

Janel Hau

From: Sue Ruston <Sue.Ruston@fonterra.com>
Sent: Friday, 21 March 2014 2:38 p.m.
To: Mailroom Mailbox
Subject: CORRECTION TO - Fonterra Co-operative Group Ltd's submission to Canterbury Regional Council on Proposed Variation 1 to the Proposed Land and Water Regional Plan.
Attachments: Submission on Proposed Variation 1 to pCLWRP - Fonterra Co-operative Group Ltd - 21 March 2014.pdf
Categories: Purple Category

Apologies - We have identified some incorrect referencing to tables in the version of the submission we earlier sent to you.

These have been corrected in the attached submission and we ask that you accept this attached version as Fonterra's submission on Proposed Variation 1 to the Proposed Land and Water Regional Plan (i.e. ignore earlier version)

Thank you and regards

Sue Ruston

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From: Sue Ruston
Sent: Friday, 21 March 2014 1:15 p.m.
To: 'mailroom@ecan.govt.nz'
Subject: Fonterra Co-operative Group Ltd's submission to Canterbury Regional Council on Proposed Variation 1 to the Proposed Land and Water Regional Plan.

Good afternoon

Please find attached **Fonterra Co-operative Group Ltd's** submission to Canterbury Regional Council on **Proposed Variation 1 to the Proposed Land and Water Regional Plan.**

Should you have any questions with respect to this submission, please contact the undersigned.

Regards

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SUBMISSION TO
Canterbury Regional Council
on Proposed Variation 1
to the Proposed Land and Water Regional Plan,
February 2014

FROM
Fonterra Co-operative Group Ltd

21 March 2014



**Fonterra Submission to Canterbury Regional Council
on Proposed Variation 1
to the Proposed Land and Water Regional Plan February 2014**

Full Name of Submitter	Fonterra Co-operative Group Limited
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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.

About Fonterra

1. Fonterra Co-operative Group Ltd (Fonterra) is New Zealand's largest milk processor and exporter. We are 100% owned by 10,578 New Zealand dairy farmers and have approximately 17,300 staff working across the dairy spectrum, from advising farmers on sustainable farming practices, to ensuring Fonterra meets exacting food quality standards and delivers dairy nutrition every day to more than 100 markets around the world.

Structure of our submission

2. Our submission is structured into six sections as follows:
 - A. Overview of our submission
 - B. Overview of the dairy industry in the Selwyn Waihora and broader Canterbury community
 - C. Key Fonterra environmental initiatives in the Selwyn Waihora Zone
 - D. Understanding our farmer-focused environmental programme – *Supply Fonterra*
 - E. Latest *Supply Fonterra* results for Selwyn Waihora
 - F. Details of concerns and relief sought.

A. Overview of our submission

3. Fonterra acknowledges the work that Canterbury Regional Council and the Selwyn Waihora Zone Committee have undertaken leading up to the notification of proposed Variation 1 (the Variation). We appreciate the challenges faced in sustainably managing water quality and quantity in this part of the Canterbury Region.
4. We recognise that Te Waihora/Lake Ellesmere is a tribal taonga for Ngai Tahu and is highly valued by the wider community for a broad range of uses. We support the community in seeking improved cultural and environmental outcomes associated with Te Waihora/Lake Ellesmere and the freshwater bodies that make up its catchment.
5. At the same time we consider it is important to also recognise that the catchment underpins a highly productive primary sector providing economic and social strength to the Canterbury region.
6. With this in mind, Fonterra supports the proposed vision for the catchment as noted on page 4-3 of Variation 1 i.e.:

“To restore the mauri of Te Waihora while maintaining the prosperous land-based economy and thriving communities”.
7. Fonterra has appreciated the opportunity to be involved in the Zone Committee discussions and discussions with the Regional Council’s planning staff. While some of our recommendations have been adopted in the Variation we hold significant concerns with other key aspects of the Variation.
8. These concerns can broadly be grouped into matters relating to the current and future operation and/or efficiency of Fonterra’s Darfield milk processing site (‘Darfield related issues’) and of dairy farms in the Selwyn Waihora Zone (‘on farm issues’).
9. The Darfield issues mainly relate to provisions that:
 - affect how our Darfield plant may dispose of its wastes to land and ensuring that land used for consented disposal of dairy processing waste is treated differently from land used for farming; and
 - may limit the ability of Darfield to grow in the future to meet demand for milk processing capacity (note that Fonterra is required by the Dairy Industry Restructuring Act 2001 to accept all new applications to become a shareholding farmer and applications to increase the volume of milk supplied by our shareholding farmers).

10. The on-farm issues mainly relate to provisions that:
 - require a sizable reduction in nitrogen loss from dairy farms but at this point in time do not quantify the actual reductions required, and correspondingly have not been assessed for their costs and benefits to environmental, social, cultural and economic outcomes; and
 - impose unnecessarily burdensome constraints on farming activities.
11. Our specific concerns and relief sought are detailed in Table 1 in section F of this submission.
12. 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 rates to be achieved on farm within two years from now, and then a 30% lower rate to be achieved within eight years from now, while not identifying the rates today that need to be worked towards. This approach leaves farmers in the dark as to what they need to do until the Good Management Practice Nitrogen and Phosphorous Loss Rates (GMPNPLR) are identified - we understand this is expected to be in mid 2015. It also 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 proposal non-compliant with section 32 of the Resource Management Act 1991). This can largely be addressed by removing reference to compliance with the GMPNLR, or reduced rates until such time as the GMPNPL rates and associated reduction strategy are introduced to the pLWRP.
 - Concern for the on-going operation of Fonterra's Darfield processing site. These concerns can be addressed by ensuring provisions do not foreclose the opportunity for that site to continue its operations and provide for its future. This relates both to provision for the disposal of waste from Darfield and continued access to water.
 - Concern about the nitrogen baseline that applies to farming activities and the way farmers must account against that baseline. There are issues that have recently come to light with the pLWRP provisions that can, and should, be remedied for Selwyn-Waihora within this 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 non-regulatory methods needed to ensure the catchment vision is achieved and the fact that regulation is not expected to (and almost certainly cannot) achieve the outcomes 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 Selwyn Waihora and broader Canterbury community

13. Dairy is a key component of the Selwyn Waihora and broader Canterbury community.
14. Locally Fonterra has approximately 150 farmer shareholders spread across the Selwyn Waihora Zone. We also own and operate the recently opened Darfield milk powder plant which directly employees approximately 200 permanent employees. Accordingly our farmer shareholders, our processing plant and our staff are significant participants in the Selwyn Waihora community.
15. Looking beyond Fonterra to the full dairy picture, DairyNZ statistics show that there were a total of 212 dairy farms in the Selwyn District in the 2012/13 year. In the same year there was 1,210 people directly employed on these farms making up 8.2% of the District's employment base¹, and NZIER have estimated that over 500² people are employed in dairy processing in the catchment.
16. In addition to the above, 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.
17. Economic commentators have noted that despite dairy farming being only 19 per cent of the overall land use in the region, it produces 40 to 50 percent of the agricultural contribution to the regional economy³.
18. 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

¹ Dairy NZ Stats 2012/13

² NZIER report to Fonterra. 2013. Regional dairy statistics: employment and value of production. Prepared by John Ballingall (NZIER).

³ 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.

businesses, the total contribution to Christchurch City from all farming activities, including dairy, rises to \$817 million⁴. “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 product⁵”.

19. As noted previously, Fonterra owns and operates the nationally important Darfield milk powder plant in the Selwyn Waihora Zone.
20. When operating at full production Darfield processes around 8.6% of New Zealand’s peak milk production. It is one of four processing operations in the Canterbury Region and was opened in 2012 in response to increasing milk volumes and a shortage of processing capacity in the region.
21. Under the Dairy Industry Restructuring Act 2001 (DIRA, section 73) Fonterra is required to accept all new applications to become a shareholding farmer and applications to increase the volume of milk supplied by our shareholding farmers. The only ability Fonterra has to reject supply is under section 95. This section allows for rejection if the supply of milk is less than 10,000 kilogram of milksolids or if the cost of transporting the milk of the new entrant exceeds the highest cost of transporting another shareholder farmer’s milk. Accordingly we need to model potential growth in milk production and plan for the processing capacity that we are required to provide.
22. Prior to Darfield becoming operational, significant volumes of milk were being trucked to our Edendale plant in Southland – a lost opportunity for Canterbury. Although Fonterra has a large site at Clandeboye in South Canterbury a second significant processing facility in central Canterbury was considered necessary for capacity risk management purposes (i.e. managing the DIRA requirement to accept new milk) and to manage long distance transport out of the region. The central location of Darfield has resulted in a reduction of 20,000km of tanker and truck travel per day.
23. The Darfield site produces regular and instant whole milk powder with a peak capacity of 6.6 million litres per day and an annual production of 220,000 tonnes. This product is exported, through the port of Lyttelton, to markets in South East Asia and China.
24. In addition to around 200 direct permanent employees at Darfield there are a significant number of contractors and temporary staff. Darfield is now one of the key processing assets in New Zealand’s dairy industry and accounts for 15% of the exported dairy product.

⁴ <http://www.lincoln.ac.nz/News--Events/News/Current/Rural-sector-makes-beefy-contribution-to-urban-Christchurch/> (Accessed: 10/03/2014).

⁵ <http://www.lincoln.ac.nz/News--Events/News/Current/Rural-sector-makes-beefy-contribution-to-urban-Christchurch/> (Accessed: 10/03/2014).

C. Key Fonterra environmental initiatives in the Selwyn Waihora Zone

25. 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.
26. 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.
27. To help us meet environmental expectations we have developed and are implementing a farmer-focused environmental programme called "Supply Fonterra" (see details in Section D below).
28. We have also worked closely with DairyNZ in the development of the *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.
29. 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.
30. Most aspects of the Accord are already compulsory components of our Supply Fonterra agreement.
31. In March 2013, Fonterra and the Department of Conservation (DOC) announced a \$20 million community investment to improve the natural habitats of some key waterways around New Zealand over the next 10 years. The work with DOC and communities currently focuses on five key catchments - one of which is Te Waihora/Lake Ellesmere.
32. With respect to Te Waihora/Lake Ellesmere this funding focuses on projects that can improve water quality, improve in-stream habitat and open the way for increased aquatic diversity and ecosystem health. For example we have been:
 - assisting with best riparian management practice to:
 - reduce in-stream nitrate levels
 - reduce sediment inputs and remove sediment legacy
 - increase riffle/pools by addition of boulders
 - control in-stream nuisance macrophytes.
 - working with Fonterra farmers to:
 - understand where farmers sit relative to best practice
 - identify opportunities to improve efficiency/performance

- source and share information on best practice
- support farmers through the implementation of change if required.
- working on two planting projects with farmers and Ngai Tahu around restoration, and undertaking cultural impact assessments
- working with Canterbury Regional Council to help facilitate adoption of Farm Environment Plans by all Fonterra suppliers within the inner Te Waihora catchment.

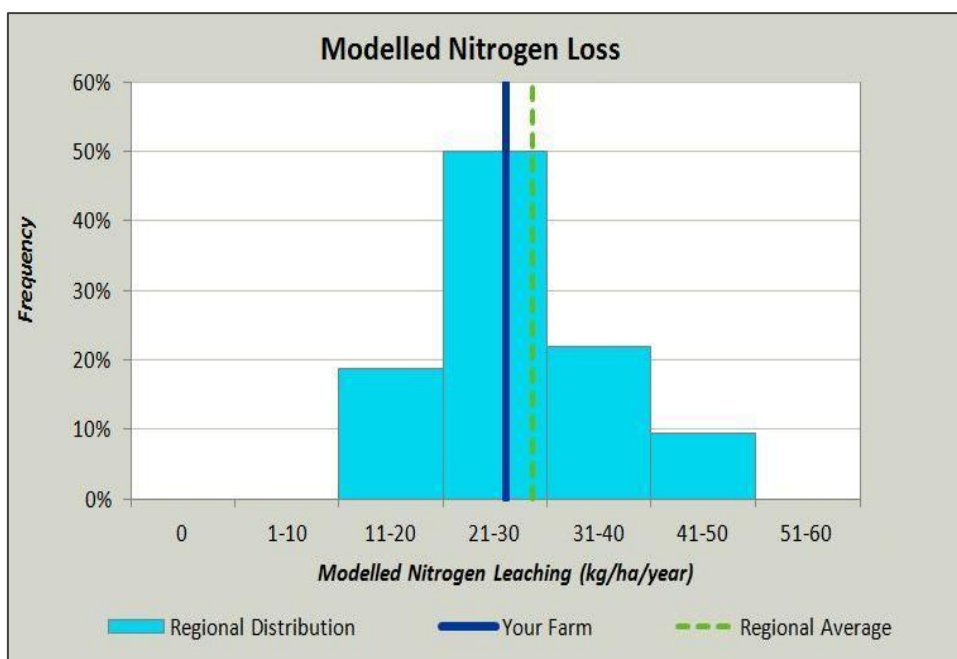
D. Understanding our farmer-focused environmental programme – *Supply Fonterra*

33. Supply Fonterra is our foundation programme for ensuring good environmental practices on farm, amongst other matters.
34. Its predecessor started in 2010 and focused on effluent management. Supply Fonterra built upon this to become a much broader environmental and milk quality programme – Supply Fonterra was launched in 2011/12.
35. It is designed to ensure Fonterra farmers understand and meet evolving community expectations that are expressed in regulatory and market requirements. It addresses milk quality and environmental management in a single and farmer facing package.
36. Supply Fonterra provides:
 - (i) clear minimum standards and a transparent assessment process
 - (ii) one-to-one advice and support from a nationwide team of 19 Sustainable Dairy Advisors (three in the Canterbury Region)
 - (iii) best practice information and education.
37. The environment component of Supply Fonterra addresses the fundamental components of good environmental management on a dairy farm i.e. effluent management, waterway management, nitrogen management and water use management.
38. All farms supplying milk to Fonterra are subject to a defined assessment process, minimum standards and associated consequences for non-compliance. These are outlined to farmers annually in Terms and Conditions of Supply. All farms are annually assessed by an independent service provider - every farm is visited and assessed every year. These assessors are trained auditors and are calibrated internally every year. They are additionally subject to an annual audit by Fonterra to ensure consistency and quality of assessment.
39. The annual assessment is conducted on farm and addresses a defined set of criteria developed by Fonterra each year that are nationally or regionally specific depending on the environmental issues being assessed. For effluent

this requires a set of 15 points of assessment to be audited by the assessor in relation to farm effluent systems.

40. For surface water the assessor is required to use a GIS mapping system to record waterways on the property and the extent of permanent fencing and stock access to those waterways. Additionally all stock crossing points and those lacking a culvert or bridge are also mapped.
41. For nitrogen, the assessor is required to remind the supplier of their obligations to record the necessary OVERSEER™ input information in their Dairy Diary and submit this to Fonterra upon the completion of the milk supply season.
42. The water use management programme has commenced with assessing water meter usage on farms.
43. The assessments are undertaken in accordance with the Farm Dairy Assessment Protocol. This document outlines the exact criteria that identify an issue on a farm that will, or is at risk of, causing an environmental effect. It is a contractual obligation of the service providers to assess and audit to this prescriptive protocol. The protocol is reviewed by Fonterra annually and changes are implemented with assessors via a training programme before assessments begin. This intensive programme ensures all environmental risks are captured and are not subject to the subjectivity of many individuals interpreting individual farms in a different manner.
44. The results of the Farm Dairy Assessment are recorded electronically and submitted to Fonterra. Suppliers who have failed to meet or are at high risk of not meeting the requirements and standards as set out in the Farm Dairy Assessment Protocol are referred to a Fonterra Sustainable Dairy Advisor and required to remediate the issues within a specified time.
45. The Fonterra Sustainable Dairy Advisor is tasked with visiting the referred farmer and preparing an Environmental Improvement Plan that requires compliance with the Terms and Conditions of Supply minimum standards. Additionally the Sustainable Dairy Advisor will provide the additional technical advice and information a supplier needs to extend farm management practices beyond the minimum standard.
46. The development of an Environmental Improvement Plan by a Sustainable Dairy Advisor with a farmer supplier requires actions, targets and dates to be documented for the minimum standards relating to effluent, surface water and nitrogen management.
47. The ultimate consequence for non-compliance with the programme is non-collection of milk.
48. The nitrogen management module of Supply Fonterra will provide an auditable record of nitrogen loss and nitrogen conversion efficiency by farm. Farmers are required to collect nutrient management information and to submit it for modeling using OVERSEER™. The results will give farmers the ability to understand their own farm's modeled nitrogen loss relative to other farms with

similar geographical & climatic conditions. Farmers will be supplied with a simple report displaying a series of graphs showing where each farm sits relative to peers for efficiency of nitrogen conversion and for nitrogen leaching loss risk. The following graph illustrates the type of information provided.



49. Sustainable Dairy Advisors will be prioritised to provide support to those suppliers whose nitrogen conversion efficiency is significantly lower or whose leaching is higher than their peers. The nitrogen programme includes an internal audit of the process comprising the entry of on-farm data into the OVERSEER™ model. Also an external 'farm data' audit will be undertaken that will verify a sample of on-farm data provided by the supplier (e.g. this would include provision of documentation confirming amounts of nitrogen fertiliser, supplementary feed imported into the farm system). This external audit will be carried out by a farm consultant who has extensive knowledge of on-farm systems, farm management and nutrient cycling. Whilst it is not anticipated that all farms will be the subject of an annual audit, the range of methods utilised to determine which farms are audited will ensure that results are reflective of the total dataset.
50. The waterways management module establishes the Fonterra requirement for all waterways (as defined) to be fenced, together with advice on fencing options, riparian margins and reducing overland flow to water.
51. The effluent management module requires farmers to have effluent management systems capable of 365-day compliance with regulatory requirements.
52. The Supply Fonterra programme offers assurance to Council's that sound environmental management practices are encouraged, supported and audited (with consequences) on all Fonterra supplier farms.

E. Latest *Supply Fonterra* results for Selwyn Waihora

53. Supply Fonterra is in place in the Selwyn Waihora Zone as it is for Fonterra suppliers nationwide.
54. In the Selwyn Waihora Zone our latest annual Supply Fonterra results show us that:
 - a. over 220 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 7.59 kilometres before 1 July 2014;
 - 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 before 1 July 2014; and
 - d. nitrogen loss, and nitrogen conversion efficiency have been modelled on 61 farms for the 2012/2013 season (the first season of this module in place).

F. Details of concerns and relief sought

55. Table 1 sets out Fonterra’s concerns with the provisions of Variation 1 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.
56. 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.

Table 1 – Fonterra’s provision-by-provision submission points

Page	Reference	Issue/Concern	Relief Sought
SECTION: Introduction (Section 11 Selwyn – Waihora)			
4-1	Introductory narrative to Section 11	<p>Considerable new text has been added to:</p> <ul style="list-style-type: none"> • recognise the cultural values of Te Waihora/Lake Ellesmere; • to describe the package of responses to the environmental challenges to Te Waihora/Lake Ellesmere and its catchments; and • explain how the chapter supports the package of actions by setting out policies and rules (including limits and targets) in addition to those of Sections 4 and 5 of the Proposed Land and Water Regional Plan (pLWRP) to address over-allocation. <p>While not disagreeing with the validity of the new matters discussed, Fonterra is of the view that the section now lacks context. The section should acknowledge the significant economic and social contribution (in terms of, for example, income and employment) generated by the</p>	<p>Add the additional text to the introductory narrative (paragraph 9) – Proposed new text <u>underlined</u>.</p> <p><i>The package is significant but it will not achieve the catchment vision. Modelling indicates that to achieve the full vision for the lake under current land management techniques would require wholesale changes in land use in the catchment which would not enable people and communities to provide for their economic and social well-being.</i></p> <p><i><u>The catchments of Te Waihora/Lake Ellesmere are intensively used for primary production including, in particular, food production. A substantial food production and food-processing infrastructure (including modern, international-scale facilities) has developed over recent decades and is a significant contributor to the local economy. Accordingly, many</u></i></p>

Page	Reference	Issue/Concern	Relief Sought
		<p>use of land and water in the catchment. It should also acknowledge the contribution of both farming and food processing to the well-being of the Selwyn Waihora sub region and wider community.</p> <p>In short, the need for people and communities to provide for their social and economic well-being must be a lens through which the Selwyn Waihora chapter of the pLWRP) is both designed and implemented and this should be made explicit in the Variation.</p>	<p><u>of the communities of the catchment are reliant on the continuation of intensive agriculture and associated processing for their continued economic and social health and well-being.</u></p> <p><u>Thus, the transition to meeting the full vision for the lake must be designed and paced to enable environmental improvement at the same time as the continuation of a viable agricultural sector. Innovation in agriculture is expected to enable producers to further improve management of irrigation and diffuse pollution but it is important to match any new regulatory impositions with the availability and viability of these improved management practices. While some are available and should be employed now (and are included in this Section of the Plan), others may be some years away. Accordingly, it will be important to ensure that limits and associated practice and technological requirements and expectations are imposed with a degree of flexibility and kept under regular review.</u></p> <p><i>This sub-regional section includes policies and rules ...</i></p>
4-5	Policy 11.4.1	<p>Fonterra supports managing the entire Selwyn Waihora catchment to address risks to water quality and the flow of water in springs and tributaries flowing into Te Waihora/Lake Ellesmere. However, as currently drafted the policy is unachievable as it is not possible to avoid <i>all</i> cumulative effects.</p> <p>Fonterra agrees that it is appropriate to manage land use, discharges and abstractions to limit cumulative adverse effects to acceptable levels. Or, to put it another way to avoid significant adverse cumulative effects. The policy should be amended to reflect that.</p>	<p>Amend Policy 11.4.1 to read:</p> <p><i>Manage water abstraction and discharges of contaminants within the entire Selwyn Waihora catchment to avoid <u>significant cumulative adverse effects on the water quality of Te Waihora/Lake Ellesmere and flow of water in springs and tributaries flowing into Te Waihora/Lake Ellesmere.</u></i></p>

Page	Reference	Issue/Concern	Relief Sought
SECTION: Policies – Managing Land use to Improve Water Quality			
4-6	Policy 11.4.6	<p>Policy 11.4.6 limits the total nitrogen load to the limits set in Table 11(i)</p> <p>Fonterra is concerned the load limit has been calculated using models that do not provide a robust assessment of current and future catchment nutrient load and it's relationship to outcomes. The models used also do not necessarily reflect the Good Management Practice Nitrogen and Phosphorus Loss rates (GMPNPL rates) that will apply in the future. This issue is discussed further in respect of Table 11 (i).</p>	<p>Include a commitment in the plan to keep the nitrogen load limit under review such that the appropriate limit is reconsidered once the GMPNPL rates have been confirmed.</p>
4-6	Policy 11.4.10 & Table 11(i)	<p>Fonterra is concerned about the reference to Table 11(i) and the reliance on a total nitrogen load limit of 106 tonnes for industrial or trade processes.</p> <p>According to the Section 32 Report, Table 11 (i) provides for existing consented nitrogen (N) and phosphorus (P) discharges from industrial or trade processes (notably dairy and meat processing facilities). For N the existing load is put at 96 tonnes. On top of that is an allowance for anticipated growth of approximately 10 tonnes giving the total load limit of 106 tonnes. However, an analysis of these figures (as provided in the technical report R13/8) by Fonterra indicates that there are three additional consents issued recently to Fonterra that have not been included in the assessment of existing load. These are:</p> <ul style="list-style-type: none"> • CRC 140775 (irrigation of condensate on Gunns). The whole farming operation as a result of the management practice with condensate irrigation has a maximum consented loss equivalent to 7640kg N per annum 	<p>Adjust the total N load allocated to Industrial or Trade Processes by Table 11(i). If the only consented discharges that were omitted from this calculation were those of Darfield (as itemised in the adjacent column) then the adjusted load should be 132.4 tonnes.</p> <p>However, as discussed later in this submission, Fonterra proposes that sludge wastes periodically applied to farm land as a substitute for fertiliser should be treated separately from other industrial or trade process wastes and be accounted for in farming activity rules and hence in the farming allocation of Table 11(i). Should that submission be accepted then the total allocation to industrial or trade processes in Table 11(i) ought to be 122.4 tonnes</p> <p>Furthermore, Fonterra considers that the sector allocations provided in Table 11(i) should be further segregated such that allocations are recorded for all significant individual industrial or trade dischargers. On that basis, Fonterra should have its own line entry in the table of 35.5 tonnes (being 19 for nitrogen loss</p>

Page	Reference	Issue/Concern	Relief Sought
		<ul style="list-style-type: none"> CRC 140777 (irrigation of condensate on Gray). The whole farming operation as a result of the management practice with condensate irrigation has a maximum consented loss equivalent to 8840kg N per annum CRC 133976 (discharge of sludge to land). When modelled using all the consented land and DAF as a replacement to fertilizer the loss is 10,000kg N per annum (20kg/ha assuming spread on dryland farms). <p>As a result, Table 7 (Darfield's consented nutrient discharges) in Report R13/8 should show 45.4 tonnes of N (or 35.4 tonnes if sludge is accounted for elsewhere) rather than 19. That will, accordingly, require an adjustment to the N load allocated to industrial or trade processes by Table 11(i) of Variation 1.</p>	<p>associated with wastewater discharge, 7.64 associated with condensate irrigated to the Gunn block and 8.84 tonnes associated with condensate irrigated to the Gray block).</p>
4-6	Policy 11.4.11	<p>Policy 11.4.11 provides for discharges to land from industrial or trade process to exceed the load limit for industrial or trade processes in Table 11(i) provided the discharge will not exceed 15 kg N/ha/yr. This is unduly restrictive and may limit reasonable and legitimate expansion of dairy processing activities. It is quite conceivable that a discharge from an industrial or trade process to land may result in a significantly lesser contribution to N loss than the farming activity it replaces without that discharge being as low as 15 kg N/ha/yr.</p>	<p>Amend policy 11.4.11 such that it reads:</p> <p><i>Enable the discharge of wastewater or liquid waste from an industrial or trade process into or onto land which cumulatively will result in the exceedance of the nitrogen load limit for industrial and trade processes in Table 11(i) only in circumstances where the activity is replacing a farming activity and the nitrogen discharge per hectare per year will not exceed the greater of:</i></p> <ol style="list-style-type: none"> <i>15 kg nitrogen per hectare per annum; or</i> <i>the lawfully permissible nitrogen loss from the farming activity that is replaced.</i>
4-6	Policy 11.4.12(a)	<p>Policy 11.4.12(a) requires that farming activities not exceed their nitrogen baseline where the loss is greater than 15kg N/ha/yr.</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</p>	<p>Amend Policy 11.4.12(a) as follows:</p> <p><i>(a) Not exceed the nitrogen-baseline <u>SW nitrogen baseline</u> where a property's nitrogen-loss-calculation <u>SW nitrogen loss calculation</u> is more than 15 kg of nitrogen per hectare per annum; and</i></p>

Page	Reference	Issue/Concern	Relief Sought
		<p>since decisions on that plan and Fonterra considers that that issue could be resolved for the Selwyn Waihora 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 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>Discussions with the Council indicate that this effect was not intended when drafting the pLWRP. Rather it was intended that the baseline be adopted as a means to "hold the line" on N loss to prevent potential further degradation while the GMPNPL rates were being identified along with sub-regional N loss limits.</p> <p>This issue runs counter to the accepted idea that one particularly high or low N loss year should be able to be "smoothed out" by taking an "average over four years" approach.</p> <p>Fonterra considers that the remedy to this issues lies in a reconsideration of both of "nitrogen baseline" and the "nitrogen loss calculation". Definitions of these terms are included in the pLWRP but are relied on for the policies and rules of Variation 1.</p>	<p>Make amendments to Rules 11.5.6 to 11.5.10 as detailed later in this submission.</p> <p>Define "SW nitrogen baseline" as follows:</p> <p><u>Means:</u></p> <p><u>(a) the discharge of nitrogen below the root zone, as modelled with OVERSEER™, or equivalent model approved by the Chief Executive of Environment Canterbury, either</u></p> <p><u>i. for the period 01 July 2012- 30 June 2013; or</u></p> <p><u>ii. averaged over two, three or four consecutive years in the period 01 July 2009 – 30 June 2013,</u></p> <p><u>whichever is the greater, and expressed in kg per hectare per annum, except in relation to Rules 5.46 and 5.62, where it is expressed as a total kg per annum from the identified area of land; and</u></p> <p><u>(b) in the case where a building consent and effluent discharge consent have been granted for a new or upgraded dairy milking shed in the period 01 July 2009 – 30 June 2013, the calculation under (a) will be on the basis that the dairy farming activity is fully operational; and</u></p> <p><u>(c) if OVERSEER™ is updated, the most recent version is to be used to recalculate the nitrogen baseline using the same input data as was used for the original baseline determination.</u></p> <p>Define "SW nitrogen loss calculation" as follows:</p> <p><u>means any one of the following calculations that has been adopted by the person responsible for the discharge from a property as the SW nitrogen loss calculation for that property:</u></p>

Page	Reference	Issue/Concern	Relief Sought
		<p>A second issue Fonterra has with Policy 11.4.11 relates to the minimum equal allocation level of 15kg N/ha/yr proposed. If, as we understand, the full uptake of the 15kg N/ha/yr universal allowance is factored into modelling but if that does not occur in reality the catchment will appear more allocated than it really is. The uptake of this 15 kg allowance therefore needs to be monitored and reported so that the regime isn't overly conservative in its approach to nitrogen allocation.</p>	<p>a. <u>the discharge of nitrogen below the root zone modelled in accordance with the definition of "nitrogen loss calculation"; or</u></p> <p>b. <u>the discharge of nitrogen below the root zone for:</u></p> <p>i. <u>the most recent year; or</u></p> <p>ii. <u>the average over two, three or four consecutive years (including the most recent year).</u></p> <p><u>expressed in kg per hectare per year, as modelled with OVERSEER™ or equivalent model approved by the Chief Executive of Environment Canterbury.</u></p> <p><u>If OVERSEER™ is updated the most recent version is to be used.</u></p> <p><u>Additional method</u></p> <p>In relation to the second issue raised in the adjacent column, Fonterra's considers that, as a minimum, the uncertainty surrounding the uptake of the 15kgs N/ha/yr minimum universal allocation, means that the catchment load limit should be kept under review and accounting of the modelled N loss against the load limit (factoring in actual take up of the 15kg allowance) be made regularly available. A method to this effect should be added to the Variation.</p>
4-6	Policy 11.4.12(b) and Schedule 24	Fonterra generally supports the identification of basic good management practices in Schedule 24 as an <i>interim</i> planning tool to assist with achieving good	Delete item (e) from proposed Schedule 24. Add an additional policy as follows:

Page	Reference	Issue/Concern	Relief Sought
		<p>management practice nutrient losses while the GMPNPL rates are being developed.</p> <p>It does however generate two concerns.</p> <p>The first concern is that the plan does not make clear that the Scheduled practices are an interim tool only and will have no role post the introduction of the GMPNPL rates.</p> <p>The second concern relates to reference to all effluent systems having to meet the DairyNZ Farm Dairy Effluent Design Standard and Code of Practice as a condition of being a permitted activity.</p> <p>While the DairyNZ Standard and Code are excellent resources, they promote a general design approach that includes lists of factors that must be taken into consideration. They recognise the need for designers to interpret the guidelines according to individual requirements, and ensure that decisions comply with regulatory requirements.</p> <p>Fonterra questions whether the Standard and Code are robust enough in their language and requirements to act as clear conditions on a permitted activity (they were not designed for that purpose). The Code is also complex and lengthy and may present an unrealistic monitoring and administration challenge for both applicant and council if used in a regulatory context.</p> <p>All effluent discharges require a restricted discretionary activity resource consent (under Rule 5.36 of the pLWRP) with key issues like application depth and separation distances specified in resource consent conditions. Those consent conditions, alongside permitted activity conditions/consent requirements on the use of land associated with effluent management (under rules 5.31-5.34 of the pLWRP) mean that the major risks,</p>	<p><u><i>Reduce discharges of nitrogen, phosphorus, sediment and microbial contaminants from the discharge of animal effluent and the use of land for the management of animal effluent by requiring all collection, storage and treatment systems for animal effluent installed or replaced after 1 January 2014 to adhere to the DairyNZ Farm Dairy Design Standard and Code of Practice [2013].</i></u></p> <p><u>Schedule 24</u></p> <p>Add new method or advisory note to the effect that Schedule 24 will not apply once the GMPNPL rates are introduced to the plan.</p>

Page	Reference	Issue/Concern	Relief Sought
		<p>and requirements to mitigate those risks, ought to be already addressed and additional land use rules are superfluous.</p> <p>For those reasons Fonterra submits that the effluent management aspect of Schedule 24 be deleted. However, Fonterra also accepts that the Standard and Code would be relevant and appropriate matters to have regard to in the context of granting discharge and land use consents and submits that a policy be added to that effect.</p>	
4-6	Policy 11.4.12(d) and Rule 11.5.18	<p>Policy 11.4.12(d) requires stock exclusion from drains (in addition to rivers, lakes and wetlands under the pLWRP). “Drains” are defined in the pLWRP as “<i>any artificial watercourse that has been constructed for the purpose of land drainage of surface or subsurface water ...</i>”.</p> <p>The associated rule is 11.5.18. That rule refers to “artificial watercourse” rather than “drain”.</p> <p>There is no minimum size or depth specified although the definition of artificial watercourse does exclude swales and drains designed to convey stormwater (which would capture drains that flow only after rain). While Fonterra broadly supports the intent it considers that some minor clarification to the rule is warranted to ensure very small drains that are impractical to fence are not captured.</p> <p>Amendment to the policy is warranted to avoid the policy and rule contradicting each other through the use of different terms (both of which are defined).</p>	<p>Amend Policy 11.4.12(d) as follows:</p> <p><i>Exclude stock from drains farm drainage channels in addition to the regional requirements to exclude stock from lakes, rivers and wetlands.</i></p> <p>Amend Rule 11.5.18 to read as follows:</p> <p><i>Within the Selwyn Waihora Catchment any reference to the bed of a lake, river or wetland in Rules 5.68, 5.69, 5.70 and 5.71 also includes an artificial watercourse (excluding an irrigation canal, water supply race or canal for the supply of water for electricity power generation) <u>greater than 1 metre in width and 30 cm in depth.</u></i></p>
4-6	Policy 11.4.13	<p>Policy 11.4.13 refers to requiring “further” reductions from 2017 by requiring farm environment plans and compliance with GMPNPL rates.</p>	<p>Delete Policy 11.4.13. Replacement of the provision with a commitment (in a method or advisory note) to develop GMPNPL rates for inclusion in the Plan and to require compliance with the GMPNPL <i>nitrogen</i> loss rates from 1</p>

Page	Reference	Issue/Concern	Relief Sought
		<p>Fonterra considers that:</p> <ul style="list-style-type: none"> (a) it is misleading to refer to “further” reductions since the extent of reductions relative to GMPNPL rates will depend on the starting position (e.g. the nitrogen baseline); (b) it is inappropriate to require compliance with limits that are not yet available for review. The Regional Council cannot meet its obligations under section 32 of the RMA to assess the costs and benefits of these provisions. (c) Reference to the “baseline land use” in part (b) of the policy creates some uncertainty and could potentially penalise a new farming activity establishing (by conversion) after 30 June 2013. As drafted the policy would apply the GMPNPL rate that related to the farming activity that applied pre 30 June 2013 rather than the rate corresponding to the current farming activity on the property. Potentially, that could mean the newly established farm activity receives an N loss allowance well below that of farms of the same type that established pre 30 June 2013. <p>Fonterra is concerned about the proposed approach to the management of P loss according to defined rates (limits). Fonterra notes that currently OVERSEER™ is not adequate for developing farm-scale P loss limits. Until such time as the tools for assessing P loss evolve to the point that the science community has sufficient confidence in our ability to monitor P loss more accurately, the focus for managing P loss should continue to be on management actions. In the case of the dairy sector, this is being achieved through implementation of the Sustainable Dairying: Water Accord.</p>	<p>January 2017.</p>

Page	Reference	Issue/Concern	Relief Sought
4-7	Policy 11.4.14	<p>Policy 11.4.14 sets out a requirement for N loss reductions from farming activities with an N loss greater than 15kg N/ha/yr. Required reductions vary by land use type. Reductions required are relative to the GMPNPL rates referred to above.</p> <p>Fonterra considers that:</p> <p>(a) It is inappropriate to require a set reduction (i.e. percentage) from a rate that is currently unknown. Whether a 30% reduction is realistic or practical for dairying depends entirely on what the GMPNPL rate is. Thus in Fonterra’s opinion neither it nor the community can sensibly comment on this proposal and the Regional Council cannot possibly fulfil its obligations under section 32 of the RMA to assess the benefits and costs of the policy.</p> <p>(b) The basis for differentiating required reduction rates between land uses (activities) with dairying required to reduce the most at 30% and other rural land use as little as 5% has not been robustly analysed or justified. The percentage reductions have been derived based on achieving “equal financial pain across sectors”, as measured by EBIT/ha. Fonterra is concerned about the use of EBIT/ha for this analysis because:</p> <p>i. Interest, drawings and depreciation are not accounted for when analysing EBIT changes, meaning it is difficult to consider farmers’ ability to withstand additional financial cost or reduction in revenue. There are two aspects to this:</p> <ul style="list-style-type: none"> • Debt servicing obligations, on a per hectare basis, are generally higher in the dairy sector than other pastoral farming sectors, so their exclusion are likely to overstate dairy farm 	<p>Delete of Policy 11.4.14. Replace the provision with a commitment (in a method or advisory note) as follows:</p> <p><u><i>Following the confirmation of the good practice management nitrogen loss rates the Council will review the catchment nitrogen load limit, and develop a strategy for the reduction of N loss to comply with that limit over time. The means to achieve the required reduction (including the reductions required from the nitrogen baseline for individual properties) will, in conjunction with the good practice management nitrogen loss rates, be introduced to the Plan by way of the First Schedule process.</i></u></p> <p>If Environment Canterbury does retain this provision the 30% reduction in N loss from dairy farms over an eight-year period should be reconsidered with a more manageable reduction rate applied (after more comprehensive cost analysis).</p>

Page	Reference	Issue/Concern	Relief Sought
		<p>liquidity; and</p> <ul style="list-style-type: none"> • The scale of a dairy farm (number of hectares) is often smaller than in other pastoral farming sectors, meaning drawings requirements are higher on a per hectare basis. The exclusion of drawings, or a management wage, is therefore likely to overstate dairy farm profitability, on a per hectare basis. It is not known whether the EBIT figures used included a management wage; and ii. It does not consider any non-monetary factors that may result in additional complexity, stress or risk from the proposed farm system changes. <p>(c) Acknowledging that the reduction regime proposed has not been properly costed, Fonterra is of the view that a 30% reduction for dairy over an eight year timeframe is impractical given likely cost implications.</p>	
4-7	Policy 11.4.15	<p>Policy 11.4.15 sets out the matters to be considered when deciding how rigidly the reduction requirements (under Policy 11.4.14) are to be imposed on individual farms. As noted above, Fonterra opposes Policy 11.4.14. However, if this policy or some variant of it is to be retained Fonterra considers that a broader range of matters should be included for consideration.</p>	<p>Delete Policy 11.4.15.</p> <p>If Council does not delete Policy 11.4.15 it should be amended such that the extent and pace of reductions in N loss (from the GMPNPL rates) post 1 January 2022 is determined having regard to (in addition to the matters listed in Policy 11.4.15):</p> <ul style="list-style-type: none"> • The nitrogen baseline for N loss and the loss reduction history on farm; • Any geophysical conditions and constraints (that may not be taken into account in the GMPNPL rate) that restrict or limit the effectiveness of N reduction options;

Page	Reference	Issue/Concern	Relief Sought
			<ul style="list-style-type: none"> • The extent and age of existing infrastructure on farm and the opportunity for further infrastructure investment to achieve reductions in N loss; and • The capital and operating cost associated with achieving the reduction
4-7	Policy 11.4.17(b)	<p>Policy 11.4.17(b) appears to require that any dryland farming activity that, in the future, is irrigated by water from the Central Plains Water (CPW) irrigation scheme must comply with the N loss rates referred to in Policy 11.4.14 (i.e. the GMPNPL rates less 30% - in the case of dairying) from the time it is irrigated.</p> <p>Fonterra is concerned because:</p> <ul style="list-style-type: none"> • The N loss rates are not known at this point and a section 32 assessment of costs and benefits cannot therefore have been undertaken; • It is unclear if this would or could apply pre 1 January 2022 as Policy 11.4.14 only applies from that date, whereas Policy 11.4.17 implies the requirement could apply sooner (i.e. it refers to “at the outset” – which could be before 2022); and • The requirement is largely superfluous as the cumulative loss from properties within CPW must, in any event, be within the load limit specified in Table 11(j). 	Delete of Policy 11.4.17 (b).
4-7	Policy 11.4.18-11.4.20	Policies 11.4.18, 11.4.19 and 11.4.20 focus on <i>enabling</i> lake, wetland and flow restoration activities. The policies do not, however, provide an indication of when, or how these activities are to be <i>delivered</i> . As the introductory text to the section states, achieving the vision for the catchment will require a package of regulatory and non-regulatory measures. Although Fonterra accepts that there are limits to how much detail can be committed to in statutory plans regarding non-regulatory measures, it	Insert methods in the Variation that support development of a catchment strategy and implementation plan to, in particular, identify critical source areas for reducing phosphorus and sediment loss.

Page	Reference	Issue/Concern	Relief Sought
		considers that the Variation could go some way further in this regard.	
SECTION: Polices – Sustainable Use of Water and Improved Flows			
	Policy 11.4.22	<p>Fonterra supports the need to address over allocation in the Rakaia-Selwyn and Selwyn-Waimakariri water allocation zone. However, Fonterra considers that Policy 11.4.22 and Rule 11.5.37 requiring the surrender of 50% of the transferred volume are arbitrary and potentially too rigid to deal with the potentially variable circumstances that may arise as a result of proposed transfers in the water allocation zone. This may result in perverse outcomes where transfers of water are avoided by water users, which is considered a potentially undesirable outcome in an over allocated catchment where the sharing of water will be necessary to achieve the objective of clawing back over allocation.</p> <p>Fonterra therefore suggests some amendments to the policy and rule to improve its flexibility to respond to individual circumstances.</p> <p>See also relief sought in relation to Rule 11.5.37.</p>	<p>Amend Policy 11.4.22 (c) as follows:</p> <p><i><u>In all other cases 50% of any transferred water is surrendered, unless a lesser amount is justified in the individual circumstances of the case.</u></i></p>
4-8	Policy 11.4.23	<p>Policy 11.4.23 requires that water permits be replaced only at the rate and volume of demonstrated use. This is part of a proposed “use it or lose it” regime. Fonterra supports the concept generally but has three concerns about this provision:</p> <p>a. It should not apply to industrial or trade processes. One of the key matters driving Fonterra’s decision to purchase and develop the Darfield site into a milk processing facility was access the water. The previous owner held resource consents to take water that provided sufficient security of supply for the full extent of development that the company is likely to</p>	<p>Amend Policy 11.4.23 as follows:</p> <p><i><u>Only reallocate water to existing resource consent holders at a rate and volume that reflects demonstrated use, unless the resource consent holder is operating an existing industrial or trade process and demonstrates that the unused portion of the take is necessary to allow for planned future development at the industrial or trade process site.</u></i></p> <p>Add an advisory note immediately after policy 11.4.23 as follows:</p> <p><i><u>Note: For the purpose of Policy 4.50(b)(i) of this Plan,</u></i></p>

Page	Reference	Issue/Concern	Relief Sought
		<p>undertake there. The development potential for the site is yet to be fully realised so a portion of the water take remains unused, and may still be unused at the time that the water take consent for the site requires replacement under this plan. If, at the time the replacement consent is granted, the volume reallocated to Fonterra is restricted to that which reflects demonstrated use, further development of the site will be prevented. This will result in Fonterra needing to apply for a new water permit when further development of manufacturing capability is necessary in Canterbury, or finding an additional site for development or expansion.</p> <p>b. The relationship of this policy with Policy 4.50 of the pLWRP is unclear. The pLWRP policy states that in over-allocated catchments replacement water permits can only be granted for not more than 90% of the previously consented rate of take and annual or seasonal volume, <i>unless</i>, there is a method and defined timeframe to phase out over-allocation set out in the relevant sub-regional section of the Plan. It is understood that the provisions of Variation 1 do constitute just such a “method and timeframe”, however, this is not clearly stated in the Variation (meaning that there is uncertainty as to whether the 10% reduction at time of replacement applies or whether both the “demonstrated use only” and “90% only” policies apply). In Fonterra’s opinion Policy 4.50 of the pLWRP ought not apply in addition to policy 11.4.24 of this Variation.</p> <p>c. The term “demonstrated use” could be given greater clarity by, for example, explicitly stating that return periods for dry conditions are taken into account.</p>	<p><u><i>policy 11.4.23 and associated rules constitutes a method and defined timeframe to phase out over-allocation. For the avoidance of doubt, that means the requirement of Policy 4.50(b)(i) for replacement takes to be no more than 90% of the previously consented take does not apply in the Selwyn Waihora catchment and is replaced instead by Policy 11.4.23.</i></u></p>
4-8	Policy 11.4.27	Fonterra is supportive of the implementation and use of adaptive management conditions to manage the	Amend Policy 11.4.27 as follows

Page	Reference	Issue/Concern	Relief Sought
		<p>groundwater resource in the Selwyn Waihora catchment. The company has recently worked through a variation to the adaptive management conditions of its resource consent to take groundwater to ensure their workability for the plant in light of the fact that the company processes a perishable product and must be able to meet its obligations to collect milk under the <i>Dairy Industry Restructuring Act 2001</i>.</p> <p>Renegotiating and changing those consent conditions at the time the consent requires replacement in 2020 would seem to be a poor use of resources for both Fonterra and Council so Fonterra seeks an amendment to policy 11.4.27 to ensure the retention of the existing conditions is supported.</p>	<p><i>Apply adaptive management conditions to groundwater resource consents that have previously been subject to adaptive management conditions on the same or similar terms as the pre-existing conditions where the proposed use of water remains the same.</i></p>
4-8	Policy 11.4.28	<p>Policy 11.4.28 provides for minimum flows and partial restrictions on the Selwyn River and lowland streams from 2025.</p> <p>Fonterra understands that the 2025 date is proposed to allow for the Central Plains Water Project stages 1-3 to be implemented plus a 5+ year allowance for the consequential effect of enhanced groundwater recharge and reduced groundwater abstraction to show up as improved stream flow.</p> <p>Fonterra is concerned that there are various expectations and assumptions inherent in this proposal that may not eventuate (these include the managed aquifer recharge (MAR); the targeted stream augmentation (TSA), reduction in groundwater abstraction and the timing of the CWP project). If that is the case, the minimum flows that will apply from 2025 will have a very significant effect on new and replacement takes occurring after 2025 (significantly reducing reliability).</p> <p>Furthermore, Fonterra understands that even if the</p>	<p>Amend Policy 11.4.28 as follows:</p> <p><i>Protect the ecological and cultural health of the Waikirkiri/Selwyn River and lowland streams by including the minimum flow and partial restrictions in Table 11 (c) and (d) on new and replacement resource consents from 2025 that reflect increased flows associated with groundwater and surface water body augmentation and reduction in groundwater abstraction, once those increased flows are observed in those water bodies.</i></p> <p>Amend Tables 11(c) by removing the minimum flows and regime restriction flow levels that apply from 2025.</p> <p>Insert a new method committing to the introduction of minimum flows and flows at which restrictions will apply once increased flows are observed in the water bodies listed in Table 11(c).</p> <p>If Environment Canterbury does not agree to the above relief, include, as a minimum, a new method</p>

Page	Reference	Issue/Concern	Relief Sought
		<p>aquifer recharge and stream augmentation initiatives do occur in the time period anticipated, actual flows experience in streams may differ from predicted flows due to the limitations of numerical modelling.</p> <p>For those reasons we consider that the timing of the introduction of minimum flows should be linked to specific actions and/or measured flow increases rather than a specific date.</p>	<p>committing Council to keep the minimum flows and restriction regime (and the timing of the introduction of those flows and regime) under review such that they are applied at the same time as, and at a level commensurate with, the increase in flows to the surface water bodies.</p>
4-8	Policy 11.4.32	<p>Policy 11.4.32 relates to the storage of surface water to support a reduction in the use of groundwater. Fonterra is concerned to ensure that the use of groundwater continues to be regarded as appropriate in some circumstances.</p> <p>Furthermore Fonterra considers that the reference to “known trout and salmon spawning areas” in part (h) of the Rule is too broad.</p>	<p>Amend the introductory part of the policy to read:</p> <p><i>Enable the storage of water from the Rakaia River and Waimakariri River to improve the reliability of supply for irrigation Scheme water and support a reduction in the use of groundwater (where appropriate) provided...</i></p> <p>Amend part (h) of Rule 11.4.32 to read:</p> <p><i>(h) Inundation of known significant trout and salmon spawning areas is avoided; and</i></p>
SECTION: Rules			
4-12 to 4-13	Rules 11.5.6, 11.5.7, 11.5.8, 11.5.9, 11.5.10 and 11.5.13	<p>In addition to the specific concerns raised in the following sections of this submission, Fonterra has the general concern about the nitrogen baseline and nitrogen load calculation discussed in relation to Policy 11.4.12(a). Amendment to the <i>Nutrient Management, Sediment and Microbial Contaminant</i> rules are necessary to give effect to the amendment proposed to Policy 11.4.12(a).</p>	<p>Amend Rules 11.5.6, 11.5.7, 11.5.8, 11.5.9, 11.5.10 and 11.5.13 by:</p> <ol style="list-style-type: none"> 1. Deleting the phrase “nitrogen baseline” in all places where it exists and replacing it with the term “SW nitrogen baseline”. 2. Deleting the phrase “nitrogen loss in all places where it exists and replacing it with the term “SW nitrogen loss calculation”.
4-12	Rule 11.5.6	<p>Fonterra considers that the position of farms used for disposal of industrial wastes needs to be clarified. Currently, it is not clear whether a farm used by an industrial or trade process for wastewater, liquid waste or</p>	<p>Amend rules 11.5.6 as follows:</p> <p><i>Despite any of Rules 11.5.7 to 11.5.13, the use of land for a farming activity in the Selwyn Waihora</i></p>

Page	Reference	Issue/Concern	Relief Sought
		<p>sludge waste disposal needs to also comply with nutrient management rules relating to farming activities (given that farming is carried out on land used for waste disposal).</p> <p>The Darfield site (including its associated farms), for example, is potentially caught in the situation of requiring both a discharge consent to discharge N in wastewater and a land use permit for the farming activity that occurs under the discharge. Accordingly, the way the plan is currently worded, Darfield farms could be subject to both the limit imposed by the industrial or trade process rules (on the discharge) <u>and</u> the limits imposed by the farming activity rules (the farming activity baseline). For existing consented activities, such as Darfield, this would be highly problematic since the limit imposed by the discharge consent is likely to differ from whatever limit applies under the land use rules.</p> <p>This anomaly created by the pLWRP is perpetuated by Variation 1. In Fonterra's opinion, clarification should be provided such that land subject to a discharge consent for wastewater and liquid waste (but not sludge) does not also need a land use consent for farming, so that the N loss entitlement provided by the discharge consent becomes the N loss entitlement for the property (rather than the nitrogen baseline that applies to farming activities). There are a number of ways this might be achieved but an amendment to Rule 11.5.6 may be the most straightforward.</p> <p>Note Fonterra accepts that farms that apply industrial or trade process sludge as a substitute for fertiliser ought to remain subject to the land use rules and the relevant nitrogen baseline.</p>	<p><i>catchment is a permitted activity provided the following conditions are met:</i></p> <ol style="list-style-type: none"> <i>1. <u>The property is used for the disposal of wastewater or liquid waste from an industrial or trade process and a resource consent has been granted for that discharge that limits nitrogen loss from that property; or</u></i> <i>2. The property is:</i> <ol style="list-style-type: none"> <i>a. Less than 5 hectares; and</i> <i>b. The nitrogen loss calculation for the property does not exceed 15kg per hectare per annum.</i> <p>Note that, if Environment Canterbury decides to address this issue by an alternative means (such that both the industrial or trade process discharge rules and the land use rules apply to the same land) then any N loss reduction regime imposed should not apply the farming activity reduction to land used for industrial or trade water discharge. (Note this submission point is relevant to Policy 11.4.14).</p> <p>Note also that Fonterra seeks ancillary amendments to Rule 11.5.25 that are discussed below.</p>
4-12	Rule 11.5.9	Rule 11.5.9 relates to farming activities as restricted	Delete matters of discretion 2 and 3 and replace them

Page	Reference	Issue/Concern	Relief Sought
		<p>discretionary activities post 2017. Fonterra has several concerns about this rule and its interplay with Policies 11.4.13 and 11.4.14.</p> <p>First, as discussed in relation to Policies 11.4.13 and 11.4.14, Fonterra considers it inappropriate to include reference to either the GMPNPL rates or a set reduction from those rates at this point in time.</p> <p>Second, quite apart from the general opposition to the inclusion of reference to something that does not yet exist, the interplay of Rule 11.5.9 and Policies 11.4.13 and 11.4.14 creates an uncertain regulatory environment. The regime creates five potential N loss rates:</p> <p>(a) the baseline; (b) the GMPNPL rate; (c) a N loss rate somewhere between (a) and (b); (d) the GMPNPL rate less the reduction required by Policy 11.5.14; and (e) a N loss rate higher than (d) (but decreasing towards (d) over time).</p> <p>Policy 11.4.13 suggests that the GMPNPL rate will be required to be met once available (from 2017). Policy 11.4.14 suggests that the reduction percentages from the GMPNPL rate will apply but the Variation is conflicting regarding <i>when</i> they will apply. (As noted earlier, Policy 11.4.14 applies “<u>from</u> 1 January 2022”, while Policy 11.4.15 implies that there is an expectation that the GMPNPL rates less the reductions are to be achieved <u>by</u> 2022.</p> <p>That aside, Fonterra understands that the intent is for the GMPNPL rates to apply at 2017 and a “ramp down” is to be imposed (through conditions on consents) such that the reduction rates of policy 11.4.14 are achieved by 2022. However, discretion is to be exercised such that a longer period may be provided to reach that GMPNPL</p>	<p>with a new matter to apply, at least until such time as the GMPNPL rates and associated reduction strategy are introduced to the pLWRP through the first Schedule process (whereby matters of discretion might also be reviewed).</p> <p><i>The exercise of discretion is restricted to the following matters:</i></p> <ol style="list-style-type: none"> 1. <i>The quality of, compliance with the Farm Environment Plan; and</i> 2. <i>The Good Management Practice Nitrogen and Phosphorus Loss Rates to be applied to the property in accordance with Policy 11.4.13(b); and</i> 3. <i>The nitrogen loss rates to be applied to the property in accordance with Policy 11.4.14 (b), Policy 11.4.15 and Policy 11.4.16; and</i> 3. <u><i>The nitrogen and phosphorus management practices used and the potential for, and feasibility of improving those management practices or adopting new and additional management practices</i></u> 4. <i>The nitrogen load target for farming activities in Table 11(i); and</i> 5. <i>The potential benefits of the activity to the applicant, the community and the environment.</i>

Page	Reference	Issue/Concern	Relief Sought
		<p>rates less required reduction.</p> <p>Fonterra submits that it is the absence of knowledge of what the GMPNPL rates will be and, correspondingly, an inability to assess the feasibility of achieving them or the reduction rates that necessitates the complex and uncertain policy and regulatory regime proposed.</p>	
4-13	Rule 11.5.10	<p>Rule 11.5.10 provides for farm activities that are part of farm enterprises as discretionary activities. Fonterra supports the concept of farm enterprises but considers that restricted discretionary activity is the appropriate consent category. Farming activities that are not part of a farming enterprise are restricted discretionary activities under rule 11.5.9 and it is not clear why a full discretionary consent status is necessary for this class of activity.</p>	<p>Amended Rule 11.5.10 as follows.</p> <p><i>The use of land for a farming activity as part of a farming enterprise in the Selwyn Waihora catchment is a <u>restricted discretionary activity</u>, provided the following conditions are met.</i></p> <ol style="list-style-type: none"> <i>1. A Farm Environment Plan has been prepared in accordance with Schedule 7 Part A; and</i> <i>2. The nitrogen loss calculation for the farming enterprise has not increased above the nitrogen baseline.</i> <p><u><i>The exercise of discretion is restricted to the following matters.</i></u></p> <ol style="list-style-type: none"> <i>1. <u>The quality of, compliance with the Farm Environment Plan; and</u></i> <i>2. <u>Existing nitrogen and phosphorus management practices on the property and the potential to adopt or improve management practices to reduce nutrient loss; and</u></i> <i>3. <u>The nitrogen load target for farming activities in Table 11(i); and</u></i> <i>4. <u>The potential benefits of the activity to the applicant, the community and the environment.</u></i>

Page	Reference	Issue/Concern	Relief Sought
4-13	Rule 11.5.12	<p>Rule 11.5.11 makes farming activities that have a nitrogen loss above the nitrogen baseline a prohibited activity.</p> <p>Fonterra considers that:</p> <ul style="list-style-type: none"> (a) the basis of determining compliance with the baseline is insufficiently certain to enable a prohibited activity rule to be imposed; and (b) the prohibited activity is too absolute and may lead to perverse and unfair outcomes as there are bound to be unforeseen (and exceptional) circumstances where a degree of flexibility is appropriate. <p>Fonterra accepts that the presumption should be that such farming activities will not be allowed but considers that individual farmers should have the opportunity to demonstrate that their effect on the environment is, or would be, minor.</p> <p>With this in mind Fonterra supports farming that cannot meet its nitrogen baseline being a non-complying activity with a robust policy governing the consideration of any such non-complying consent applications.</p>	<p>That Rule 11.5.12 be combined with Rule 11.5.11 such that any farming activity that does not meet one or more of the conditions of restricted discretionary activity becomes a non-complying activity.</p> <p>The addition of a policy limiting the granting of non-complying activities for nitrogen loss that exceeds the nitrogen baseline to exceptional cases.</p>
4-14	Rule 11.5.21	<p>Rule 11.5.21 means that drainage water discharges that occur within the Lake Area in the Cultural Landscape/Values Management Area will be discretionary activities requiring resource consent regardless of the:</p> <ul style="list-style-type: none"> a. Quality of the water being discharged; and b. Fact that the property holder may hold, and be complying with: <ul style="list-style-type: none"> i. a land use consent for the farm activity; ii. a discharge consent for effluent; and iii. an approved Farm Environment Plan 	<p>Delete Rule 11.5.2.</p> <p>If it is within the scope of this Variation, insert a new section 4A into Schedule 7 of the pLWRP as follows:</p> <p><i><u>4A. For farms located with the Lake Area in the Cultural Landscape/Values Management Area, particular regard must be had to assessing risks of contaminants entering to drains that discharge to Lake Ellesmere/Te Waihora.</u></i></p>

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		<p>as well as complying with all conditions of all relevant permitted activities.</p> <p>This is not, in Fonterra’s submission, efficient or effects-based regulation.</p> <p>In addition, the rule imposes a restriction on the discharge of drainage water where it discharges within the Lake Area. However, the quality of the drainage water in that location will have been affected by the activities of landowners upstream on the discharge point (where the drain serves multiple properties). The property owner obliged to gain consent under the proposed rule will be unable to control the activities of upstream landowners in order to achieve compliance with performance standards or consent conditions.</p> <p>Fonterra considers that it would be more appropriate to ensure that the Farm Environment Plan specifically addresses risks to the quality of drainage water in the Lakes area in the Cultural Landscape/Values Management Area</p>	
4-15	Rule 11.5.25	<p>Fonterra’s concerns with Rule 11.5.25 are as discussed above in relation in Policy 11.4.11.</p> <p>Also, reference to “in addition to” is unclear and could be read two ways.</p> <p>Further, Fonterra considers there is a need to differentiate between:</p> <p>(a) Industrial or trade process waste discharges aimed simply at disposing of wastes (undertaken on a property dedicated specifically for that purpose and usually under the full control of the industrial or trade processor); and</p> <p>(b) Discharges of industrial or trade process wastes</p>	<p>Amend Rule 11.5.25 (1) to read:</p> <p><i>Within the Selwyn Waihora catchment the discharge of any wastewater or liquid waste from an industrial or trade process, including livestock processing, excluding sewerage sewage, into or onto land, or into or onto land in circumstances where a contaminant may enter water is a discretionary activity where the following conditions are met:</i></p> <ol style="list-style-type: none"> <i>1. The discharge in addition to combination with all lawfully established existing discharges does not exceed the nitrogen load limit in Table 11(i) for industrial or trade processes; or</i> <i>2. The activity is replacing an existing farming</i>

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		<p>undertaken as a substitute for the application of fertiliser (usually onto third party land where farming remains the primary land use). This category of discharge should be managed alongside a land use consent for the farming activity that remains the predominant use.</p> <p>Because sludge waste is proposed to be split out from other industrial and trade process wastes Fonterra considers that term should be defined.</p>	<p><i>activity and the discharge does not exceed the greater of:</i></p> <ol style="list-style-type: none"> <i>a. 15kgs nitrogen per hectare per annum; or</i> <i>b. <u>the nitrogen loss limit for the property permissible under Rules 11.5.6 to 11.5.11 or any resource consent granted pursuant to any of those rules.</u></i> <p><i>3. The best practicable option is used for the treatment and discharge.</i></p> <p><u><i>New Rule 11.5.25A</i></u></p> <p><u><i>Within the Selwyn Waihora catchment the discharge of any industrial or trade process sludge waste, including sludge waste from livestock processing, excluding sewage, into or onto land, or into or onto land in circumstances where a contaminant may enter water is a controlled activity where the following conditions are met:</i></u></p> <ol style="list-style-type: none"> <i>1. <u>The discharge of the industrial or trade process sludge is undertaken in association with a farming activity being used as a substitute, or part substitute, for fertiliser.</u></i> <i>2. <u>The farming activity is a permitted activity under any of Rules 11.5.6-11.5.8 or has been granted a resource consent in accordance with any of Rules 11.5.9-11.5.11 or 11.5.14.</u></i> <i>3. <u>The discharge of industrial or trade process sludge waste occurs no more than twice per annum on the same area of land.</u></i> <p><u><i>Matters of control</i></u></p>

Page	Reference	Issue/Concern	Relief Sought
			<p>1. <u>The location, rate and timing of the application sludge waste to land.</u></p> <p>2. <u>Any adverse effects on mahinga kai, wahi tapu or wahi taonga within the Cultural Landscape /Values Management Area.</u></p> <p>Add additional definition of <i>industrial or trade process sludge waste</i> as follows:</p> <p><u>Industrial or trade process sludge waste means any semi liquid to semi solid waste produced by an industrial or trade wastewater treatment process (whether mechanical or biological) and includes the waste from a dissolved air flotation (DAF) process and waste activated sludge (WAS).</u></p>
4-16	Rule 11.5.28	<p>The inclusion of this rule will mean that all stormwater discharges within the Lake Area in the Cultural Landscape/Values Management Area that are not into reticulated systems will require a resource consent as a discretionary activity. For dairy farmers this will likely mean farmers diverting clean stormwater (such as from roofs and clean concrete areas – even during winter months when yards are not used) to their dairy effluent management systems, which is contrary to recommended good practice for managing dairy effluent.</p> <p>Furthermore, Fonterra considers that a stormwater consent for every stormwater discharge in the Lakes area is an onerous and unnecessary requirement – applying as it will to every dwelling, implement shed, driveway and community building in the area.</p> <p>Under the pLWRP stormwater discharges to water or land in circumstances it may enter water are only permitted when the discharge meets the water quality</p>	Delete Rule 11.5.28.

Page	Reference	Issue/Concern	Relief Sought
		standards of Schedule 5 (after reasonable mixing). Fonterra submits that that approach is appropriate.	
4-17	Rule 11.5.32 and 11.5.33	<p>Rules 11.5.32 and 11.5.33 provide for surface and groundwater takes as restricted discretionary activities.</p> <p>Fonterra has two concerns with these policies. First, the intent of Policy 11.4.29 is not reflected in the matters of discretion listed for those rules. In Fonterra’s opinion, Policy 11.4.29 should be specifically reflected in as matter of discretion.</p> <p>Secondly, there appears to be an issue with the drafting of these two rules that may not be intentional but which could lead to significant consenting issues. As we understand the provisions, Rule 11.5.32 sets out the principal approach to consenting surface and groundwater takes. Rule 11.5.33 sets out an exception when a groundwater take may be able to be consented (as a restricted discretionary activity) notwithstanding it may not comply with the conditions of Rule 11.5.32. The problem is that, as worded (in particular the use of the wording “despite Rule 11.5.32”,) it seems that a groundwater take would need to comply with both rules. As many groundwater takes do not have a stream depleting effect greater than 5 L/s they could not comply with Rule 11.5.33.</p>	<p>Amend both Rule 11.5.32 and 11.5.33 by adding the following matter of discretion to each rule.</p> <p><i><u>The staging of any increase in the minimum flow having regard to matters contained in Policy 11.4.29</u></i></p> <p>Amend Rule 11.5.33 as follows:</p> <p><i><u>Despite Unless Rule 11.5.32 applies the taking of groundwater within the Selwyn Waihora catchment and including all areas within the Little Rakaia Combined Surface and Groundwater Allocation Zone is a restricted activity provided the following conditions are met.</u></i></p>
4-19	Rule 11.5.37	Consistent with its submission on Policy 11.4.22, Fonterra opposes that part of Rule 11.5.37 that requires the surrender of 50% of water on transfer regardless of individual circumstances. This is particularly so when a transfer that does not meet this requirement is prohibited under Rule 11.5.38.	<p>Amend Rule 11.5.37 (4) as follows:</p> <p><i><u>4. If the transfer is within the Raikaia-Selwyn or Selwyn-Waimakariri Combined Surface and groundwater Allocation Zones 50% a proportion of the volume of transferred water not exceeding 50% is to be surrendered.</u></i></p> <p>Add an additional matter of discretion to rule 11.5.37 as</p>

Page	Reference	Issue/Concern	Relief Sought
			follows: 7. The volume of the take to be surrendered
SECTION: Tables			
4-27	Table 11(a)	<p>Fonterra supports the community aspirations to achieve improved environmental and cultural outcomes for the Selwyn – Te Waihora catchment. Section 11.6 quantifies these outcomes for key indicators. We recognise and acknowledge the considerable amount of technical work that underpins these numeric outcomes and their relationship to the provisions in the plan.</p> <p>However, we are concerned that some of the numeric indicators in the Table 11(a) are unachievable. It does not appear that the s32 analysis fully assessed the implications of achieving all the components of Table 11(a), such as QMCI and sedimentation indicators. At the very least these outcomes appear reliant on investment through non-regulatory methods to complement regulatory methods.</p> <p>Notwithstanding the above comments, there appears to be errors in the table relating to differing QMCI outcomes for some of the streams as indicated by the table footnotes.</p>	Ensure the Variation includes appropriate linkages between outcomes and non-regulatory methods and acknowledges the role and importance of non regulatory methods generally.
4-30	Table 11(b)	Fonterra broadly supports the outcomes in Table 11(b). It is concerned, however, that achievement of those outcomes will be beyond what is achievable through regulatory means and will in practice be reliant on the deployment of non-regulatory methods. In that respect, the comments made in respect of Table11 (l) apply.	As per relief sought for Table 11(l) – (Limits for Lakes).
4-31	Table 11(c)	This issue has been discussed in relation to Policy 11.4.28 (see above). In short Fonterra notes the heavy reliance on additional surface recharge as part of CPW, targeted stream augmentation and managed aquifer	Removal of the minimum flows and restriction regime flows that are proposed to apply at 2025. Introduction of those flows once actual flow increases are confirmed

Page	Reference	Issue/Concern	Relief Sought
		recharge. Modelling approaches may not be appropriate for predicting the effects of catchment scale changes such as CPW's additional recharge on individual stream flows.	
4-34	Table 11(i)	<p>1. The industrial or trade process load limit is based on an incorrect assessment of existing consented discharges (as discussed in relation to Policy 11.4.10).</p> <p>2. Table 11(i) refers to "farming" but the policies and rules refer to "farming activity". To avoid confusion the policies, rules and table should refer to consistent terms.</p> <p>Fonterra considers that the farming nitrogen limit is based on an overly simplistic groundwater modelling approach that makes simplifications of how the groundwater system functions, and in turn, how groundwater nitrates will influence stream and lake nitrogen concentrations. We believe that information will improve over time and that the nitrate limits should be kept under review (with a commitment to review these as per earlier submission points).</p>	<p>As noted earlier, amend Table 11(i) by increasing the nitrogen load limit for industrial or trade processes to 132.4 tonnes.</p> <p>Amend table 11(i) to refer to "farming activity"</p> <p>Include a commitment to keep load limits under regular review as information and modelling capability improves</p>
4-35	Table 11(j)	The table heading refers to "Nitrogen and Phosphorus Limits" but (appropriately) only nitrogen limits are included in the table.	<p>Amend the Table heading to read:</p> <p><i><u>Table 11(j): Irrigation Nitrogen Limits</u></i></p>
4-35	Table 11(k)	Fonterra generally supports the intent to set nitrogen limits to avoid chronic toxicity risks appropriate to waterway sensitivity. However, the lower Selwyn River is defined in the pLWRP as a hill-fed lower river, but currently does not meet the threshold for 95% level of species protection because baseflow in the lower Selwyn River is dominated by groundwater inputs. Furthermore, nitrate concentrations are likely to increase as a result of lag effects and additional catchment load. In Fonterra's	Amend Table 11(k) by amending the nitrate limit for the Hill-fed-lower rivers to correspond to an 80% level of protection (i.e. a median of 6.9 mg/L and 95%ile of 9.8 mg/L).

Page	Reference	Issue/Concern	Relief Sought
		opinion it is appropriate to set the nitrate toxicity limit for the Hill-fed lower rivers at a more achievable level.	
4-35	Table 11(l)	<p>Fonterra supports the intent to improve the health of the Te Waihora/Lake Ellesmere and to protect Coopers Lagoon as indicated by the numeric limits proposed for the lakes. However, Fonterra considers that currently there is only a moderate to low level of understanding of key drivers of lake condition and, accordingly, a low to moderate ability to predict responses of the lake to both the regulatory provisions of the plan (e.g. nutrient and water allocation limits) and non-regulatory measures (such as internal nutrient load reductions and macrophyte establishment). Fonterra considers it likely that the non-regulatory measures will be more crucial than the regulatory limits proposed in the plan to achieve outcomes sought for Te Waihora/Lake Ellesmere.</p> <p>Despite these uncertainties we recognise and support the need for limits as one of the methods for achieving outcomes. However, Fonterra submits that as understanding of the lake responses to catchment interventions (regulatory and non-regulatory) improves, there is a review of the appropriateness of these limits and the relative effectiveness of catchment interventions. Where appropriate, such reviews should be followed by amendments to relevant provisions.</p>	Include a new method in Variation 1 committing the Council to monitor and review the effectiveness of the limits of Table 11(k) and associated rules, as well as non-regulatory methods, and to make adjustments to the limits on the basis on improved information.
4-36	Table 11(m)	<p>Fonterra supports the general intent of the groundwater quality limits as well as the concept of setting a limit. However, we have significant concerns about the modelling approach used to determine whether the groundwater nitrate target can be met through the provisions of the plan - specifically regarding the assumptions about the relationship between the catchment nitrogen load limit, and the groundwater</p>	Include a method in Variation 1 committing the Council to monitor the achievability of the groundwater limits and to adjust those limits if and when improved information and modelling capability enhances the ability to predict the effect of the provisions included in this plan (and other committed catchment interventions).

Page	Reference	Issue/Concern	Relief Sought
		nitrate limit. Fonterra believes that the limits set should correspond to the likely effect of the provisions that are realistic to include in the plan (along with catchment intervention committed to outside the RMA statutory planning framework). On that basis we remain concerned that the groundwater limits (like other limits) need to be kept under regular review.	
GENERAL: Consequential Amendments			
	All	Fonterra is conscious that it has sought numerous amendments, additions and deletions in this submission. It is likely that giving affect to these submission points will necessitate various consequential amendments to ensure consistency between policies and between policies and rules.	Make any and all consequential amendments necessary to give full and accurate effect to this submission while retaining the Plan's internal coherency.