

**IN THE ENVIRONMENT COURT
WELLINGTON REGISTRY**

**I TE KŌTI TAIAO O AOTEAROA
TE WHANGANUI-A-TARA ROHE**

UNDER	the Resource Management Act 1991
IN THE MATTER	of appeals under sch 1, cl 14(1) against the decision of Manawatū-Whanganui Regional Council on Plan Change 2 to the One Plan
BETWEEN	TE RUNANGA O RAUKAWA ENV-2021-WLG-20 NGĀTI TURANGA ENV-2021-WLG-21 ANDREW DAY ENV-2021-WLG-22 WELLINGTON FISH AND GAME COUNCIL ENV-2021-WLG-23 Appellants
AND	MANAWATŪ-WHANGANUI REGIONAL COUNCIL Respondent

**STATEMENT OF REPLY EVIDENCE OF PETER WILLIAM JOHN CLOUGH ON BEHALF OF
MANAWATŪ-WHANGANUI REGIONAL COUNCIL**

MACROECONOMIC IMPACTS

Dated: 5 February 2024


Cooper Rapley Lawyers
227-231 Broadway Avenue
PO Box 1945
Palmerston North
DX PP80001

S Johnston / A J R Sinclair
 06 353 5210
 06 356 4345
 sjohnston@crlaw.co.nz

STATEMENT OF REPLY EVIDENCE OF PETER WILLIAM JOHN CLOUGH**A. INTRODUCTION**

- [1] My full name is Peter William John Clough.
- [2] I prepared a statement of evidence dated 17 January 2024 (**Evidence**) on the macroeconomic impacts of Proposed Plan Change 2 to the One Plan (**PC2**) on behalf of the Manawatū-Whanganui Regional Council (**Horizons**).
- [3] My experience and qualifications are set out in my Evidence.
- [1] I repeat the confirmation given in my Evidence that I have read and will comply with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2023, and that my evidence has been prepared in compliance with that Code.

B. SCOPE

- [2] This short statement in reply addresses the evidence of Alison Dewes, dated 29 January 2024, insofar as it relates to the macroeconomic modelling undertaken by NZIER.

C. RESPONSE TO DR DEWES

- [3] Dr Dewes' supplementary evidence, although described in its scope as commenting on my evidence of 17 January 2024, largely addresses Dr Parminter's work rather than NZIER's. In doing so, Dr Dewes questions the data relied on by NZIER. There are some discrete points I wish to comment on below.
- [4] To begin, I note that I have read the brief of evidence prepared by Dr Parminter in response to Dr Dewes.¹ While not presenting as a farm management expert, I do have post graduate diploma in agricultural economics from Massey University, and report that I find nothing in Dr

¹ Statement of Evidence of Terry Parminter (5 February 2024).

Parminter's evidence raising flags about unsuitability of the evidence for use as inputs into NZIER's macro-economic model.

[5] Section 5 of Dr Dewes' evidence largely comments on the various inputs into the 2018 and 2020 NZIER reports attached to my Evidence. I wish to make two brief points:

(a) When discussing our 2018 report in her paragraph 5.6, second sub-paragraph, Dr Dewes misunderstands the data we relied on by stating we made assumptions after discussions with Horizons and WSP. WSP was not involved in the project until 2020.

(b) Similarly in her paragraph 5.9, Dr Dewes states that in 2020 our CGE scenarios were remodelled with an additional scenario of partial compliance, drawing on analysis by Ford (2017). However, in 2020 we had WSP estimates for both commercial vegetables and dairying for our modelling of partial compliance scenario.²

[6] I would highlight that Figure 6 of the 2020 report³ is a much clearer summary of the modelling inputs: Parminter (2018) was used for Scenario 0 as this was the baseline, and an averaging approach from Parminter's Tararua survey was used to infer impacts in the other districts for which there was no direct data. Information from WSP (2020) was used as inputs into Scenarios 1 and 2 to consistently model the difference with and without the consenting pathway.⁴

[7] In her paragraph 6.13, Dr Dewes says "*Farmers are manoeuvring their system [sic] in response to other influences apart from just environmental regulation... in my opinion farm system change would need to take into account recent innovations, market and other influences*". This is fine, in theory, for an individual farmer considering how to plan their future operations and development. However, it is impractical when considering modelling of policy shifts across an entire sector, where the number of

² Statement of Evidence of Peter Clough (17 January 2024) at Appendix B, page 6.

³ Statement of Evidence of Peter Clough (17 January 2024) at Appendix B, page 7.

⁴ WSP Horizons Regional Council Proposed Plan Change 2: Farm Scale Financial Impact Model (4 September 2020) at section 7.3.

farms, enterprises and influences on them multiplies to enormous proportions. A similar point is made by Dr Parminter in his reply.⁵

- [8] The purpose of the NZIER macroeconomic modelling was to model a single policy change in a defined subset of industries, to identify how the resulting impacts flow through to other sectors across the economy.
- [9] In my opinion, Dr Dewes is making two related points. The first is about whether all possible responses are being considered, including change in land use and other enterprises outside the current mix of activities (such as forestry). The second is about whether in predicting impacts of a policy change other influences than that policy change should also be considered. While ideally it could be useful to widen the analysis in both of those respects, in practice it is often not feasible, as there is limited time and budget to rectify deficiencies in data, and splitting sectors in a multi-sectoral CGE model creates a computational load that is unwieldy and no more accurate than the aggregated, simplified models we currently have. As I have noted, there are limits to how much it is worth refining inputs as it would need a very large change in inputs to change the results of a macro-model.⁶
- [10] As I explained in my Evidence, our analysis is not a forecast of what will happen, rather an assessment of reverberations across the economy.⁷ We assume technologies and economic structures broadly similar to those available now, as that is the known base from which the future changes will evolve. To do otherwise and factor in future changes would open the analysis to assumption-based noise, which obscures the specific impacts we want to examine. This would result in modelling outputs which were simply too speculative to carry any weight.

5 February 2024

Peter William John Clough

⁵ Statement of Evidence of Terry Parminter (5 February 2024) at 17-20.

⁶ Statement of Evidence of Peter Clough (17 January 2024) at 20.

⁷ At footnote 6.