

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the hearing of submission on Proposed Plan Change 1 (and Variation 1 to the Waikato Regional Plan)

TOPIC 2

BY FEDERATED FARMERS OF NEW ZEALAND INC,
FEDERATED FARMERS OF NEW ZEALAND
(WAIKATO REGION) 1999 INCORPORATED,
FEDERATED FARMERS OF NEW ZEALAND –
ROTORUA TAUPO PROVINCE INCORPORATED,
FEDERATED FARMERS OF NEW ZEALAND
(AUCKLAND PROVINCE) INCORPORATED

(“FEDERATED FARMERS”)

Submitter with ID: 74191

To **WAIKATO REGIONAL COUNCIL**

(“WRC”)

**STATEMENT OF REBUTTAL EVIDENCE OF PAUL FREDERICK LE MIERE
FOR FEDERATED FARMERS ON HEARING TOPIC 2**

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169 London Street
PO Box 447
Hamilton
Telephone: 021 110 3554
Email: mmeier@fedfarm.org.nz

STATEMENT OF REBUTTAL EVIDENCE OF PAUL FREDERICK LE MIERE

Introduction

1. My full name is Paul Frederick le Miere. A full description of my qualifications and experience is contained in my statement of evidence for the Topic 1 hearing dated 15 February 2019. I have also filed a statement of evidence for the Topic 2 hearing dated 3 May 2019. This statement of evidence contains my rebuttal evidence in respect of the Topic 2 hearing.
2. My rebuttal evidence focuses on the Land Use Capability (**LUC**) allocation proposal put forward by Beef + Lamb. I note that several other submitters have raised some points that are similar to some points raised by Beef + Lamb (e.g. Wairakei Pastoral, Department of Conservation and Fish & Game). I consider that my response to the Beef + Lamb evidence addresses those points, where they are similar.
3. I note that only part of the Beef + Lamb evidence has been filed, with planning and science evidence due to be filed on 10 May 2019. Accordingly, it has not been possible to respond in full to the Beef + Lamb proposal without seeing all of the evidence. I may be able to provide a more complete response after that evidence is filed.
4. I have focused on Beef + Lamb's evidence largely due to the volume of evidence filed by parties (it is not possible to respond to everything) and due to Beef + Lamb putting forward an entirely different proposal from PC1, largely based around a new allocation regime. This was not directly addressed in Federated Farmers' primary evidence but it is something that is directly within my knowledge and experience, including through participation in LAWF, the Horizons One Plan and Rotorua's Plan Change 10 (as explained in paragraphs 20 to 28 of my evidence for Topic 1 dated 15 February 2019).
5. The allocation issues raised by Beef + Lamb are also something that were directly addressed in Federated Farmers' submission on Variation 1. For example, at paragraph 3.11 on page 8 of our submission, we briefly explained that we do not support allocation of nitrogen (or other contaminants) to a property level and we consider that there are other ways of achieving the

necessary reductions and water quality improvements without the need to allocate.

Beef + Lamb proposal

6. Based on the evidence that has been filed to date, Beef + Lamb's proposal is not entirely clear and this may be clarified when its remaining science and planning evidence is filed this week. I have set out my understanding of the Beef + Lamb proposal, based on what has been filed to date and will address the additional Beef + Lamb evidence in further rebuttal evidence.
7. Dr Dewes describes the approach as "a nitrogen flexibility cap based on the natural capital of the land, and a sinking lid approach for higher emitting land uses."¹ Her evidence suggests that the LUC would be used as a proxy for natural capital and 45kgN/ha could be the upper limit for high emitters.
8. Dr Mackay refers to the Beef + Lamb approach as allocating N based on the natural capital of soil, with LUC as the proxy for natural capital.²
9. Mr Parkes describes Beef + Lamb's proposal as involving FEPs with farm scale LUC maps, along with a revised LUC Extended Legend for the Waikato Region to be used to determine the capability of land for sustained use and to identify mitigation measures to manage the land to within the capability limits of natural capital.³
10. Mr Stokes states his support for the development of a natural capital allocation approach and the use of LUC as a proxy for the allocation of nutrients.⁴
11. Based on all of this, it is my understanding that Beef + Lamb propose:
 - a. To allocate nitrogen using LUC as a proxy for natural capital. It is not clear whether this would apply to all land or just low intensity drystock land. There does not appear to be a proposal to apply it to forestry land (none of their witnesses mention forestry land) and it is not clear whether it would apply to dairy land, or whether that land would be grand

¹ Statement of Evidence of Alison Dewes dated 3 May 2019 at [36].

² Statement of Evidence of Alec MacKay dated 3 May 2019 at [32] and [42].

³ Statement of Evidence of Richard Parkes dated 3 May 2019 at [82].

⁴ Statement of Evidence of Simon Stokes dated 3 May 2019 at [62].

parented, with those discharging above 45kgN/ha (or some other level) being required to reduce.

- b. To base FEPs on LUC. It is not clear how this would fit within the regulatory framework and what this would mean in practice for farmers.
 - c. It does not appear that trading of any N allocation is proposed.
12. Based on my understanding of the LUC proposal, I set out my concerns about it later in this evidence. Due to the evidence to date relying on evidence Beef + Lamb is yet to file, it is not possible to fully respond and I intend to set out any additional concerns in further rebuttal evidence once I have seen the additional Beef + Lamb evidence.

Agricultural sector

13. As part of setting out her evidence on the LUC proposal, Dr Dewes sets out her views on pages 8 to 26 of her evidence about the dairy sector, N leaching, intensification and capacity for N reductions. I do not agree with her views, nor do I consider it helpful or an appropriate basis from which to consider water quality issues.
14. As explained in my evidence for Topic 1, Federated Farmers is a pan sector organisation. We represent a range of rural businesses (dairy, drystock, arable cropping and horticulture) and seek to achieve practical and workable outcomes for farmers. We are very concerned that Beef + Lamb's evidence, particularly Dr Dewes' analysis of agricultural intensification and the dairy "hoofprint,"⁵ essentially seeks to pit the dairy sector against the drystock sector by painting dairy as the "bad guys." It creates the impression that dairy has headroom for N reductions and I presume those N reductions would be transferred to drystock to provide them with the opportunity to increase N. I do not think that the analysis of "headroom" is correct or that this is the appropriate basis to address water quality issues.
15. Federated Farmers' strong view is that we are all part of the problem and therefore all part of the solution. The intention behind the extensive track changes to PC1 that were attached to Federated Farmers' submission on Variation 1 was to seek to strike a balance for the entire agricultural sector

⁵ Statement of Evidence of Alison Dewes Dated 3 May 2019 at [41] to [109].

without putting one sector's needs above another. I am very concerned that Beef + Lamb's proposal attempts to tip that balance in favour of extensive and very low intensity drystock farms, at the considerable expense of not only dairy farms, but intensive drystock farms.

16. As raised in our submission, and discussed in my evidence for Topic 1, Federated Farmers is very concerned about the focus of the notified version of PC1 on nitrogen. While we are not advocating for a removal of nitrogen controls, we consider that for most sub-catchments nitrogen is the least of the issues. In many sub-catchments, we are several times over the national bottom line for E coli, for example.
17. It is unfortunate that PC1, as notified, had such a strong focus on nitrogen because I consider that this has directed the focus of parties on this and resulted in parties pointing the finger at each other. Since the notification of PC1, Federated Farmers has held and attended a huge number of meetings with various agricultural interest groups (large and small). We have worked extremely hard to find a middle ground and to attempt to get the parties to work together. Unfortunately, while there has been some movement from some groups, others have retreated to their corners.
18. Beef + Lamb's focus on nitrogen allocation is unfortunate. It overlooks concerns about sediment and E coli, contaminants that can be largely driven by drystock operations. Beef + Lamb's proposal would likely impose very significant cost on the agricultural sector for less environmental gain than if a more measured and tailored approach, that considered all contaminants was adopted.
19. At paragraph 89 of her evidence, Dr Dewes focuses on a 26% increase in the land area by dairy farms and a 2% reduction in land area by drystock farms during the period of 2006 to 2018. The period of time selected and the categorisation of farm types is important for this analysis. Table 3-2 of the technical report referred to in Dr Dewes' evidence⁶ shows that if the period of

⁶ Review of historical land use and nitrogen leaching: Waikato and Waipa catchments, Waikato Regional Council Technical Report 2018/35
<https://www.waikatoregion.govt.nz/services/publications/technical-reports/2018-technical-reports/tr201835/>

1972 to 2012 is considered, the area of dairy land increased by 12%, intensive sheep and beef increased by 44% and hill country sheep and beef reduced by 52%. Focusing on land area change does not advance the water quality discussion. Focusing on tailored actions in FEPs and sub-catchment mitigations would significantly progress the discussion.

20. Dr Dewes makes various references to nitrogen discharges from dairy being high and at various places compares them to drystock nitrogen discharges. For example, at paragraph 95 she states that as at 2012 the dairy N load had increased to 72.2% of the total load and drystock dropped to 27%. I consider these comparisons unhelpful and not the basis from which to approach water quality issues.
21. It is not disputed that the area of dairy land in the Waikato has increased (although the notification of PC1 has put a halt to dairy conversion). It is also not disputed that nitrogen discharges from dairying are greater than hill country drystock farming. By its nature, compared to other activities, dairy farming has a higher level of N. However, higher N dischargers under PC1 are required to make the highest reductions (i.e. those above the 75th percentile must reduce) and nitrogen is only one of the contaminants being managed in PC1.
22. The Jacobs report that was attached to Horticulture New Zealand's submission on PC1 paints a different picture. These pie charts show the land use area and contaminant loads for each sub-catchment by land use. It does not show which contaminants are an issue in each sub-catchment (in terms of which sub-catchments exceed their 10 year targets or reductions in each contaminant needed to achieve the 10 year targets. However, it does show that different land uses are responsible for different contaminants and each sub-catchment is different in terms of contaminants and land uses.
23. To provide an illustration, I have extracted the pie charts for four of the sub-catchments in Figure 1 below.

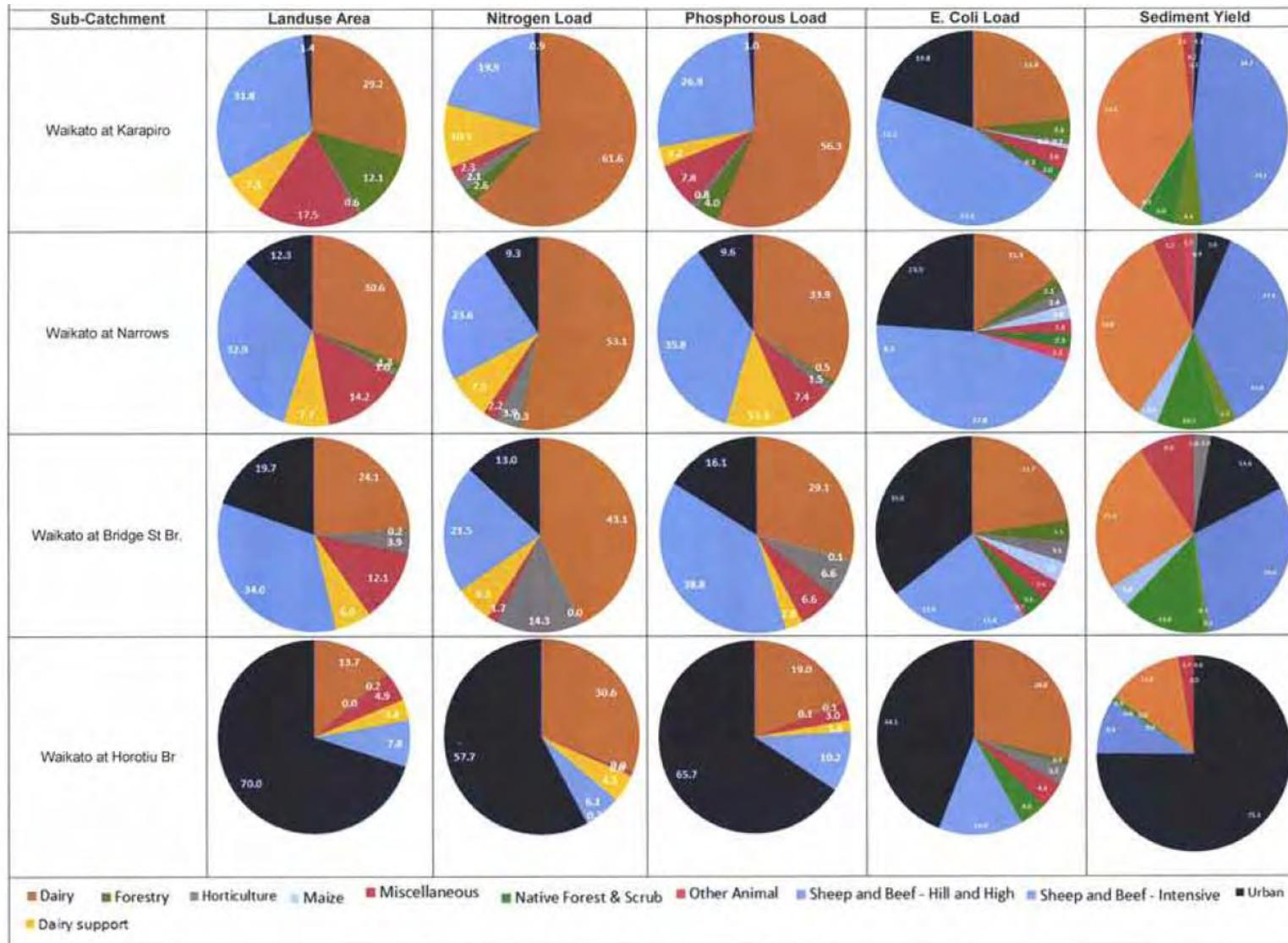


Figure 1: Pie charts from page 129 of Horticulture NZ submission on PC1 (Jacobs report).

24. While the exact numbers in the pie charts are difficult to read, Figure 1 shows that:
- a. For the Waikato at Karapiro sub-catchment (the first line of pie charts), dairy land use is 29.2% and it has 61.6% of the nitrogen load, 56.3% of the phosphorous load, around a third of E coli and 40% of sediment. In contrast, sheep and beef is 31.8% of the land use area, around a third of the N load and P load, but around 40% of E coli and almost half of sediment yield. Of interest is urban, which has 1.4% of the land area, has a very small N, P and sediment footprint but has around 20% of the E coli.
 - b. The Waikato at Horotiu Bridge sub-catchment tells a very different story. Urban is the predominant land use (70% of land area) and has around 60% of the N and P load, around 40% of the E coli and three quarters of the sediment yield.
25. The purpose of this illustration is to show that one sector pointing the finger at the other does not help. What is required is whole of catchment action, with all sectors doing their bit, as well as addressing the contaminants that are an issue in each sub-catchment. Figure 1 does not show which contaminants are an issue but it does show that focusing on dairy and N will not address the other three contaminants (and in my earlier evidence I explained why I consider that in most of the sub-catchments, N is the least of the issues).

Allocation

26. At paragraphs 154 to 168 of her evidence, Dr Dewes sets out why she considers that PC1 needs to allocate nitrogen. Central to her reasoning is the view she expresses at paragraph 168(a), that “where over-allocation has been identified in the Plan, the rules in the Plan will not result in an improvement of the quality of freshwater in those catchments” and for that reason allocation is necessary. I do not agree with her views.
27. Federated Farmers’ view is that it is premature to allocate nitrogen (or any contaminant) in PC1. Our view is also that even if allocation to a property level was appropriate, all contaminants should be considered, not just nitrogen.

28. There is nothing in the National Policy Statement for Freshwater Management (**NPSFM**) that requires councils to allocate contaminants (such as nitrogen) in over allocated contaminants. As explained in my evidence for Topic 1, the TLG modelling shows that the PC1 policy mix significantly over achieves the 10% targets and therefore that the water quality improvements can be made without allocating nitrogen.⁷
29. Over the past 11 years I have been involved in numerous discussions about nitrogen allocation both at a national level (through my involvement in the land and water forum and partnership) and at a regional level (through my involvement in regional plans that have allocated nitrogen, most notably Horizons One Plan, Tukituki Plan Change 6 and Rotorua Plan Change 10).
30. As a general principle, Federated Farmers does not support nitrogen allocation. We instead support a proportionate, sub-catchment and tailored approach that considers a range of on farm, edge of field and whole of sub-catchment (or catchment) options, actions and mitigations to improve water quality.
31. One of Federated Farmers' concerns with allocating nitrogen is that any allocation approach creates winners and losers (and typically with little or no corresponding environmental benefit). I am not aware of any way of allocating nitrogen that is completely fair or equitable to all land owners. By this I mean that no matter the allocation approach, there will always be winners and losers and there will always be someone who feels the approach is unfair.
32. For example, if nitrogen is benchmarked and capped so that no one can increase above existing levels, those who have not developed their land as at the time of benchmarking will feel the approach is unfair because they have no ability to intensify.
33. Alternatively, if an allocation approach requires those who have invested in developing their land to reduce their nitrogen discharge so that those who have not yet developed their land have the opportunity to intensify and to increase

⁷ While I accept that it could be argued that PC1 allocates nitrogen by holding land uses to a NRP and requiring reductions from the 75th percentile, Federated Farmers considers that it does not allocate in the sense that a property right is created and there is still a pathway to increase contaminants (although we consider a more appropriate framework for that ought to be provided for as proposed in our submission).

their nitrogen discharge, those who have spent (in many cases) many hundreds of thousands of dollars investing in their land will feel the approach is unfair. Particularly in circumstances where they have complied with all applicable rules at the time and any required reductions go beyond good or best management practices.

34. In my experience, where an allocation regime has been adopted, it has created some perverse incentives and unintended consequences, and this risk has been greater the more different the allocation regime is from the status quo. Allocation also inevitably leads to discussions about trading and I am not aware of any catchment in New Zealand where trading has been successful (the reality is that the market is too thin and imperfect).
35. Based on my involvement in discussions at a national and regional level about nitrogen allocation approaches based on LUC, my understanding is that LUC is simply used to achieve a nitrogen allocation that is different from grandparenting (or the status quo). There is no relationship with N leaching. Mr Millner's evidence considers this further.
36. My experience has also been that the further the proposed nitrogen allocation is from the status quo, the greater the economic cost and social disruption for the catchment. In a catchment of 1.1 million ha with 5,000 farmers over 20ha, as well as around one third of the area in dairy farms (with 7,000 people employed on farm and 3,000 employed at dairy processing sites),⁸ I would expect the economic and social impacts to be very significant.
37. A further issue is that it is premature to consider allocation of nitrogen (or any other contaminant) in the Waikato catchment. My review of the TLG reports is that there is still much to be understood about sub-catchment water quality, groundwater catchments and attenuation, contaminant source, sink and transport pathways, and the impacts of on farm, edge of field and sub-catchment mitigations and actions. If we were to allocate nitrogen now, it may not be possible to estimate the likely impact on water quality and it could degrade water quality if it resulted in intensification happening in the wrong places.

⁸ Statement of Evidence of Matthew Newman for Dairy NZ dated 15 February 2019 at [3.1].

38. This is not situation like Rotorua where a catchment nitrogen load has been set in a superior planning document. This is a situation where the CSG, the section 32 report, and the majority of submitters proposed and accepted that PC1 was about better understanding the catchment and water quality drivers, and preparing for the future.

Lake Rotorua

39. Dr Dewes makes various references to the Lake Rotorua catchment in her evidence, including:
- a. Overseer and N reductions – at paragraph 60 she refers to the impact of changes to the Overseer model on modelled N discharges in the Rotorua catchment and at paragraph 140 she refers to Rotorua dairy farmers being able to reduce N by 5-25%.
 - b. Allocation approach under PC10 – at paragraph 178(a) she refers to the allocation approach in Plan Change 10 being an averaging approach and at paragraph 207 she states that the allocation approach relies on Overseer and reference files and requires adjustments to be made to everything with version change.
 - c. Incentives scheme – at paragraph 209 to 211 she refers to the incentives scheme in Rotorua being gamed by dairy farmers.
40. In my view, there are some significant errors in figures Dr Dewes quotes and material factors omitted that are relevant to considering the Rotorua farmers and rule framework. I also do not see how Rotorua is relevant to the PC1 discussion given the specific circumstances of the catchment.
41. I am very familiar with Plan Change 10, the Rotorua catchment and the individual farmers having been involved in the catchment for many years. Federated Farmers' involvement includes the regional plan (when the TLI of 4.2 for Lake Rotorua was set in the early 2000s), the regional policy statement (when the 435tN load was set in 2014) and through the Plan Change 10 process, including the Environment Court hearing in March 2019 (from which we are awaiting a decision as to whether the Plan Change 10 nitrogen allocation approach or an approach based on LUC ought to be adopted).

Overseer and N reductions

42. In respect of Dr Dewes' comments at paragraphs 60 and 140 about Overseer and N reductions by dairy farms in the Rotorua catchment, I do not understand how the ability of Overseer to model Rotorua farmers or the ability of Rotorua farmers to reduce N is relevant to the Waikato. There are 21 dairy farms in Rotorua. They operate in a reasonably unique environment in that they have pumice soils and very high rainfall (factors that are not modelled well in Overseer). While attenuation, groundwater travel pathways and travel time are not well understood, the Lake itself has been the subject of years of research. Land use activities have also been grandparented since 2005, with the introduction of the Rule 11 benchmark (which benchmarked farms to 2001/04 years).
43. Farmers in that catchment have been making N reductions since the early 2000s, even in the absence of a regulatory requirement to do so. My experience has been that they are an innovative group who have adopted a range of mitigations and are continually looking at new mitigations. Several dairy farmers are trialling Spikey, a machine that treats nitrogen patches. Several other dairy farmers are part of a Ag Research trial that is using lysimeters to measure nitrogen leaching and to compare that with the Overseer model. However, even in these cases, N reductions are not easy and nor are they at the level Dr Dewes refers to.
44. Under Plan Change 10, farmers are allocated a Nitrogen Discharge Allowance (**NDA**) that they are required to meet in 2032. They are then required to reductions at five year intervals (at 2022 and 2027) to get them to 2032. Many of the dairy farmers in Rotorua have already achieved their 2022 targets and some have achieved their 2027 targets. This has largely been through adopting good management practices. While Federated Farmers supports and encourages the adoption of good management practices, there is no assumption that this will achieve the same level of reduction in Waikato and every farm is different (largely due to farm system, soil and rainfall).
45. In Rotorua, the 2032 targets are a real issue. For all of the dairy farmers' nutrient management plans (which show the pathway to achieve the 2032 NDA) that I have reviewed, none of them have a financially viable option for

achieving the NDA. Many have to significantly de-stock or graze stock off farm during winter or install herd homes (at a cost of \$2m plus).

46. In Rotorua, the dairy sector is required to make the largest reduction. It must reduce by an average of 35% and the average drystock reduction is 17%. The maximum dairy allocation is 72.8kgN and the average drystock allocation is 64.5kgN. Current discharges from dairy farms may seem high when compared with Waikato, but it is a result of the pumice soils and more than double the rainfall compared with Waikato. Overseer does not model such extremities well, but it is the model that has been adopted there. This is a further reason for caution when comparing N numbers or N reductions in Rotoua with Waikato.

Plan Change 10 allocation approach

47. Dr Dewes' comment at paragraph 178(a), that Rotorua is an averaging approach, is not correct. An averaging approach implies that the catchment load is averaged across the catchment. Instead, Plan Change 10 involves applying a standard sector reduction (the dairy sector reduction is 31.3% and the drystock sector reduction is 20%) and then a sector range (the dairy sector range is 54.6kgN to 72.8kgN and the drystock sector range is 18.0kgN to 54.6kgN).
48. By way of example, if the Rule 11 benchmark for an individual dairy farmer is reduced by 31.3% and is above the sector range, their allocation is 72.8kgN, if after the 31.3% reduction they are below the sector range their allocation is 54.6kgN and if after the 31.3% reduction they are in the range there is no change – their allocation is the Rule 11 benchmark less 31.3%.
49. The same applies to drystock farms in respect of the drystock reduction and range. I also note that the drystock sector in Rotorua includes a very wide range of farm types and farm systems, from dairy support to sheep and beef to deer.
50. The result of this allocation approach is that, on average, the dairy sector reduces by 35% and the drystock sector reduces by 17%. In order to make the reductions necessary to achieve the 435tN target, there are additional reductions achieved through a \$40m incentives scheme, a gorse programme and engineering solutions.

Incentives scheme

51. Dr Dewes' comments at paragraphs 209 to 211 about the incentives scheme, including that dairy farms are selling to it because they are allocated 3-5 times what drystock farms are allocated, are not correct. In respect of the difference in allocation, as explained above, the approach in Rotorua is that everyone has to reduce. Dairy farmers are required to reduce by twice as much as drystock farmers.
52. In respect of the incentives scheme, there is a \$40m fund that is tasked with purchasing 100tN. There is a long history to the fund and it is partly in recognition of the role central government played in the 1970s in incentivising intensification of farming activities in the catchment.
53. From my discussions with dairy farmers in the catchment, they are the sector that is least likely to sell nitrogen to the incentives scheme. The incentives scheme can only purchase nitrogen reductions over and above the 2032 NDA. Many of the farmers would need to undertake significant farm system changes in order to achieve their 2032 NDA.
54. For dairy farmers, one of the only options to make reductions below their 2032 NDA in order to sell N to the incentives scheme is likely to be to convert to forestry. That would involve significant reductions in the capital value of their land, result in stranded assets (e.g. the dairy shed would be redundant) and mean that they would forgo income for 25 to 35 years while the forestry crop grows. The payments from the incentives scheme (which are currently around \$200/kaN/ha) are insufficient to offset this loss in value and costs.
55. Contrary to Dr Dewes' assertion that grandparenting in Rotorua allows the dairy farmers to game the system and provide headroom for sale of N to the incentives scheme, there is no headroom in N to sell and from a financial perspective it is not an attractive option.

Conclusion

56. Federated Farmers does not agree that allocation of nitrogen (or other contaminants) is necessary or appropriate in the Waikato catchment. We consider that the necessary water quality improvements can be made at less

cost and social disruption through an approach based around tailored FEPs and sub-catchment work.

57. There is some common ground with Beef + Lamb (and generally across the agricultural sector), in terms of tailored FEPs and reasonable standards in Schedule C for stock exclusion and setbacks. However, we do not support the Beef + Lamb proposal for allocation.
58. As a pan sector organisation, Federated Farmers' interest is in achieving the best outcome for all agricultural sectors. We consider that adopting an approach that provides for one sector (or one part of a sector) will not result in the most efficient and effective outcome. Federated Farmers would strongly prefer to have the discussion focused around tailored FEPs and the development of GFPs to ensure that everyone does their bit to achieve the 10 year targets, and that sufficient information is gathered so that an informed decision can be made about the next plan change (when the time comes).



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