

## Sharrie Campbell

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**From:** Gerard Willis <gerard.willis@enfocust.co.nz>  
**Sent:** Friday, 24 October 2014 4:27 p.m.  
**To:** Mailroom Mailbox  
**Cc:** Sue Ruston; Bal Matheson; Shirley Hayward; Emma Matheson; Tami Woods  
**Subject:** Fonterra Co-operative Group Submission on Variation 2 to the Proposed Canterbury Land and Water Regional Plan  
**Attachments:** Fonterra Co-operative Group\_Hinds Submission\_FINAL.pdf; ATT00001.htm  
**Categories:** Orange Category

EC130909

Please find attached the submission of Fonterra on Variation 2 to the Proposed Canterbury Land and Water Regional Plan - Section 13 Ashburton.

Regards

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**SUBMISSION TO**  
**Canterbury Regional Council**  
**on Proposed Variation 2**  
**to the Proposed Land and Water Regional Plan,**  
**October 2014**

**FROM**  
**Fonterra Co-operative Group Ltd**

**24 October 2014**

**Fonterra Submission to Canterbury Regional Council  
on Proposed Variation 2  
to the Proposed Land and Water Regional Plan February 2014**

<b>Full Name of Submitter</b>	Fonterra Co-operative Group Limited
<b>Contact Person</b>	Sue Ruston
<b>Title</b>	Environmental Policy Manager
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I do wish to be heard in support of this submission.

I confirm I am authorised on behalf of Fonterra Co-operative Group Ltd to make this submission.

Fonterra could not gain an advantage in trade competition through this submission.

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### **About Fonterra**

1. Owned by its 10,600 farmer shareholders, Fonterra is a global, co-operative, dairy food company based in New Zealand. It is the world's leading milk processor and dairy exporter which, through an integrated "grass to glass" supply chain, delivers high quality dairy ingredients and a portfolio of respected consumer brands to customers and consumers around the world.
2. Employing over 18,000 people, Fonterra has a presence like no other New Zealand owned co-operative or company. Collecting around 17 billion litres of milk domestically Fonterra has production facilities spanning the country from Whangarei to Invercargill. Each one of these sites brings jobs and income to families and communities, and supports local economies within New Zealand.
3. In addition to domestic milk collection, Fonterra has developed milk pools in key markets worldwide. Approximately 2.3 billion litres of milk is collected and processed overseas, in Australia, Chile and China, and joint ventures in Europe and North America account for another 2.6 billion litres of milk.
4. Fonterra is committed to being a world leader in dairy research and development, food safety and sustainability, while also supporting communities. Its people work across the dairy spectrum; from dispensing on-farm advice on sustainable dairy farming, milk production and farm economics; through to processing and engineering, food science and innovation. All of which help to ensure we meet exacting food quality and safety standards and deliver

sustainably produced dairy nutrition every day to customers in over 140 countries.

## **Structure of our submission**

5. Our submission is structured into six sections as follows:
  - A. Overview of our submission
  - B. Overview of the dairy industry in the Hinds and broader Canterbury community
  - C. Fonterra's environmental initiatives in the Hinds Zone
  - D. Latest *Supply Fonterra* results for the Hinds Zone
  - E. Details of concerns and relief sought.

### **A. Overview of our submission**

6. Fonterra acknowledges the work that Canterbury Regional Council and the Ashburton Zone Committee have undertaken leading up to the notification of proposed Variation 2 (the Variation).
7. We appreciate the challenges faced in sustainably managing water quality and quantity in this part of the Canterbury Region. At the same time we consider it is important to recognise that the catchment underpins a highly productive primary sector providing economic and social strength to the Canterbury region, and to the nation.
8. We are committed to working with local communities to inform the identification of values, the development of objectives for freshwater management units, and to managing within limits to ensure these objectives can be realised.
9. While there is much within the plan that we support, we also have a number of concerns. Our specific concerns and relief sought are detailed in Table 1 in Section F of this submission.
10. The relief sought addresses a large number of substantive and technical issues. Amongst these there are several common matters that underpin our submission i.e.:
  - The importance of recognising the positive aspects of catchment use for primary production and the value that people and communities gain from that use. This can largely be addressed by amending the introductory narrative within the Variation.
  - Concern about rules that require particular nitrogen loss reductions to be achieved from dairy and dairy support farms only while at the same time allowing 30,000 hectares to increase their nitrogen loss.
  - Concern about requiring such nitrogen loss reductions while not having identified the starting point for such reductions. We understand that the Good Management Practice Nitrogen and Phosphorous Loss Rates (GMPNPLR) are expected to be identified in mid 2015. This prevents any

assessment of the potential benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the nitrogen loss rules currently proposed in the Variation (making the any meaningful assessment under section 32 of the Resource Management Act 1991 impossible). This can largely be addressed by removing reference to compliance with the GMPNL rates until such time as the GMPNPL rates and associated reduction strategy are introduced to the pLWRP.

- Concern about the nitrogen baseline that applies to farming activities and the way farmers must account against that baseline.
- Concern about those farms that were located in the Green zone under the pLWRP but which are effectively rezoned as Red by the Variation.
- The need to keep the many quality and quantity limits and outcomes under review, making adjustments where and when necessary. Fonterra holds this view based on its understanding of the many uncertainties (in terms of science, modelling and contingent interventions) in the identification and achievability of the limits included in the Variation.
- The importance of acknowledging the role of non-regulatory methods to ensure the catchment objectives are achieved and the fact that regulation is not expected to (and almost certainly cannot) achieve the objectives by itself. Greater confidence in the Variation could be provided to stakeholders if it were to include a methods section that explained the approach to implementation, review and deployment of non regulatory methods.

## **B. Overview of the dairy industry in the Hinds and broader Canterbury community**

11. Dairy is a key component of the Hinds and broader Canterbury community.
12. Locally Fonterra has approximately 165 farmer shareholders spread across the Hinds/Hekeao area. Accordingly our farmer shareholders, farm managers and contractors, and our tanker drivers, are all significant participants in the Hinds community.
13. Dairying supports rural businesses in the region such as rural retailing, farm suppliers, rural transport and agri-commodity cartage, seed production, ground and surface water irrigation services and rural consultancy. There is the potential for ongoing milk and employment growth as the industry continues to make production efficiency gains.

14. Economic commentators have noted that despite dairy farming being only 19 per cent of the overall land use in the Canterbury region, it produces 40 to 50 percent of the agricultural contribution to the regional economy<sup>1</sup>.
15. The economic strength of dairy farming substantially benefits urban settlements, including Christchurch. Research recently published by Lincoln University's Agribusiness and Economics Research Unit (AERU), which examined expenditure flows into Christchurch from local farms and their households (focused on the neighbouring Selwyn and Waimakariri districts), found that Canterbury dairy farmers spent \$68 million per annum in Christchurch City. When factoring in an additional \$511 million of expenditure from rural businesses, the total contribution to Christchurch City from all farming activities, including dairy, rises to \$817 million<sup>2</sup>. "When summing up the total expenditure in Christchurch by farms (all types) and their households, secondary flows via rural businesses, and any indirect and induced effects (such as employment generated from this expenditure), the total impact on Christchurch was valued at \$2.2 billion; which accounts for some 10 per cent of the city's total gross domestic product<sup>3</sup>".

### **C. Key Fonterra environmental initiatives in the Hinds/Hekeao area**

16. Fonterra is committed to environmentally sustainable business practices. Our ability to produce quality food products relies on New Zealand having a healthy and resilient ecosystem.
17. We are also committed to collaborative planning processes and to meeting the community's consensus on use and protection of New Zealand's natural resources.
18. We worked closely with DairyNZ in the development of the 2013 *Sustainable Dairying: Water Accord* (the Accord). As a party to the Accord we have made a commitment that our farmers will exclude dairy cattle from all waterways and drains on their properties that are greater than one metre in width and deeper than 30cm. We will also encourage riparian planting where it would provide a water quality benefit – and require our farmers to have riparian management plans in place and being implemented by 31 May 2020.
19. As a party to the Accord we require our farmers to collect N loss information and promote practices on farm to reduce their nitrogen and phosphorus losses. We also require dairy effluent systems to be able to meet 365-day compliance with applicable council rules, and require our farmers to install water meters.

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<sup>1</sup> Environment Canterbury. 2014. Technical report to support water quality and water quantity limit setting process in Selwyn Waihora Catchment. Predicting consequences of future scenarios: Economic impact.

<sup>2</sup> <http://www.lincoln.ac.nz/News--Events/News/Current/Rural-sector-makes-beefy-contribution-to-urban-Christchurch/> (Accessed: 10/03/2014).

<sup>3</sup> <http://www.lincoln.ac.nz/News--Events/News/Current/Rural-sector-makes-beefy-contribution-to-urban-Christchurch/> (Accessed: 10/03/2014).

20. Most aspects of the Accord are already compulsory components of our Supply Fonterra agreement.
21. Our Supply Fonterra programme is a farmer focused method for meeting our environmental expectations. It was launched in 2012 as a package of on-farm initiatives that will help grow and maintain a sustainable milk supply. It is a package of on-farm continuous improvement initiatives to help future-proof our dairying suppliers' practices.
22. At its heart, Supply Fonterra is a long-term change model. It leverages Fonterra's successful history in continuously improving our on-farm food safety performance, and more recently the positive results achieved through the "Every Farm Every Year" effluent management programme (see paragraph 26).
23. The programme is founded on four key elements that we know from experience are required to drive change on farm:
  - (a) Minimum standards that must be achieved in order to supply milk;
  - (b) One-on-one advice and support to guide farmers towards best practice;
  - (c) Practical education and resources for farmers, including support from our industry partners DairyNZ and AgITO<sup>6</sup>; and
  - (d) Recognition and reward for those who are at the cutting edge of sustainability, milk quality and animal welfare.
24. The Environment Programme for Supply Fonterra includes four modules: Effluent Management, Waterway Management, Nitrogen Management and Water Use Efficiency, which are discussed below. There may be future modules of Supply Fonterra to address issues such as greenhouse gases, biodiversity and animal welfare.
25. All farmers who supply milk to Fonterra are required to participate in an independent Farm Dairy Assessment at least once every year. This assessment is a requirement of Fonterra's Risk Management Programme as required by the Animal Products Act 1999 which controls food safety in New Zealand. The Farm Dairy Assessment, which is undertaken by contracted service providers, is also utilised to assess compliance with minimum standards as part of the Supply Fonterra programme.

#### Effluent Management

26. Formerly 'Every Farm Every Year', the effluent management component of the Environment Programme involves an assessment by an independent contractor of every farm's effluent system to identify risks with the system. This is undertaken every year during the Farm Dairy Assessment. Where an issue is identified a Sustainable Dairying Advisor will meet with the farmer and formulate an agreed Environmental Improvement Plan (EIP). The EIP will be followed up

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<sup>6</sup> AgITO is one of New Zealand's largest industry training organisations supporting the agricultural industry.

with the supplier to ensure that the actions agreed are completed, and the minimum standard achieved.<sup>7</sup>

27. Where a supplier fails to remedy the situation or work with the Sustainable Dairying Advisor to develop an EIP, the ultimate sanction is the non-collection of milk.

#### Waterway Management

28. This programme was introduced during the 2012 season and focuses on reducing the dairy industry's impacts on surface water quality. It also addresses some of the shortcomings of the Clean Streams Accord (predecessor to the SDWA) in terms of reporting and verification.
29. The minimum standards for this programme are:
  - (a) The exclusion of stock from all waterways that are wider than 1 metre, deeper than 30cm and permanently contain water;
  - (b) All regular crossing points are required to have bridges or culverts; and
  - (c) Sediment and/or effluent is not to be discharged into any waterway where it is likely to result in a significant adverse effect on the environment.
30. The programme also provides guidance and advice to suppliers about managing the risks from fodder crops and wintering practices, along with stock exclusion on run-off blocks.
31. The stock exclusion and crossing requirements are assessed during the annual Farm Dairy Assessment. Working with the farmer, the assessor uses electronic mapping technology and aerial photographs to identify and classify the waterways on the farm and the level of stock exclusion that has been achieved. The assessor is required to carry out a full visual validation of waterway fencing within 200m of the milking shed.
32. Where these minimum standards are not met a Sustainable Dairying Advisor will meet with the farmer to formulate an agreed EIP. This EIP will be followed up with the supplier to ensure that the actions agreed are completed, and the minimum standard achieved.
33. Subsequent to the Farm Dairy Assessment, all stock exclusion and crossing information provided by farmers is verified by a Fonterra employee or a third party contractor to ensure accuracy. This consists of a farm visit where all waterways and crossings are visually assessed.
34. As of October 2014 (Nationally):

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<sup>7</sup> The minimum standard for the Effluent Management Programme requires our suppliers to have systems in place that manage all effluent sources in a manner that complies with the relevant Regional Council resource consent or permitted activity rules, 365 days a year; and where this is not achieved, that they work with a Sustainable Dairy Advisor to create an EIP that sets out the actions required to achieve the minimum standard.



- (a) 84% of Fonterra Farms have achieved 100% stock exclusion.
- (b) Stock have been excluded from 96% of all defined waterways.
- (c) 99% of regular crossings have been bridged or culverted.
- (d) 86% of those farms who have not achieved 100% stock exclusion from defined waterways or bridged regular crossings have an EIP in place specifying timeframes to have this completed.
- (e) There are currently 527km of waterways and 24 stock crossing points with dispensations in place. The majority of these have management plans requiring temporary stock exclusion measures or cover areas that are not accessed by dairy animals.
- (f) In numeric terms this equates to a total of 23,834km of fencing, with a further 1,474km to be completed.

35. Within the Ashburton Zone as a whole:

- (a) Stock have been excluded from 97% of defined waterways.
- (b) 99.8% of regular crossings have been bridged or culverted.
- (c) Stock have been excluded from an additional 422km of waterways beyond Fonterra's definition (e.g. smaller or ephemeral waterways).

Nitrogen Management

36. This programme was introduced in 2012 and seeks to:

- (a) Model each supplier's nitrogen loss and efficiency at year end, using actual farm data, and in accordance with the industry developed protocol for the use of OVERSEER;
- (b) Provide this information to farmers in an easy to understand format that shows how they are performing compared to their peers; and
- (c) Provide an audited record of nitrogen loss that allows farmers to easily participate in audited self-management schemes or demonstrate compliance with regulatory requirements.

37. This programme requires farmers to submit on-farm data at the completion of every dairy season. This information is then entered into the Overseer model to indicate Nitrogen loss risk and use efficiency for the given farm system.

38. The support package for the Nitrogen Programme will commence in November of this year to assist farmers in reducing losses whilst increasing efficiency.

39. There have been significant challenges in increasing awareness around the importance of the accurate recording and provision of this data, and this will be addressed as part of the support package this season, with an aim to have 100% of farmers participating in this programme by the end of the current dairy season.

#### Water Use Efficiency

40. The water use efficiency programme was new for the 2013/14 season and focuses on improving water use management on all dairy farms to ensure our farms are using no more water than what is required to produce safe and hygienic milk and irrigation systems are designed to minimise the amount of water needed to meet production objectives.
41. The programme will focus on:
- (a) Regional Consents: Informing farmers on when their regional water access rules are changing, and
  - (b) Water Use Efficiency: Helping farmers realise the benefits of water use efficiency through measuring and monitoring. Farmers will need to install water meters by 2018/19 to start measuring and monitoring their water use.
42. The Supply Fonterra programme offers assurance to Councils that sound environmental management practices are encouraged, supported and audited (with consequences) on all Fonterra supplier farms.

#### **D. Latest Supply Fonterra results for Hinds/Hekeao area**

43. Our latest annual Supply Fonterra results show us that:
- a. Within the Ashburton Zone as a whole, over 458 kilometres of significant waterways (waterways that permanently contain water, are wider than a metre and deeper than 30 cm) have been fenced to exclude stock and there are plans in place to complete the remaining 13.7 kilometres during the 2014/2015 season;
  - b. 100% of farms have effluent systems capable of being compliant with regional council rules, or have an improvement plan in place to address identified risk issues (every farm effluent system is inspected annually to assess ongoing compliance);
  - c. all regular waterway crossing points (except one) have been bridged or culverted - an improvement plan is in place for the remaining crossing point to be culverted during the 2014/2015 season; and
  - d. nitrogen loss, and nitrogen conversion efficiency have been modelled on 104 of 165 Hinds/Hekeao Plains Area farms for the 2012/2013 season (the first season of this module in place).

## F. Details of concerns and relief sought

44. Table 1 sets out Fonterra's concerns with the provisions of Variation 2 of the pLWRP and the relief Fonterra seeks in response to the concerns raised. Every attempt has been made to provide specific relief where possible, including proposed replacement drafting. However, Fonterra is conscious that there are, in many cases, multiple ways its concerns could be addressed and it would accept alternative drafting that has the same, or similar, effect as that suggested in Table 1.
45. Similarly, while every effort have been made to ensure coherency is maintained (between related policies and between policies and associated rules) it may be that technical or consequential amendments are required to give full effect to the matters raised in this submission that are not identified in Table 1. For the avoidance of doubt, Fonterra seeks and supports (in principle) any such consequential amendments.
46. Where Fonterra has not sought changes, it supports those provisions and seeks their retention.

**Table 1 – Fonterra's provision-by-provision submission points**

Page	Reference	Issue/Concern	Relief Sought
<b>SECTION: Introduction (Section 13 Ashburton)</b>			
1	Introductory narrative to Section 13	<p>Fonterra submits that while the introductory narrative ably describes the physical characteristics and cultural values of the Hinds/Hekeao Plains Area and the Ashburton Zone Committee's solutions package, it does not fully acknowledge the social and economic values and importance of agriculture to the well-being of people and communities.</p> <p>In particular, Fonterra believes that the introduction to Section 13 should acknowledge the Hinds/Hekeao Plains area as one of the foremost dairy producing areas of New Zealand and that the broader regional integrated dairy production and processing system, and the communities it sustains, relies on maintaining and growing milk supply from the area.</p>	<p>Add a new paragraph to the introductory narrative before the description of the Zone Committee process and Solutions Package as follows:</p> <p><i><u>The Hinds/Hekeao Plains Area is a regionally and nationally important area for agriculture and food production. These established activities provide significant employment in the area, both on farm and in service industries. Furthermore, agricultural production from the area is important to supplying raw product for processing elsewhere within the Canterbury Region. Accordingly, the social and economic well-being of the local and regional community is reliant on the agricultural industry in the Hinds/Hekeao Plains Area and it is important</u></i></p>

		<p>In addition, the paragraph describing the reductions required of farming activities appears to have confused those reductions expected of farmers in the catchment (30% reduction in nitrogen losses) with the total improvement in water quality concentrations needed by the combined effort of the farming community and additional measures such as managed aquifer recharge and targeted stream augmentation. Fonterra believes this is an error that should be corrected.</p> <p>To achieve the concentration for lowland streams and drains and improve their overall quality then innovative and multifaceted solutions will be required. The Variation seeks to support and enable MAR and in some provisions also enables TSA. The policies and rules however need to be broadened to support a wider range of actions to improve overall quality of water in the lowland streams, achieve the nitrate concentration sought and improve reliability for surface water takes.</p>	<p><u>that it is retained.</u></p> <p>Reword paragraph 2, page 2 as follows:</p> <p><i>The Solutions Package requires a 45 percent reduction in groundwater <u>nitrate concentration</u>. <u>To achieve that, a 30 percent reduction in nitrogen losses from farming activities is required in the Lower Hinds/Hekeao Plains Area by 2035. <del>All farming activities are to operate at good management practice by 2017. Dairy and dairy support farms are then required to further reduce nitrogen loss rates by 45 and 25 percent respectively, by 2035.</del> The solutions package also provided for <del>c</del>Change in land use or land use intensification is provided for on a maximum of 30,000ha provided the nitrogen loss is no more than 27 kilograms of nitrogen per hectare per annum. (That proposal has been adjusted in this Plan by lowering the 27kg nitrogen loss limit to 25kg to reduce inequities with existing farming activities).</u></i></p> <p>Reword paragraph 3, page 2 as follows:</p> <p><i>In conjunction with <u>catchment scale mitigations</u> <del>managed aquifer recharge</del>, on-farm mitigation is anticipated to reduce the concentrations of nitrogen in shallow groundwater in Lower Hinds/Hekeao Plains Area to 6.9 milligrams of nitrogen per litre and achieve the 80 percent protection level for aquatic species in the lowland spring-fed streams and the 90 percent protection level for the Lower Hinds River/Hekeao.</i></p>
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SECTION: Definitions			
2		<p>The Variation (in for example, Rule 13.5.36) uses the terms augment, augmenting and augmentation. However it does not define the term.</p> <p>The Variation does define “augmenting” but limits its purpose to increasing flows or reducing concentrations of nitrate nitrogen. Fonterra is concerned to ensure that measures designed to augment water sources are broadly defined and the potential multiple purposes and benefits of augmentation are clear.</p>	<p>Add a new definition as follows:</p> <p><b>Augmenting</b> means the addition of water to surface water or groundwater specifically for the purpose of reducing the concentration of nitrate nitrogen in groundwater; increasing flows in lowland streams; <u>or improving reliability of supply for surface water takes.</u></p>
3	Good Management Practice Nitrogen Loss Rates	<p>These are not included in the plan nor are they currently known/published. Fonterra proposes in the submission that reference be made to “good management practices” rather than good management practice nitrogen loss rates and hence this definition is unnecessary.</p>	<p>Delete the definition “Good Management Practice Nitrogen Loss Rates”.</p>
SECTION: Policies – Managing Land use to Improve Water Quality			
4	Policy 13.4.9 (c)	<p>Fonterra opposes the policy because it considers that the water quality issues in the Upper Hinds are related to sediment, phosphorus and E.coli issues rather than nitrogen. We accept, however, that it is appropriate to manage nitrogen losses in the Upper Hinds Area in line with general good practice (through for example, farm management plans).</p>	<p>Delete Policy 13.4.9 (c).</p> <p>Amend Policy 13.4.9 (b) to read:</p> <p><i>Improving management of microbes, <u>nitrogen</u>, phosphorus, and sediment in both areas:</i></p>
4	Policy 13.4.9(d)	<p>Policy 13.4.9 (d) refers to reducing nitrogen loss in the lower Hinds/Hekeao Plains area by 45%.</p> <p>Fonterra is concerned about this policy for two reasons. First, Fonterra considers that the appropriate “all of catchment” nitrogen loss reduction target to be achieved by existing land use is 30%. A</p>	<p>Amend Policy 13.4.9 (d) to state:</p> <p><i>Reducing overall nitrogen losses by <del>45</del> <u>30</u> percent in the lower Hinds/<del>Hekeao</del> Plains Area <del>and adopting the use of managed aquifer recharge to augment groundwater and/or surface water.</del></i></p>

		<p>45% reduction is, we understand, what would be needed to achieve desired outcomes if there were not managed aquifer recharge (MAR).</p> <p>Secondly we note also that a 45% nitrogen reduction is not consistent with the rules which require a 45% reduction in nitrogen loss from dairying only - with 25% for dairy support and zero for other land uses (beyond GMP).</p> <p>Further the reference to MAR should be a separate part of the policy rather than being linked to the reduction in nitrogen losses (since MAR contributes to the outcomes by increasing dilution rather than reducing nitrogen losses)</p>	<p>Add a new Policy 13.4.9 (e) to state:</p> <p><u><i>Adopting the use of catchment scale mitigations for the ground or surface water of the Hinds/Hekeao Plains, including augmentation, by way of managed aquifer recharge and targeted stream augmentation.</i></u></p>
4	Policy 13.4.11	<p>Policy 13.4.11 establishes 114 tonnes of nitrogen as the applicable annual load limit for the Upper Hinds.</p> <p>Fonterra opposes the policy because it considers that the risks to the existing good water quality in the Upper Hinds are related to sediment, phosphorus and E.coli issues rather than nitrogen. We believe it is inappropriate to manage those issues by limiting land use change by way of a nitrogen load limit.</p>	<p>Amend Policy 13.4.11 to state:</p> <p><i>Maintain water quality in the Upper Hinds/Hekeao Plains Area <del>capping discharges of nitrogen at 144 tonnes of nitrogen per year and</del> by requiring all farming activities to operate at good management practice to <u>manage nutrient, microbial and sediment losses to maintain current phosphorus losses to achieve the limits in Table 13(ga).</u></i></p> <p>Amend related rules as set out later in this submission.</p>
4	Policy 13.4.12	<p>Policy 13.4.12 establishes the nitrogen target load for the Lower Hinds/Hekeao Plains Areas as 3400 tonnes.</p> <p>Fonterra accepts that this is Environment Canterbury's current best estimate of the load required to achieve a groundwater concentration of 9.2 mg/L of nitrate nitrogen (noting that this concentration is modelled to reduce to 6.9 mg/L with MAR).</p> <p>However, this load target has been derived from an</p>	<p>Amend Policy 13.4.12 to state:</p> <p><i>Improve water quality in the Lower Hinds/Hekeao Plains Area by reducing the discharge of nitrogen from farming activities to <del>achieve a target load of 3400 tonnes of nitrogen per year</del> <u>70% of the catchment load contributed by farming activities as at 1 October 2014</u> by 2035.</i></p>

		<p>assumed relationship between the modelled existing nitrogen loss and groundwater concentrations making an allowance for lags between N loss and groundwater/spring fed surface water concentrations. For a number of reasons Fonterra believes that the process of deriving the target load may have underestimated the existing load and hence led to a lower load target than is necessary to achieve the desired nitrate-nitrogen concentration.</p> <p>For that reason, Fonterra considers that policies should refrain from referring to the 3400 tonnes per annum target load and instead focus on the nitrate nitrogen concentration limit.</p>	
4	Policy 13.4.13	<p>Policy 13.4.13 sets out the core approach to managing nitrogen loss from farming activities.</p> <p>Fonterra opposes this approach because:</p> <ul style="list-style-type: none"> <li>• The 45% reduction target is flawed (as discussed above)</li> <li>• There is over-riding focus on dairy farming to achieve reduction. (Fonterra notes that dairy and dairy support represent about half the farming land use in the catchment).</li> <li>• There is insufficient regard to the impacts on dairy farming of the reductions proposed.</li> <li>• Reference is made to “good practice nitrogen loss rates” but no such rates exist and hence Policy 13.4.13 (a) is highly uncertain in its effect.</li> <li>• There is an inappropriate reliance on achieving very deep cuts in nitrogen loss (which might compromise the viability of existing farms) to achieve “headroom” for new farming activities (with potentially higher nitrogen loss rates than would be required of existing farming activities).</li> <li>• There is an over-emphasis on 3400 tonnes per annum as the fixed per annum load target. As</li> </ul>	<p>Amend Policy 13.4.13 to state:</p> <p><i>Farming activities including farm enterprises in the Lower Hinds/Hekeao Plains Area whether or not they are supplied with water by an irrigation scheme or a principal water supplier, achieve a target load <u>calculated as 70% of the catchment load contributed by farming activities as at 1 October 2014</u> of <del>3400 tonnes of nitrogen per year</del> by:</i></p> <p>a) <i>Requiring existing farming activities to <u>implement meet</u> good management practices <u>nitrogen loss rates</u> from 1 January 2017, <del>calculated on the baseline land uses</del>;</i></p> <p>b) <i>Requiring <u>a collective reduction in nitrogen loss from farming activities across the lower Hinds/Hekeao Plains Area for all properties with a nitrogen loss calculation exceeding 25 kg per hectare per annum</u> <del>further reductions for dairy farming and dairy support from 1 January 2020</del>, in accordance with Table 13(h); and</i></p> <p>c) <i>Determining the extent and timing of nitrogen loss reductions to be achieved on individual</i></p>

		<p>noted above, Fonterra has concerns about the accuracy of the proposed load limit.</p>	<p><u>farm properties from 1 January 2020 by:</u></p> <p>A. <u>use of an expert farm systems advisory panel reviewing resource consent applications and any associated Farm Environment Plans and providing independent advice to Canterbury Regional Council about the opportunities for nitrogen loss mitigation given the individual circumstances of each farm property.</u></p> <p>B. <u>having regard to the following matters in considering the individual circumstances of each farm property:</u></p> <p>i. <u>The nitrogen baseline for the property and the level of any reductions already achieved from that baseline; and</u></p> <p>ii. <u>Any natural or physical constraints to lower nitrogen leaching faced on-farm that are outside of a farmer's control; and</u></p> <p>iii. <u>The level of investment in farm infrastructure and where a farm might be in the cycle of infrastructure replacement; and</u></p> <p>iv. <u>The capital and operational costs of making nitrogen loss reductions and the benefit (in terms of maintaining a farm's financial sustainability) of spreading that investment over time.</u></p> <p>e)d) Enabling, by way of resource consent process, land use intensification or changes in land use on a maximum of 30,000 hectares of land, provided the nitrogen loss calculation is limited to no more than <del>27</del><u>25</u>kg per hectare per year.</p>
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4	Policy 13.4.14	<p>Policy 13.5.14 provides for an improvement in flows and/or a decrease in nitrate nitrogen concentrations by enabling MAR and targeted stream augmentation (TSA) subject to conditions related to the management of adverse environmental effects.</p> <p>Fonterra supports the policy in part. However two issues arise.</p> <p>First the Policy is limited as it only addresses MAR and TSA when there are other catchment scale mitigations that could improve overall water quality that should also be enabled. Also, the purpose of MAR and TSA should include improving water quality and in stream habitat generally as well as reliability of supply for surface water takes.</p> <p>Secondly, we are aware that there is a potential conflict to be managed between increasing the flows during summer in the lower catchment that MAR and TSA might enable. However there is also the potential for increased flows and levels to adversely affect drainage in the lower catchment in the autumn through to spring. For that reason Fonterra considers that proposals for MAR and TSA should be carefully investigated and assessed. Currently, Policy 13.4.14 sets out some matters that will be relevant to consider in any such assessment but the bigger issue is the process that is used to develop and assess proposals. In Fonterra's opinion this should be highly consultative and a commitment should be included in the Variation to that effect.</p> <p>Further Policy 13.4.14 (a) is unhelpful as the term "satisfactorily avoided" provides no guidance to decision makers. Presumably, if the concern is that the mixing of waters cannot always be avoided, then there may be options to mitigate the adverse effects</p>	<p>Add a new Policy 13.4.14A as follows:</p> <p><u><i>Enable catchment scale mitigations that improve overall water quality in the Hinds/Hekeao Plains Area and improve reliability of supply for surface water takes, including:</i></u></p> <p><u><i>(a) improving flows in the spring fed water bodies;</i></u></p> <p><u><i>(b) decreasing nitrate nitrogen concentrations in the the Hinds River/Hekeao and spring fed waterbodies; or</i></u></p> <p><u><i>(c) enhancing in-stream habitat.</i></u></p> <p>Amend Policy 13.4.14 to state:</p> <p><u><i>Improve the flows in spring-fed waterbodies and/or decrease nitrate nitrogen concentrations in the Hinds/Hekeao spring-fed waterbodies and groundwater in the Lower Hinds/Hekeao Plains Area by enabling Enable managed aquifer recharge (MAR) and targeted stream augmentation (TSA), where adverse effects can be appropriately managed. In determining whether adverse effects can be appropriately managed Canterbury Regional Council will:</i></u></p> <p><u><i>(a) Encourage consultation to be undertaken with affected communities and landholders before any application is lodged for a MAR or TSA project; and</i></u></p> <p><u><i>(b) Ensure research is undertaken to allow (in conjunction with the information gathered through the process described in (a) above) for the full assessment of the matters listed in (c) below.</i></u></p> <p><u><i>(c) Require that:</i></u></p>
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		of that occurring.	<ul style="list-style-type: none"> <li>i. adverse effects on cultural values, including those associated with unnatural mixing of water are <del>satisfactorily</del> avoided <u>or mitigated</u>;</li> <li>ii. adverse effects on the availability and quality of community drinking water supplies are avoided;</li> <li>iii. adverse effects on fish passage are avoided or mitigated;</li> <li>iv. Inundation of existing wetlands is avoided, remedied or mitigated through scheme design, constructions and operation;</li> <li>v. There is no net loss of significant biodiversity habitat of indigenous biodiversity; <del>and</del></li> <li>vi. Adverse effects on people and property from raised groundwater levels and higher flows are avoided; <u>and</u></li> <li>vii. <u>Adverse effects on farming activities and production are avoided.</u></li> </ul>
5	Policy 13.4.16	<p>Policy 13.4.16 refers to improving flows in spring-fed water bodies through (amongst other things) prohibiting increased use arising from the transfer of consented volumes of water within surface water catchments and the Valetta Groundwater Allocation Zone.</p> <p>Fonterra opposes this policy. The policy purports to prohibit “increased use arising from ...transfer”. In fact it takes effect through Rules 13.5.33 and 13.5.34 that prohibit <u>all</u> transfers (not just those that lead to increase water use). As a general principle Fonterra supports water transfers as an important mechanism to achieve allocative efficiency. While it is accepted that Environment Canterbury has over-allocated the catchment/aquifer, it is submitted that over-allocation be addressed through means other than prohibiting the transfer of lawfully granted resource consents.</p>	<p>Amend Rule 13.4.16 as follows:</p> <p><i>Improve flows in spring-fed waterbodies and the Lower Hinds River/Hekeao to meet economic cultural, social and environmental outcomes in the Hinds/Hekeao Plains Area by requiring adherence to flow and allocation limits; <u>and</u> limiting the volume and rate of abstraction on replacement water permits to reasonable use calculated in accordance with method 1 in Schedule 10. <del>and prohibiting increased use arising from the transfer of consented volumes of water within surface water catchments and the Valetta Groundwater Allocation Zone.</del></i></p>

<b>SECTION: Rules</b>			
6	Rules 13.5.8, 13.5.9, 13.5.10, 13.5.11 and 13.5.12	<p>Rule 13.5.8 13.5.9,13.5.10, and 13.5.12 all refer to the nitrogen baseline as a condition.</p> <p>Fonterra opposes the imposition of the condition on the basis that, notwithstanding its “Red” nutrient classification under the Proposed Canterbury Land and Water Regional Plan, nitrogen is not the main driver of water quality in the Upper Hinds/Hekeao Plains Area.</p> <p>With the nitrogen baseline condition removed from Rule 13.5.9 Rule 13.5.10 appears to us unnecessary and can be removed.</p>	<p>Amend Rule 13.5.8 to state:</p> <p><i>Despite any of Rules 13.5.9 to 13.5.12 the use of land for a farming activity in the Upper Hinds/Hekeao Plains Area is a permitted activity provided the following conditions are met:</i></p> <p><i>1. The property is less than 5 hectares; <del>and</del></i>  <i><del>2. The nitrogen loss calculation for the property does not exceed 20 kg per hectare per annum or the nitrogen baseline, whichever is the greater.</del></i></p> <p>Amend Rule 13.5.9 to state:</p> <p><i>The use of land for a farming activity in the Upper Hinds/Hekeao Plains Area is a permitted activity, provided the following conditions are met:</i></p> <p><i><del>1. The nitrogen loss calculation for the property does not increase above the nitrogen baseline; and either</del></i></p> <p><i><u>12</u> The Practices in Schedule 24a are being implemented and the information required is recorded in accordance with Schedule 24a, and supplied to the Canterbury Regional Council on request; or</i></p> <p><i><u>23</u> A Farm Environment Plan has been prepared and implemented in accordance with Schedule 7 part A, and supplied to Canterbury Regional Council on request.</i></p> <p>Delete Rule 13.5.10:</p>

			<p>Amend Rule 13.5.11 to state:</p> <p>The use of land for a farming activity that does not comply with conditions <del>21</del> or <del>32</del> of Rule 13.5.9 or condition <del>32</del> of Rule 13.5.10 is a non-complying activity.</p> <p>Delete Rule 13.5.12.</p>
7	Rules 13.5.13	<p>Rule 13.5.13 refers to the nitrogen loss calculation not exceeding a maximum 20kg per hectare per annum as a condition of being a permitted activity.</p> <p>Fonterra considers that a nitrogen loss rate of 25kg per hectare per year is an appropriate upper rate for a permitted activity given that we are proposing that any change in use (within the 30,000 hectare limit) also be subject to a limit of 25kg per hectare per year.</p> <p>[Note that although Fonterra proposes a 25kg threshold here we acknowledge some uncertainty around the appropriate numbers due to limitations of existing modelling capability. In that regard we continue to work to refine our modelling and may suggest a refined limit later in the Variation process. Council and interested parties should note that we anticipate that any revised limit put forward by Fonterra for the purpose of this rule (and other rules that apply the 20kg per hectare per year threshold), will be in the range of 20-25 kg per hectare per annum.]</p> <p>Fonterra is also concerned that Rule 13.5.13 (along with rules 13.5.16, 13.5.17, 13.5.18) make no allowance for the fact that the Variation includes a change in the sub regional boundary between the Ashburton Sub Region and the Alpine River Sub Region to align the Ashburton sub regional with the western boundary of the Mayfield-Hinds Groundwater Allocation Zone.</p>	<p>Amend Rule 13.5.13 as follows:</p> <p><i>Despite any of the Rules 13.5.15 to 13.5.20 the use of land for a farming activity in the lower Hinds/Hekeao Plains Area is a permitted activity provided the following conditions are met:</i></p> <ol style="list-style-type: none"> <li><i>1 The property is less than 5 hectares; and <u>either</u></i></li> <li><i>2. The nitrogen loss calculation for the property does not exceed <del>20</del>25 kg per hectare for annum or the nitrogen baseline, whichever is greater; <u>or</u></i></li> <li><i><u>3 The property is within that area shown as Green on the LWRP Planning Maps and the nitrogen loss calculation for the property does not exceed 25 kg per hectare for annum or the nitrogen baseline plus 5 kg per hectare per annum, whichever is greater.</u></i></li> </ol>

		<p>While Fonterra does not oppose such a boundary change, we do note that the area now within the Hinds/Hekeao Plains area (and effectively now managed as a “Red” nutrient allocation zone) was, prior to the notification of this Variation, classed as being within the Green nutrient allocation zone. In practice that means that farms within that area could have lawfully increased their nutrient loss as a permitted activity by 5kg above their baseline (see Rule 5.57 of the pLWRP). Should farms have exercised that right in the 2014 year their farming activity would be prohibited under Rule 13.5.20 of the Variation. Fonterra submits that that is an unfair planning outcome and farms in that situation should have any additional nitrogen loss authorised under the pLWRP legitimised under the Variation.</p>	
7	13.5.14	<p>Rule 13.5.14 provides for farming activities that lose up to 27kg N per hectare per annum as discretionary activities subject to the area of land (in combination with land within irrigation schemes) not exceeding 30,000ha.</p> <p>Fonterra opposes this rule. Fonterra understands that this rule aims to provide for a degree of low leaching land use change for those properties that may not be part of an irrigation scheme or be taking advantage of the Irrigation scheme rules (Rule 13.5.21 and 13.5.22).</p> <p>Fonterra’s principal opposition to this rule is that it creates potentially inefficient resource use and development if there are differentiated entitlements between existing farming activities and those able to access this rule (and hence access a 27kg N per hectare per annum entitlement with no expectations for on-going reductions). For example it is possible that an existing dairy farm required to reduce nitrogen loss by 45% over time would be in a worse situation</p>	<p>Amend Rule 13.5.14 to read as follows:</p> <p><i>Despite any of the Rules 13.5.15 to 13.5.20 the use of land for a farming activity or farming enterprise in the Lower Hinds/Hekeao Plains Area is a discretionary activity, provided the following conditions are met:</i></p> <ol style="list-style-type: none"> <li><i>1. The <del>future</del> nitrogen loss calculation for the area of land subject to any application for resource consent made under this rule will be less than or equal to <del>27</del>25 kg per hectare per annum for the activity applied for; and</i></li> <li><i>2. The total area of the land subject to any resource consent granted under this Rule and any area of land subject <u>to Rule 13.5.22 that was not irrigated prior to 1 October 2014</u> <del>Row B of Table 13(i)</del> does not exceed 30,000 hectares; and</i></li> <li><i>3. The farming activity or farming enterprise is solely in the lower Hinds/Hekeao Plains Area;</i></li> </ol>

		<p>than a farm whose use changes under this rule. (This is part of the reason where we propose to adjust the 20kg per hectare per annum threshold in Rules 13.5.13 to 13.5.20 to 25 kg per hectare per annum – as discussed further below).</p> <p>In addition to this fundamental concern, we note also areas of uncertainty within this rule. Most notably:</p> <ol style="list-style-type: none"> <li>the phrase “future nitrogen loss calculation” is not clear (i.e. how far in the future is this referring to?); and</li> <li>the meaning of the phrase in condition 2 “land subject to Row B of Table 13(i)” is not clear. (It appears that this is intended to refer to land in respect of which consent has been granted under the pLWRP or Variation 2 that was not irrigated at 1 October 2014).</li> </ol>	<p>and</p> <ol style="list-style-type: none"> <li>A Farm Environment Plan has been prepared in accordance with Schedule 7 Part A; and</li> <li><del>The Farm Environment Plan identifies the area of land subject to any application for a resource consent made under this Rule</del></li> </ol>
7&8	13.5.15	<p>Rule 13.5.15 applies prior to 1 January 2017. It requires that farming activities not exceed their nitrogen baseline.</p> <p>The concept of the nitrogen baseline is contained within the pLWRP. An issue with the baseline (and four-year rolling average approach to N loss calculation) has arisen since decisions on that plan and Fonterra considers that that issue could be resolved for the Hinds catchment sub region within this Variation.</p> <p>The issue exists because the four years used to establish the baseline for annual N loss and the four years used to determine the comparison N loss performance include common years. That is, a farmer’s base line is calculated based on the 2009/10, 2010/11, 2011/12 and 2012/13 years, and at the end of the 2014/15 season a farmer must be in a position to show that his/her four-year rolling average up to 2014/15 has not exceeded the baseline. So he/she</p>	<p>Amend Rule 13.5.15 to state:</p> <p><i>Until 1 January 2017, the use of land for a farming activity in the lower Hinds/Hekeao Plains Area is a permitted activity, provided the following conditions are met:</i></p> <ol style="list-style-type: none"> <li><i>The nitrogen loss calculation for the property, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not <del>increase above the nitrogen baseline; and either exceed the highest annual (30 June to 1 July) nitrogen loss modelled for that property over the period 1 July 2009 to 30 June 2013;</del> and either</i></li> <li><i>The practices in Schedule 24a are being implemented and the information required is recorded in accordance with Schedule 24a, and supplied to Canterbury Regional Council on request; or</i></li> </ol>

		<p>must average the N loss over the 2011/12, 2012/13, 2013/14 and 2014/15 seasons. With the 2011/12 and 2012/13 data being common to the baseline calculation and the comparison rolling average, the farmer's N loss in 2013/14 plus 2014/15 cannot exceed that discharged in 2009/10 plus 2010/11. This leads to a wave effect of increasing and decreasing annual N loss that is possible on farm.</p> <p>The Council has previously recognised the issue and has published implementation guidance that acknowledges that a transition to the new scheme is required. It does this by:</p> <ul style="list-style-type: none"> <li>• Regarding the 2013/14 year as a transitional year (where it accepts N leaching may exceed the baseline).</li> <li>• From 30 June 2014, expecting all farmers (in red zones and Lakes zones) to introduce practice changes to ensure long term compliance with the baseline but only take compliance action when nitrogen leaching exceeds the highest year in the nitrogen baseline period.</li> <li>• Expecting full compliance with the baseline from 30 June 2017.</li> </ul> <p>Fonterra supports this position but submits that it should be codified in this Variation.</p>	<p>3. <i>A Farm Environment Plan has been prepared and is being implemented in accordance with Schedule 7 Part A, and supplied to Canterbury Regional Council on request.</i></p>
8	Rule 13.5.16	See submission in respect of Rule 13.5.13	<p>Amend Rule 13.5.16 as follows:</p> <p><i>From 1 January 2017, the use of land for a farming activity in the Lower/Hinds/Hekeao Plains Area is a permitted activity, provided the following conditions are met:</i></p> <ol style="list-style-type: none"> <li>1. <i>The nitrogen loss calculation for the property does not exceed <del>2025</del> kg per hectare for annum; and</i></li> <li>2. <i>The nitrogen loss calculation for the property,</i></li> </ol>



			<p>excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not increase above the nitrogen baseline; <u>or</u></p> <p>3. <u>The property is within that area shown as Green on the LWRP Planning Maps and the nitrogen loss calculation for the property, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not exceed the nitrogen baseline plus 5 kg per hectare per annum, whichever is greater;</u> and either</p> <p><del>34.</del> The practices in Schedule 24a are being implemented and the information required is recorded in accordance with Schedule 24a, and supplied to Canterbury Regional Council on request; or</p> <p><del>45.</del> A Farm Environment Plan has been prepared and is being implemented in accordance with Schedule 7 Part A, and supplied to Canterbury Regional Council on request.</p>
8	Rule 13.5.17	<p>Rule 13.5.17 provides for farming activities from 1 January 2017 as restricted discretionary activities subject to conditions.</p> <p>Fonterra supports farming activities being restricted discretionary activities in the Lower Hinds/Hekeao Plains area post 1 January 2017. However, Fonterra opposes the current matters of discretion and proposes these be aligned with the amendments proposed to Policy 13.4.13. In particular opposes reference to “the ability to meet the nitrogen load target for farming activities in Table 13(g)”. In Fonterra’s opinion, the specified load target is too uncertain and should, accordingly, be subject to clarification on the basis more consistent use of Overseer and its input protocols and improved</p>	<p>Amend Rule 13.5.17 to state:</p> <p><i>From 1 January 2017, the use of land for a farming activity in the Lower Hinds/Hekeao Plains Area is a restricted discretionary activity, provided the following conditions are met:</i></p> <ol style="list-style-type: none"> <li><i>1. The nitrogen loss calculation for the property is greater than <del>2025</del> kg per hectare per annum; and</i></li> <li><i>2. The nitrogen loss calculation for the property, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not increase above the nitrogen baseline; <del>and-or</del></i></li> <li><i>3. <u>The property is within that area shown as Green</u></i></li> </ol>



		catchment modelling.	<p><u>on the LWRP Planning Maps and the nitrogen loss calculation for the property, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not exceed the nitrogen baseline plus 5 kg per hectare per annum, whichever is greater; and</u></p> <p><del>34.</del> A Farm Environment Plan has been prepared in accordance with Schedule 7 Part A.</p> <p>The exercise of discretion is restricted to the following matters:</p> <ol style="list-style-type: none"> <li>1. The quality of, compliance with and auditing of the Farm Environment Plan; and</li> <li>2. <del>The ability to meet the nitrogen load target for farming activities in Table 13 (g); and</del></li> <li>3. From 1 January 2017 <del>the implementation of</del> <u>gGood mManagement pPractices</u> <del>Nitrogen Loss Rates to be applied for the baseline land uses; and</del></li> <li>4. <del>For the period after 1 January 2020, the matters listed in Policy 13.4.13 Any nitrogen loss rates to be applied in accordance with Table 13 (h); and</del></li> <li>5. The potential benefits of the activity to the applicant, the community and the environment.</li> </ol>
8	Rule 13.5.18	<p>Rule 13.5.18 provides for farming enterprises as discretionary activities.</p> <p>Fonterra supports the notion of farm enterprises being multiple properties (not necessarily in common ownership) that are managed together for the purpose of nutrient management. We consider the farm enterprise rules provide important flexibility (and potentially facilitate efficient nutrient management).</p>	<p>Amend Rule 13.5.18 to state:</p> <p><i>The use of land for a farming activity as part of a farming enterprise in the Lower Hinds/Hekeao Plains Area is a discretionary activity, provided the following conditions are met:</i></p> <ol style="list-style-type: none"> <li>1. <i>The farming enterprise is solely in the Lower</i></li> </ol>

		<p>However, we are concerned that the rules providing for farm enterprises impose unnecessary barriers to greater use of the rule. In particular we note the obligation under Rule 13.5.18 for “A Farm Environment Plan”. When multiple properties are involved preparing a single FEP may not be practical or effective.</p> <p>[Note, amendments suggested include those in response to issues raised in relation to Rule 13.5.13.]</p>	<p><i>Hinds/Hekeao Plains Area; and</i></p> <p>2. <i>The nitrogen loss calculation for the farming enterprise, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not increase above the nitrogen baseline; <del>and or</del></i></p> <p>3. <i><u>The property is within that area shown as Green on the LWRP Planning Maps and the nitrogen loss calculation for the property, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not exceed the nitrogen baseline plus 5 kg per hectare per annum, whichever is greater; and</u></i></p> <p>3. <i><u>A Farm Environment Plan has been prepared for the farm enterprise, or for each parcel of land, property or land management unit, within the farm enterprise, in accordance with Schedule 7 Part A.</u></i></p>
9	Rule 13.5.20	For reasons discussed in relation to Rule 13.5.13 a consequential amendment is required to Rule 13.5.20.	<p>Amend Rule 13.5.20 as follows:</p> <p><i>The use of land for a farming activity that does not comply with <u>one or other of</u> conditions <u>1 or 2</u> of Rule 13.5.15, <u>one or other of</u> conditions <u>2 or 3</u> of Rule 13.5.16, <u>one or other of</u> conditions <u>2 or 3</u> of Rule 13.5.17 or conditions 1 or <u>one or other of</u> conditions <u>2 or 3</u> of Rule 13.5.18 or a farming enterprise that does not comply with any of the conditions of Rule 13.5.14, is a prohibited activity.</i></p>
9	Rule 13.5.21	Rule 13.5.21 makes the use of land for farming activities a permitted activity (despite other rules) if the land is irrigated by an irrigation scheme and the scheme provider holds a discharge consent with nutrient management conditions.	<p>Amend Rule 13.5.21 to state:</p> <p><i>Despite Rules 13.5.13 to 13.5.20, the use of land for a farming activity in the Lower Hinds/Hekeao Plains Area is a permitted activity, provided the following condition is met:</i></p>

		Fonterra notes that the rule refers to holding a consent under Rule 5.61 of the Proposed Canterbury Land and Water Regional Plan (pLWRP). Yet Rule 5.61 is a permitted activity rule and hence no consent can be held under it.	1. <i>The property is irrigated with water from an irrigation scheme or a principal water supplier, and the irrigation scheme or principal water supplier <u>is authorised by Rule 5.61, or holds a discharge consent granted under <del>Rule 5.61,</del> Rule 5.62 or Rule 13.5.22.</u></i>
9	Rule 13.5.22	Rule 13.5.22 makes the discharge of nutrients onto or into land that may result in a contaminant entering water a discretionary activity.  Fonterra notes that Rules 13.5.24 and 13.5.25 make the same activity a permitted activity when a land use consent is held. We suggest the relationship between these rules should be clarified.	Amend the beginning of Rule 13.5.22 to state:  <i><u>Except as provided in Rules 13.5.24 and 13.5.25,</u></i> <i><del>t</del>The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water in the Lower Hinds/Hekeao Plains Area that would otherwise contravene s15(1) of the RMA is a discretionary activity, provided the following conditions are met:</i>
9	Rule 13.5.25	Rule 13.5.23 makes certain discharges a prohibited activity. Fonterra suggest that the relationship of this rule with Rules 13.5.24 and 13.5.25 requires clarification.	Amend the beginning of Rule 13.5.25 to state:  <i><u>Unless Rule 13.5.24 or Rule 13.5.23 apply, t</u></i> <del>The</del> <i> discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA that does not meet one or more of the conditions in Rule 13.5.22 is a prohibited activity.</i>
11	Rule 13.5.29 and associated notes	Under the heading “Small and Community Water Takes” the Variation notes that the groundwater take rules apply in the Hinds/Hekeao Plains Area. Rule 13.5.9 states the Rule 5.11 (small surface water takes) does not apply.  Fonterra has an interest in these issues because of the Council’s recent advice regarding the interpretation of section 14(3)(b) of the RMA in relation to stock drinking water. We understand that Council will not regard companies, corporate bodies, trusts or partnerships as being entitled to take water for stock drinking (and/or domestic use) under section	Add a new rule 13.5.29A to state:  <i><u>Despite Rule 5.114, the taking and using of groundwater for stock drinking or domestic needs is a permitted activity.</u></i>  Add a new rule 13.5.29B to state:  <i><u>Despite Rule 13.5.29, the taking and using of surface water for stock drinking or domestic needs is a permitted activity provided the following conditions are complied with:</u></i>  <i><u>1. The rate of take is less than the rates specified in</u></i>

		<p>14(3)(b) of the RMA. It is submitted that many of these entities have historically taken water under that provision and that such takes are critical and not otherwise authorised.</p> <p>Fonterra understands that water users may apply for a change of conditions to have their historic water take for stock water/domestic water authorised under the terms of an existing consent. If they do not do so, and attempt to have such takes authorised at the time of consent replacement, the annual volumes, instantaneous flow rates and return rate volumes will apply. Where these are already exceeded (as in the Hinds/Hekeao Plains Area) gaining consent for stock drinking water may be impossible (as it would constitute a prohibited activity).</p> <p>Although Fonterra acknowledges the opportunity for existing consent holders to apply now for a change of conditions, Fonterra is concerned that many farmers will be unaware of this situation or will not already hold an individual consent that may be changed. For those reasons we consider that a new rule be added to Variation 2 to authorise existing stockwater and domestic takes.</p> <p>Further, Fonterra acknowledges that there is already opportunity for a permitted groundwater take under Rules 5.113 and 5.114 of the pLWRP. However, it is not clear whether these takes are available in addition to any consented groundwater take.</p>	<p><u>Rule 5.111 1. (a)</u></p> <p>2. <u>Fish are prevented from entering the water intake as set out in Schedule 2; and</u></p> <p>3. <u>The take is not from a river subject to a Water Conservation Order.</u></p>
12	Rule 13.5.31	<p>Fonterra does not agree that taking groundwater in substitution and existing surface or depleting groundwater take permit should be conditional on the take being on the same property. We are of the view that such a condition places an undesirable constraint on innovation and the achievement of positive water management outcomes.</p>	<p>Amend Rule 13.5.31 as follows:</p> <p>1 <del>The groundwater take will be abstracted on the same property as the existing resource consent and t</del>There is no increase in the proposed rate of take or annual volume; and</p>

12	Rules 13.5.33 and 13.5.34	Rules 13.5.33 and 13.5.34 make transfers of surface and ground water permits a prohibited activity.  Fonterra opposes these rules as discussed in respect of Policy 13.4.16.	Delete Rules 13.5.33 and 13.5.34.
12	13.5.36	Rule 13.5.36 provides for water takes for augmentation projects. Fonterra supports this rule. However, we believe condition 5 of the Rule is overly restrictive. As previously noted in this submission, one of the purposes of augmentation is to increase reliability of supply for existing surface water takes. Augmentation projects that achieve that purpose ought not be prevented by this rule.	Amend Rule 13.5.36 condition 5 as follows:  5. The discharge is for the purpose of reducing the concentration of nitrate nitrogen in surface water or groundwater or increasing flows in lowland streams <del>for ecological or cultural benefits</del> .
<b>SECTION: Tables</b>			
	General (All tables)	Fonterra understands that Council has recently agreed to a revised NPS-FM implementation programme and that this programmes full implementation for the Hinds for 2023/2024. Nevertheless, Fonterra supports the Variation giving effect to the NPS-FM as much as possible in the Variation and in that regard notes that some of the metrics in the tables listed as “limits” will be more accurately described as freshwater objectives under the national objectives framework of the NPS-FM 2014.	Review all Tables to align relevant attributes as freshwater objectives as per the NPS-FM. This should include moving Tables 13 (j) and 13 (k) so that the relevant attributes are includes in Table 13 (a) (as freshwater objectives).
14-15	Table 13 (a)	Column 2 of Table 13 (a) sets out the names of individual streams and drains in the Spring-Fed – Plains Management unit. Fonterra considers this unnecessary as the affected streams and drains are already shown on the pLWRP planning maps. The table uses the unhelpful clause “including but not limited to”.  We consider it more helpful just to reply on the planning maps that already exist.	Delete names of streams and drains from Table 13(a).  Review the metrics listed in the cyanobacteria and fine sediment columns and, if an error has been made, swap the numbers between columns.

		Fonterra also notes that it appears the metrics in the cyanobacteria column may have been transposed with the metrics in the fine sediment column.																						
19	Table 13(g)	<p>For the reasons discussed in relation to Policy 13.4.11 Fonterra opposes the nitrogen limit of 114 tonnes for the Upper Hinds/Hekeao Plains Area.</p> <p>For the reasons discussed in relation to Policy 13.4.12 Fonterra opposes the nitrogen limit of 3400 tonnes for the Lower Hinds/ Hekeao Plains Area.</p>	<p>Delete Upper Hinds/Hekeao Plains Area nitrogen load limit from Table 13(g).</p> <p>Insert the following new Table of limits specific to the Upper Hinds Plains area in Section 13.7.3 as follows:</p> <p><b>Table 13(ga): Upper Hinds/Hekeao Plains Area Limits</b></p> <table><tr><td>Management unit</td><td>Measurement</td><td>Dissolved Reactive Phosphorus</td><td>Dissolved inorganic Nitrogen</td><td>Total suspended solids</td><td>E.coli</td></tr><tr><td>Upland Hill-fed</td><td>Annual median</td><td>0.01 mg/L</td><td>0.5 mg/L</td><td>1.5 mg/L</td><td>260 E. coli/100 ml</td></tr></table> <p>Amend Table 13(g) as follows:</p> <table><tr><th>Area</th><th>Nitrogen load (tonnes/year)</th><th>Limit/Target</th></tr><tr><td><del>Upper Hinds/Hekeao Plains Area</del></td><td><del>114</del></td><td><del>Limit</del></td></tr><tr><td>Lower Hinds/Hekeao Plains Area</td><td><del>3400</del> The load shall be calculated by multiplying A by 0.70 where A = the nitrogen load modeled to be occurring for the year 1 July 2013 to 30 June 2014 using the latest version of Overseer™ and the Overseer Best Practice Input Standards*</td><td>Target to be met by 2035</td></tr></table> <p>* From 2017, the calculated load will be made publicly available on the Canterbury Regional Council's website and will be updated as new versions of Overseer are</p>	Management unit	Measurement	Dissolved Reactive Phosphorus	Dissolved inorganic Nitrogen	Total suspended solids	E.coli	Upland Hill-fed	Annual median	0.01 mg/L	0.5 mg/L	1.5 mg/L	260 E. coli/100 ml	Area	Nitrogen load (tonnes/year)	Limit/Target	<del>Upper Hinds/Hekeao Plains Area</del>	<del>114</del>	<del>Limit</del>	Lower Hinds/Hekeao Plains Area	<del>3400</del> The load shall be calculated by multiplying A by 0.70 where A = the nitrogen load modeled to be occurring for the year 1 July 2013 to 30 June 2014 using the latest version of Overseer™ and the Overseer Best Practice Input Standards*	Target to be met by 2035
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			<u>released or changes are made to the Overseer Best Practice Data Input Standards.</u>												
19	Table 13(h)	For the reasons set out in relation to Policy 13.4.13 Fonterra proposes changes to Table 13(h).	<p>Amend Table 13(h) as follows:</p> <table> <tr> <th><u>Land use</u></th><th><u>2025</u></th><th><u>2030</u></th><th><u>2035</u></th></tr> <tr> <td><u>Farming activities with a nitrogen loss calculation for a property greater than 25kg per hectare per year</u></td><td><u>15%</u></td><td><u>22%</u></td><td><u>30%</u></td></tr> <tr> <td><u>Farming activities with a nitrogen loss calculation for a property less than 25kg per hectare per year</u></td><td><u>0%</u></td><td><u>0%</u></td><td><u>0%</u></td></tr> </table>	<u>Land use</u>	<u>2025</u>	<u>2030</u>	<u>2035</u>	<u>Farming activities with a nitrogen loss calculation for a property greater than 25kg per hectare per year</u>	<u>15%</u>	<u>22%</u>	<u>30%</u>	<u>Farming activities with a nitrogen loss calculation for a property less than 25kg per hectare per year</u>	<u>0%</u>	<u>0%</u>	<u>0%</u>
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<b>SECTION: Schedules</b>															
21	Schedule 7	<p>The Variation proposes to add two additional nutrient management objectives. Farm Environment Plans (FEP) prepared for the Hinds/Hekeao Plains Area will need to describe how these are to be met.</p> <p>Fonterra opposes the first of these objectives in accordance with the position it has taken on Policy 13.4.13</p>	<p>Amend the proposed additions to Schedule 7 – Farm Environment Plans as follows:</p> <p><b>Schedule 7 - Farm Environment Plan</b></p> <p><i>Within the Hinds/Hekeao Plains Area Part B clause 5(a) shall also include the following:</i></p> <ul style="list-style-type: none"> <li><i><del>Achieve Implementation of the Good Management Practices Nitrogen Loss Rates from 2017.</del></i></li> <li><i>In Lower Hinds/Hekeao Plains Area further reduce the nitrogen loss rate from 2020 in accordance with Table 13(h).</i></li> </ul>												
	Schedule 24a	Item (e) in Schedule 24a includes reference to the application, separation distances, depth, uniformity and intensity of dairy effluent disposal be checked annually in accordance with Section 4 'Land Application' in the Dairy	<p>Delete item (e) from Schedule 24a and replace with the following:</p> <p><b>e) Collected Animal Effluent:</b></p>												

		<p>NZ Farm Dairy Effluent Design Standard [2013].</p> <p>The document referred to does not does not contain information regarding self-assessment of effluent systems as seemed intended by this provision. We consider the appropriate document to refer to is Section 4 of the 'Land Application' in the guideline "A Farmers Guide to Managing Farm Dairy Effluent – A Good Practice Guide for Land Application Systems" [2013]. The document doe provide practice advice on how farmers can reliably self assess the operation of their effluent systems.</p>	<p>(i) Collection, storage and treatment systems for dairy effluent installed or replaced after after 1 October 2014 meet the Dairy NZ Farm Dairy Effluent Design Standard and Code of Practice [2013].</p> <p>(ii) <del>The application, separation distances, depth, uniformity and intensity of dairy effluent disposal is checked annually in accordance with Section 4 'Land Application' in the Dairy NZ Farm Dairy Effluent Design Standard [2013]. The animal effluent disposal system application separation distances, depth, uniformity and intensity are self-checked annually in accordance with Section 4 'Land Application' in the guideline "A Farmers Guide to Managing Farm Dairy Effluent – A Good Practice Guide for Land Application Systems" [2013].</del></p> <p>(iii) Records of the application, separation distances, depth, uniformity and intensity of dairy effluent disposal, in accordance with (e)(ii), are kept and provided to the Canterbury Regional Council upon request.</p>
<b>GENERAL: General and Consequential Amendments</b>			
	All	<p>Fonterra is conscious that it has sought numerous amendments, additions and deletions in this submission. It is likely that giving effect to these submission points will necessitate various consequential amendments to ensure consistency between policies and between policies and rules.</p>	<p>Make any and all consequential amendments necessary to give full and accurate effect to this submission while retaining the Plan's internal coherency.</p>