

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 EXPERTS

15 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. During resumed mediation on 15 March 2023, Fish and Game expressed some outstanding concerns around the nitrogen leaching risk matrix for the pastoral farm system experts to resolve. Therefore, the pastoral farm systems experts held a brief expert conferencing session to agree on these points and report back to the parties.
3. Farm system 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); and
 - (c) Dr Elizabeth Parlato (**EP**) for Wellington Fish and Game and Ngāti Turanga;
4. Dr Anne-Maree Jolly for Horizons attended the conferencing session as an observer only.

AGREED QUESTIONS

5. The scope of discussion was agreed by the parties at resumed mediation. The key areas of concern which were discussed are set out at [10].

CODE OF CONDUCT

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

PURPOSE AND SCOPE OF CONFERENCING

8. Refer to paragraph [2] above.
9. This conferencing session builds on earlier discussions between the experts as part of a suite of workshops.

10. The scope of the issues covered at the conference included:
- (a) Concerns about outliers in Professor Horne's presentation;
 - (b) Concerns about water quality outcomes; and
 - (c) Irrigated dairy farms.

AGREED ISSUES

11. Refer to Annexure A.

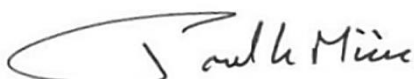
DISAGREEMENT AND REASONS

12. There were no areas of disagreement.

Date: 15 March 2023



Professor David Horne



Dr Paul Le Miere



Dr Elizabeth Parlato

ANNEXURE A

In the matter of Proposed Plan Change 2

Expert conferencing – Intensive Farming Risk Scorecard Continuation (Farm Systems Experts – DH, EP, PL)

Issue	Statements	Agreed Position
Topic 1 – Outliers		
Fish and Game are concerned about Upper Manawatu being an outlier in DH's presentation by only needing a 6% change in risk score.	The Upper Manawatu farmers are performing well already which means they are not requiring as much of a change to their risk score to reach the nitrogen leaching risk limit.	All experts (DH, EP and PL) are comfortable that this explains the outlier percentage.
Topic 2 – Confidence in correlation between nitrogen leaching risk and actual nitrogen leaching rate into the waterways		
Fish and Game are concerned about the water quality outcome.	In relation to outcomes for water quality, DH supplied Ton Snelder with leaching rates from dairy farms which were inputs into his catchment scale model for quantifying the effects of the original PC2 on water quality. These inputs and subsequent modelling indicated a 'modest' improvement in water quality. Given that the risk matrix will lead to similar adoption of practice change and similar reductions in nitrogen leaching, DH and PL are confident that we will achieve a similar improvement in water quality. Action Point: DH to draft paragraph to further explain this to the parties by tomorrow (16 March).	On that basis and in conjunction with previous analyses by DH and PL, EP feels comfortable with the values in the pastoral nitrogen leaching risk matrix, and understands that the matrix is likely to have similar modelled outcomes for water quality.
Topic 3 – Irrigated dairy farms		
Discussed irrigated dairy farms which are not covered by the pastoral or CVG nitrogen risk scorecards.	Action Point: PL to complete further analysis of risk matrix being applied to irrigated dairy farms by tomorrow (16 March).	All experts agree that further work needs to be completed to incorporate irrigated dairy farms.