

Gay Gibson

From: Sarah Drummond <sarah.drummond@ecan.govt.nz>
Sent: Tuesday, 28 October 2014 8:01 a.m.
Subject: Eiffleton Irrigation Proposed Variation 2 to the Proposed Canterbury Land and Water Regional Plan (Variation 2)
Attachments: CHCDOC01-#606630-v1-Eiffleton_CGIS_-_Variation_2_submission.pdf
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For Trimming Please

From: Judy-Anne Stapleton [<mailto:Judy-Anne.Stapleton@chapmantripp.com>] **On Behalf Of** Ben Williams
Sent: Friday, 24 October 2014 4:47 p.m.
To: Sarah Drummond
Subject: Proposed Variation 2 to the Proposed Canterbury Land and Water Regional Plan (Variation 2)

Sarah

We act for Eiffleton Community Group Irrigation Scheme Incorporated (ECGIS).

We **attach**, for lodging, ECGIS's submission on Variation 2.

Regards,

Ben

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Form 5**SUBMISSION ON PUBLICLY NOTIFIED PROPOSAL FOR POLICY STATEMENT OR
PLAN, CHANGE OR VARIATION**

Clause 6 of Schedule 1, Resource Management Act 1991

To Canterbury Regional Council

Name of submitter: Eiffelton Community Group Irrigation Scheme Incorporated (*ECGIS*)

- 1 This is a submission on:
 - proposed variation 2 to the proposed Canterbury Land and Water Regional Plan (*Variation 1*)
- 2 Its submissions and sought relief are split between its general submissions in **Annexure 1** and its specific submissions in **Annexure 2**
- 3 ECGIS wishes to be heard in support of the submission.
- 4 If others make a similar submission, ECGIS will consider presenting a joint case with them at a hearing

Signed for and on behalf of the Eiffelton Community Group Irrigation Scheme Incorporated by its solicitors and authorised agents Chapman Tripp



Jo Appleyard / Ben Williams
Partner / Senior Associate
24 October 2014

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Annexure 1

Introduction

Eiffelton Community Group Irrigation Scheme

- 5 The Eiffelton Community Group Irrigation Scheme (*the Scheme*) is located at Eiffelton in the eastern (nearer-coast) part of the lower Hinds/Hekeao Plains Area.
- 6 The Scheme is unique in the Canterbury context in that it is an irrigation scheme that is heavily dependent on both surface water and groundwater for the purposes of irrigation.
- 7 In simple terms, three drains act as the surface supply and reticulation for the scheme. When there is low flow in the drains, 19 wells linked together then augment the flow, with pumps varying in depth from 9 to 100 metres. The rate of take cannot exceed 913 litres per second from groundwater (to discharge into the 3 drains) – however the Scheme is consented to take up to 947l/s from the drains for irrigation.
- 8 In addition, the scheme is consented to harvest water into a pond at the bottom of the scheme to supply additional water for irrigation. Water can also be diverted from drain to drain.
- 9 The gazetted area is around 3880ha (with around 2,622ha being irrigated). The entitlement for each member from the Scheme is ~3.5mm/ha/day.
- 10 The Scheme was built by the Ministry of Works in 1987. The farmers/irrigation shareholders then purchased the Scheme from the government in 1990 (when most of the Canterbury irrigation schemes were sold). A more recent upgrade to a telemetry system financed by borrowings from the bank and members are covering the interest and principle repayments.
- 11 Throughout its history ECGIS has actively worked with the Council and interested parties such as Fish & Game on the establishment of the existing Scheme minimum flows and other matters relevant to the operation of the Scheme.
- 12 ECGIS has the following core concerns with respect to Variation 2:
 - 12.1 the inability to determined, at this time, what 'good management practice' actually is (and the need to have that in place to inform further reductions);
 - 12.2 the extent to which further reduction might actually be able to be achieved (noting that ECGIS is not confident that the sought reductions can be achieved while retaining an acceptable level of farm profitability);

- 12.3 the need to ensure that allocations and minimum flows in the lower catchment remain appropriate;
- 12.4 avoiding (or appropriately remedying or mitigating) the effects of managed aquifer recharge and targeted stream augmentation – especially to the extent that it might cause flooding in the lower catchment;
- 12.5 protecting the Scheme;
- 12.6 ensuring the provisions around “*drains*” are workable and not unreasonably restrictive; and
- 12.7 for transfers be to be enabled in limited circumstances (including bolstering irrigation scheme reliability, environmental enhancement and ancillary purposes adjunct to irrigation from an irrigation scheme (e.g. dairy shed supply)).

Annexure 2: Specific relief sought

Note : Text from Variation relevant to sought amends is set out in italics. Further amends are shown in red and either as ~~strikethrough~~ or underline.

Introduction and policies

Page	Reference	Issue/concern	Relief sought
3	13.1A: Definition "Good Management Practice Nitrogen Loss Rates"	<p>Although Variation 2 seeks to introduce a definition of "Good Management Practice Nitrogen Loss Rates", the definition is reliant on what is referred to as "good management practice". Currently, "good management practice" is not defined in Variation 2 or the pLWRP, although express reference can be made to Policy 4.11 (of the pLWRP) which contemplates a further plan change occurring prior to 30 October 2016.</p> <p>In this regard:</p> <ul style="list-style-type: none"> it is understood that "good management practice" will be informed by the Matrix of Good Management Practice (MGM) project. The outcome of this project will include information about nitrogen loss rates for different land uses with different soil types and climate under good management practice. The section 32 report advises (at page 108) that "This information will address this issue and is therefore not considered an appropriate reason to not act". This 	<p>Oppose, in part.</p> <p>Variation 2 needs to be amended to include:</p> <ul style="list-style-type: none"> a) a definition of "good management practice" with reference to the fact that it will be populated in accordance with a full Schedule 1 process (where the costs and benefits can be properly assessed) as a part of the notified plan change under Policy 4.11 of the pLWRP; b) for any further reductions to reviewed and/or only apply once the outcomes of the plan change referred to are known; and c) for the references to the timing of the implementation of good management (throughout Variation 2) to contemplate that the actual good management outcomes may take some time to occur (with the actual requirement being to be taking 'positive steps' towards full implementation rather the achievement of actual outcomes from the outset).

Page	Reference	Issue/concern	Relief sought
		<p>however appears to ignore the express requirements of Policy 4.11 and the fact it would be inappropriate to act while the costs and benefits are not known.</p> <p>Accordingly, good management is supported at a <i>general level</i>. The need for formal compliance and the timeframes within which that should occur should however be left to a subsequent plan change (as already contemplated by Policy 4.11). For the same reason, the 'starting point' for any further reduction regime will not be known until the MGM project is complete and the consequent plan change has occurred.</p> <p>As a final matter it is emphasised that the timing of actual compliance with MGM needs to be approached carefully. Although it is accepted that farming interests will need to be making positive steps to implement any formal good management requirements as soon as they are introduced, actual compliance – especially if, for example, extensive irrigation system changes are required, might take some time.</p>	
3	Policy 13.4.5	<p>This policy allows for the take of deep groundwater in circumstances where an equivalent or greater surface water take is surrendered.</p> <p>The interface between this policy and Rules 13.5.33 and 13.5.34 is not clear as it could be – emphasising that the circumstance described in the policy is, at least in some respects, a transfer.</p>	<p>Support, in part.</p> <p>Amend Variation 2 to make it clear that an application to which Policy 13.4.5 applies is not unintentionally caught by the transfer provisions (i.e. such that only Rule 13.5.31 applies). This could include an expansion of the advisory note under the heading (page 12) "<i>Transfer of Water Permits</i>"</p>

Page	Reference	Issue/concern	Relief sought
3	Policy 13.4.9(d)	<p>Policy 13.4.9 (d) refers to reducing nitrogen loss in the lower Hinds/Hakeao Plains Area by 45%.</p> <p>The following issues arise:</p> <ul style="list-style-type: none"> as set out elsewhere in this submission, the 45% reduction as the policy might be applied to farming activities is misrepresentative (the actual reduction contemplated by the zone committee was 26% - emphasising that even that number needs to be confirmed through comprehensive and detailed investigation (and potentially a further plan change)); there appears to be a disconnect and/or confusion as between the 45% reduction that is contemplated at a wider catchment scale (having regard to both regulatory and non-regulatory measures) and the 45% and 25% reductions that are contemplated by 2035 for dairy farming and dairy support activities respectively (with a 0% reduction for other activities) in Table 13(h). 	<p>Oppose, in part.</p> <p>Policy 13.4.9(d) needs to be amended to read:</p> <p style="padding-left: 40px;">reducing overall nitrogen losses <u>from farming activities</u> by <u>45-26%</u> percent in the lower Hinds/Hakeao Plains Area and adopting the use of managed aquifer recharge to augment groundwater and/or surface water.</p> <p>As set out elsewhere in the submission, it will still be necessary to confirm the appropriateness of the 26% reduction following the introduction of both a formal good management regime and a comprehensive and detailed investigation to confirm the appropriateness of the sought 'target' (i.e. while ensuring farming activities can retain an acceptable level of profitability).</p> <p>ECGIS is also concerned to ensure that the plan contemplates a wider range of further mitigation measures than just "<i>managed aquifer recharge to augment groundwater and/or surface water</i>". The policy should be further amended to simply refer to "<i>catchment scale mitigations</i>".</p> <p>Within this, ECGIS is also concerned that insufficient regard has been had to the effect that managed aquifer recharge may have on groundwater levels and flooding in the lower catchment.</p>
4	Policy 13.4.10 (and other provisions)	<p>Policy 13.4.10 seeks to extend stock exclusion rules to "<i>drains</i>". A "<i>drain</i>" is defined in the pLWRP as:</p>	<p>Oppose.</p> <p>Amend Policy 13.4.10 (and other provisions addressing stock</p>

Page	Reference	Issue/concern	Relief sought		
	addressing stock exclusion – including, for example, Rule 13.5.26)	<table border="1" data-bbox="472 316 1267 496"> <tr> <td data-bbox="472 316 640 496">Drain</td> <td data-bbox="640 316 1267 496">includes any artificial watercourse that has been constructed for the purpose of land drainage of surface or subsurface water and can be a farm drainage channel, an open race or subsurface pipe, tile or mole drain, or culvert</td> </tr> </table> <p data-bbox="472 496 1267 735">It would be totally impossible to keep stock away from, for example, any “<i>subsurface pipe, tile or mole drain, or culvert</i>” – and in the particular case of a culvert it would have in itself often been installed for the express purpose of keeping stock out of waterways.</p> <p data-bbox="472 735 1267 842">It would also be impracticable to keep stock out of drains that are minor in size and/or which have only very occasional water present.</p>	Drain	includes any artificial watercourse that has been constructed for the purpose of land drainage of surface or subsurface water and can be a farm drainage channel, an open race or subsurface pipe, tile or mole drain, or culvert	<p data-bbox="1267 316 2130 464">exclusion), or otherwise include a further definition of “<i>Drain</i>” that limits the application of the rules to only the mainstems of the drains described in Table 13(e).</p> <p data-bbox="1267 464 2130 842">All other drains would be managed through the Farm Environmental Plan regime.</p>
Drain	includes any artificial watercourse that has been constructed for the purpose of land drainage of surface or subsurface water and can be a farm drainage channel, an open race or subsurface pipe, tile or mole drain, or culvert				
4	Policy 13.4.12	<p data-bbox="472 842 1267 983">ECGIS is concerned that Policy 13.4.12 could be interpreted as a limit on the annual discharge rate (of 3,400t N/yr) rather than an actual target (as defined elsewhere in this submission). ECGIS is also concerned that:</p> <ul data-bbox="472 983 1267 1262" style="list-style-type: none"> <li data-bbox="472 983 1267 1086">• the achievability and appropriateness of the target of 3,400 tN/yr is not yet proven; and <li data-bbox="472 1086 1267 1262">• the contribution that farming activities may need to make to any reduction (26%) is based on a starting point that is not known and similarly is not yet proven. <p data-bbox="472 1262 1267 1302">A date of 2050 is also likely to be more appropriate (at least as a</p>	<p data-bbox="1267 842 2130 911">Oppose, in part.</p> <p data-bbox="1267 911 2130 983">Amend Policy 13.4.12 to provide that:</p> <p data-bbox="1267 983 2130 1118" style="text-align: center;"><u>Improve water quality in the Lower Hinds/Hekeao Plains Area by reducing the discharge of nitrogen to achieve with the goal of achieving a target load of 3,400 tonnes of nitrogen per year by 2035 2050.</u></p> <p data-bbox="1267 1118 2130 1302">Consistent with the position set out elsewhere in this submission, the reference to 2050 is effectively a ‘placeholder date’ with the final date, along with the target loss of 3,400t N/yr to be confirmed through a comprehensive and detailed investigation (and potentially a further plan change) (i.e. while ensuring farming activities can retain an</p>		

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		placeholder) given the significant changes potentially required.	acceptable level of profitability).
4	Policy 13.4.13	<p>Policy 13.4.13 sets out the core approach to managing nitrogen loss from farming activities (including farming enterprises), whether or not supplied water from an irrigation scheme.</p> <p>ECGIS has the following concerns with respect to the Policy:</p> <ul style="list-style-type: none"> the Policy refers to the target of 3,400t N/yr being 'achieved' suggesting that this threshold is a limit and not a goal; the extent to which (unknown) good management practices can be adopted by 2017 is currently not clear; with reference to Table 13(h) (as included in the Policy), making only 'dairy' and 'dairy support' activities subject to specific percentage reductions now (in terms of their N losses) is not reasonable and the appropriateness of any reduction regime is currently not known given that we do not know what the starting point is; and as set out elsewhere in this submission, the references to 27kg N/ha/yr, along with the target loss of 3,400 tN/yr, need to be confirmed through a comprehensive and detailed investigation (and potentially a further plan change) – having regard to the need to ensure farming activities can retain an acceptable level of profitability. 	<p>Oppose in part.</p> <p>Amend Policy 13.4.13 to provide that:</p> <p>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 of 3400 tonnes of nitrogen per year by <u>shall reduce nitrogen loss by:</u></p> <p>a) Requiring existing farming activities to meet good management practice nitrogen loss rates implementing good management practices in the manner directed by any plan change in accordance with Policy 4.11 from 1 January 2017, calculated on the baseline land uses;</p> <p>b) 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 20 kg per hectare per annum in accordance with Table 13(h) further reductions for dairy farming and dairy support from 1 January 2020, in accordance with Table 13(h);</u> and</p> <p>c) <u>Determining the extent and timing of nitrogen loss reductions to be achieved on individual farm properties from 1 January 2020 by:</u></p> <p>A. <u>use of an expert farm systems advisory panel reviewing</u></p>

Page	Reference	Issue/concern	Relief sought
		<p>ECGIS considers that all farms with N-losses over permitted activity levels should ultimately experience the 'same pain' – however, no one farmer should be required to undertake fundamental system changes that might prevent an effective level of profitability being maintained.</p> <p>To this extent, 'grand-parenting' (in terms existing consented entitlements) is acknowledged and an essential part of Variation 2, but where possible regard also needs to be given to ensuring that the same farming activity (as might be permitted by individual nitrogen baselines) on the same soils, climate and irrigation systems is required to comply with the same N-loss rates.</p> <p>As a final matter it is noted that ECGIS's view is that good management practices need to be implemented against the farming activity occurring at the relevant time – for example, if an existing arable farm is converted to dairy (while staying within its nitrogen baseline) then it would be nonsense for that property to have to comply with the good management practices as might apply to an arable operation.</p>	<p><u>resource consent applications and any associated Farm Environment Plans and providing independent advice to Canterbury Regional Council about the opportunities for nitrogen loss mitigation given the individual circumstances of each farm property.</u></p> <p><u>B. having regard to the following matters in considering the individual circumstances of each farm property:</u></p> <p><u>i. The nitrogen baseline for the property and the level of any reductions already achieved from that nitrogen baseline; and</u></p> <p><u>ii. Any natural or physical constraints to lower nitrogen leaching faced on-farm that are outside of a farmer's control; and</u></p> <p><u>iii. The level of investment in farm infrastructure and where a farm might be in the cycle of infrastructure replacement; and</u></p> <p><u>iv. The capital and operational costs of making nitrogen loss reductions and the benefit (in terms of maintaining a farm's financial sustainability) of spreading that investment over time.</u></p> <p>...</p> <p>It is noted that proposed new para c) is possible further and/or</p>

Page	Reference	Issue/concern	Relief sought
			<p>alternative relief to the request set out elsewhere in this submission around a comprehensive and detailed investigation to determine the extent of further reductions that are required and reasonable in respect of individual farming properties (i.e. while ensuring farming activities can retain an acceptable level of profitability).</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 managed aquifer recharge and targeted stream augmentation.</p> <p>ECGIS supports the general intent of the policy however queries the extent to which, as currently worded, the policy can actually be achieved. ECGIS is also very concerned to ensure that the implementation of proposals (as contemplated by the policy) does not adversely impact on its scheme.</p> <p>In this regard, BCI expects it would, for example, be very hard to have an augmentation proposal that didn't, at least in a narrow sense, have some of the effects set out (noting that with any augmentation proposal some adverse effects on local biodiversity and the inundation of existing wetlands could possibly be expected - but would also be offset by 'net overall improvements' elsewhere).</p> <p>It also needs to be acknowledged that a number of the activities that ECGIS undertakes supplement flows within the lowland waterbodies (which in turn has the effect of decreasing nitrates).</p>	<p>Support, in part. Oppose, in part.</p> <p>The policy needs to be 're-orientated' to:</p> <ul style="list-style-type: none"> a) "<i>have regard to</i>" the matters set out (rather than only "<i>enabling</i>" managed aquifer recharge and targeted stream augmentation where the various matters are met); b) ensure that the expected outcome is an 'overall net improvement' in at least most of the various matters set out in (a) to (e) rather than a focus on avoidance (as expressed in a number of the conditions); and c) assuming ECGIS' primary sought relief (i.e. "<i>while having regard to</i>" is sought a further condition to Policy 13.4.14 to the effect that "[x] <i>the benefits that derive from ensuring existing irrigation schemes that harvest and discharge water into water bodies are able to continue</i>". If ECGIS' primary relief is not accepted, it seeks reference to the benefits referred to elsewhere in Variation 2. <p>In the alternative to b) above, BCI seeks that the policy be reworded to refer to avoidance as a first preference, with remedying or mitigating</p>

Page	Reference	Issue/concern	Relief sought
			<p>being appropriate where avoidance is not practicable.</p> <p>ECGIS is strongly supportive of Policy 13.4.14(f) and considers that this is potentially a significant issue – although also accepts that it might be possible to remedy or mitigate adverse effects rather than outright avoidance.</p>
5	Policy 13.4.18, Policy 13.4.19 (and Table 13(e))	<p>The application of these policies is complicated by what appears to be an unanticipated issue associated with the Zone Committee’s understanding of the application of Rule 5.123 of the pLWRP.</p> <p>At a practical level, what ECGIS seeks is that the take and use of surface water (where such an application is for a replacement consent) be:</p> <ul style="list-style-type: none"> • subject to the minimum flow and allocation limits set out in Table 13(e); and • for the above minimum flows and allocations to only change at such time a further/revised table is introduced following the collaborative planning process currently referred to in the policies. <p>Against the above, the application of the default minimum flows and allocation blocks (50% of 7DMALF and an allocation of 20% 7DMALF) as currently proposed under Policy 13.4.19 to the waterbodies listed in Table 13(e) by 2020 has far reaching implications, and could cause unacceptable adverse social and</p>	<p>Oppose Policy 13.4.18 and Policy 13.4.19. Support, in part Table 13(e).</p> <p>Given the concerns set out ECGIS seeks that:</p> <ol style="list-style-type: none"> a) Policy 13.4.19 be deleted; b) Policy 13.4.18 be amended to read (partially combining the last two lines of the former Policy 13.4.19): <p><u>13.4.18 In the Lower Hinds/Hekeao Plains Area, with the exception of the Lower Hinds River/Hekeao, and until 30 June 2020, any water permit granted to replace an existing water permit will be subject to the minimum flow and allocation limits in:</u></p> <ol style="list-style-type: none"> i) <u>Table 13(e); or</u> ii) <u>any replacement to Table 13(e) that has been collaboratively developed and included in this Plan through a Schedule 1 RMA process.</u> <ol style="list-style-type: none"> c) The removal of the references to “1 October 2014 – 30 June

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		<p>economic effects to be generated.</p> <p>In this regard, it appears that the Zone Committee (and possibly drafters of the Variation) may have thought that Rule 5.123 (from the pLWRP) would apply to replacement consents and accordingly adopted the 'default regime' that should be read as properly only applying to 'new' irrigation proposals. This interpretation error appears to have informed the provisions of Variation 2 and would unintentionally result in a replacement resource consent application being a non-complying or prohibited activity – when, in accordance with the introductory wording to Rule 5.123, it appears it was intended to be a restricted discretionary activity.</p> <p>While not opposing the imposition of revised minimum flows and allocations, <i>per se</i>, ECGIS considers that this needs to be supported by a collaboratively developed allocation and flow regime being inserted into the pLWRP via a Schedule 1 process. ECGIS is concerned to ensure that this occurs (and that it will achieve the ecological and broader environmental improvements that are sought, while not causing unacceptable social and economic consequences).</p>	<p>2020" from Table 13(e)</p> <p>d) An advice (noting that an advice note is considered appropriate in this instance given that it is solely an interpretative aid) noting that that <i>"The replacement of an existing water permit that complies with the minimum flow and allocation limits referred to in Policy 13.4.18 and Table 13(e) will be a restricted discretionary activity under Rule 5.132"</i></p> <p>In addition, a Policy should be included in plan expressly committing the Council to the plan change referred to.</p>

Rules

Page	Reference	Issue/concern	Relief sought
5	Rules Table	As set out elsewhere in this submission the extent to which sub-regional rules actually prevail is confusing and unclear – especially in relation to the determination of baseline land uses.	Oppose, in part. Amend table to make it clear as to which rules actually prevail.
6	Rule 13.5.7	This rule will be very difficult to comply where a water body follows a public road (arguably meaning the whole road would be a “ <i>public access point</i> ” for the purposes of the rule).	Oppose, in part. Amend Rule 13.5.7 to refer to: “ <u>at all public access points (and in the case of a public road or route that follows the water course, in at least one prominent location)</u> ”
9	Rules 13.5.21-13.5.23	Under the pLWRP there is currently a note after Rule 5.60 / prior to Rule 5.61 that provides that: Note: If a property is irrigated with water from an irrigation scheme or principal water supplier that does not hold a discharge permit under Rule 5.62 or is not a permitted activity under Rule 5.61, then it is assessed under Rules 5.43 to 5.59. Against that background, Variation 2 includes under the heading “ <i>Irrigation Schemes</i> ” a further note that “ <i>Rule 13.5.21 and 13.5.23 prevail over Region-wide Rules 5.60, 5.61 and 5.62 in the hinds/Hekeao Area</i> ”. ECGIS is not clear on why it is only Rules 13.5.21 and 13.5.23 that prevail – and not Rules 13.5.21 to 13.5.23.	Oppose Amend Variation 2 to: <ul style="list-style-type: none"> include a note with the same effect as that already included in the pLWRP; delete the word “<i>and</i>” and replace it with “<i>to</i>” in the note currently referred to under the heading “<i>Irrigation Schemes</i>”; correct the further note (after Rule 13.5.23) to correct the cross-referencing or to otherwise deal with the concerns as set out.

Page	Reference	Issue/concern	Relief sought
		<p>In addition, ECGIS considers that Variation 2 needs to be amended to retain an equivalent note to that already set out in the pLWRP above. To this extent it is noted that there is already note at the end of Rule 13.5.23 but that refers to the subsequent rules (not relating to irrigation schemes) – although that itself may also be in error.</p>	
9	Rule 13.5.22 – 13.5.23 and Table 13(i)	<p>ECGIS has a number of concerns with Rule 13.5.22 (and Table 13(i)):</p> <ul style="list-style-type: none"> • Table 13(i) relies on the implementation of the “<i>Good Management Practice Nitrogen Loss Rates</i>” by 2017. As set out elsewhere in this submission, reliance on a formal regime that does not exist yet (in circumstances where we also do not know what timeframe for compliance is reasonable) is not appropriate. • ECGIS considers it is inappropriate to target dairy farming and dairy support activities as land use activities that need to reduce their N losses (beyond the reductions that will be occur by the adoption of good management practices). All farming should be subject to ‘equal pain’ as set out in this submission with further regard also being had to ensuring that the same farming activity (as might be permitted by individual nitrogen baselines) on the same soils, climate and irrigation systems are required to comply with the same relative N-loss rates; • As currently structured, Table 13(i) appears to require 	<p>Support, in part. Oppose, in part.</p> <p>Amend Rule 13.5.22 by:</p> <p>a) deleting conditions 2 and 3 (and Table 13(i)) and replacing with a cross reference to specific loads and/or area to be set out in a separate table with entries for each irrigation scheme (similar to Variation 1);</p> <p>or</p> <p>b) amend Table 13(i) on the basis that:</p> <p>i) the reductions for existing irrigated land (i.e. Row A) will be determined by way of future plan change following the introduction of a formal good management regime in accordance with Policy 4.11 and a comprehensive and detailed investigation (with an expectation that the set that subsequent plan change would also set the dates for the stepped actual or percentage reductions in Row A of</p>

Page	Reference	Issue/concern	Relief sought
		<p>reductions for existing irrigation below 27kg N/ha/yr. That approach is not reasonable or equitable (whereas new irrigation within the 30,000 hectare 'cap' can increase its N-losses up to 27kg N/ha/yr with no further reductions being required). Existing irrigation should only be required to reduce N-loss until such time as 27kg N/ha/yr is reached; and</p> <ul style="list-style-type: none"> Similarly, ECGIS also notes its concerns around the target of achieving an annual discharge rate in the lower Hinds/Hekeao Plains of 3,400 tN/yr by 2035 (as set out in Table 13(g)). This has been derived using a sub-optimal methodology and thus is not appropriate - the timeframe for the 3,400 tN/yr target should be set following the completion of a comprehensive and detailed investigation. <p>In terms of Rule 13.5.23, it is noted that there are some uncertainties around the multi-water source properties discussed later in these submissions. In light of that complexity a non-complying activity test might be more appropriate.</p>	<p>the Table);</p> <p>ii) no property (which is currently irrigated in accordance with Row A) is required to reduce N-losses below 27kg N/ha/yr; and</p> <p>iii) as also noted elsewhere in this submission, a policy or rule also needs to be included in the final provisions of Variation 2 that ensures the reference to 27 kg N/ha/yr (as well the references to any other targets/limits) remain appropriate – including the possibility of a further plan change following the comprehensive and detailed investigation (i.e. while ensuring farming activities can retain an acceptable level of profitability),</p> <p>and</p> <p>c) amend Rule 13.5.23 to be non-complying (unless otherwise dealt with in accordance with submissions in relation to multi source properties).</p>
11	Rule 13.5.29 (and associated notes)	<p>Under the heading "<i>Small and Community Water Takes</i>" Variation 2 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>Against the above, ECGIS has recently received advice from the Council regarding the interpretation of section 14(3)(b) of the RMA in relation to stock drinking water. We understand that Council will</p>	<p>ECGIS seeks a new rule 13.5.29A that states:</p> <p><u>Despite Rule 5.114, the taking and using of groundwater is a permitted activity provided the following conditions are complied with:</u></p> <p><u>1. The rate of take is less than 5L/s; and</u></p> <p><u>2. The water is used for stock drinking, domestic needs and dairy</u></p>

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		<p>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. ECGIS notes that many of these entities have historically taken water under that provision and that such takes are critical and not otherwise authorised.</p> <p>ECGIS 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 ECGIS acknowledges the opportunity for existing consent holders to apply now for a change of conditions, ECGIS is concerned that many farmers will be unaware of this situation or will not already hold an individual consent that may be changed. For those reasons we consider that a new rule be added to Variation 2 to authorise existing stockwater and domestic takes.</p> <p>ECGIS acknowledges that there is already opportunity for a permitted groundwater take under Rules 5.113 and 5.114 of the pLWRP. However, based on ECGIS's direct experience the Council has interpreted these such that they are not available in addition to any consented groundwater take.</p> <p>Given the normal practice of a dairying entity receiving water from</p>	<p><u>shed purposes only; and</u></p> <p>3. <u>The peak daily volume of take does not exceed the number of stock on the property multiplied by the daily animal drinking limit (for each type of stock) as specified in Schedule 25 plus 3m² per day for each household unit; and</u></p> <p>5. <u>A record of the number and type of stock on the property as at 1 October 2014 is provided to Canterbury Regional Council on request.</u></p> <p>Add new Schedule 25 as follows:</p> <table border="1" data-bbox="1294 807 2018 1190"> <thead> <tr> <th data-bbox="1294 807 1509 836">Stock type</th> <th data-bbox="1516 807 1749 836"></th> <th data-bbox="1756 807 2018 836">Litres/head/day</th> </tr> </thead> <tbody> <tr> <td data-bbox="1294 841 1509 869">Dairy Cattle</td> <td data-bbox="1516 841 1749 869">- milking cows</td> <td data-bbox="1756 841 2018 869">77</td> </tr> <tr> <td></td> <td data-bbox="1516 869 1749 898">- dry/replacement</td> <td data-bbox="1756 869 2018 898">50</td> </tr> <tr> <td data-bbox="1294 898 1509 927">Beef Cattle</td> <td></td> <td data-bbox="1756 898 2018 927">50</td> </tr> <tr> <td data-bbox="1294 927 1509 956">Calves</td> <td></td> <td data-bbox="1756 927 2018 956">28</td> </tr> <tr> <td data-bbox="1294 960 1509 989">Horses</td> <td data-bbox="1516 960 1749 989">- working</td> <td data-bbox="1756 960 2018 989">61</td> </tr> <tr> <td></td> <td data-bbox="1516 989 1749 1018">- grazing</td> <td data-bbox="1756 989 2018 1018">39</td> </tr> <tr> <td data-bbox="1294 1018 1509 1046">Breeding Ewes</td> <td></td> <td data-bbox="1756 1018 2018 1046">3</td> </tr> <tr> <td data-bbox="1294 1046 1509 1075">Sows</td> <td></td> <td data-bbox="1756 1046 2018 1075">28</td> </tr> <tr> <td data-bbox="1294 1075 1509 1104">Pigs</td> <td></td> <td data-bbox="1756 1075 2018 1104">12</td> </tr> <tr> <td data-bbox="1294 1104 1509 1133">Poultry</td> <td data-bbox="1516 1104 1749 1133">per 100 birds</td> <td data-bbox="1756 1104 2018 1133">33</td> </tr> <tr> <td data-bbox="1294 1133 1509 1161">Turkey</td> <td data-bbox="1516 1133 1749 1161">per 100 birds</td> <td data-bbox="1756 1133 2018 1161">61</td> </tr> <tr> <td data-bbox="1294 1166 1509 1195">Deer</td> <td data-bbox="1516 1166 1749 1195">- hinds</td> <td data-bbox="1756 1166 2018 1195">30</td> </tr> <tr> <td></td> <td data-bbox="1516 1195 1749 1224">- stags</td> <td data-bbox="1756 1195 2018 1224">20</td> </tr> </tbody> </table> <p>Add a new rule 13.5.29B to state:</p> <p><u>Despite Rule 13.5.29, the taking and using of surface water is a</u></p>	Stock type		Litres/head/day	Dairy Cattle	- milking cows	77		- dry/replacement	50	Beef Cattle		50	Calves		28	Horses	- working	61		- grazing	39	Breeding Ewes		3	Sows		28	Pigs		12	Poultry	per 100 birds	33	Turkey	per 100 birds	61	Deer	- hinds	30		- stags	20
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		<p>an irrigation scheme to take a small volume of groundwater for dairy shed purposes (noting that scheme water is not 100% reliable so a back-up supply is required in the event of restriction to ensure cows can continue to be milked), ECGIS also seeks that the rule be extended to dairy shed takes.</p>	<p><u>permitted activity provided the following conditions are complied with:</u></p> <ol style="list-style-type: none"> <u>1. The rate of take is less than the rates specified in Rule 5.111 1. (a)</u> <u>2. The water is used for stock drinking, domestic needs and dairy shed purposes only; and</u> <u>3. The peak daily volume of take does not exceed the number of stock on the property multiplied by the daily animal drinking limit (for each type of stock) as specified in Schedule 25 plus 3m² per day for each household unit; and</u> <u>4. A record of the number and type of stock on the property as at 1 October 2014 is provided to Canterbury Regional Council on request.</u> <u>5. Fish are prevented from entering the water intake as set out in Schedule 2; and</u> <u>6. The take is not from a river subject to a Water Conservation Order.</u>
11	Rule 13.5.30	<p>In limited circumstances (especially in the lower catchment where groundwater discharges to surface water) the imposition of an annual volume as proposed may not be appropriate – especially having regard to the wider benefits that accrue through augmentation etc.</p>	Oppose in part

Page	Reference	Issue/concern	Relief sought
11	Rule 13.5.31 and Rule 13.5.32	<p>Rule 13.5.31(1) currently requires the groundwater to be abstracted from the same property.</p> <p>In this regard, ECGIS considers that in some instances allowing the ground water take [bore] to be put on another property where it is known there is good ground water and, for example, using drains as a conduit for delivering that water may be a more pragmatic solution in some cases.</p> <p>ECGIS is also doubtful that prohibited activity status in Rule 13.5.32 is appropriate. There may be circumstances where any of conditions 1 to 3 will not be strictly met but the overall environment and the wider aims of Variation 2 are better met by allowing a proposal to proceed.</p>	<p>Oppose in part:</p> <p>Amend Rule 13.5.31 to provide that:</p> <p style="padding-left: 40px;">1. The groundwater take will be abstracted on the same property as the existing resource consent and <u>There is no increase in the proposed rate of take or annual volume; and</u></p> <p>In the alternative the condition could be re-written to refer to water use rather than "take" and "abstracted".</p> <p>Amend Rule 13.5.32 to be a non-complying activity.</p>
12	Rule 13.5.34 and Rule 13.5.35	<p>ECGIS considers that a transfer in circumstances where it is being used to booster irrigation scheme supply reliability or for ancillary irrigation scheme purposes (e.g. dairy shed supply following conversion to irrigation and dairying) is appropriate in some instances.</p> <p>Groundwater can also be used by a scheme (especially in the lower catchment) for environmental enhancement purposes).</p>	<p>Oppose</p> <p>Amend Rules 13.5.34 and 13.5.35 by way of providing an exception (or provide for a new rule, in which case Rules 13.5.34 and 13.5.35 would cover all circumstances not covered by the new rule) to effect that the take and use of groundwater or surface water for the purposes of increasing the reliability of supply from an irrigation scheme or for ancillary irrigation scheme purposes is a discretionary activity.</p> <p>In the alternative, ECGIS seeks that Rules 13.5.34 and 13.5.35 be</p>

Page	Reference	Issue/concern	Relief sought
			deleted.
12	Rule 13.5.36	<p>ECGIS considers that the conditions are unnecessarily restrictive and not reflective of reality (especially in the case of condition 4 – noting that in the case of the Scheme and elsewhere this will often be occurring already).</p> <p>ECGIS also considers that condition 5 of the rule should be amended to refer to irrigation.</p>	<p>Oppose, in part.</p> <p>Amend Rule 13.5.36 by:</p> <ul style="list-style-type: none"> a) deleting condition 4; b) amending condition 5 by including the word “...<u>for irrigation, ecological...</u>”

Tables and schedules

Page	Reference	Issue/concern	Relief sought
14-19	All tables	<p>Council has recently notified an implementation programme for the National Policy Statement on Freshwater Management 2014 (<i>NPSFM</i>). That is separate to Variation 2 but ECGIS notes that some of the metrics in the tables listed as “limits” will be more accurately described as freshwater outcomes under the national objectives framework of the NPSFM.</p>	<p>Oppose in part.</p> <p>Alignment with the NPSFM where possible (acknowledging that Variation 2 may not fully give effect to the NPSFM)</p>
16	Table 13(e)	<p>Table 13(e) has already been discussed earlier in this submission and those concerns are not repeated here.</p>	<p>Oppose in part.</p> <p>ECGIS seeks such amendments as are necessary to address the</p>

Page	Reference	Issue/concern	Relief sought
		<p>ECGIS however notes that the minimum flow site on the Windermere drain is listed as being as being at Lower Beach Road. It is in fact at Poplar Road and is the only minimum flow site referred to for any of the ECGIS consents to abstract water.</p> <p>It is critical to the continuation of the ECGIS that the flow monitoring sites for Home Paddock drain, the Windermere and Deals drains remain at Poplar road.</p>	issue/concern set out.
19	Table 13(f)	ECGIS opposes the proposed amendment to the allocation limit for the Mayfield-Hinds Groundwater Allocation Zone and considers it is not supported by technical analysis.	<p>Oppose</p> <p>Leave the allocation limit as it currently is.</p>
19	Table 13(g)	<p>As set out elsewhere in this submission, ECGIS is unclear on the appropriateness of the 2035 date for when the "target" for the Lower Hinds/Hekeao Plains Area must be achieved.</p> <p>In this regard, there are various matters (both regulatory and non-regulatory) that would need to occur to reach the 3,400t N/yr target by 2035. Given the issues that exist, ECGIS is particularly concerned that achieving 3,400t N/yr by 2035 is neither realistic nor practicable, and that attempting to do so would likely generate adverse social and economic effects.</p> <p>The reductions required to achieve the 3,400 t N/yr load also extend beyond farming activities.</p> <p>Accordingly, ECGIS supports the use of a target for the Lower Hinds/Hekeao Plains Area, rather than the application of a hard limit</p>	<p>Oppose in part:</p> <p>Amend Table 13(g) by:</p> <ul style="list-style-type: none"> a) deleting the reference to the target annual discharge rate of 3,400t N/yr being achieved by 2035, and replace the target date with 2050 (effectively as a placeholder date) with the final date to be derived from a comprehensive and detailed investigation; b) provide further clarification (as set out elsewhere in this submission) as to the load for the lower plains in Table 13(g) being a target, rather than a limit; and c) ensure that the load expressed in Table 13(g) is calculated by multiplying the current N-loss load by 0.74 (to reflect the

Page	Reference	Issue/concern	Relief sought
		<p>(provided it is in fact a target – i.e. something that may or may not be met).</p> <p>ECGIS also queries whether a better or additional alternative approach is for a concentration limit of Nitrate-N.</p>	<p>actual contribution of farming).</p> <p>And as noted elsewhere in this submission, a policy or rule also needs to be included in the final provisions of Variation 2 that ensures the reference to 3,400t N/yr (as well the references to any other targets/limits) remain appropriate – including the possibility of a further plan change following the comprehensive and detailed investigation (i.e. while ensuring farming activities can retain an acceptable level of profitability).</p> <p>Finally, ECGIS considers that regard should be had to including a concentration limit for nitrate-N (with 8.5 mg/L being a possible appropriate limit).</p>
19	Table 13(h)	<p>ECGIS repeats its reasons in respect of Policy 13.4.13.</p> <p>Table 13(h) should be amended to simply provide that by 2050, a 26% reduction is anticipated in the N loss from farming activities that currently have N-losses that are greater than the permitted activity standard in the variation.</p>	<p>Oppose.</p> <p>Amend table 13(h) to provide that by 2050, a 26% reduction is anticipated in the N loss from farming activities.</p> <p>And as noted elsewhere in this submission, a policy or rule also needs to be included in the final provisions of Variation 2 that ensures the reference to a 26 percent reduction (as well the references to any other targets/limits) remain appropriate – including the possibility of a further plan change following the comprehensive and detailed investigation (i.e. while ensuring farming activities can retain an acceptable level of profitability).</p>
[S]1	Schedule 24a	ECGIS considers the 3 metre vegetative strip referred to in (c)(ii) unnecessarily restrictive. ECGIS considers it should only apply to the	Oppose

Page	Reference	Issue/concern	Relief sought
		drains that are described in Table 13(e) and not the more minor or inconsequential drains referred to elsewhere in this submission.	ECCGIS seeks such amendments as are necessary to address the issue/concern set out.

General

Page	Reference	Issue/concern	Relief sought
All	All (references to N loads / OVERSEER)	<p>Throughout Variation 2, various limits have been calculated with reference to OVERSEER (or alternatively, compliance will need to be assessed using OVERSEER).</p> <p>Care needs to be taken to avoid limiting the operation of a property, farming enterprise or irrigation scheme based on the results of an analysis in one version when that version will be superseded. In this regard, it is understood that OVERSEER is not yet in a steady state with further refinements and improvements continuing to be made.</p> <p>Accordingly, it appears that the only proper weight that can be placed OVERSEER in a regulatory context is its use as a 'relative tool' rather than an 'absolute tool' – or to put that another way OVERSEER outputs are:</p> <ul style="list-style-type: none"> not necessarily reflective of actual real life N losses but if the same version of OVERSEER is used it is a useful tool in terms 	<p>Support, in part.</p> <p>Provide for a rule to the effect that if OVERSEER is updated, the most recent version can be used to both:</p> <ol style="list-style-type: none"> re-calculate any N-loss limit/load (including the nitrogen baseline) described in a plan provision; and assess compliance against the re-calculated N-loss limit/load (including the nitrogen baseline) <p>In both cases it would be a condition of the rule that the same input data would be used.</p>

Page	Reference	Issue/concern	Relief sought
		<p>of assessing land use change; but</p> <ul style="list-style-type: none"> if different versions of OVERSEER are used the N-losses from an individual farm might vary considerably under each version of the model with no actual change to the real-life activities on farm. <p>ECGIS seeks to ensure that all limits in the plan are able to be considered/recalculated in light of any further version of OVERSEER.</p>	
All	All (multiple irrigation sources)	It is currently unclear how the limits that apply to an irrigation scheme are to be applied where a property is also irrigated with water from other sources.	<p>Support, in part.</p> <p>Provide for a rule to the effect that where a property is part of an irrigation scheme, any reductions (and any other compliance matters as might be required under Variation 2), as might be relevant to the N-loss allowance for the scheme, shall be limited a proportional basis (by volume) to the amount of water supplied by the scheme.</p>
All	All	N/a	<p>In addition to the specific (and General) relief set out above, ECGIS seeks such other further and alternative relief that addresses all of the concerns/issues set out.</p> <p>In this respect, the ECGIS submission should read as applying to, and to the extent necessary opposing, all of Variation 2 and not just the specific provisions identified or discussed in this Annexure 2 table.</p>