

BEFORE THE INDEPENDENT COMMISSIONERS

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the Proposed Waikato Regional Plan Change 1 - Waikato and Waipa River Catchments, and Variation 1 to proposed Plan Change 1

AND

IN THE MATTER of submissions under clause 6 First Schedule

ON BEHALF OF **BEEF + LAMB NEW ZEALAND**
Submitter

EXECUTIVE SUMMARY OF ANDREW NEIL BURTT
26 MARCH 2019

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INTRODUCTION

1. My full name is Andrew Neil Burtt.
2. I am employed by Beef + Lamb New Zealand Ltd (B+LNZ) as Chief Economist.
3. I have been asked by B+LNZ to prepare evidence for the hearing on Proposed Plan Change 1 for the Waikato and Waipa Rivers, and Variation 1 to this plan change (PC1) that provides background to the sheep and beef cattle sector.
4. I provided a Statement of Evidence in Chief on behalf of Beef + Lamb New Zealand. It was dated 15 February 2019.
5. I confirm the qualifications and experience set out in my Statement of Evidence in Chief.
6. As set out in my Evidence in Chief, I have read the Code of Conduct for Expert Witnesses in the Environment Court's 2014 Practice Note and I have complied and continue to comply with it. I confirm that the opinions I have expressed represent my true and complete professional opinions. The matters addressed by my evidence are within my field of professional expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

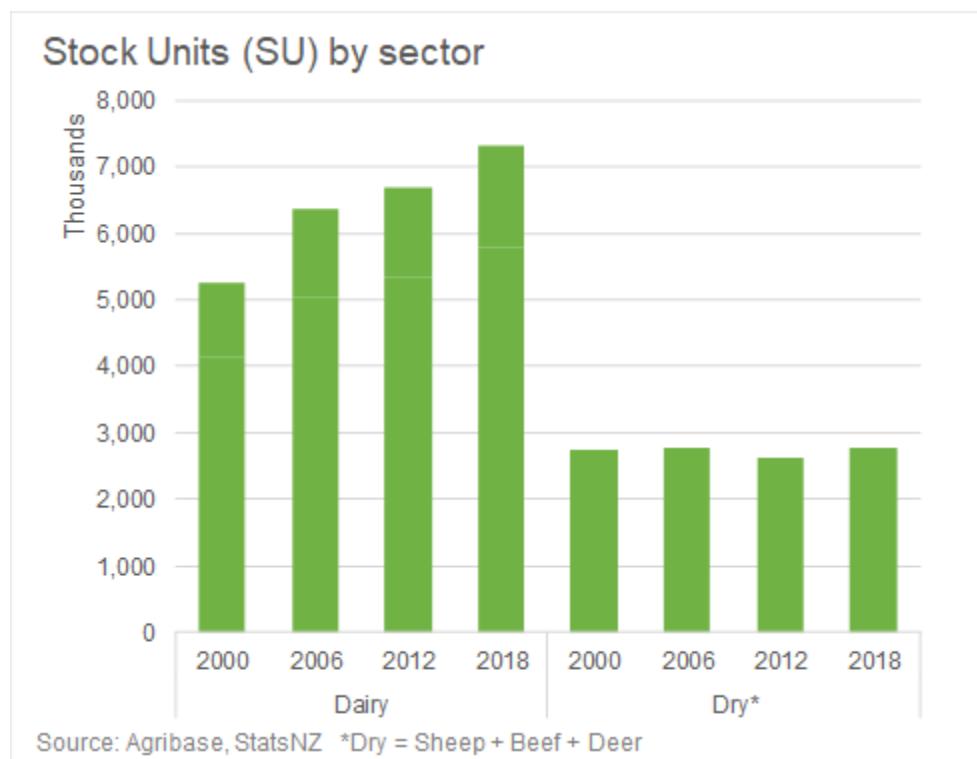
EXECUTIVE SUMMARY

7. This executive summary provides background information about the sheep and beef farming sector in Waikato. These observations largely come from the B+LNZ Sheep and Beef Farm Survey, which is a survey of a randomly selected sample of commercial sheep and beef farms. It provides Commissioners with an overview of the sheep and beef farming from across the region.
8. The main points I would like Commissioners to take away from this statement are that commercial sheep and beef farming in Waikato:
 - a. Is an important sector to the Waikato economy because of the integration of the value chain from production of livestock through processing to exports;

- b. Is made up of a mix of complex and diverse businesses. This reflects many factors including:
 - i. the diversity of landscapes that are farmed – both between “farms” and within an individual “farm”;
 - ii. the diversity of seasonal conditions – both between farms and within seasons – because sheep and beef farmers farm to the pasture growth on their farms; and
 - iii. the diverse objectives of the owner or owners;
 - iv. which, when combined, mean diverse farming systems to meet each unique set of circumstances as each sheep and beef farmer endeavours to optimise his/her business within environmental constraints.
 - c. Is extensive in production terms, and has become less intensive over the last 25 years;
 - d. Is not as reliant on dairy grazing revenue as anecdotes suggest.
9. The farming sector supports nearly 6,000 direct jobs in Waikato, and is estimated to have contributed GDP of \$294 million at the farm-gate. The New Zealand sheep and beef sector’s total value of production is about \$10 billion, with exports worth \$7.5 billion and domestic sales worth an additional \$2.9 billion in 2018. The sector has 80,000 employees, of which 59,000 are directly employed and 21,000 are indirectly employed.
10. The sector exports over 90 percent of its production. It is New Zealand’s second largest goods exporter and New Zealand’s largest manufacturing industry. The health and wellbeing of the red meat sector within New Zealand is important to the economy and regional New Zealand, accounting for 3.2 percent of GDP.
11. The 2012 Agricultural Production Census (APC) concluded there were around 1,150 commercial sheep and beef farms in Waikato. The region’s beef and sheep industry is traditionally characterised by pasture-based, dry-land activities relying on managing the natural inputs of land, biological processes, solar energy and rainfall (rather than relying on irrigation), and is a major land use.

12. Since 1990-91, in Waikato, Waipa South Waikato, and Matamata-Piako districts combined:
- The number of sheep decreased – by 60 percent – between 1990-91 and 2017-18;
 - The number of beef cattle decreased – by 25 percent;
 - The number of dairy cows increased – by over 20 percent¹; but
 - The overall total number of stock units was unchanged.

Figure 1: Estimated Livestock Units by Sector in Waikato-Waipa Catchments Combined²



13. Beef + Lamb New Zealand (B+LNZ) categorises commercial sheep and beef farm businesses in the North Island into three Farm Classes:
- Class 3 – North Island Hard Hill Country;
 - Class 4 – North Island Hill Country; and

¹ As a result of conversions to dairying and consolidation of sheep and beef farms
² Burtt (2019) Evidence in Chief, Figure 13, page 26.

- c. Class 5 – North Island Intensive Finishing, where “intensive” relates to production levels (as distinct from environmental intensity).
14. To give you an idea of the differences in the physical characteristics of the three Farm Classes, Figure 2, Figure 3 and Figure 4 show Waikato examples of the landscape of the three Farm Classes. B+LNZ’s Farm Class is about classifying the farm business, which includes, but is not limited to, its topographical characteristics. Individual “farms” often include multiple Land Use Capability (LUC) classifications, which farmers take into consideration when deciding how to operate their businesses.
15. I would also like to highlight the vegetation in these examples. On average, less than 80 percent of a farm is used for grazing with the other 20 percent providing non-farming services – such as native vegetation cover.

Figure 2: Example of Farm Class 3 Landscape



Figure 3: Example of Farm Class 4 Landscape



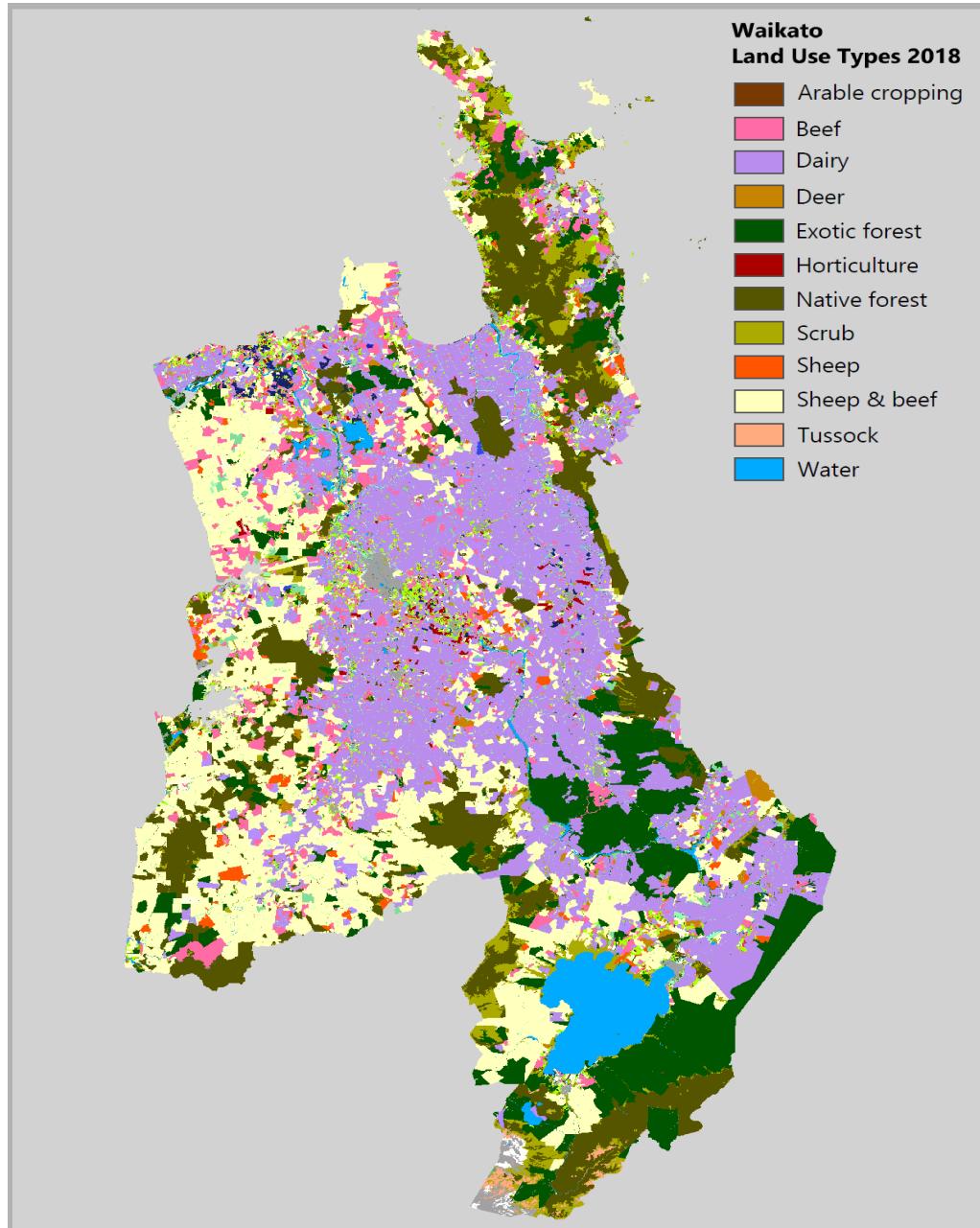
Figure 4: Example of Farm Class 5 Landscape



16. On average, Farm Class 3 Hard Hill Country farms are twice the area of Intensive Finishing farms.
17. Farm Class 4 Hill Country farms are the most populous in Waikato-BOP and in the North Island and New Zealand generally.

18. Farm Class 5 Intensive Finishing farms are the ones that, most commonly, have been sold for conversion to dairy farms or other uses.
19. Figure 5 shows visually the distribution of land uses in Waikato³.

Figure 5: Land Use Types 2018



20. The average stocking rate for sheep and beef farms in Waikato-BOP declined by over 20 percent between 1990-91 and 2016-17, to

³ Burtt (2019) Evidence in Chief, Figure 18, page 35

- 9.2 stock units per effective hectare, which is equivalent to just over one cow per effective hectare.
21. Figure 22 of my evidence in chief shows the average stocking rate of Farm Class 4 (Hill Country) farms, which represent about three-quarters of farms in Waikato-BOP and is the most populous Farm Class. The stocking rate on these farms fell from an average of about 12 stock units per effective hectare in 1990-91 to under 10 stock units per effective hectare in 2016-17 (or from just under one-and-a-half cows per effective hectare to just over one cow per effective hectare).
 22. Hard Hill Country farms have proportionally more sheep than Intensive Finishing farms. As a result, revenue from sheep and wool combined accounts for about 40 percent of total gross farm revenue – 60 percent on Hard Hill Country and 13.5 percent on Intensive Finishing farms on average⁴.
 23. None of the 94 farms in Waikato-BOP in B+LNZ's 2016-17 Sheep and Beef Farm Survey had irrigation.
 24. While dairy grazing revenue per effective hectare has increased steadily on Hill Country farms, and varied over time on Intensive Finishing farms⁵, it nevertheless only averages seven percent of total gross farm revenue across the region.
 25. In 2016-17, Dairy Grazing Revenue averaged the equivalent to:
 - a. 1.3 percent of Gross Revenue on Hard Hill Country farms;
 - b. 9.0 percent on Hill Country farms; and
 - c. 4.8 percent on Intensive Finishing farms⁶.
 26. Figure 6⁷ shows the trends since 1990-91.
 27. Over 70 percent of Farm Class 4 farms (nearly 900 farm businesses) did not earn any Dairy Grazing Revenue⁸.

⁴ Burtt (2019) Evidence in Chief. Table 1, page 28

⁵ Burtt (2019) Evidence in Chief. Figure 35, page 60

⁶ Burtt (2019) Evidence in Chief. Table 1, page 28

⁷ Burtt (2019) Evidence in Chief. Figure 36, page 61

⁸ Burtt (2019) Evidence in Chief. Figure 37, page 62

Figure 6: Dairy Grazing revenue as a % of Gross Revenue

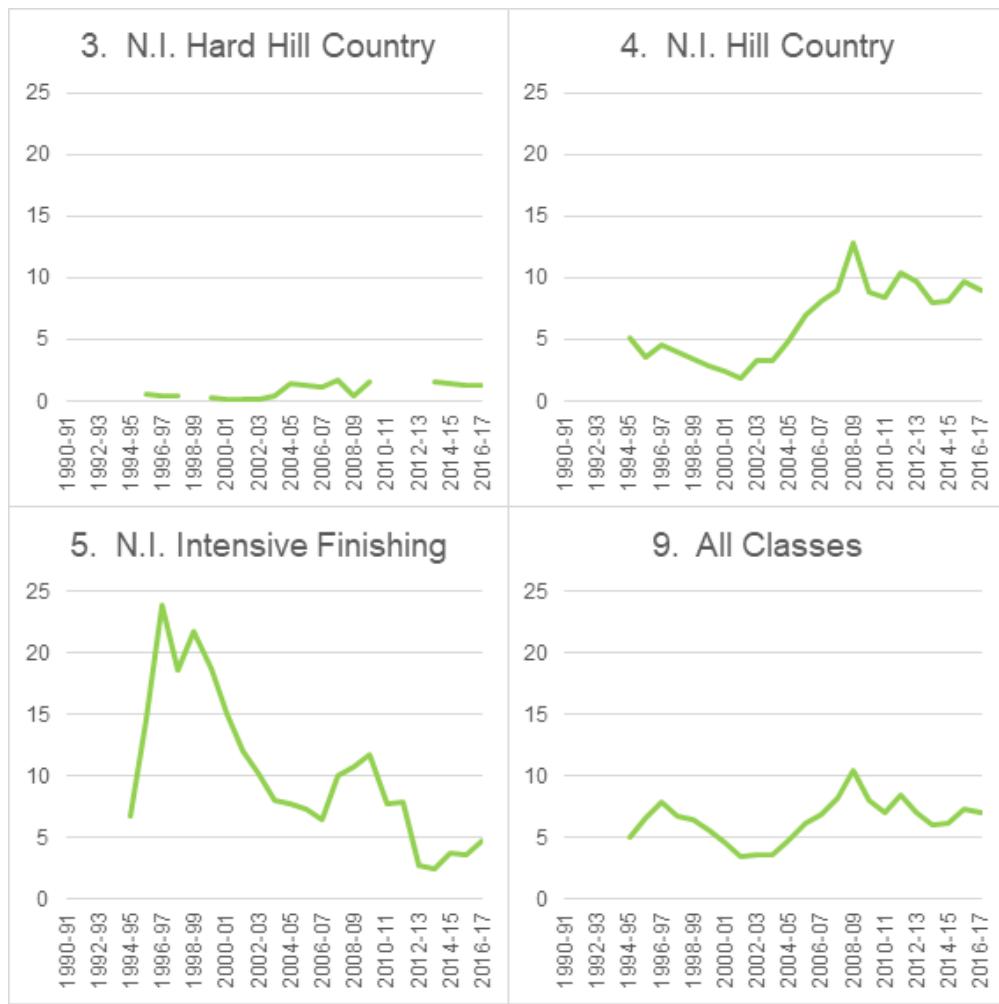
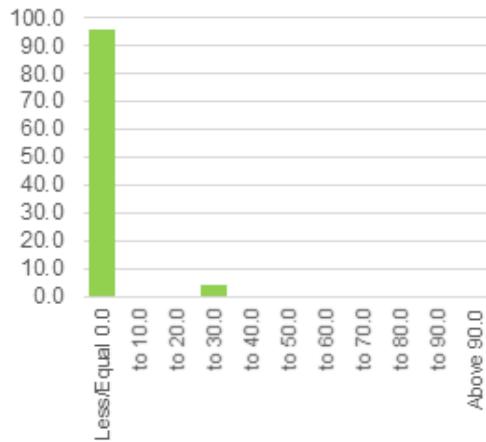
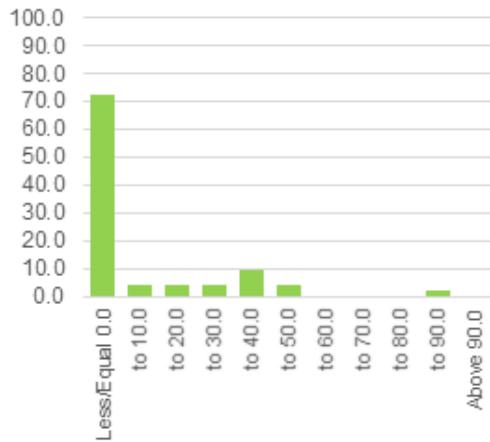


Figure 7: Distribution of Dairy Grazing revenue as a % of Total Gross Revenue – Waikato-BOP – 2016-17

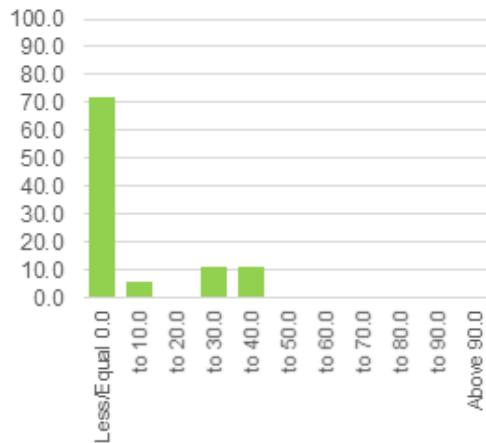
3. N.I. Hard Hill Country



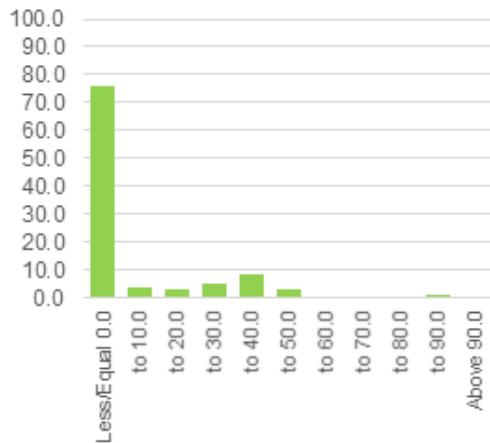
4. N.I. Hill Country



5. N.I. Intensive Finishing



9. All Classes



28. Sheep and beef farming systems in Waikato have responded well over many years to changing circumstances, while managing many risks, some of which are fully under the control of the farmer, and some of which can be managed by the farmer, but are not fully controlled by him/her.
29. For over a century, sheep and beef farmers have been adapting to new circumstances – within seasons to accommodate seasonal conditions that can bring particularly dry or wet conditions in the same season of different years – and from year to year.
30. Sheep and beef farmers are managers of multiple complex biological projects, environments and constraints.
31. As a result, sheep and beef farmers have been measured in the changes they have made to their operations. They have also become resilient and

resourceful, fitting their farming businesses into the environments they have faced.

32. Maintaining flexibility to continue adaptation to the needs of markets, their own objectives and the community of which they are part is vital.

DATED this 26th day of March 2019

Andrew Burtt