

BEFORE THE

Canterbury Regional Council

IN THE MATTER OF

the Environment Canterbury
(Temporary Commissioners and
Improved Water Management) Act
2010

AND

IN THE MATTER OF

Submission and Further
Submission on Proposed Variation
2 to the Proposed Canterbury Land
and Water Regional Plan

**STATEMENT OF EVIDENCE OF GEORGE WILLIAM LUMSDEN OF RABOBANK IN SUPPORT
OF THE COMBINED CANTERBURY PROVINCES, FEDERATED FARMERS OF NEW ZEALAND**

Dated 15 May 2015

George Lumsden
9 Mona Square
PO Box 500
Ashburton 7740
Phone: 0274 301120
Email: george.lumsden@rabobank.com

Introduction

Qualifications and experience

1. My full name is George William Lumsden. I am employed by Rabobank New Zealand (Rabobank) as a Senior Rural Manager since 1997, following ten years employment with other rural financiers.
2. Registered Valuer since 1978.
3. Interests in catchment:
 - a. Third generation of family in Mid Canterbury, significant employment in the Hinds/Hekeao Plains Zone (Hinds Plains Zone) for much of that time.
 - b. In partnership with my wife I farm a small property in Tinwald, Ashburton.
 - c. Served as Treasurer for the Tinwald Allsports Club.
 - d. Committee and Chair for the Ashburton Rowing Club.
 - e. Member of Hinds Plains Land and Water Partnership, with a focus on financial impacts.
4. I have sourced information from;
 - a. ECan Section 32 Report, Variation 2.
 - b. Land and Water Regional Plan.
 - c. Everest Farm Consultancy.
 - d. Lincoln University Dairy Farm Focus Day 7 May 2015, 19th February 2015 and 9th October 2014.
 - e. Proposed Variation 2 to the Proposed Canterbury Land and Water Regional Plan, Section 13 Ashburton.
 - f. DairyNZ
 - g. Market Economics Ltd.

Background

5. Rabobank is a worldwide specialist farmer bank, founded as a co-operative bank in the Nederland's in 1898. The bank has built a very significant record worldwide since the early days. A key feature of the way Rabobank conducts business is the emphasis on knowledge transfer to customers and the wider community through the production of special sector reports.
6. These reports are recognised as industry standard by the worldwide farming community and are regularly quoted as expert opinion. Rabobank has a worldwide group of specialist researchers contributing detail to these reports, a function made possible because of the co-operative heritage as opposed to a shareholder funded bank.

7. Rabobank acknowledges that there is an issue with the leaching of nutrients from intensive dairying on free draining soils with irrigation in the Hinds Plains Zone which poses a threat to ground-water quality.
8. Rabobank wishes to highlight the difficulty experienced in obtaining reliable scientific information on the quantity of nitrogen lost to ground water in the Hinds Plains Zone and the uncertainty created by not having a universally accepted measuring system. The use of Overseer modelling with different parameters has created uncertainty and scepticism among the broader farming community.

Code of conduct

9. Notwithstanding that this is a Regional Council hearing, I have read the Environment Court Code of Conduct for expert witnesses and agree to comply with it. I confirm that I have not omitted to consider materials or facts known to me that might alter or detract from the opinions I have expressed.

Scope of Evidence

10. Potential financial effects on farmers.

Economic impacts on farmers

11. This Submission specifically relates to the Section 32 Analysis in the Proposed Plan.
12. The Section 32 analysis of the proposed plan lacks detail around the economic impact of the proposed changes inside the farm gate. This is of concern to Rabobank.
13. We acknowledge that a large part of the uncertainty around detailing the financial impact at a farm level is due to on-going issues about the catchment N loading and how this translates to the reduction in nutrient leaching required at an individual farm level. This makes it difficult for Rabobank to accurately reflect compliance costs that a farm business will likely face once the plan is operative.
14. In order to establish the financial impact of operating to the proposed new rules around nutrient loss in the Hinds Plains Zone, we have used our own resources and the financial data prepared by other primary sector groups to establish a view of likely farm financial impact.
15. The detail available which gives a guide to the financial impact of the changes proposed under Variation 2 have been prepared by DairyNZ, Nimmo-Bell, Market Economics Ltd and Everest Farm Consultancy - the modelling prepared by these groups has been combined with our own local data and used as the baseline to gain estimated individual farm economic impact. We have also referred to Lincoln University Dairy Farm (LUDF) reports.
16. We have primarily focused on the impact on dairy farms because they form the largest group of high leaching properties on light irrigated soils. The arable properties in the Hinds Zone are generally on heavier soils which require less irrigation than dairy. Arable farms also generally use less irrigation per hectare over a season due to crop rotation and harvesting in autumn. However, some arable farmers also winter dairy cows and will be required to mitigate nutrient loss more than purely arable farms.

17. Assessing the impact on the financial performance of dairy support farms is extremely hard due to these farm types not being adequately defined by Ecan. For the purpose of this submission, we advise that although the financial cost of compliance on dairy support may well be higher than for a dairy unit, we have not detailed dairy support impact. This is because the winter only effect of large numbers of cows on a portion of a property for 90 days, and the possible mitigation options, are extremely difficult to assess across a catchment.
18. Hinds Plains Zone production levels conservatively average 1650 kg milk solids (MS)/ha on 45,373 ha effective dairy platform, giving a total of 74.86 million kg of milk solids.
19. A typical modal farm in the Hinds Plains Zone is 250 ha, with an effective platform area of 230 ha, producing 1650 kg MS/ha, giving a total production 379,500 kg MS. Additional revenue from stock sales would be \$0.30/kg MS.
20. Farm working expenses would be \$4.53/kg MS (average of client survey). Predicted financial performance 2014/15 season (actual) - excluding depreciation is summarised in the table below.

Table 1 Estimated 2014/15 Financial Year Results

Farm area(ha)	Effective platform (ha)	Gross farm income(\$)	Total farm working expenses(\$)	Debt servicing@ 6.7%	Drawings and Tax	Cash Farm deficit
Debt \$23/kg MS						
250	230	1,821,600	1,719,135	635,662	110,000	643,197
Debt \$11.5/kg MS						
250	230	1,821,600	1,719,135	317,831	110,000	325,366
No debt						
250	230	1,821,600	1,719,135	0	110,000	7,535

21. The above table reflects the median of the Hinds Plains Zone, clearly the cash farm result is dependent on the income received per kg of milksolid, and the cash deficit is interest rate and debt level sensitive. However, the average dairy business in the Hinds Plains Zone will make a cash deficit in the 2014/115 financial year.
22. Mr Phil Everest (Everest Farm Consulting) has prepared a table using average dairy farm returns over last six seasons, and at EBIT level has imposed:
 - a. the impact of policy changes to meet proposed LWRP requirements.
 - b. various interest rate scenarios.
 - c. various debt loadings. In general terms, his analysis confirms a negative cash result from farms in the Hinds Plains Zone.

23. Lincoln University Dairy Farm(LUDF) has an internal target, established for the 2013/14 season which requires management to not exceed N leaching levels, on an annual basis, from the previous year. LUDF operates at a level which is recognised as being above GMP. It is run as a commercial farm, so is directly comparable to farms in the Hinds Plains Zone.
24. The soils at LUDF are superior to those in the Hinds Plains Zone, so estimated N losses and required mitigation in the Hinds Plains Zone are greater than those at LUDF. However, LUDF provides actual numbers as a baseline guide for what will be required in the Hinds Plains Zone.
25. In order to meet LUDF internal goal of not exceeding the previous year's N leaching, in autumn 2014 the farm had to reduce its stocking rate, cull early, stop using supplements and stop using N-based fertiliser. These actions reduced N loss by 8%, and dropped total N lost below the previous season, thus achieving the management goal.
26. However, the cost of this change was \$700/ha compared with the potential income had they not made the changes to meet their internal goal.
27. Using Overseer 6.2, LUDF has estimated N leaching of 56 kg/ha/year in 2012/13, 43 kg/ha/year in 2013/14 and 37 kg/ha/year in 2014/15. This is a cumulative reduction of 34%.
28. Achieving these figures has seen milksolid production drop 8.44%, along with significant reduction in N loss. Clearly it is possible to farm with reduced levels of leaching.
29. LUDF has a very significant advantage in skills and resources over the average farmer in Hinds Plains Zone. It is not a family business and does not have the debt loading of the average commercial dairy farm in Canterbury.
30. Applying the changes LUDF achieved has an impact on the Hinds Plains Zone Modal farm as outlined in Table 2. To summarise, if the Hinds Plains Zone farm reduces production by 8.44%, reducing nutrient losses by 34%, production will now be 347,530 kg MS (1,511 kg MS/ha).

Table 2 Modelling LUDF Performance to Hinds Plains Zone Modal Farm- 2014/15 Financial Year

Farm area(ha)	Effective platform (ha)	Gross farm income(\$)	Total farm working expenses(\$)	Debt servicing@ 6.7%	Drawings and Tax	Cash Farm deficit
Debt \$23/kg MS						
250	230	1,563,885	1,719,135	635,662	110,000	900,912
Debt \$11.5/kg MS						
250	230	1,563,885	1,719,135	317,831	110,000	583,081
No debt						
250	230	1,563,885	1,719,135	0	110,000	265,250

31. Tables 1 and 2 demonstrate the impact of reducing N loss by 34%. Dairy Farmers in the Hinds Plains Zone are required to reduce N discharge by 45% overall before 2035. Farmers with typical farm debt (\$23/kg MS) show increased cash loss from \$643,197 to \$900,912 (additional loss 40%).
32. Accepting that the 2014/15 production season is at historically low dairy payout, I present below a 'Status Quo' outline of the financial result of the Modal farm meeting the parameters of the LUDC. This assumes a milk solid price of \$6.30/kg MS, interest rates at 8% and production of 347,530 kg MS.
33. We also have assumed that farm working expenses will reduce to the approximate level of LUDC as the mitigation impacts are put in place on farm. The Status quo farm working expense is \$4.05/kg MS.

Table 3 Estimated Status Quo Financial Position - adopting farming practices to achieve LUDF Nutrient reductions

Farm area(ha)	Effective platform (ha)	Gross farm income(\$)	Total farm working expenses(\$)	Debt servicing@ 8.0%	Drawings and Tax	Cash Farm surplus
Debt \$23/kg MS						
250	230	2,293,698	1,407,497	759,000	110,000	17,201
Debt \$11.5/kg MS						
250	230	2,293,698	1,407,497	379,500	110,000	396,701
No debt						
250	230	2,293,698	1,407,497	0	110,000	776,201

34. To achieve the above cash results the farm will be operating at high level of expertise in terms of management, achieving the nutrient reductions at same standard as LUDF, today operating at GMP level.
35. Status Quo forecasting is a hypothetical scenario used by Rabobank to stress test farming businesses at an estimated level of revenue, cost structure and interest rate regime at a point of time in future. The aim of Status Quo forecasting is to ensure that the farm business has the resilience to stand a change in circumstance, such as weather, income, farm working costs or debt servicing cost, and will not fail due to an adverse event of a foreseeable kind.
36. Table 3 demonstrates that, with typical farm debt, a dairy business will achieve a \$17,201 cash surplus, before depreciation and capital expenditure, once the farm moves to GMP and replicates LUDF parameters.

Table 4 Estimated Status Quo Financial Position – assuming no requirement to reduce nutrient discharge and farming parameters as today

Farm area(ha)	Effective platform (ha)	Gross farm income(\$)	Total farm working expenses(\$)	Debt servicing@ 8.0%	Drawings and Tax	Cash Farm surplus
250	230	2,504,700	1,536,975	759,000	110,000	98,725
Debt \$11.5/kg						
250	230	2,504,700	1,536,975	379,500	110,000	478,225
No debt						
250	230	2,504,700	1,536,975	0	110,000	857,725

37. The key points highlighted by tables 3 and 4 are that Status Quo cash surplus decreases by \$81,524 (from \$98k to \$17k) for a typically indebted farm .This is a decrease in profitability of 82% compared to what would be achieved without any changes to farming practises today. Less indebted farmers are less impacted, as would be expected.
38. On a Hinds Plains Zone basis, that change amounts to a total reduction in cash surplus of over \$8 million (when applied to approximately 100 farms).
39. The above Tables exclude all farm types apart form dairy. However, we expect dairy support and arable farm businesses to also show reduced revenue per ha with requirements to reduce nutrient leaching in future. Other farm types generally have lower debt levels than dairy, but also lower farm incomes.
40. Rabobank is concerned that the Proposed Plan (via its section 32 report) does not acknowledge or address its detailed economic costs or the on-farm impacts in financial terms. We acknowledge that the impacts are sensitive to debt loading, interest rates and payout. However, a reduction in farm profitability will affect the social capital of the Hinds Plains Zone, Ashburton District and wider economy.
41. The requirements to mitigate nutrient loss commencing 2017 will be reflected in production from farms in the Hinds Plains Zone which is directly linked to financial viability.
42. Rabobank will review and develop lending policy and incorporate the requirements of the changes of all Regional Plans into lending policy.
43. The impact on individual farmer's equity if there is land value adjustment due to reduced viability will be apparent in our existing loans to farmers in the Hinds Plains Zone.
44. Rabobank New Zealand support in general terms the submissions on Variation 2 provided by the following organisations:

- a. Federated Farmers.
- b. Hinds Plains Land and water Partnership.
- c. Dairy NZ
- d. Fonterra.
- e. RDR
- f. Mayfield Hinds Irrigation Limited.
- g. Eiffelton Community Group Irrigation Scheme
- h. Irrigation NZ

Decision sought

45. Review the economic costs of implementing the Proposed Plan (LWRP Variation 2) in the Hinds Plains Zone to accurately reflect impacts on farmers and the wider community, including impacts on cultural, social and environmental values.

George Lumsden

9 Mona Square

PO Box 500

Ashburton 7740

Phone: 0274 301120

Email: george.lumsden@rabobank.com