

**BEFORE THE ENVIRONMENT COURT  
I MUA I TE KOOTI TAIAO O AOTEAROA**

**UNDER** the Resource Management Act 1991

**IN THE MATTER** of appeals under Clause 14 of the First Schedule of the Act

**BETWEEN** **TRANSPower NEW ZEALAND LIMITED**  
(ENV-2018-CHC-26)

**FONterra CO-OPERATIVE GROUP**  
(ENV-2018-CHC-27)

**HORTICULTURE NEW ZEALAND**  
(ENV-2018-CHC-28)

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**SUPPLEMENTARY STATEMENT OF EVIDENCE OF MATTHEW  
MCCALLUM-CLARK ON BEHALF OF SOUTHLAND REGIONAL COUNCIL**

**HIGH RISK PASTURE WINTER GRAZING - PASTURE RESIDUAL**

**11 August 2022**

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Judicial Officer: Judge Borthwick

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**ARATIATIA LIVESTOCK LIMITED**  
(ENV-2018-CHC-29)

**WILKINS FARMING CO**  
(ENV-2018-CHC-30)

**GORE DISTRICT COUNCIL, SOUTHLAND DISTRICT  
COUNCIL & INVERCARGILL CITY COUNCIL**  
(ENV-2018-CHC-31)

**DAIRYNZ LIMITED**  
(ENV-2018-CHC-32)

**H W RICHARDSON GROUP**  
(ENV-2018-CHC-33)

**BEEF + LAMB NEW ZEALAND**  
(ENV-2018-CHC-34 & 35)

**DIRECTOR-GENERAL OF CONSERVATION**  
(ENV-2018-CHC-36)

**SOUTHLAND FISH AND GAME COUNCIL**  
(ENV-2018-CHC-37)

**MERIDIAN ENERGY LIMITED**  
(ENV-2018-CHC-38)

**ALLIANCE GROUP LIMITED**  
(ENV-2018-CHC-39)

**FEDERATED FARMERS OF NEW ZEALAND**  
(ENV-2018-CHC-40)

**HERITAGE NEW ZEALAND POUHERE TAONGA**  
(ENV-2018-CHC-41)

**STONEY CREEK STATION LIMITED**  
(ENV-2018-CHC-42)

**THE TERRACES LIMITED**  
(ENV-2018-CHC-43)

**CAMPBELL'S BLOCK LIMITED**  
(ENV-2018-CHC-44)

**ROBERT GRANT**  
(ENV-2018-CHC-45)

**SOUTHWOOD EXPORT LIMITED, KODANSHA  
TREEFARM NEW ZEALAND LIMITED, SOUTHLAND  
PLANTATION FOREST COMPANY OF NEW ZEALAND**  
(ENV-2018-CHC-46)

**TE RUNANGA O NGAI TAHU, HOKONUI RUNAKA,  
WAIHOPAI RUNAKA, TE RUNANGA O AWARUA & TE  
RUNANGA O ORAKA APARIMA**  
(ENV-2018-CHC-47)

**PETER CHARTRES**  
(ENV-2018-CHC-48)

**RAYONIER NEW ZEALAND LIMITED**  
(ENV-2018-CHC-49)

**ROYAL FOREST AND BIRD PROTECTION SOCIETY  
OF NEW ZEALAND**  
(ENV-2018-CHC-50)

**Appellants**

**AND**

**SOUTHLAND REGIONAL COUNCIL**

**Respondent**

## **Introduction, qualifications and experience**

- 1 My name is Matthew Eaton Arthur McCallum-Clark. My qualifications and experience are set out in full in my statement of evidence dated 22 October 2021.
- 2 This evidence responds to the Court's direction of 10 August 2022 to propose wording for a post-grazing residual measure in Appendix N.

## **Background**

- 3 The Court has heard evidence from various parties<sup>1</sup> and has before it Joint Witness Statements (**JWSs**) from the farm systems experts<sup>2</sup> and the planners<sup>3</sup> in relation to High Risk Pasture Winter Grazing and the use of a "pasture residual" measure.
- 4 In the 3<sup>rd</sup> Planning JWS, and in answers to questions on the final version of the Council's relief provided to the Court on 03 August 2022, I supported use of a pasture residual, but was unable to recommend a specific criteria or measurement method, due to the lack of technical support in the 3<sup>rd</sup> Farm Systems JWS.
- 5 In response to further questions from the Court, I confirmed my understanding that the 3<sup>rd</sup> Farm Systems JWS identified the "armouring" provided by pasture to be a key assumption in concluding that the risks of High Risk Pasture Winter Grazing are less than that of Intensive Winter Grazing.<sup>4</sup> The Court subsequently requested how this assumption could be secured in the requirements of the pSWLP.

## **Analysis**

- 6 Given my ongoing concern that a numeric "pasture residual" does not have a commonly accepted measurement method available<sup>5</sup>, I maintain my recommendation that a numeric limit should not be used in the definition or as a condition of the permitted activity rule. However, in my opinion, an opportunity exists to incorporate it into the Winter Grazing

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<sup>1</sup> Including Aratiatia, the Dairy Interests, and Southland Regional Council.

<sup>2</sup> Farm Systems and Planning JWS dated 30 June 2022 and Farm Systems JWS #3 dated 20 July 2022.

<sup>3</sup> Farm Systems and Planning JWS dated 30 June 2022 and Planning JWS #3 dated 25 July 2022.

<sup>4</sup> Farm Systems JWS #3 dated 20 July 2022 in answer to Question 11.

<sup>5</sup> Farm Systems JWS #3 dated 20 July 2022 in answers to Questions 6 to 10.

Plan in clause 7 of Appendix N. I have drafted an example of how it could be used, which is attached to this evidence as **Attachment 1**.

- 7 The first addition requires a person undertaking the High Risk Pasture Winter Grazing to predict the pasture residual for their winter grazing plan. This step will ensure that if the armouring is at risk, through grazing intensity and duration, it will be identified early.
- 8 The second addition requires positive consideration of how exposed soils will be minimised and armouring preserved. I understand, from listening to the discussion of the farm systems experts, that this will occur through considering stocking rates and duration, alongside other variables such as stock type, soil type, pasture type, slope and expected weather conditions.
- 9 I do note that these specific requirements will apply to High Risk Pasture Winter Grazing only. For pasture grazing with supplementary feed that does not meet the threshold in the definition, these clause 7 requirements will not apply. There is certainly benefit in farmers maintaining the armouring provided by pasture, even if the amount of supplementary feed offered does not meet the High Risk Pasture Winter Grazing definition. However, to apply these requirements more broadly would necessitate some further additions or changes to definitions and Appendix N, which is not suggested at this point.
- 10 In my opinion, there is an appropriate level of protection in the general obligations in the objectives of Appendix N. For example, it would make me question whether the intentional loss of pasture armouring through grazing of pasture over winter<sup>6</sup> was indeed 'reducing losses of nitrogen, phosphorus, sediment and microbial contaminants to the smallest amount reasonably practicable'<sup>7</sup>, 'reducing the duration and extent of bare soil'<sup>8</sup>, or 'preventing sediment entering waterways'<sup>9</sup>.

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<sup>6</sup> Other than as a sacrifice paddock, which is subject to specific constraints in recommended Rule 35B.

<sup>7</sup> Appendix N objective 5(a)(i)

<sup>8</sup> Appendix N objective 5(b)(vii)

<sup>9</sup> Appendix N objective 5(b)(viii)

A handwritten signature in green ink, appearing to read 'mccallum', is positioned above a horizontal dotted line.

Matthew McCallum-Clark

11 August 2022

## Attachment 1 – Revised Clause 7 of Appendix N

### Key:

Purple text = text of the Council's 03 August version of Appendix N

Green text = Suggested additions to protect the assumed pasture armouring.

7. Intensive Winter Grazing and High Risk Pasture Winter Grazing management
- (a) The Farm Environmental Management Plan must also include a Winter Grazing Plan where:
- (i) any Intensive Winter Grazing is occurring on the landholding; and/or
- (ii) any land is used for High Risk Pasture Winter Grazing
- (b) The Winter Grazing Plan must include (at a minimum):
- (i) a description of the Intensive Winter Grazing and High Risk Pasture Winter Grazing activity, including:
- (1) the location, land area used, crop type, expected pasture or crop yield and supplementary feed amount and type; and
- (2) stock type, numbers and duration on the Intensive Winter Grazing or High Risk Pasture Winter Grazing paddocks; and
- (3) for High Risk Pasture Winter Grazing, a prediction of the pasture residual expected on the paddocks after the High Risk Pasture Winter Grazing has been completed;
- (ii) an explanation of how the intensity, operation and location of the Intensive Winter Grazing or High Risk Pasture Winter Grazing activity will prevent any increase in losses above what has occurred in the past, to occur;
- (iii) how the operation and location of the Intensive Winter Grazing and High Risk Pasture Winter Grazing takes into account and responds to the risk pathways for the relevant physiographic zones (and variants);
- (iv) identification of critical source areas and how stock will be excluded from them until after 30 September;
- (v) after considering slope, critical source areas, and the sensitivity of the waterbody to sediment run-off risk, what the setbacks will be from rivers, lakes, artificial watercourse and wetlands;
- (via) for High Risk Pasture Winter Grazing, how the amount of exposed soil is minimised and the armouring provided by the pasture on the paddock is retained;
- (vi) when resowing after grazing is likely to occur;
- (vii) the procedures to follow should an adverse weather event occur;