Janel Hau

From: James Ryan <James.Ryan@dairynz.co.nz>
Sent: Friday, 21 March 2014 4:19 p.m.
To: Mailroom Mailbox
Subject: TRIM: DairyNZ submission on Variation 1 to the Proposed Canterbury Land & Water Regional Plan
Attachments: DairyNZ submission to Variation 1.pdf

Categories: Purple Category
HP TRIM Record Number: C14C/43910

Please find attached a copy of DairyNZ's submission to Variation 1.

Kind Regards

James

James Ryan
Regional Policy Manager

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Environment Canterbury
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21 March 2014

RE: Submission to Proposed Variation 1 to the Proposed Canterbury Land and Water Regional Plan

Dear Sir/Madam

DairyNZ appreciates the opportunity to submit on Proposed Variation 1 to the Proposed Canterbury Land and Water Regional Plan (Variation 1).

DairyNZ is the industry good organisation representing New Zealand's dairy farmers. Funded by a levy on milksolids and through government investment, our purpose is to secure and enhance the profitability, sustainability and competitiveness of New Zealand dairy farming. We deliver value to farmers through leadership, influencing, investing, partnering with other organisations and through our own strategic capability. Our work includes research and development to create practical on-farm tools, leading on-farm adoption of best practice farming, promoting careers in dairying and advocating for farmers with central and regional government.

DairyNZ strongly supports policy that is founded on rigorous and robust science. We believe that taking an evidence-based approach leads to the development of more effective and enduring policy, and, by extension, optimal outcomes for the community, economy and environment. Our policy positions are built on expert technical analysis of regional and farm-scale economic data, farm systems knowledge, farmer behaviour, water quality science and aquatic ecology. For more information, visit www.dairynz.co.nz.

DairyNZ understands that there has been a significant amount of work undertaken which has culminated in the notification of Variation 1. In particular, we would like to acknowledge the efforts of the Selwyn Waihora Zone Committee who has spent considerable effort formulating a package of measures designed to achieve the outcomes of the Canterbury Water Management Strategy.

DairyNZ recognises that Te Waihora/Lake Ellesmere is a tribal taonga for Ngai Tahu and is highly valued by the wider community for a range of uses.

DairyNZ supports the vision for the catchment:

> *"To restore the mauri of Te Waihora while maintaining the prosperous land-based economy and thriving communities".*

Overall, DairyNZ supports the community aspirations to achieve improved environmental and cultural outcomes for the Selwyn – Te Waihora catchment. In this regard, DairyNZ generally supports the need to set outcomes and manage to limits, such as those proposed in Variation 1. We recognise and acknowledge the considerable amount of technical work that underpins these numeric outcomes and limits and their interrelationships. However, we also consider it important to acknowledge that due to resourcing and timing constraints and limitations of the scientific tools available, there remain considerable areas of uncertainty within some of the key technical components that provide the basis for the limits in the plan.

We agree that not acting because there is uncertain or insufficient information risks not achieving the environment and cultural outcomes sought[1]. However, it is also true that this uncertainty risks overly constraining farming operations and their contribution to the social and economic outcomes sought. In our view, these risks need to be managed through continual improvements in scientific understanding of catchment functioning and response, and an ability and commitment to reviewing and updating plan provisions at critical stages. Examples of critical stages are when anticipated new provisions (e.g., Good Management Practice Nitrogen and Phosphorus Loss Rates) are introduced and/or where staged plan provisions take effect such as minimum flow provisions as of 2025 – Table 11(c).

A further element of uncertainty and risk is the overall water management approach that places a heavy reliance on non-regulatory methods to achieve the water quality and quantity outcomes set out in Variation 1. Risks around effectiveness, cost-effectiveness, including who pays, practicality, and acceptability are yet to be assessed. Our concern is for the future risks that if these non-regulatory methods are deemed unsuitable, further burden to achieve the outcomes in the plan will be placed on the farming community.

DairyNZ wishes to be heard in support of the submission. If others make a similar submission, we will consider presenting a joint case with them at a hearing.

Yours sincerely

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[1] Proposed Variation 1 to the Proposed Canterbury Land and Water Regional Plan - Section 32 Evaluation Report February 2014

1.0 Context

1.1 Dairy farming in Canterbury

Dairy farming in the Canterbury region has grown significantly over the last decade. Drivers have included the development of small and large-scale irrigation schemes enabling dairy development on dry-land properties, an increase in global demand for New Zealand's dairy commodities and the increased profitability of dairying compared to some other farming systems[1].

There are now about 1046 dairy farms in the Canterbury region, representing nearly 9% of dairy farms in New Zealand[2]. Canterbury dairy farmers produce approximately 19% of the milk solids produced nationally and 46% of the milk solids produced in the South Island.[3] The dairy sector in Canterbury comprises small, medium and large businesses that collectively make a significant contribution to the social and economic wellbeing of the region.[4] Beyond the farm gate, dairying supports rural businesses in the region such as milk-product processing, rural retailing, farm suppliers, rural transport and agri-commodity cartage, seed production, ground and surface water irrigation services and rural consultancy.

The positive economic effect of dairy farming on the region's rural areas also greatly benefits its surrounding urban settlements, including Christchurch, the main urban centre. 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 in Christchurch city. When factoring in an additional $511 million of expenditure from rural businesses, the total contribution to Christchurch city rises to $817 million.[5] "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".[6]

1.2 Dairy farming in Selwyn District

Congruent with the wider Canterbury experience, new irrigation[7] has supported the expansion of dairying in the Selwyn District in recent years. The latest New Zealand Dairy Statistics (2012-13) puts the number of herds in Selwyn at 212, with the average herd size being 728. The average dairy farm size is 223 (effective) hectares. The average stocking rate is 3.27 cows per hectare. In 2011 in Selwyn, about 50,000 hectares of land was being used for dairy and dairy support.[8] Economic commentators note that despite dairy farming being only 19 per cent of the overall land use in the district, it produces 40 to 50 percent of the contribution of agriculture to the regional economy[9].

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[1] Pangborn, M. & Woodford, K. 2011. Canterbury dairying - a study in land use change and increasing production. Proceedings of the 18th International Farm Management Congress.
[2] Livestock Improvement Corporation and DairyNZ. 2013. New Zealand Dairy Statistics 2012 – 13.
[3] Livestock Improvement Corporation and DairyNZ. 2013. New Zealand Dairy Statistics 2012 – 13.
[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).
[6] http://www.lincoln.ac.nz/News--Events/News/Current/Rural-sector-makes-beefy-contribution-to-urban-Christchurch/ (Accessed: 10/03/2014).
[7] Taylor et al. 2014. Technical report to support the water quality and water quantity limit setting process in Selwyn Waihora catchment. Predicting consequences of future scenarios: Social Impact Assessment. Report prepared for Environment Canterbury by Taylor Baines and Associates.
[8] Environment Canterbury. 2012. Selwyn Waihora Limit Setting Process: An Overview of Current Status in 2012.
[9] 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.

While dairy farming clearly makes a very strong contribution to the Selwyn District's economy it also delivers jobs to the district. In Selwyn, the dairy sector employs around 890[10] workers on-farm, including 164 owner operators and 48 sharemilkers[11]. In addition, there are approximately 500[12] people are employed in dairy processing (including Fonterra, Synlait and Westland facilities). The sector indirectly supports many more jobs in industries that supply dairy which experience the benefits of additional income flowing into the region due to dairy volume and/or price growth.

1.3 Dairy sector investment in research and environmental programmes

DairyNZ recognises that beyond supporting the economic well-being of New Zealand's urban and rural communities, the dairy sector must responsibly manage its environmental footprint. The Strategy for Sustainable Dairy Farming 2013-2020 ("Making Dairy Farming Work for Everyone") signals the intent of dairy farming to be a part of New Zealand's future for the long term. One of the strategy's key objectives is "environmental stewardship" meaning the "responsible use and protection of the natural environment through sustainable practices and conservation. Wise use of resources means using them sustainably for the greatest good."[13]

To this end, the dairy industry has substantially increased the level of investment it is making in programmes and initiatives aimed at enhancing the environmental performance of dairy farms, through the adoption of good management practice. DairyNZ is committed to working with dairy farmers to support good management practices. The organisation is involved in a wide variety of extension activities to support good environmental management including providing advice to farmers on effluent management, nutrient use and efficiency, water and feed management.

DairyNZ's investment in environmental programmes is approximately $11 million per year. Through their levy, New Zealand's dairy farmers are investing in scientific research in next generation farm systems and studies which aim to advance our understanding of how to address the impacts of land use on water quality. Additionally, farmers are investing in research to explore the economic impacts of water quality and quantity limits on farm profitability and what this means for local and regional economies.

DairyNZ is involved in a range of national research programmes including Pastoral 21 which is a collaborative venture between DairyNZ , Fonterra, Dairy Companies Association of New Zealand, Beef & Lamb and the Ministry of Science & Innovation. Part of the Pastoral 21 research is being conducted on dairy farms in Canterbury. Initial results confirm that alternative farm management options support the programme's objectives of increased productivity and a lower environmental footprint including reduced nitrogen losses for both the milking platform and support land used for wintering. Although the research is part of a five year programme, the results are being used as a pilot for the development of extension and learning resources to support improvements in farming practices. Uptake of the results will require continued improvements in farming capability to make use of new practices including pasture management and grazing.

In Canterbury, DairyNZ has invested significantly in supporting the development of the Matrix of Good Management project (MGM) to define nutrient losses from different land uses under good management practices. It is our expectation that the MGM will provide significant insights that need to be taken into account if Variation 1 is to be successfully implemented. DairyNZ supports the requirement for farms to

[10] NZIER report to Fonterra. 2013. Regional dairy statistics: employment and value of production. Prepared by John Ballingall (NZIER).
[11] Livestock Improvement Corporation and DairyNZ. 2013. New Zealand Dairy Statistics 2012 – 13.
[12] NZIER report to Fonterra. 2013. Regional dairy statistics: employment and value of production. Prepared by John Ballingall (NZIER).
[13] http://www.dairynz.co.nz/page/pageid/2145862755/Dairy_Industry_Strategy

reach good management practice nutrient loss targets, providing there continues to be significant primary sector involvement in the project. DairyNZ notes, however, that OVERSEER is not adequate for developing farm-scale P limits. Until such time as the tools for quantifying P losses at the farm scale 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 a risked based assessment that identifies appropriate management actions. In the case of the dairy sector, this is being achieved through the implementation of the Sustainable Dairying: Water Accord.

1.4 The Sustainable Dairying: Water Accord

The dairy industry is ready to take up the challenge of achieving community-determined freshwater objectives and their associated limits and bottom lines. Through the Sustainable Dairying: Water Accord, the industry has made a series of commitments that will improve water quality, as well as provide robust accounting systems to assist resource managers in decision-making.

DairyNZ is supportive of the requirements for freshwater accounting. In our view, timely and robust accounting for freshwater takes and contaminants is essential for effective management. It is extremely difficult to determine whether there is sufficient risk to require a policy response without understanding the current and potential future impacts of various pressures on freshwater. It is important, however, that this increased focus on accounting is implemented in a way that seeks to build upon, rather than duplicate, current efforts and investment in this area.

The Sustainable Dairying: Water Accord has a number of accounting requirements. For example, in collaboration with the fertiliser industry, DairyNZ has developed an audited nitrogen management system that will enable dairy companies to model nitrogen loss on supplier dairy farms in a robust manner, according to agreed protocols and consistent data collection systems. Dairy companies are now implementing sophisticated environmental management systems which include collecting information from every dairy farm and providing benchmarking and performance information back to farmers. DairyNZ is also undertaking on-farm trials to better understand the volumes of water being used for shed wash-down and milk cooling under different seasonal and geographical conditions. When coupled with industry requirements for water meters on farm, this will support much more accurate estimation of water use under permitted activity rules.

Among other requirements, the dairy industry has committed to monitor and report:

I. The length of stock excluded waterway/area of significant wetland and the length of any dispensations.
II. The percentage of regular stock crossings that have bridges or culverts and any dispensations.
III. The extent of riparian margin planted on-farm and through industry/community partnerships e.g. off-farm planting.
IV. The average nitrogen loss per hectare (by region and/or catchment) as modeled using Overseer.

We consider these measures to be a major investment in accounting for freshwater takes and potential impacts from dairy farms. Because of this, we are seeking to avoid costly duplication of effort by working with regional councils to provide robust, auditable information about resource use at catchment and regional scales. In our view, it is clear that there will be little (if any) requirement for any additional freshwater accounting for the dairy industry. We recognise that there are key research gaps for non-consented freshwater use, but we are working to address these currently.

1.5 Effluent management initiatives

DairyNZ has recently led development of a range of initiatives to improve effluent management including an Institution of Professional Engineers New Zealand (IPENZ) practice note for the design of effluent storage ponds released in October 2011. Associated with this programme is a training course on the design and construction of effluent storage ponds developed in partnership with Infratrain. DairyNZ has also partnered with Massey University to develop a course on the design of effluent systems. Milk supply companies are involved in a number of initiatives to improve effluent management. The investment that the dairy sector is making to improve effluent management has been matched by farmer investment in new infrastructure, training and technology. As a result, there continue to be significant improvements in effluent management and compliance across the Region (Figure 1). A warrant of fitness system for dairy effluent management systems has also recently been developed. This involves training and accreditation of rural professionals to support farmers' management of dairy effluent.

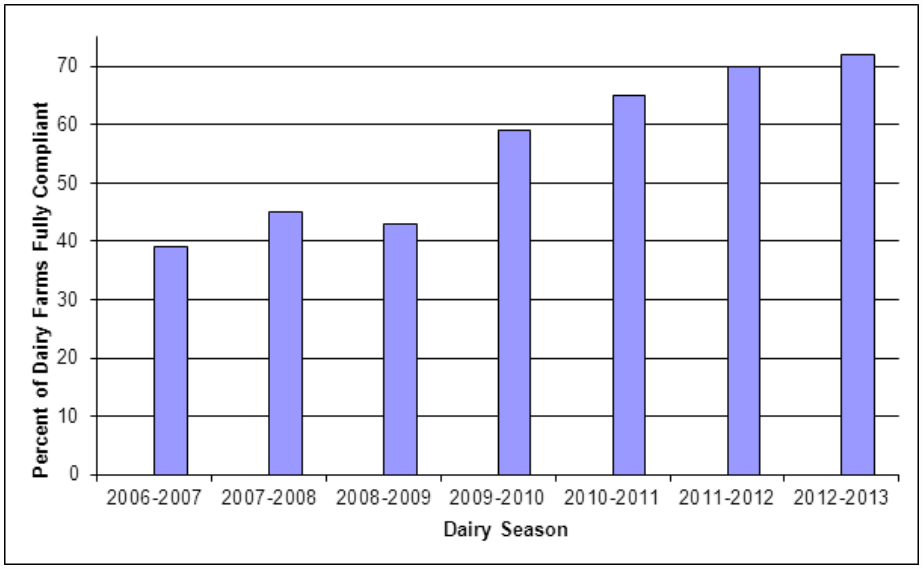

Figure 1: Fully compliant dairy farms 2006/07-2012/13 (Canterbury Region)
Source: Burns, M J 2013: Canterbury Region Dairy Report 2012–2013 Season Environment Canterbury (DRAFT) For previous year see: Beck, L B 2012: 2011-2012 Canterbury Region Dairy Report Environment Canterbury Report No. R12/80
http://ecan.govt.nz/publications/Plans/canterbury-region-dairy-report-2011-2012-season.pdf

1.6 Sustainable Milk Plans

DairyNZ has developed a flagship environmental farm planning tool described as a Sustainable Milk Plan. These plans will help improve nutrient management and include targets and actions by creating a farm specific, practical plan that helps landowners to focus on the actions that are essential to minimise their environmental footprint. A Sustainable Milk Plan will help farmers to achieve regulatory and/or milk company requirements but may also exceed them.

A key difference between Sustainable Milk Plans and other environmental farm plans is that Sustainable Milk Plans identify specific targets that focus on key environmental outcomes and performance measures that take account of the sensitivity of the local environment. These plans can help farmers focus on practical actions that they can take to improve issues such as effluent management, nutrient management, soil health and waterway protection. Examples of actions that might be highlighted could be the need to

improve planting or fencing around a waterway, an upgrade to effluent infrastructure and soil testing to help optimise Olsen P levels.

One of the advantages of the development of the Sustainable Milk Plans is that through the process of their development, farmers' understanding of links between their farm business and environmental outcomes is increased. Additionally, through ongoing auditing and monitoring, valuable information is provided on environmental performance, rates of change and barriers to change. In this manner, improvements can be made to help the development and implementation of plans.

It is DairyNZ's expectation that Sustainable Milk Plans will meet the requirements of a Farm Environment Plan as described in Schedule 7 Part A of the Proposed Canterbury Land and Water Regional Plan. In Canterbury, Sustainable Milk Plans are currently being implemented for 30 farmers in the Hurunui catchment. It is proposed that Sustainable Milk Plans will be rolled out across Canterbury, including the Selwyn Waihora catchment over the next three years.

2.0 Details of concerns and relief sought

Table 1 sets out DairyNZ's concerns with the provisions of Variation 1 of the pLWRP and the relief DairyNZ seeks in response to the concerns raised. Every attempt has been made to provide specific relief where possible, including proposed replacement drafting. However, DairyNZ 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 the Table 1.

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, DairyNZ seeks and supports (in principle) any such consequential amendments.

Table 1 – DairyNZ'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	Considerable new text has been added to: • 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. While not disagreeing with the validity of the new matters discussed, DairyNZ is of the view that the section now lacks context. The section should acknowledge the very significant economic and social contribution (in terms of, for example, income and employment) generated by the 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. 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.	Add the additional text to the introductory narrative (paragraph 9) – Proposed new text underlined. *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.* *The catchments of Te Waihora/Lake Ellesmere are intensively used for primary production including, in particular, food production - much of it for export to foreign markets. Substantial food production and food-processing infrastructure (including modern, international-scale facilities) has developed over recent decades and dominates the local economy. Accordingly, many of the communities of the catchment are reliant on the continuation of irrigated agriculture and associated processing for their continued social and economic well-being.* *Thus, the transition to meeting the full vision for the lake must be designed and paced to enable progress 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*

Page	Reference	Issue/Concern	Relief Sought
			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. *This sub-regional section includes policies and rules…*
4-5	Policy 11.4.1	DairyNZ 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 *all* cumulative effects. DairyNZ 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.	Amend Policy 11.4.1 to read: *Manage water abstraction and discharges of contaminants within the entire Selwyn Waihora catchment to avoid 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.*
SECTION: Policies – Managing Land use to Improve Water Quality			
4-6	Policy 11.4.6	Policy 11.4.6 limits the total nitrogen load to the limits set in Table 11(i). DairyNZ 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 its 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).	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.

Page	Reference	Issue/Concern	Relief Sought
4-6	Policy 11.4.12(a)	Policy 11.4.12(a) requires that farming activities not exceed their nitrogen baseline where the loss is greater than 15kg N/ha/yr. The concept of the nitrogen baseline is contained within the pLWRP. An issue with the baseline (and the four-year rolling average approach to N loss calculation) has arisen since decisions on that plan and DairyNZ considers that that issue could be resolved for the Selwyn Waihora sub region within this Variation. 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. 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. This issue runs counter to the accepted idea that one	Amend Policy 11.4.12(a) as follows: *(a) Not exceed the ~~nitrogen baseline~~ SW nitrogen baseline where a property's ~~nitrogen loss calculation~~ SW nitrogen loss calculation is more than 15 kg of nitrogen per hectare per annum; and* Make amendments to Rules 11.5.6 to 11.5.10 as detailed later in this submission. Define "SW nitrogen baseline" as follows: *(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* *i. for the period 01 July 2012- 30 June 2013; or* *ii. averaged over two, three or four consecutive years in the period 01 July 2009 – 30 June 2013,* *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* *(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* *(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.*

Page	Reference	Issue/Concern	Relief Sought
		particularly high or low N loss year should be able to be "smoothed out" by taking an "average over four years" approach. DairyNZ considers that the remedy to this issue 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. A second issue DairyNZ 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 actually is. The uptake of this 15 kg allowance therefore needs to be monitored and reported so that the regime is not overly conservative in its approach to nitrogen allocation.	Define "SW nitrogen loss calculation" as follows: *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:* *a. the discharge of nitrogen below the root zone modelled in accordance with the definition of "nitrogen loss calculation"; or* *b. the discharge of nitrogen below the root zone for:* *i. the most recent year; or* *ii. the average over two, three or four consecutive years (including the most recent year)* *expressed in kg per hectare per year, as modelled with OVERSEER™ or equivalent model approved by the Chief Executive of Environment Canterbury.* *If OVERSEER™ is updated the most recent version is to be used.* Additional method In relation to the second issue raised in the adjacent column, DairyNZ's considers that, as a minimum, the uncertainty surrounding the uptake of the 15kg 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.

Page	Reference	Issue/Concern	Relief Sought
4-6	Policy 11.4.12(b) and Schedule 24	DairyNZ generally supports the identification of basic good management practices in Schedule 24 as an *interim* planning tool to assist with achieving good management practice nutrient losses while the GMPNPL rate are being developed. It does however, have two concerns. The first concern is that the plan does not make it clear that the Schedule 24 practices are an interim tool only and will have no role post the introduction of the GMPNPL rates. The second concern relates to reference to all effluent systems having to meet the Farm Dairy Effluent Design Standard and Code of Practice as a condition of being a permitted activity. While the 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. DairyNZ questions whether the Standard and Code are robust enough in their language and requirements to act as clear conditions on a permitted activity. 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. All effluent discharges require a restricted discretionary 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	Delete item(e) from proposed Schedule 24. Add an additional policy as follows: *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 Farm Dairy Design Standard and Code of Practice [2013].* Schedule 24 Add new method of advisory note to the effect that Schedule 24 will be withdrawn once the GMPNPL rates are introduced to the plan.

Page	Reference	Issue/Concern	Relief Sought
		management (under rules 5.31-5.34 of the pLWRP) mean that the major risks, and requirements to mitigate those risks, ought to be already addressed and additional land use rules are superfluous. For those reasons DairyNZ submits that the effluent management aspect of Schedule 24 be deleted. However, DairyNZ 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.	
4-6	Policy 11.4.12(d) and Rule 11.5.18	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 *"any artificial watercourse that has been constructed for the purpose of land drainage of surface or subsurface water …"*. The associated rule is 11.5.18. The rule refers to "artificial watercourse" rather than "drain". The plan does not specify the minimum size or depth of a drain. Although the definition of artificial watercourse does exclude swales and drains designed to convey stormwater (which would capture drains that flow only after rain). The dairy sector is committed to excluding dairy cattle from waterways and drains. The Sustainable Dairying: Water Accord s*upports the exclusion of dairy cattle from waterways*[14] *and drains*[15] *greater than one metre in width and deeper than*	Amend Policy 11.4.12(d) as follows: *Exclude stock from permanently flowing drains greater than one metre in width and deeper than 30cm in addition to the regional requirements to exclude stock from lakes, rivers and wetlands.* Amend Rule 11.5.18 to read as follows: *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</u>.*

[14] The Sustainable Dairying: Water Accord defines a waterway as: A lake, spring, river or stream (including streams that have been artificially straightened but excluding drains) that permanently contains water and any significant wetland. For the avoidance of doubt, this definition does not include ephemeral watercourses that flow during or immediately following extreme weather events.

[15] The Sustainable Dairying: Water Accord defines a drain as: An artificially created channel designed to lower the water table and/or reduce surface flood risk and which has permanently flowing water but does not include any modified (eg straightened) natural watercourse.

Page	Reference	Issue/Concern	Relief Sought
		30cm. While DairyNZ broadly supports the intent of the policy it considers that some minor clarification to the rule is warranted to ensure any very small drains that are impractical to fence are not captured. 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).	
4-6	Policy 11.4.13	Policy 11.4.13 refers to requiring "further" reductions from 2017 by requiring farm environment plans and compliance with GMPNPL rates. DairyNZ considers that: (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	Deletion of 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 those rates from 1 January 2017.

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		that established pre 30 June 2013. DairyNZ is concerned about the proposed approach to management of P loss according to defined rates (limits). DairyNZ notes that currently OVERSEER™ is not adequate for developing farm-scale P loss~~es~~ 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.	
4-7	Policy 11.4.14	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. DairyNZ considers that: • 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 DairyNZ'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. • 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	Deletion of Policy 11.4.14. Replacement of the provision with a commitment (in a method or advisory note) as follows: *Following the confirmation of the good management practice nitrogen loss rates, as defined by the Matrix of Good Management project, 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 management practice nitrogen loss rates, be introduced to the Plan by way of the First Schedule process.* In addition, Variation 1 should include a method to develop a mechanism that provides for the transfer of N loss rates which enables flexibility.

Page	Reference	Issue/Concern	Relief Sought
		achieving "equal financial pain across sectors", as measured by EBIT/ha. DairyNZ is concerned about the use of EBIT/ha for this analysis because: o It does not consider any non-monetary factors that may result in additional complexity, stress or risk from the proposed farm system changes; and o 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 involving: 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 liquidity; and 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. o Additionally, a 3 year average EBIT/ha is used (presumably 2008-09, 2009-10, 2010-11). Given that the Plan has impacts reaching as far as 2037, this average EBIT/ha is likely to be irrelevant for much of the policy period. Where relative profitability across or within sectors change between this averaged period and 2037, the % reductions will not result in the predicted financial outcomes. This is problematic since the	

Page	Reference	Issue/Concern	Relief Sought
		philosophy on which the % reductions were constructed was equal financial cost, which is unlikely to result should any changes to relative profitability occur by 2037. Further, the Plan sets out that the % reductions required will be achieved at the farm scale. While the pLWRP allows for the combination of properties in order to offset one property's mitigation requirements with another property's, there is likely to be significant social and economic benefit of more easily allowing such transfer of mitigation requirements. Otherwise, there is a significant possibility that land will be bought/sold based on the N it is allowed to leach, rather than its underlying characteristics. Being able to transfer N losses outside of land transfer is likely to result in much greater flexibility in the policy framework while still achieving the desired catchment agricultural nitrogen load, and through separating land value from N losses, the value of land parcels in lower leaching uses during 2009-13 will be supported. It is widely recognised in the economic literature that policies that allow flexibility in this way result in considerably higher economic outcomes, when compared with rigid property scale policies. It is suggested that the feasibility of some mechanism to allow flexibility is investigated, with the aim of determining whether an appropriate mechanism should/can be included in Variation 1 when good management practice nitrogen loss rates are incorporated. DairyNZ currently has work underway which may help with this investigation.	

Page	Reference	Issue/Concern	Relief Sought
4-7	Policy 11.4.15	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, DairyNZ opposes Policy 11.4.14. However, if this policy or some variant is to be retained DairyNZ considers that a broader range of matters should be included for consideration.	Delete Policy 11.4.15. 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 regarded to (in addition to the matters listed in Policy 11.4.15): • 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 GMPNL rate) that restrict or limit the effectiveness of N reduction options; • 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)	Policy 11.4.17 requires 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. DairyNZ is concerned because: • 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	Deletion of Policy 11.4.17 (b).

Page	Reference	Issue/Concern	Relief Sought
		be before 2022); and • The requirement is superfluous as the cumulative loss from properties within CPW must be within the load limit specified in Table 11(j)	
SECTION: Polices – Lake, Catchment and Flow Restoration			
4-7	11.4.18-11.4.20	Policies 11.4.18, 11.4.19 and 11.4.20 focus on *enabling* lake, wetland and flow restoration activities. The policies do not, however, provide an indication of when or how these activities are to be *delivered*. 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 DairyNZ accepts that there are limits to how much detail can be committed to in statutory plans regarding non-regulatory measures, it considers that the Variation could go further in this regard.	Include 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.
SECTION: Polices – Sustainable Use of Water and Improved Flows			
4-8	Policy 11.4.22	DairyNZ supports the need to address over allocation in the Rakaia-Selwyn and Selwyn-Waimakariri water allocation zone. However, DairyNZ 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. DairyNZ therefore suggests some amendments to the policy	Amend Policy 11.4.22 (c) as follows: *In all other cases 50% of any transferred water is surrendered, unless a lesser amount is justified in the individual circumstances of the case.*

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		and rule to improve its flexibility to respond to individual circumstances. See also relief sought in relation to Rule 11.5.37.	
4-8	11.4.28	Policy 11.4.28 provides for minimum flows and partial restrictions on the Selwyn River and lowland steams from 2025. DairyNZ 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. DairyNZ is concerned that there are various expectations and assumptions inherent in this proposal that may not eventuate such as managed aquifer recharge (MAR); the targeted stream augmentation (TSA), reduction in groundwater abstraction and the timing of the CPW 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). Furthermore, DairyNZ understands that even if the 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. 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.	Amend Policy 11.4.28 as follows: *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.* Amend Tables 11(c) by removing the minimum flows and regime restriction flow levels that apply from 2025. 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). If Environment Canterbury does not agree to the above relief, include, as a minimum, a new method 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.

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4-8	11.4.32	Policy 11.4.32 relates to the storage of surface water to support a reduction in the use of groundwater. DairyNZ is concerned to ensure that the use of groundwater continues to be regarded as appropriate in some circumstances. Furthermore DairyNZ considers that the reference to "known trout and salmon spawning areas" in part (h) of the Rule is too broad.	Amend the introductory part of the policy to read: *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 <u>(where appropriate)</u> provided…* Amend part (h) of Rule 11.4.32 to read: *(h) Inundation of ~~known~~ <u>significant</u> trout and salmon spawning areas is avoided; and*
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	In addition to the specific concerns raised in the following sections of this submission, DairyNZ has the general concern about the nitrogen baseline and nitrogen load calculation discussed in relation to Policy 11.4.12(a). Amendment to the *Nutrient Management, Sediment and Microbial Contaminant* rules are necessary to give effect to the amendment proposed to Policy 11.4.12(a).	Amend Rules 11.5.6, 11.5.7, 11.5.8, 11.5.9. 11.5.10 and 11.5.13 by: 1. Deleting the phrase "nitrogen baseline" in all places where it is 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 11.5.9	Rule 11.5.9 relates to farming activities as restricted discretionary activities post 2017. DairyNZ has several concerns about this rule and its interplay with Policies 11.4.13 and 11.4.14. First, as discussed in relation to Policies 11.4.13 and 11.4.14, DairyNZ considers it inappropriate to include reference to either the GMPNPL rates or a set reduction from those rates at this point in time. 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	Delete matters of discretion 2 and 3 and replace them 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). *The exercise of discretion is restricted to the following matters:* *1. The quality of, compliance with the Farm Environment Plan; and*

Page	Reference	Issue/Concern	Relief Sought
		creates an uncertain regulatory environment. The regime creates five potential N loss rates: (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) an N loss rate higher than (d) (but decreasing towards (d) over time). 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 *when* they will apply. (As noted earlier, Policy 11.4.14 applies "from 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 by 2022. That aside, DairyNZ understands that the intent is for the GMPNPL rates to apply at 2017 and reductions are 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 rates less required reduction. DairyNZ 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.	~~*2. The Good Management Practice Nitrogen and Phosphorus Loss Rates to be applied to the property in accordance with Policy 11.4.13(b); and*~~ ~~*3. 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*~~ *3. 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* *4. The nitrogen load target for farming activities in Table 11(i); and* 5. *The potential benefits of the activity to the applicant, the community and the environment.*

Page	Reference	Issue/Concern	Relief Sought
4-13	11.5.10	Rule 11.5.10 provides for farm activities that are part of farm enterprises as discretionary activities. DairyNZ 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 RDAs under rule 11.5.9 and it is not clear why a full discretionary consent status is necessary for this class of activity.	Amended Rule 11.5.10 as follows. *The use of land for a farming activity as part of a farming enterprise in the Selwyn Waihora catchment is a restricted discretionary activity, provided the following conditions are met.* 1. *A Farm Environment Plan has been prepared in accordance with Schedule 7 Part A; and* 2. *The nitrogen loss calculation for the farming enterprise has not increased above the nitrogen baseline.* *The exercise of discretion is restricted to the following matters.* 1. *The quality of compliance with the Farm Environment Plan; and* 2. *Existing nitrogen and phosphorus management practices on the property and the potential to adopt or improve management practices to reduce nutrient loss; and* 3. *The nitrogen load target for farming activities in Table 11(i); and* 4. *The potential benefits of the activity to the applicant, the community and the environment.*
4-13	11.5.12	Rule 11.5.11 makes farming activities that have a nitrogen loss above the nitrogen baseline a prohibited activity. DairyNZ considers that: (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	That Rule 11.5.12 is combined with Rule 11.5.11 such that any farming activity that does not meet one or more of the conditions of an RDA becomes a non complying activity. The addition of a policy limiting the granting of non-complying activities for nitrogen loss that exceeds the nitrogen baseline to exceptional cases.

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		perverse and unfair outcomes as there are bound to be unforeseen (and exceptional) circumstances where a degree of flexibility is appropriate. DairyNZ 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 of the environment is, or would be, minor. With this in mind DairyNZ 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.	
4-14	Rule 11.5.21	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: a. Quality of the water being discharged; and b. Fact that the property holder may hold, and be complying with: i. a land use consent for the farm activity; ii. a discharge consent for effluent; and iii. an approved Farm Environment Plan as well as complying with all conditions of all relevant permitted activities. This is not, in DairyNZ's submission, efficient or effects-based regulation. 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	Delete Rule 11.5.2. If it is within the scope of this Variation, insert a new section 4A into Schedule 7 of the pLWRP as follows: *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.*

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		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. DairyNZ 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	
4-16	Rule 11.5.28	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. Furthermore, DairyNZ 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. 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 standards of Schedule 5 (after reasonable mixing). DairyNZ submits that that approach is appropriate.	Delete Rule 11.5.28.

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4-17	Rule 11.5.32 and 11.5.33	Rules 11.5.32 and 11.5.33 provide for surface and groundwater takes as restricted discretionary activities. DairyNZ 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 DairyNZ's opinion, Policy 11.4.29 should be specifically reflected in as matter of discretion. 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.	Amend both Rule 11.5.32 and 11.5.33 by adding the following matter of discretion to each rule. *The staging of any increase in the minimum flow having regard to matters contained in Policy 11.4.29* Amend Rule 11.5.33 as follows: *~~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.*
4-19	Rule 11.5.37	Consistent with its submission on Policy 11.4.22, DairyNZ 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.	Amend Rule 11.5.37 (4) as follows: *4. If the transfer is within the Rakaia-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.* Add an additional matter of discretion to rule 11.5.37 as follows: 7. The volume of the take to be surrendered

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SECTION: Tables			
4-27	Table 11(a)	DairyNZ 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. 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. 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.	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)	DairyNZ 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 DairyNZ notes the heavy reliance on additional surface recharge as part of CPW, targeted stream augmentation and managed aquifer recharge. Modelling approaches may not be appropriate for predicting the effects of catchment scale changes such as CPW's additional recharge	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
		on individual stream flows.	
4-34	Table 11(i)	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. DairyNZ 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).	As noted earlier, amend Table 11(i) by increasing the nitrogen load limit for industrial or trade processes to 132.4 tonnes. Amend table 11(i) to refer to "farming activity". Include a commitment to keep load limits under regular review as information and modelling capability improves
4-35	Table 11(j)	The table heading refers to "Nitrogen and Phosphorus Limits" but (appropriately) only nitrogen limits are included in the table.	Amend the Table heading to read: *Table 11(j): Irrigation Nitrogen Limits*
4-35	Table 11(k)	DairyNZ 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 DairyNZ's opinion it is appropriate to set the nitrate toxicity limit for the Hill-fed lower rivers at a more achievable level.	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).
4-35	Table 11(l)	DairyNZ 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, DairyNZ considers that currently there is only a moderate to low level of understanding of key drivers of lake	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.

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		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). DairyNZ 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. Despite these uncertainties we recognise and support the need for limits as one of the methods for achieving outcomes. However, DairyNZ 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.	
4-36	Table 11(m)	DairyNZ 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 nitrate limit. DairyNZ 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.	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).

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Section 32 Evaluation Report			
In general, DairyNZ would like to see more quantitative assessment of the benefits and costs of different policy options. In particular, we note that the preferred option) presents significant social and economic costs for dairy farmers. Additionally, DairyNZ believes that there is potentially significant benefits (that have not been quantified in the section 32 assessment) in allowing for the transferability of property-scale nitrate loss allowances. This is particularly relevant given that the preferred option is likely to result in a considerable amount of catchment load not taken up by land use operating below the 15kg threshold. This is likely to result in social and economic opportunities being foregone.			