

IN THE MATTER

of the Resource Management Act 1991

AND

IN THE MATTER

of appeals lodged against proposed Plan Change 2
to the Manawatu-Whanganui One Plan

**JOINT WITNESS STATEMENT OF PASTORAL FARM SYSTEM AND
PLANNING EXPERTS**

13 March 2023

INTRODUCTION

1. This joint expert witness statement relates to the appeals lodged against proposed Plan Change 2 (**PC2**) of the Manawatu-Whanganui One Plan which focuses on existing intensive farming land use activities within targeted water catchments in the region.
2. At mediation held on 12 December 2022 it was agreed that a risk framework approach should be initially explored further between the experts, with a view to reporting back to parties at a further mediation in early 2023. The matters agreed to, along with agreed next steps, are within a Mediation Agreement dated 12 December 2022.
3. Further expert conferencing was undertaken in February 2023 with a session held for each sub-group of experts: commercial vegetable growing experts, pastoral experts and planning experts. At the planning conferencing on 24 February 2023, it was recommended that a joint conference occur between the planning and farm system advisors in order to progress the matrix and proposed risk scorecard approach within the context of the rule and planning framework.
4. Farm system and planning experts attending the conference were:
 - (a) Professor David Horne (**DH**) for Manawatū-Whanganui Regional Council (**Horizons**);
 - (b) Dr Paul Le Miere (**PL**) for Federated Farmers (via AVL);
 - (c) Dr Elizabeth Parlato (**EP**) for Wellington Fish and Game and Ngāti Turanga;
 - (d) Christine Foster (**CF**) for Manawatu-Whanganui Regional Council (**Horizons**); and
 - (e) Gerard Willis (**GW**) for Federated Farmers (via AVL).
5. Greg Carlyon (**GC**) for Ngāti Turanga and Wellington Fish and Game Council (via AVL) was able to participate for the beginning of expert conferencing from 2pm until ~3pm. While GC was present, there were no agreed positions recorded, therefore, he has not signed this statement.
6. Dr Anne-Maree Jolly for Horizons attended the conferencing session as an observer given her role in co-ordinating the development of a risk framework for commercial vegetable growing (CVG). Expert conferencing for the CVG topic is proposed for Tuesday 14 March 2023.

AGREED QUESTIONS

The scope of issues to be covered at expert conferencing were set out in an agreed agenda and are set out below at [12].

CODE OF CONDUCT

7. This joint witness statement is prepared in accordance with section 9.5 of the Environment Court Practice Note 2023.
8. We confirm that we have read and complied with the Code of Conduct for Expert Witnesses.

PURPOSE AND SCOPE OF CONFERENCING

9. Refer paragraph [3] above.
10. This conferencing session builds on earlier discussions between the experts as part of a suite of workshops, with expert conferencing statements dated 28 June 2022, 25 August 2022, and 7 October 2022 having previously been agreed to by the participating experts. Refer paragraph [3] above.
11. The scope of the issues covered at the conference included:
 - (a) Update on Professor Horne's risk matrix and Dr le Miere's review;
 - (b) Risk scorecard manual/assessment methodology;
 - (c) Confirmation of numbers in risk matrix, the risk scorecard manual and any other information needed to complete the risk scorecard or apply the risk matrix;
 - (d) Draft rule framework;
 - (e) Definitions;
 - (f) Potential policy amendments necessary to support the rule framework; and
 - (g) Further work required.

AGREED ISSUES

12. Refer to Annexure A.

DISAGREEMENT AND REASONS

13. Refer to Annexure A.

Date: 13 March 2023



Professor David Horne



Dr Paul Le Miere



Dr Elizabeth Parlato



Christine Foster



Gerard Willis

ANNEXURE A

In the matter of Proposed Plan Change 2

Expert conferencing – Intensive Farming Risk Scorecard Continuation (Pastoral and Planning Experts)

Issue	Statements	Agreed Position	Disagreements
Topic 1 – Update on DH matrix and PL review			
DH outlined the progress on the risk matrix so far and what has been previously agreed by the experts. Explained that it was agreed that DH would provide his numeric values from the risk matrix discussed in February to PL who would use further data to road test the risk matrix and adjust the numeric values. PL took his Fonterra data and cross-referenced this with Dairy NZ data to find consented and unconsented farms (194 unconsented farms). He was unable to get the exact location of each farm to determine which exact cell in the risk matrix table they would fit into, however, he took an average of the rainfall and soil type of farms in each water management zone to complete his assessment. He determined that some of the numerical scores in DH's original matrix were too harsh and has readjusted the risk matrix values. PL's amended matrix compared to DH's original matrix is attached at Attachment 1.			
Disclosure of underlying data – Federated Farmers.	GC expressed concern about transparency of PL's data which has not been made available to the other pastoral farm system experts. PL explained that his summary spreadsheet can be shared (and has now been shared with DH and EP) but Fonterra have not allowed him to share the individual farm data with other experts. GC suggested that DH and EP could sign a non-disclosure agreement or anonymise the data and sit in a room with PL to check that they agree with PL's calculations. Action Point: PL/GW to get in touch with Fonterra tomorrow morning to find a way for EP and DH to verify the data and PL's analysis of the data. PL/GW to report back tomorrow morning (14 March).		

Issue	Statements	Agreed Position	Disagreements
Farm system experts' opinions on PL's amended matrix.	DH is comfortable with PL's numeric values in the amended matrix. Changes made in the top left corner and bottom right corner are most significant but DH is happy to adopt these new values – the bottom right corner will still require a lot of change for those farmers with coarse soils and high rainfall. PL and DH are confident that the numeric values in the amended matrix will drive on-farm practice change which in their view is the purpose of PC2. EP is going to look at PL's spreadsheet (EP received at conferencing) to understand the analysis before providing her thoughts. Action Point: DH is to provide an extra version of his matrix to include irrigation farms. Action Point: EP to arrange meeting with PL tomorrow morning (14 March) at 10:30am to discuss PL's analysis. Action Point: DH, PL and EP to meet on morning of Wednesday 15th March at 9am to advance their thinking to provide a view to mediation.		
Topic 2 – Risk scorecard manual/assessment methodology (GC was not present from this point onwards)			
		All experts are comfortable with the risk assessment scorecard being contained in a schedule to the One Plan, provided that it remains a relatively simple document (similar to that circulated by CF) once explanations have been added.	

Issue	Statements	Agreed Position	Disagreements
		All experts agree that the summarised 5 step approach in CF's draft needs to be replaced by a more comprehensive explanation to be drafted. The experts also agree that the scorecard also needs further explanations of what each of the factors represents and some definitions. Explanations will need to include clarification of how to account for variability in biophysical factors within farms and the experts agree that this should be on a proportional basis. It also needs to be clarified that scores need to be aggregated to calculate the farm's nitrogen leaching risk (as defined). Action Point: DH, PL and EP to provide a draft of these explanations/definitions. Planning experts will then draft these into the plan schedule – this may occur after mediation. All experts expect that the explanations/definitions will be readily agreed as the farm systems experts have already agreed to these methods and definitions in previous joint witness statements. All experts support the use of 6 farm management factors. Horizons will populate them with the values agreed by the farm system experts. EP notes that she had not been engaged at the time the relevant experts	

Issue	Statements	Agreed Position	Disagreements
		agreed the values for the farm management factors and mitigations in the scorecard but is comfortable with the overall approach taken and understands that the values have been based on best available information. GW and CF agree that the limits in Tables 1 and 2 of CF's circulated manual can be incorporated into the rule framework alongside Table 14.2. Noting that the issue of how to manage properties which span different biophysical boundaries needs to be defined.	
Topic 3 – Outstanding matters			
Confirmation of numbers in risk matrix.		All farm system experts agree that the numbers cannot be confirmed as EP is not in a position to confirm the numbers until she has had an opportunity to review PL's spreadsheet. See Topic 1 above.	
Confirmation of risk scorecard manual.		All experts agree in principle to the adapted nitrogen leaching risk scorecard subject to finalisation of the numeric risk values and inclusion of necessary explanations and definitions. See Topic 2 above.	
Any other information needed to complete risk scorecard or apply the risk matrix.		All farm system experts agree that the headings of the columns in Table 1 should be changed to be profile available water and provide mm range (High – Low). All farm system experts agree that the reference map for determining soil type by profile available water is from the fundamental soil layer of the Manaaki Whenua portal. CF and GW agree that the map should sit in the plan, noting that	

Issue	Statements	Agreed Position	Disagreements
		it is a GIS layer and can be made accessible through the Horizons website. All farm system experts agree that the NIWA long-term rainfall map will be used to determine rainfall. CF and GW agree that this map will go into the plan. Action Point: DH to supply NIWA map to planners.	
Topic 4 – Draft rule framework, definitions and potential policy amendments			
		All experts agree that the scorecard is called the “Nitrogen leaching risk scorecard”. In the rule framework, planners should refer to the “nitrogen leaching risk” and “nitrogen leaching risk limit”. These terms need to be defined.	
		CF and GW agree that condition d(iv) should specify the application must be lodged within 1 year of the operative date of PC2; and the reductions proposed in the application must be achieved within 2 years of grant of consent.	
		CF and GW agree the red highlighted changes in the “Control” column in CF’s circulated draft are appropriate.	
		CF and GW agree to check the policy framework accounts for mitigations a farmer might put in place to address surface runoff of nutrients, faecal contamination and sediment losses from the land.	

Issue	Statements	Agreed Position	Disagreements
Policies		CF and GW agree that the policy framework will need to be updated to reflect the language (nitrogen leaching risk) agreed to today. See Attachment 2 .	
Topic 5 – Any other matters			
Further work		See action points above.	

Attachment 1

Paul's proposed matrix (amended numbers in red):

		Profile available water		
		151-350mm	61-150mm	0-60mm
Rainfall	<1000	180	180	130
	1000-1300	180	150	120
	1300 -1600	150	130	110
	>1600	150	120	110

Dave's original matrix:

		Profile available water		
		151-350mm	61-150mm	0-60mm
Rainfall	<1000	200	200	120
	1000-1300	200	150	100
	1300 -1600	150	120	86
	>1600	150	100	86

Attachment 2

GW and CF agreed the following amendments to the PC2 policy framework:

1. Throughout the policy framework, the terminology will need to be updated to refer to 'nitrogen leaching risk' agreed to at joint expert conferencing 13.03.23;
2. Policy 14-5 (d) (ii): delete cumulative nitrogen leaching maximum and replace with the expression 'nitrogen leaching risk' (to be a defined term) as follows:
 - ii. The **nitrogen leaching risk*** ~~cumulative nitrogen leaching risk maximum~~* values calculated in accordance with Schedule [Y];
3. Policy 14-5 (d) (iii): clarify that the application for consent must be lodged within twelve months of the operative date of PC2 and that the mitigations proposed in the application to reduce risk will be implemented within two years of the date of the grant of consent as follows:
 - iii. provided that, in (i) and (ii) above, the application for consent is lodged no later than ~~31 December 2022~~ [a date twelve months from the operative date of PC2] and the mitigations proposed in the application to reduce nitrogen leaching risk are implemented within two years of the date of the grant of consent.
4. Policy 14-6 (e) (iv): insert an additional matter to be given particular regard:
 - (iv) For any application to exceed the limits described in Policy 14-5 (d) (i), any rainfall record for the property (and the reliability of that record) and any farm scale assessment of the water holding capacity of the soils on the property.
5. Policy 14-6 (g) (i): There is a spelling error: delete the 'do' as follows: '.....loss from the land^ ~~de~~ does not increase....'