Areas if there are measures in place that will avoid sediment discharges to water (point 7) and both the nature and extent of the activity, and the erosion and sediment control measures proposed, have been assessed (on a site-specific basis) by a Council officer to ensure that any erosion or discharge of sediment to water bodies as a result of the activity will be avoided (point 13).

37. Based on the evidence of Mr Ngapo and Mr Kirk, I consider that it is unlikely that sediment discharges will be able to be avoided from such land disturbance activities without very carefully designed and implemented erosion and sediment control measures. This is because slope significantly increases the risk of erosion and sediment discharges. In my view, there is a high need for consideration of the appropriateness of erosion and sediment control measures, and also on the appropriateness of the activity itself, through a resource consent process for land disturbance up to 2500m^2 in area.

38. As a result I do not consider that 2500m^2 is an acceptable threshold for

[14] See Planner Conferencing Statement

permitted activity status in Hill Country Management Areas, as this will not ensure erosion and sediment control measurements are in place that will avoid adverse effects.

39. There may be situations where a small amount of land disturbance is required on Hill Country Erosion Management Areas, and the risk associated with small amounts of land disturbance are low in terms of erosion and sediment discharges. Therefore I do not consider that resource consent for those small activities is necessary. I continue to support the $100m^2/100m^3$ threshold included in my evidence in chief and in the planner conferencing statement.

AMENDED PROVISIONS

40. During planner conferencing on this topic agreement was reached on a number of points, however a set of tracked changes provisions reflecting those agreements has not been finalised and agreed by the planners involved in conferencing. I understand that Mr Hindrup will be attaching plan provisions that will record the position reached between the planners at conferencing. If necessary I will comment on them in supplementary evidence.

41. Where the provisions arising from planner conferencing identify areas of disagreement, the provisions I recommended in my evidence in chief continue to be the provisions that I recommend.

Phillip Percy

APPENDIX 1 – RECOMMENDED ALTERNATIVE WATER BODY SETBACK CONDITION

The following condition is proposed as an alternative water body setback condition to be included on all permitted activity rules, and reflects outcomes of technical conferencing where technical experts agreed that a variable water body setback is required with slope being one of the variables.

(a) The activity must not occur on *land*^ that is:

(i) for areas where the land slope* is between 0° and 15°, within 10 m of the bed of the following water bodies:

(1) the *bed*^ of a *river*^ that is permanently flowing
(2) the *bed*^ of a *river*^ that is not permanently flowing and has an *active bed** width greater than 1 m
(3) the *bed*^ of a *lake*^
(4) A wetland^ as identified in Schedule E
(5) Sites valued for trout spawning as identified in Schedule AB, or
(6) Sites of Significance Aquatic as identified in Schedule AB

(ii) for areas where the land slope* is greater than 15°, within the strip of land bordered by the bed of the water bodies listed in (a)(i)(1) to (6), and a setback distance (being not less than 10 m) at which the slope reduces to 15° or 100 m, whichever is the lesser.