

Sharrie Campbell

From: Shirley Hayward <Shirley.Hayward@dairynz.co.nz>
Sent: Friday, 24 October 2014 4:26 p.m.
To: Mailroom Mailbox
Subject: DairyNZ submission on Variation 2 to CLWRP (Hinds/Hekeao Plains)
Attachments: DairyNZ submission V2 pLWRP Final 24-10-2014.pdf

Categories: Orange Category

EC275566

Hello

Please find attached DairyNZ's submission on Variation 2 (Hinds/Hekeao Plains) to the Canterbury Land and Water Regional Plan.

Kind regards
Shirley

Shirley Hayward
Water Quality Specialist

DairyNZ

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Environment Canterbury
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Christchurch 8140

24 October 2014

RE: SUBMISSION on Proposed Variation 2 to the Proposed Canterbury Land and Water Regional Plan

Dear Sir/Madam

DairyNZ appreciates the opportunity to submit on Proposed Variation 2 to the Proposed Canterbury Land and Water Regional Plan (Variation 2).

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 2.

Overall, DairyNZ supports the community aspirations to achieve improved environmental and cultural outcomes for the Hinds Plains Area. In this regard, DairyNZ generally supports the need to set outcomes and manage to limits or targets, such as those proposed in Variation 2. We recognise and acknowledge the considerable amount of technical work that underpins the numeric outcomes and limits/targets 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 or targets in the Variation. We agree that not acting because there is uncertain or insufficient information risks not achieving the environmental and cultural outcomes sought. 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 in light of important new information such as the Matrix of Good Management Project.

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



James Ryan
Regional Policy Manager

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From: [Shirley Hayward](#)
To: [Mailroom Mailbox](#)
Subject: RE: DairyNZ submission on Variation 2 to CLWRP (Hinds/Hekeao Plains)
Date: Tuesday, 28 October 2014 10:09:41 a.m.

Hello,

Further to DairyNZ's submission that was send on Friday, we wish to indicate that:

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

Kind regards
Shirley

From: Shirley Hayward
Sent: Friday, 24 October 2014 4:26 p.m.
To: 'mailroom@ecan.govt.nz'
Subject: DairyNZ submission on Variation 2 to CLWRP (Hinds/Hekeao Plains)

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DAIRYNZ SUBMISSION

Dairy sector research, programmes and work to support water quality outcomes

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."¹

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 2 is to be successfully implemented. DairyNZ supports the requirement for farms to 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 risk based assessment that identifies appropriate

¹ http://www.dairynz.co.nz/page/pageid/2145862755/Dairy_Industry_Strategy

management actions. In the case of the dairy sector, this is being achieved through the implementation of the Sustainable Dairying: Water Accord.

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.

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 Infratrains. 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.

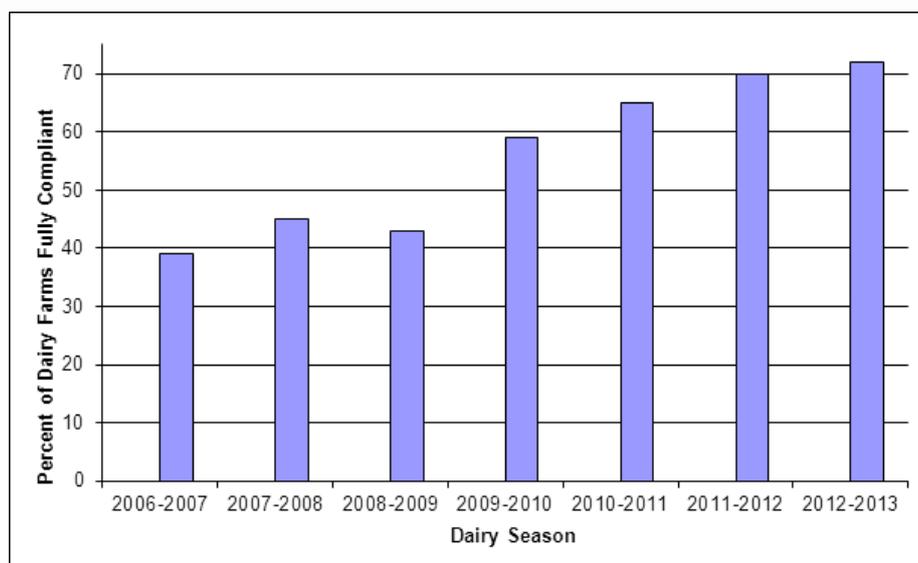


Figure 1: Fully compliant dairy farms 2006/07-2012/13 (Canterbury Region)

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>

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.



The DairyNZ Sustainable Milk Plan has been approved by Environment Canterbury's Chief Executive as meeting the requirements of a Farm Environment Plan as described in Schedule 7 Part A of the Proposed Canterbury Land and Water Regional Plan. Sustainable Milk Plans are currently being implemented in the Hurunui and Selwyn catchments and will be rolled out across Canterbury, including the Hinds Plains Area over the next three years.

Concerns and relief sought on Variation 2

Table 1 sets out DairyNZ's concerns with the provisions of Variation 2 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.

Where DairyNZ has not sought changes, it supports those provisions and seeks their retention.

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

Page	Reference	Issue/Concern	Relief Sought
SECTION: Introduction (Section 13 Ashburton)			
1	Introductory narrative to Section 13	<p>DairyNZ submits that while the introductory narrative ably describes the physical characteristics and cultural values of the Hinds/Hekeao Plains Area and the Ashburton Zone Committee’s solutions package, it does not fully acknowledge the social and economic values and importance of agriculture to the well-being of people and communities.</p> <p>In particular, DairyNZ believes that the introduction to Section 13 should acknowledge the Hinds/Hekeao Plains area as one of the foremost dairy producing areas of New Zealand and that the broader regional integrated dairy production and processing system, and the communities it sustains, relies on maintaining and growing milk supply from the area.</p> <p>In addition, the paragraph describing the reductions required of farming activities appears to have confused those reductions expected of farmers in the catchment (30% reduction in nitrogen losses) with the total improvement in water quality concentrations needed by the combined effort of the farming community and additional measures such as managed aquifer recharge and targeted stream augmentation. DairyNZ believes this is an error that should be corrected.</p>	<p>Add a new paragraph to the introductory narrative before the description of the Zone Committee process and Solutions Package as follows:</p> <p><i><u>The Hinds/Hekeao Plains Area is a regionally and nationally important area for agriculture and food production. These established activities provide significant employment in the area, both on farm and in service industries. Furthermore, agricultural production from the area is important to supplying raw product for processing elsewhere within the Canterbury Region. Accordingly, the social and economic well-being of the local and regional community is reliant on the agricultural industry in the Hinds/Hekeao Plains Area and it is important that it is retained.</u></i></p> <p>Reword paragraph 2, page 2 as follows:</p> <p><i><u>The Solutions Package requires a 45 percent reduction in groundwater nitrate concentration. To achieve that, a 30 percent reduction in nitrogen losses from farming activities is required in the Lower Hinds/Hekeao Plains Area by 2035. All farming activities are to operate at good management practice by 2017. Dairy and dairy support</u></i></p>

		<p>To achieve the concentration for lowland streams and drains and improve their overall quality then innovative and multifaceted solutions will be required. The Variation seeks to support and enable MAR and in some provisions also enables TSA. The policies and rules however need to be broadened to support a wider range of actions to improve overall quality of water in the lowland streams, achieve the nitrate concentration sought and improve reliability for surface water takes.</p>	<p><i>farms are then required to further reduce nitrogen loss rates by 45 and 25 percent respectively, by 2035. The solutions package also provided for change in land use or land use intensification is provided for on a maximum of 30,000ha provided the nitrogen loss is no more than 27 kilograms of nitrogen per hectare per annum. (That proposal has been adjusted in this Plan by lowering the 27kg nitrogen loss limit to 25kg to reduce inequities with existing farming activities).</i></p> <p>Reword paragraph 3, page 2 as follows:</p> <p><i>In conjunction with <u>catchment scale mitigations</u> managed aquifer recharge, on-farm mitigation is anticipated to reduce the concentrations of nitrogen in shallow groundwater in Lower Hinds/Hekeao Plains Area to 6.9 milligrams of nitrogen per litre and achieve the 80 percent protection level for aquatic species in the lowland spring-fed streams and the 90 percent protection level for the Lower Hinds River/Hekeao.</i></p>
<p>SECTION: Definitions</p>			

2		<p>The Variation (in for example, Rule 13.5.36) uses the terms augment, augmenting and augmentation. However it does not define the term.</p> <p>The Variation does define “augmenting” but limits its purpose to increasing flows or reducing concentrations of nitrate nitrogen. DairyNZ is concerned to ensure that measures designed to augment water sources are broadly defined and the potential multiple purposes and benefits of augmentation are clear.</p>	<p>Add a new definition as follows:</p> <p>Augmenting means the addition of water to surface water or groundwater specifically for the purpose of reducing the concentration of nitrate nitrogen in groundwater; increasing flows in lowland streams; <u>or improving reliability of supply for surface water takes.</u></p>
3	Good Management Practice Nitrogen Loss Rates	<p>These are not included in the plan nor are they currently known/published. DairyNZ proposes in the submission that reference be made to “good management practices” rather than good management practice nitrogen loss rates and hence this definition is unnecessary.</p>	<p>Delete the definition “Good Management Practice Nitrogen Loss Rates”.</p>
SECTION: Policies – Managing Land use to Improve Water Quality			
4	Policy 13.4.9 (c)	<p>DairyNZ opposes the policy because it considers that the water quality issues in the Upper Hinds are related to sediment, phosphorus and E.coli issues rather than nitrogen. We accept, however, that it is appropriate to manage nitrogen losses in the Upper Hinds Area in line with general good practice (through for example, farm management plans).</p>	<p>Delete Policy 13.4.9 (c).</p> <p>Amend Policy 13.4.9 (b) to read:</p> <p><i>Improving management of microbes, <u>nitrogen</u>, phosphorus, and sediment in both areas:</i></p>
4	Policy 13.4.9(d)	<p>Policy 13.4.9 (d) refers to reducing nitrogen loss in the lower Hinds/Hekeao Plains area by 45%.</p> <p>DairyNZ is concerned about this policy for two reasons. First, DairyNZ considers that the appropriate “all of catchment” nitrogen loss reduction target to</p>	<p>Amend Policy 13.4.9 (d) to state:</p> <p><i>Reducing overall nitrogen losses by <u>45 30</u> percent in the lower Hinds/Hekeao Plains Area <u>and adopting the use of managed aquifer recharge to augment groundwater and/or surface water.</u></i></p>

		<p>be achieved by existing land use is 30%. A 45% reduction is, we understand, what would be needed to achieve desired outcomes if there were not managed aquifer recharge (MAR).</p> <p>Secondly we note also that a 45% nitrogen reduction is not consistent with the rules which require a 45% reduction in nitrogen loss from dairying only - with 25% for dairy support and zero for other land uses (beyond GMP).</p> <p>Further the reference to MAR should be a separate part of the policy rather than being linked to the reduction in nitrogen losses (since MAR contributes to the outcomes by increasing dilution rather than reducing nitrogen losses)</p>	<p>Add a new Policy 13.4.9 (e) to state:</p> <p><u><i>Adopting the use of catchment scale mitigations for the ground or surface water of the Hinds/Hekeao Plains, including augmentation, by way of managed aquifer recharge and targeted stream augmentation.</i></u></p>
4	Policy 13.4.11	<p>Policy 13.4.11 establishes 114 tonnes of nitrogen as the applicable annual load limit for the Upper Hinds.</p> <p>DairyNZ opposes the policy because it considers that the risks to the existing good water quality in the Upper Hinds are related to sediment, phosphorus and E.coli issues rather than nitrogen. We believe it is inappropriate to manage those issues by limiting land use change by way of a nitrogen load limit.</p>	<p>Amend Policy 13.4.11 to state:</p> <p><i>Maintain water quality in the Upper Hinds/Hekeao Plains Area capping discharges of nitrogen at 144 tonnes of nitrogen per year and by requiring all farming activities to operate at good management practice to <u>manage nutrient, microbial and sediment losses to maintain current phosphorus losses to achieve the limits in Table 13(ga).</u></i></p> <p>Amend related rules as set out later in this submission.</p>
4	Policy 13.4.12	<p>Policy 13.4.12 establishes the nitrogen target load for the Lower Hinds/Hekeao Plains Areas as 3400 tonnes.</p> <p>DairyNZ accepts that this is Environment Canterbury's current best estimate of the load required to achieve a groundwater concentration of 9.2 mg/L of nitrate nitrogen (noting that this concentration is modelled to reduce to 6.9 mg/L with MAR).</p>	<p>Amend Policy 13.4.12 to state:</p> <p><i>Improve water quality in the Lower Hinds/Hekeao Plains Area by reducing the discharge of nitrogen from farming activities to <u>achieve a target load of 3400 tonnes of nitrogen per year 70% of the catchment load contributed by farming activities as at 1 October 2014, by 2035.</u></i></p>

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

		<p>compromise the viability of existing farms) to achieve “headroom” for new farming activities (with potentially higher nitrogen loss rates than would be required of existing farming activities).</p> <ul style="list-style-type: none"> • There is an over-emphasis on 3400 tonnes per annum as the fixed per annum load target. As noted above, DairyNZ has concerns about the accuracy of the proposed load limit. 	<p><i>farming and dairy support from 1 January 2020, in accordance with Table 13(h); and</i></p> <p><i>c) <u>Determining the extent and timing of nitrogen loss reductions to be achieved on individual farm properties from 1 January 2020 by:</u></i></p> <ul style="list-style-type: none"> <i>A. <u>use of an expert farm systems advisory panel reviewing resource consent applications and any associated Farm Environment Plans and providing independent advice to Canterbury Regional Council about the opportunities for nitrogen loss mitigation given the individual circumstances of each farm property.</u></i> <i>B. <u>having regard to the following matters in considering the individual circumstances of each farm property:</u></i> <ul style="list-style-type: none"> <i>i. <u>The nitrogen baseline for the property and the level of any reductions already achieved from that baseline; and</u></i> <i>ii. <u>Any natural or physical constraints to lower nitrogen leaching faced on-farm that are outside of a farmer’s control; and</u></i> <i>iii. <u>The level of investment in farm infrastructure and where a farm might be in the cycle of infrastructure replacement; and</u></i> <i>iv. <u>The capital and operational costs of making nitrogen loss reductions and the benefit (in terms of maintaining a farm’s financial sustainability) of spreading that investment over time.</u></i> <p><i>e)d) Enabling, by way of resource consent process, land use intensification or changes in land use on a</i></p>
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			<p>maximum of 30,000 hectares of land, provided the nitrogen loss calculation is limited to no more than <u>2725</u>kg per hectare per year.</p>
4	Policy 13.4.14	<p>Policy 13.5.14 provides for an improvement in flows and/or a decrease in nitrate nitrogen concentrations by enabling MAR and targeted stream augmentation (TSA) subject to conditions related to the management of adverse environmental effects.</p> <p>DairyNZ supports the policy in part. However two issues arise.</p> <p>First the Policy is limited as it only addresses MAR and TSA when there are other catchment scale mitigations that could improve overall water quality that should also be enabled. Also, the purpose of MAR and TSA should include improving water quality and in stream habitat generally as well as reliability of supply for surface water takes.</p> <p>Secondly, we are aware that there is a potential conflict to be managed between increasing the flows during summer in the lower catchment that MAR and TSA might enable. However there is also the potential for increased flows and levels to adversely affect drainage in the lower catchment in the autumn through to spring. For that reason DairyNZ considers that proposals for MAR and TSA should be carefully investigated and assessed. Currently, Policy 13.4.14 sets out some matters that will be relevant to consider in any such assessment but the bigger issue is the process that is used to develop and assess proposals. In DairyNZ's opinion this should be highly</p>	<p>maximum of 30,000 hectares of land, provided the nitrogen loss calculation is limited to no more than <u>2725</u>kg per hectare per year.</p> <p>Add a new Policy 13.4.14A as follows:</p> <p><u>Enable catchment scale mitigations that improve overall water quality in the Hinds/Hekeao Plains Area and improve reliability of supply for surface water takes, including:</u></p> <p><u>(a) improving flows in the spring fed water bodies;</u></p> <p><u>(b) decreasing nitrate nitrogen concentrations in the the Hinds River/Hekeao and spring fed waterbodies; or</u></p> <p><u>(c) enhancing in-stream habitat.</u></p> <p>Amend Policy 13.4.14 to state:</p> <p>Improve the flows in spring fed waterbodies and/or decrease nitrate nitrogen concentrations in the Hinds/Hekeao spring fed waterbodies and groundwater in the Lower Hinds/Hekeao Plains Area by enabling <u>Enable</u> managed aquifer recharge (MAR) and targeted stream augmentation (TSA), where <u>adverse effects can be appropriately managed. In determining whether adverse effects can be appropriately managed Canterbury Regional Council will:</u></p> <p><u>(a) Encourage consultation to be undertaken with affected communities and landholders before any application is lodged for a MAR or TSA project; and</u></p> <p><u>(b) Ensure research is undertaken to allow (in conjunction with the information gathered through</u></p>

		<p>consultative and a commitment should be included in the Variation to that effect.</p> <p>Further Policy 13.4.14 (a) is unhelpful as the term “satisfactorily avoided” provides no guidance to decision makers. Presumably, if the concern is that the mixing of waters cannot always be avoided, then there may be options to mitigate the adverse effects of that occurring.</p>	<p><u>the process described in (a) above) for the full assessment of the matters listed in (c) below.</u></p> <p><u>(c) Require that:</u></p> <ul style="list-style-type: none"> i. adverse effects on cultural values, including those associated with unnatural mixing of water are satisfactorily avoided <u>or mitigated</u>; ii. adverse effects on the availability and quality of community drinking water supplies are avoided; iii. adverse effects on fish passage are avoided or mitigated; iv. Inundation of existing wetlands is avoided, remedied or mitigated through scheme design, constructions and operation; v. There is no net loss of significant biodiversity habitat of indigenous biodiversity; and vi. Adverse effects on people and property from raised groundwater levels and higher flows are avoided; <u>and</u> vii. <u>Adverse effects on farming activities and production are avoided.</u>
5	Policy 13.4.16	<p>Policy 13.4.16 refers to improving flows in spring-fed water bodies through (amongst other things) prohibiting increased use arising from the transfer of consented volumes of water within surface water catchments and the Valetta Groundwater Allocation Zone.</p> <p>DairyNZ opposes this policy. The policy purports to prohibit “increased use arising from ...transfer”. In fact it takes effect through Rules 13.5.33 and 13.5.34</p>	<p>Amend Rule 13.4.16 as follows:</p> <p><i>Improve flows in spring-fed waterbodies and the Lower Hinds River/Hekeao to meet economic cultural, social and environmental outcomes in the Hinds/Hekeao Plains Area by requiring adherence to flow and allocation limits; <u>and</u> limiting the volume and rate of abstraction on replacement water permits to reasonable use calculated in accordance with method 1 in Schedule 10. and</i></p>

		<p>that prohibit <u>all</u> transfers (not just those that lead to increase water use). As a general principle DairyNZ supports water transfers as an important mechanism to achieve allocative efficiency. While it is accepted that Environment Canterbury has over-allocated the catchment/aquifer, it is submitted that over-allocation be addressed through means other than prohibiting the transfer of lawfully granted resource consents.</p>	<p>prohibiting increased use arising from the transfer of consented volumes of water within surface water catchments and the Valetta Groundwater Allocation Zone.</p>
<p>SECTION: Rules</p>			
<p>6</p>	<p>Rules 13.5.8, 13.5.9, 13.5.10, 13.5.11 and 13.5.12</p>	<p>Rule 13.5.8 13.5.9,13.5.10, and 13.5.12 all refer to the nitrogen baseline as a condition.</p> <p>DairyNZ opposes the imposition of the condition on the basis that, notwithstanding its “Red” nutrient classification under the Proposed Canterbury Land and Water Regional Plan, nitrogen is not the main driver of water quality in the Upper Hinds/Hekeao Plains Area.</p> <p>With the nitrogen baseline condition removed from Rule 13.5.9 Rule 13.5.10 appears to us unnecessary and can be removed.</p>	<p>Amend Rule 13.5.8 to state:</p> <p><i>Despite any of Rules 13.5.9 to 13.5.12 the use of land for a farming activity in the Upper Hinds/Hekeao Plains Area is a permitted activity provided the following conditions are met:</i></p> <p><i>1. The property is less than 5 hectares; and</i> <i>2. The nitrogen loss calculation for the property does not exceed 20 kg per hectare per annum or the nitrogen baseline, whichever is the greater.</i></p> <p>Amend Rule 13.5.9 to state:</p> <p><i>The use of land for a farming activity in the Upper Hinds/Hekeao Plains Area is a permitted activity, provided the following conditions are met:</i></p> <p><i>1. The nitrogen loss calculation for the property does not increase above the nitrogen baseline; and either</i></p>

			<p>12 <i>The Practices in Schedule 24a are being implemented and the information required is recorded in accordance with Schedule 24a, and supplied to the Canterbury Regional Council on request; or</i></p> <p>23 <i>A Farm Environment Plan has been prepared and implemented in accordance with Schedule 7 part A, and supplied to Canterbury Regional Council on request.</i></p> <p>Delete Rule 13.5.10:</p> <p>Amend Rule 13.5.11 to state:</p> <p>The use of land for a farming activity that does not comply with conditions 21 or 32 of Rule 13.5.9 or condition 32 of Rule 13.5.10 is a non-complying activity.</p> <p>Delete Rule 13.5.12.</p>
7	Rules 13.5.13	<p>Rule 13.5.13 refers to the nitrogen loss calculation not exceeding a maximum 20kg per hectare per annum as a condition of being a permitted activity.</p> <p>DairyNZ considers that a nitrogen loss rate of 25kg per hectare per year is an appropriate upper rate for a permitted activity given that we are proposing that any change in use (within the 30,000 hectare limit) also be subject to a limit of 25kg per hectare per year.</p> <p>[Note that although DairyNZ proposes a 25kg</p>	<p>Amend Rule 13.5.13 as follows:</p> <p><i>Despite any of the Rules 13.5.15 to 13.5.20 the use of land for a farming activity in the lower Hinds/Hekeao Plains Area is a permitted activity provided the following conditions are met:</i></p> <ol style="list-style-type: none"> <i>1 The property is less than 5 hectares; and <u>either</u></i> <i>2. The nitrogen loss calculation for the property does not exceed 2025 kg per hectare for annum</i>

	<p>threshold here we acknowledge some uncertainty around the appropriate numbers due to limitations of existing modelling capability. In that regard we continue to work to refine our modelling and may suggest a refined limit later in the Variation process. Council and interested parties should note that we anticipate that any revised limit put forward by DairyNZ for the purpose of this rule (and other rules that apply the 20kg per hectare per year threshold), will be in the range of 20-25 kg per hectare per annum.]</p> <p>DairyNZ is also concerned that Rule 13.5.13 (along with rules 13.516, 13.517, 13.518) make no allowance for the fact that the Variation includes a change in the sub regional boundary between the Ashburton Sub Region and the Alpine River Sub Region to align the Ashburton sub regional with the western boundary of the Mayfield-Hinds Groundwater Allocation Zone. While DairyNZ does not oppose such a boundary change, we do note that the area now within the Hinds/Hekaeo Plains area (and effectively now managed as a “Red” nutrient allocation zone) was, prior to the notification of this Variation, classed as being within the Green nutrient allocation zone. In practice that means that farms within that area could have lawfully increased their nutrient loss as a permitted activity by 5kg above their baseline (see Rule 5.57 of the pLWRP).Should farms have exercised that right in the 2014 year their farming activity would be prohibited under Rule 13.5.20 of the Variation. DairyNZ submits that that is an unfair planning outcome and farms in that situation should</p>	<p><i>or the nitrogen baseline, whichever is greater;</i> <i><u>or</u></i></p> <p><i><u>3 The property is within that area shown as Green on the LWRP Planning Maps and the nitrogen loss calculation for the property does not exceed 25 kg per hectare for annum or the nitrogen baseline plus 5 kg per hectare per annum, whichever is greater.</u></i></p>
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		have any additional nitrogen loss authorised under the pLWRP legitimised under the Variation.	
7	13.5.14	<p>Rule 13.5.14 provides for farming activities that lose up to 27kg N per hectare per annum as discretionary activities subject to the area of land (in combination with land within irrigation schemes) not exceeding 30,000ha.</p> <p>DairyNZ opposes this rule. DairyNZ understands that this rule aims to provide for a degree of low leaching land use change for those properties that may not be part of an irrigation scheme or be taking advantage of the Irrigation scheme rules (Rule 13.5.21 and 13.5.22).</p> <p>DairyNZ's principal opposition to this rule is that it creates potentially inefficient resource use and development if there are differentiated entitlements between existing farming activities and those able to access this rule (and hence access a 27kg N per hectare per annum entitlement with no expectations for on-going reductions). For example it is possible that an existing dairy farm required to reduce nitrogen loss by 45% over time would be in a worse situation than a farm whose use changes under this rule. (This is part of the reason where we propose to adjust the 20kg per hectare per annum threshold in Rules 13.5.13 to 13.5.20 to 25 kg per hectare per annum – as discussed further below).</p> <p>In addition to this fundamental concern, we note also areas of uncertainty within this rule. Most notably:</p> <p>a. the phrase “future nitrogen loss calculation” is</p>	<p>Amend Rule 13.5.14 to read as follows:</p> <p><i>Despite any of the Rules 13.5.15 to 13.5.20 the use of land for a farming activity or farming enterprise in the Lower Hinds/Hekeao Plains Area is a discretionary activity, provided the following conditions are met:</i></p> <ol style="list-style-type: none"> 1. <i>The future nitrogen loss calculation for the area of land subject to any application for resource consent made under this rule will be less than or equal to 2725 kg per hectare per annum for the activity applied for; and</i> 2. <i>The total area of the land subject to any resource consent granted under this Rule and any area of land subject <u>to Rule 13.5.22 that was not irrigated prior to 1 October 2014. Row B of Table 13(i)</u> does not exceed 30,000 hectares; and</i> 3. <i>The farming activity or farming enterprise is solely in the lower Hinds/Hekeao Plains Area; and</i> 4. <i>A Farm Environment Plan has been prepared in accordance with Schedule 7 Part A; and</i> 5. <i>The Farm Environment Plan identifies the area of land subject to any application for a resource consent made under this Rule</i>

		<p>not clear (i.e. how far in the future is this referring to?); and</p> <p>b. the meaning of the phrase in condition 2 “land subject to Row B of Table 13(i)” is not clear. (It appears that this is intended to refer to land in respect of which consent has been granted under the pLWRP or Variation 2 that was not irrigated at 1 October 2014).</p>	
7&8	13.5.15	<p>Rule 13.5.15 applies prior to 1 January 2017. It requires that farming activities not exceed their nitrogen baseline.</p> <p>The concept of the nitrogen baseline is contained within the pLWRP. An issue with the baseline (and four-year rolling average approach to N loss calculation) has arisen since decisions on that plan and DairyNZ considers that that issue could be resolved for the Hinds catchment sub region within this Variation.</p> <p>The issue exists because the four years used to establish the baseline for annual N loss and the four years used to determine the comparison N loss performance include common years. That is, a farmer’s base line is calculated based on the 2009/10, 2010/11, 2011/12 and 2012/13 years, and at the end of the 2014/15 season a farmer must be in a position to show that his/her four-year rolling average up to 2014/15 has not exceeded the baseline. So he/she 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</p>	<p>Amend Rule 13.5.15 to state:</p> <p><i>Until 1 January 2017, the use of land for a farming activity in the lower Hinds/Hekeao Plains Area is a permitted activity, provided the following conditions are met:</i></p> <ol style="list-style-type: none"> 1. <i>The nitrogen loss calculation for the property, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not increase above the nitrogen baseline; and either exceed the highest annual (30 June to 1 July) nitrogen loss modelled for that property over the period 1 July 2009 to 30 June 2013; and either</i> 2. <i>The practices in Schedule 24a are being implemented and the information required is recorded in accordance with Schedule 24a, and supplied to Canterbury Regional Council on request; or</i> 3. <i>A Farm Environment Plan has been prepared and is being implemented in accordance with Schedule 7 Part A, and supplied to Canterbury Regional Council on request.</i>



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

			<p>2. The nitrogen loss calculation for the property, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not increase above the nitrogen baseline; <u>or</u></p> <p>3. <u>The property is within that area shown as Green on the LWRP Planning Maps and the nitrogen loss calculation for the property, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not exceed the nitrogen baseline plus 5 kg per hectare per annum, whichever is greater;</u> and either</p> <p>34. The practices in Schedule 24a are being implemented and the information required is recorded in accordance with Schedule 24a, and supplied to Canterbury Regional Council on request; or</p> <p>45. A Farm Environment Plan has been prepared and is being implemented in accordance with Schedule 7 Part A, and supplied to Canterbury Regional Council on request.</p>
8	Rule 13.5.17	<p>Rule 13.5.17 provides for farming activities from 1 January 2017 as restricted discretionary activities subject to conditions.</p> <p>DairyNZ supports farming activities being restricted discretionary activities in the Lower Hinds/Hekeao Plains area post 1 January 2017. However, DairyNZ opposes the current matters of discretion and proposes these be aligned with the amendments</p>	<p>Amend Rule 13.5.17 to state:</p> <p><i>From 1 January 2017, the use of land for a farming activity in the Lower Hinds/Hekeao Plains Area is a restricted discretionary activity, provided the following conditions are met:</i></p> <p>1. The nitrogen loss calculation for the property is greater than 2025 kg per hectare per annum; and</p>

		<p>proposed to Policy 13.4.13. In particular opposes reference to “the ability to meet the nitrogen load target for farming activities in Table 13(g)”. In DairyNZ’s opinion, the specified load target is too uncertain and should, accordingly, be subject to clarification on the basis more consistent use of Overseer and its input protocols and improved catchment modelling.</p>	<ol style="list-style-type: none"> 2. <i>The nitrogen loss calculation for the property, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not increase above the nitrogen baseline; and-or</i> 3. <i><u>The property is within that area shown as Green on the LWRP Planning Maps and the nitrogen loss calculation for the property, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not exceed the nitrogen baseline plus 5 kg per hectare per annum, whichever is greater; and</u></i> <p>34. <i>A Farm Environment Plan has been prepared in accordance with Schedule 7 Part A.</i></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 and auditing of the Farm Environment Plan; and</i> 2. <i>The ability to meet the nitrogen load target for farming activities in Table 13 (g); and</i> 3. <i>From 1 January 2017 <u>the implementation of Good Management Practices Nitrogen Loss Rates to be applied for the baseline land uses;</u> and</i> 4. <i><u>For the period after 1 January 2020, the matters listed in Policy 13.4.13 Any nitrogen loss rates to be applied in accordance with Table 13 (h); and</u></i> 5. <i>The potential benefits of the activity to the applicant, the community and the environment.</i>
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8	Rule 13.5.18	<p>Rule 13.5.18 provides for farming enterprises as discretionary activities.</p> <p>DairyNZ supports the notion of farm enterprises being multiple properties (not necessarily in common ownership) that are managed together for the purpose of nutrient management. We consider the farm enterprise rules provide important flexibility (and potentially facilitate efficient nutrient management). However, we are concerned that the rules providing for farm enterprises impose unnecessary barriers to greater use of the rule. In particular we note the obligation under Rule 13.5.18 for “A Farm Environment Plan”. When multiple properties are involved preparing a single FEP may not be practical or effective.</p> <p>[Note, amendments suggested include those in response to issues raised in relation to Rule 13.5.13.]</p>	<p>Amend Rule 13.5.18 to state:</p> <p><i>The use of land for a farming activity as part of a farming enterprise in the Lower Hinds/Hekeao Plains Area is a discretionary activity, provided the following conditions are met:</i></p> <ol style="list-style-type: none"> <i>1. The farming enterprise is solely in the Lower Hinds/Hekeao Plains Area; and</i> <i>2. The nitrogen loss calculation for the farming enterprise, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not increase above the nitrogen baseline; and-or</i> <i>3. <u>The property is within that area shown as Green on the LWRP Planning Maps and the nitrogen loss calculation for the property, excluding any area of land subject to a resource consent granted under Rule 13.5.14, does not exceed the nitrogen baseline plus 5 kg per hectare per annum, whichever is greater; and</u></i> <i>3. A Farm Environment Plan has been prepared <u>for the farm enterprise, or for each parcel of land, property or land management unit, within the farm enterprise,</u> in accordance with Schedule 7 Part A.</i>
9	Rule 13.5.20	<p>For reasons discussed in relation to Rule 13.5.13 a consequential amendment is required to Rule 13.5.20.</p>	<p>Amend Rule 13.5.20 as follows:</p> <p><i>The use of land for a farming activity that does not comply with <u>one or other of conditions 1 or 2</u> of Rule 13.5.15, <u>one or other of conditions 2 or 3</u> of Rule 13.5.16, <u>one or other of conditions 2 or 3</u> of Rule 13.5.17 or conditions 1 or <u>one or other of conditions 2 or 3</u> of Rule 13.5.18 or a farming enterprise that does not comply with any of the conditions of Rule 13.5.14, is</i></p>

			<i>a prohibited activity.</i>
9	Rule 13.5.21	<p>Rule 13.5.21 makes the use of land for farming activities a permitted activity (despite other rules) if the land is irrigated by an irrigation scheme and the scheme provider holds a discharge consent with nutrient management conditions.</p> <p>DairyNZ notes that the rule refers to holding a consent under Rule 5.61 of the Proposed Canterbury Land and Water Regional Plan (pLWRP). Yet Rule 5.61 is a permitted activity rule and hence no consent can be held under it.</p>	<p>Amend Rule 13.5.21 to state:</p> <p><i>Despite Rules 13.5.13 to 13.5.20, the use of land for a farming activity in the Lower Hinds/Hekeao Plains Area is a permitted activity, provided the following condition is met:</i></p> <p>1. <i>The property is irrigated with water from an irrigation scheme or a principal water supplier, and the irrigation scheme or principal water supplier <u>is authorised by Rule 5.61, or</u> holds a discharge consent granted under Rule 5.61, Rule 5.62 or Rule 13.5.22.</i></p>
9	Rule 13.5.22	<p>Rule 13.5.22 makes the discharge of nutrients onto or into land that may result in a contaminant entering water a discretionary activity.</p> <p>DairyNZ notes that Rules 13.5.24 and 13.5.25 make the same activity a permitted activity when a land use consent is held. We suggest the relationship between these rules should be clarified.</p>	<p>Amend the beginning of Rule 13.5.22 to state:</p> <p><i><u>Except as provided in Rules 13.5.24 and 13.5.25,</u> t<u>The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water in the Lower Hinds/Hekeao Plains Area that would otherwise contravene s15(1) of the RMA is a discretionary activity, provided the following conditions are met:</u></i></p>
9	Rule 13.5.25	<p>Rule 13.5.23 makes certain discharges a prohibited activity. DairyNZ suggest that the relationship of this rule with Rules 13.5.24 and 13.5.25 requires clarification.</p>	<p>Amend the beginning of Rule 13.5.25 to state:</p> <p><i><u>Unless Rule 13.5.24 or Rule 13.5.23 apply, t</u>The<u> discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA that does not meet one or more of the conditions in Rule 13.5.22 is a prohibited activity.</u></i></p>

11	Rule 13.5.29 and associated notes	<p>Under the heading “Small and Community Water Takes” the Variation notes that the groundwater take rules apply in the Hinds/Hekeao Plains Area. Rule 13.5.9 states the Rule 5.11 (small surface water takes) does not apply.</p> <p>DairyNZ has an interest in these issues because of the Council’s recent advice regarding the interpretation of section 14(3)(b) of the RMA in relation to stock drinking water. We understand that Council will not regard companies, corporate bodies, trusts or partnerships as being entitled to take water for stock drinking (and/or domestic use) under section 14(3)(b) of the RMA. It is submitted that many of these entities have historically taken water under that provision and that such takes are critical and not otherwise authorised.</p> <p>DairyNZ understands that water users may apply for a change of conditions to have their historic water take for stock water/domestic water authorised under the terms of an existing consent. If they do not do so, and attempt to have such takes authorised at the time of consent replacement, the annual volumes, instantaneous flow rates and return rate volumes will apply. Where these are already exceeded (as in the Hinds/Hekeao Plains Area) gaining consent for stock drinking water may be impossible (as it would constitute a prohibited activity).</p> <p>Although DairyNZ acknowledges the opportunity for existing consent holders to apply now for a change of conditions, DairyNZ is concerned that many farmers will be unaware of this situation or will not already</p>	<p>Add a new rule 13.5.29A to state:</p> <p><u><i>Despite Rule 5.114, the taking and using of groundwater for stock drinking or domestic needs is a permitted activity.</i></u></p> <p>Add a new rule 13.5.29B to state:</p> <p><u><i>Despite Rule 13.5.29, the taking and using of surface water for stock drinking or domestic needs is a permitted activity provided the following conditions are complied with:</i></u></p> <ol style="list-style-type: none"> <u><i>1. The rate of take is less than the rates specified in Rule 5.111 1. (a)</i></u> <u><i>2. Fish are prevented from entering the water intake as set out in Schedule 2; and</i></u> <u><i>3. The take is not from a river subject to a Water Conservation Order.</i></u>
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		<p>hold an individual consent that may be changed. For those reasons we consider that a new rule be added to Variation 2 to authorise existing stockwater and domestic takes.</p> <p>Further, DairyNZ acknowledges that there is already opportunity for a permitted groundwater take under Rules 5.113 and 5.114 of the pLWRP. However, it is not clear whether these takes are available in addition to any consented groundwater take.</p>	
12	Rule 13.5.31	<p>DairyNZ does not agree that taking groundwater in substitution and existing surface or depleting groundwater take permit should be conditional on the take being on the same property. We are of the view that such a condition places an undesirable constraint on innovation and the achievement of positive water management outcomes.</p>	<p>Amend Rule 13.5.31 as follows:</p> <p>1 The groundwater take will be abstracted on the same property as the existing resource consent and tThere is no increase in the proposed rate of take or annual volume; and</p>
12	Rules 13.5.33 and 13.5.34	<p>Rules 13.5.33 and 13.5.34 make transfers of surface and ground water permits a prohibited activity.</p> <p>DairyNZ opposes these rules as discussed in respect of Policy 13.4.16.</p>	Delete Rules 13.5.33 and 13.5.34.
12	13.5.36	<p>Rule 13.5.36 provides for water takes for augmentation projects. DairyNZ supports this rule. However, we believe condition 5 of the Rule is overly restrictive. As previously noted in this submission, one of the purposes of augmentation is to increase reliability of supply for existing surface water takes. Augmentation projects that achieve that purpose ought not be prevented by this rule.</p>	<p>Amend Rule 13.5.36 condition 5 as follows:</p> <p>5. The discharge is for the purpose of reducing the concentration of nitrate nitrogen in surface water or groundwater or increasing flows in lowland streams for ecological or cultural benefits.</p>

SECTION: Tables

	General tables) (All	DairyNZ understands that Council has recently agreed to a revised NPS-FM implementation programme and that this programmes full implementation for the Hinds for 2023/2024. Nevertheless, DairyNZ supports the Variation giving effect to the NPS-FM as much as possible in the Variation and in that regard notes that some of the metrics in the tables listed as “limits” will be more accurately described as freshwater objectives under the national objectives framework of the NPS-FM 2014.	Review all Tables to align relevant attributes as freshwater objectives as per the NPS-FM. This should include moving Tables 13 (j) and 13 (k) so that the relevant attributes are includes in Table 13 (a) (as freshwater objectives).						
14-15	Table 13 (a)	<p>Column 2 of Table 13 (a) sets out the names of individual streams and drains in the Spring-Fed – Plains Management unit. DairyNZ considers this unnecessary as the affected streams and drains are already shown on the pLWRP planning maps. The table uses the unhelpful clause “including but not limited to”.</p> <p>We consider it more helpful just to reply on the planning maps that already exist.</p> <p>DairyNZ also notes that it appears the metrics in the cyanobacteria column may have been transposed with the metrics in the fine sediment column.</p>	<p>Delete names of streams and drains from Table 13(a).</p> <p>Review the metrics listed in the cyanobacteria and fine sediment columns and, if an error has been made, swap the numbers between columns.</p>						
19	Table 13(g)	<p>For the reasons discussed in relation to Policy 13.4.11 DairyNZ opposes the nitrogen limit of 114 tonnes for the Upper Hinds/Hekeao Plains Area.</p> <p>For the reasons discussed in relation to Policy 13.4.12 DairyNZ opposes the nitrogen limit of 3400 tonnes for the Lower Hinds/ Hekeao Plains Area.</p>	<p>Delete Upper Hinds/Hekeao Plains Area nitrogen load limit from Table 13(g).</p> <p>Insert the following new Table of limits specific to the Upper Hinds Plains area in Section 13.7.3 as follows:</p> <p><u>Table 13(ga): Upper Hinds/Hekeao Plains Area Limits</u></p> <table border="1"> <tr> <td><u>Managem ent unit</u></td> <td><u>Measure ment</u></td> <td><u>Dissolved Reactive Phosphorus</u></td> <td><u>Dissolved inorganic Nitrogen</u></td> <td><u>Total suspended solids</u></td> <td><u>E.coli</u></td> </tr> </table>	<u>Managem ent unit</u>	<u>Measure ment</u>	<u>Dissolved Reactive Phosphorus</u>	<u>Dissolved inorganic Nitrogen</u>	<u>Total suspended solids</u>	<u>E.coli</u>
<u>Managem ent unit</u>	<u>Measure ment</u>	<u>Dissolved Reactive Phosphorus</u>	<u>Dissolved inorganic Nitrogen</u>	<u>Total suspended solids</u>	<u>E.coli</u>				

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19	Table 13(h)	For the reasons set out in relation to Policy 13.4.13 DairyNZ proposes changes to Table 13(h).	<p>Amend Table 13(h) as follows:</p> <table border="1"> <thead> <tr> <th><u>Land use</u></th> <th><u>2025</u></th> <th><u>2030</u></th> <th><u>2035</u></th> </tr> </thead> <tbody> <tr> <td><u>Farming activities with a nitrogen loss calculation for a property greater than 25kg per hectare per year</u></td> <td><u>15%</u></td> <td><u>22%</u></td> <td><u>30%</u></td> </tr> </tbody> </table>	<u>Land use</u>	<u>2025</u>	<u>2030</u>	<u>2035</u>	<u>Farming activities with a nitrogen loss calculation for a property greater than 25kg per hectare per year</u>	<u>15%</u>	<u>22%</u>	<u>30%</u>							
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			<u>Farming activities with a nitrogen loss calculation for a property less than 25kg per hectare per year</u>	<u>0%</u>	<u>0%</u>	<u>0%</u>
SECTION: Schedules						
21	Schedule 7	<p>The Variation proposes to add two additional nutrient management objectives. Farm Environment Plans (FEP) prepared for the Hinds/Hekeao Plains Area will need to describe how these are to be met.</p> <p>DairyNZ opposes the first of these objectives in accordance with the position it has taken on Policy 13.4.13</p>	<p>Amend the proposed additions to Schedule 7 – Farm Environment Plans as follows:</p> <p>Schedule 7 - Farm Environment Plan</p> <p><i>Within the Hinds/Hekeao Plains Area Part B clause 5(a) shall also include the following:</i></p> <ul style="list-style-type: none"> <i>Achieve Implementation of the Good Management Practices Nitrogen Loss Rates from 2017.</i> <i>In Lower Hinds/Hekeao Plains Area further reduce the nitrogen loss rate from 2020 in accordance with Table 13(h).</i> 			
	Schedule 24a	<p>Item (e) in Schedule 24a includes reference to the application, separation distances, depth, uniformity and intensity of dairy effluent disposal be checked annually in accordance with Section 4 ‘Land Application’ in the Dairy NZ Farm Dairy Effluent Design Standard [2013].</p> <p>The document referred to does not contain information regarding self-assessment of effluent systems as seemed intended by this provision. We consider the appropriate document to refer to is Section 4 of the ‘Land Application’ in the guideline “A Farmers Guide to Managing Farm Dairy Effluent – A Good Practice Guide for Land Application Systems” [2013]. The document doe</p>	<p>Delete item (e) from Schedule 24a and replace with the following:</p> <p>e) Collected Animal Effluent:</p> <p>(i) <i>Collection, storage and treatment systems for dairy effluent installed or replaced after after 1 October 2014 meet the Dairy NZ Farm Dairy Effluent Design Standard and Code of Practice [2013].</i></p> <p>(ii) <i>The application, separation distances, depth, uniformity and intensity of dairy effluent</i></p>			

		provide practice advice on how farmers can reliably self assess the operation of their effluent systems.	<p><u><i>disposal is checked annually in accordance with Section 4 'Land Application' in the Dairy NZ Farm Dairy Effluent Design Standard [2013]. The animal effluent disposal system application separation distances, depth, uniformity and intensity are self-checked annually in accordance with Section 4 'Land Application' in the guideline "A Farmers Guide to Managing Farm Dairy Effluent – A Good Practice Guide for Land Application Systems" [2013].</i></u></p> <p><i>(iii) Records of the application, separation distances, depth, uniformity and intensity of dairy effluent disposal, in accordance with (e)(ii), are kept and provided to the Canterbury Regional Council upon request.</i></p>
GENERAL: General and Consequential Amendments			
	All	DairyNZ is conscious that it has sought numerous amendments, additions and deletions in this submission. It is likely that giving effect to these submission points will necessitate various consequential amendments to ensure consistency between policies and between policies and rules.	Make any and all consequential amendments necessary to give full and accurate effect to this submission while retaining the Plan's internal coherency.