IN THE MATTER OF the Resource Management

Act 1991 ('The Act')

AND

IN THE MATTER OF Environment Canterbury

Regional Council's Proposed Variation 2 (Hinds/Hekeao) to the Proposed Canterbury Land and Water Regional

Plan

Form 5 – Submission on a Publicly Notified Proposed Policy Statement or Regional Plan under Clause 6 of Schedule 1 of the Resource Management Act 1991.

SUBMISSION BY THE DIRECTOR GENERAL OF CONSERVATION

TO: Environment Canterbury

Variation 2 to the Proposed Canterbury Land and Water Regional Plan

Environment Canterbury

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Submission on: Variation 2 (Hinds/ Hekeao) to the Proposed Canterbury Land

and Water Regional Plan

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Trade Competition:

Pursuant to Clause 6 of Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

(a) adversely affects the environment;

(b) Does not relate to trade competition or the effects of trade competition.

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

The specific parts of Variation 2 to the proposed Canterbury Land and Water Regional Plan to which this submission relates, along with the submission (with reasons) and the decisions sought, are set out in Attachment A, and the section headed General Matters.

GENERAL MATTERS

The general reasons for the submission are that the decisions sought are necessary for Variation 2 to the proposed Canterbury Land and Water Regional Plan to achieve the purpose of the Resource Management Act 1991 (RMA), and to give effect to the objectives and policies of the National Policy Statement of Freshwater Management (2011), The Conservation General Policy, and the Canterbury Conservation Management Strategy, and are in accordance with sound resource management practice. Further specific reasons and decisions sought are given in Attachment A to this submission.

The members of the Ashburton Hinds drainage district working party have been working on this issue and it is clear that there are various ways in which the Hinds Plains sub regional plan could enable the district to achieve the aspirations of the Zone Implementation Plan (ZIP) in terms of:

- 1. Lowering the nitrate concentrations in the drains [the modified water courses and artificial water courses that make up the drainage network].
- 2. Increasing the flows in the drains
- 3. Providing for aquatic habitat for native species and in some drains habitat for trout
- 4. Providing for mahinga kai
- 5. Maintaining and enhancing economic and social well-being of the district
- 6. Increasing the area of irrigation

Variation 2 focuses, in our view, on one option, Managed Aquifer Recharge (MAR) for achieving the aspirations of the ZIP, especially nitrogen reduction. Because there was little or no discussion with the local community and none with the major stakeholders within the drainage district several viable options have been made difficult or impossible under the proposed rules.

The Ashburton/Hinds drainage district working party has discussed various alternatives and has agreed that variation 2 is insufficiently enabling for this purpose. Several changes to the rules are required to enable a wider range of actions that could be used to deliver the sought after outcomes to meet the ZIP objectives. The Zone Committee unfortunately established the working party after they had made their decisions for the future management of the drainage district. The working party consists of 4 local farmers from the drainage district, 3 zone committee members, a representative from DOC, Forest & Bird, and Fish and Game, and Ngai Tahu. Dr Nicholas Dunn has been the Director-General's representative on the working party.

The working party has met several times and has reviewed ECan's information on drain flows, water quality, and aquatic species trends, minimum flows and current allocations. It has collected information on the source of nitrates in the drains, the nature and habitat of the drains and the experience of the residents of the drainage district. On reviewing that information the working party has concluded:

- 1. The nitrates coming into the drains are consistently high [9 to 11ppm], and are the same at the point the springs feed the drains as they are at the seaward end of the drains. This indicates that it is not the drains and the drainage district that is the cause of the elevated nitrates in the water. The nitrates are the same or more coming into the drains as they are leaving. It also indicates that the water quality is not conducive to healthy fish life.
- 2. Since 2006 most of the drains have become ephemeral over the summer for periods of up to 3 to 4 months. The hydrographs provided by ECan clearly show that the flows in the drains are directly related to aquifer pressures [not abstraction] and are highly responsive to rainfall events. Our view is to sustain the life supporting capacity of these drains means that TSA (targeted stream augmentation) is necessary to provide life supporting capacity for these drain freshwater ecosystems.
- 3. There are significant differences between the nature of flows in the drains on the north side of the Hinds River to those on the South side. On the north side of the river, the hydrographs indicate that a significant increase in abstraction from ground water up gradient from the spring country is likely to be the major influence on aquifer pressures and therefore reduced drain flows. While on the south side a change from border dyke irrigation to spray irrigation is likely to be the main influence in lowering drain flows.
- 4. The abundance of fish species collapsed in the period from 2006 on. It is our view that this is highly likely to be correlated to a lack of water, and then the high nitrate levels that prevent repopulation of the drains, other than some resilient native species.
- 5. The physical habitat [the form of the drains] has not materially changed since the drain network was rebuilt in the late 1940's, and although is not ideal as aquatic habitat, is not the limiting factor.
- 6. The characterisation of the drainage district in the section 32 report is not an accurate description and misrepresents the nature of the problems the drainage district is facing, the nature of the drains themselves and the cause of loss of bio-diversity from the drains.

This information has led the working party to consider the proposed post 2020 management regime, the existing management regime and how best to achieve the outcomes sought by the community. The working party believes there are more

effective ways to achieve the community outcomes required under the CWMS than those proposed in variation 2.

The Eiffelton Community Group Irrigation Scheme [ECGIS] has been operating a form of targeted stream augmentation [TSA] since its inception in 1986. The basis of the Scheme is to supplement the flows in 3 drains from a series of wells so that the members can abstract their irrigation allowance from those drains while collectively maintaining environmental flows in the drains so that the in-stream freshwater habitat is protected. Diluting the nitrates in those drains has been a co-benefit. A Policy framework to enable TSA for existing irrigation schemes is included in this submission.

The ECGIS provides a template for how to address water quality and quantity issued in the drainage network more certainly than the proposed use of managed aquifer recharge [MAR]. The drainage network is concerned that for MAR to work in terms of diluting the nitrates in the ground water, such quantities of water would be needed that the risk of elevated ground water and wet farms is likely; increasing the risk of flooding and crop loss.

The Director-General is supportive of the use of MAR for the dilution of Nitrogen, but is of the view that the maintenance of TSA for the lower Hinds / Hekeao Plains area is also required for the existing freshwater ecosystems to be sustained into the future. MAR is likely to be focused in the key N risk period of late autumn to spring whereas the drain network requires adequate flows in the mid to late summer for sustaining life supporting capacity, therefore justifying a TSA approach in that period. The co-benefit of this approach is that the drains can be used for irrigation, such as they are currently used by the Eiffelton Scheme to convey water in the irrigation season.

A wider range of mitigations are necessary for the improvement of in-stream ecological values in this catchment, and they are detailed in the Meredith and Lessard (2014) ECan report R14/70 "Local Scale mitigations for Hinds catchment streams and waterways". This report indicates that interventions are required in the catchments that are methods other than rules, and therefore the use of methods is appropriate in this catchment.

In our view, the variation gives insufficient attention to the life supporting needs of the in-stream requirements of freshwater ecosystems and species in this catchment and the needs of threatened species such as Canterbury mudfish present in the zone. Also we believe, as pointed out to ECan in our first schedule consultation response to this variation that the ability of artificially constructed wetlands to scrub nutrients from the catchment has the potential to reduce the amount of nitrogen in the catchment by up to 50%.

A range of amendments in terms of Explanations, Definitions, Policies, Rules, Methods, Tables, Schedules and Planning maps are proposed by the DG to give more effect to the Ashburton Hinds drainage district working party's concerns and enable TSA and protect freshwater fish habitat.

The submission also includes such consequential amendments as are necessary to give effect to this submission.

I wish to be heard in support of my submission. If others make a similar submission, I will consider presenting a joint case with them at a hearing.

Your

Sally Jones,

South Canterbury Conservation Partnerships Manager

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Acting under to delegated authority on behalf of the Director General of Conservation

Date 24/10/2014.

Note: A copy of the Instrument of Delegation may be inspected at the Director General's office at Conservation House/ Whare Kaupapa Atawhai, 18-32 Manners Street, Wellington.

ATTACHMENT A

SUBMISSION ON VARIATION 2 TO THE PROPOSED CANTERBURY LAND AND WATER REGIONAL PLAN

The following table sets out further details of the Director General's submission (with reasons) and the decisions sought with respect to Variation 2 to the proposed Canterbury Land and Water Regional Plan.

DOC	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
Reference				
REGION W	IDE RULES DEFINI	TIONS		
1.1	Regional Rules	Definitions are	These rules clarify the application of the	Retain as notified
	5.124 and 5.125	supported	non-complying activity status of these rules.	
1.2	Amendments to	The text is supported in	The freshwater values and management	Add the following paragraph to the
	Section 13 -	part.	history of the Hinds/Hekeao River and	Ashburton descriptive text:
	Ashburton text		drains need to be outlined to provide the	
			species whose life supporting capacity	"The Hinds River is a small rain-fed,
			needs to be sustained.	hill river, with a predominately fine-
				gravel bed. The mid-reaches of the
				main stem often dry out during summer
				months and the irrigation season. Most
				natural wetland and forest habitats on
				the lower plains have been drained and
				removed for agricultural purposes.
				Originally, the Hinds River was 'blind',
				as it flowed into a vast, lowland
				wetland, rather than flowing directly to
				the sea, via a single channel. An
				artificial channel, cut in the 1860s-
				1870s, created a permanent outlet for

DOC Reference	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
Reference				the river to flow to the sea. A small hapua (lagoon) is present at the rivermouth, although this is blocked to the sea most of the time. Many of the artificial drains, stock-water races and modified channels which replaced the natural wetlands and waterways, provide substitute habitats for a variety of fish and invertebrate species.
				Seven threatened bird species have historically been recorded in the catchment These species and their respective threat rankings (Miskelly et al. 2008) include: black stilt (kakī, Himantopus novaezelandiae: nationally critical); bittern (matuku-hūrepo, Botaurus poiciloptilus) and black-fronted tern (tarapirohe, Chlidonias
				albostriatus), both nationally endangered; Gibson's wandering albatross (toroa, Diomedea antipodensis gibsonii: nationally vulnerable); New Zealand pied oystercatcher (tōrea, Haematopus

DOC	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
Reference				
				finschi: declining); broad-billed
				prion (tītī, Pachyptila vittata: relict)
				and black shag (kōau,
				Phalacrocorax carbo
				novaehollandiae: naturally
				uncommon). Records for these
				threatened species in the Hinds
				River are many years old, ranging
				from 1961 to 2003. This could reflect
				a real absence of these species in
				the Hinds River over recent years, or
				a lack of detailed monitoring.
				The Hinds River drains and stock
				water races contained within the
				Hinds/Hekeao Plains area contain a
				range of migratory and non-migratory
				freshwater fish and macro-
				invertebrates. Species previously
				recorded in this area include the
				threatened species Canterbury
				mudfish and lamprey, and the at risk
				species Canterbury galaxias,
				torrentfish, inanga, bluegill bully,
				longfin eel, and Stokell's smelt. Freshwater crayfish and freshwater
				mussels are also known in the area.
				mussels are also known in the area.

DOC Reference	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
				Importantly Canterbury mudfish are found in remnant habitat within the stock water races; small spring fed tributary streams along the mid main stem of the Hinds River and in tributaries of the North Branch Hinds River. "
1.3	Definitions section 13.1A	Definitions are supported in part.	Some extra definitions are required to give certainty in plan administration.	Amend adaptive management conditions by altering to: "groundwater adaptive management conditions." Adopt definitions of: "existing surface water and groundwater consent" "targeted stream augmentation" "stock water race" "existing irrigation schemes"

DOC Reference	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
PART 1 - PO	L OLICIES		<u> </u>	<u> </u>
2.1	Policies 13.4.5 and 13.4.6	Policies 13.4.5 and 13.4.6 are supported .	These Policies address over-allocation and are consistent with the NPS Freshwater requirements to address over-allocation of surface water in the catchment. Specifically, these Policies provide an alternative to the taking of surface water or hydraulically connected groundwater from lowland streams. This approach is supported as a method for improving or stabilizing flows in lowland streams.	Policies 11.4.5 and 13.4.6 are retained as notified.
2.2	Policy 13.4.9 and 13.4.106	Policies 13.4.9 and 13.4.10 are supported in part.	The Policy intent is supported, however the term "microbes" should be replaced with 'microbial contaminants".	Replace "microbes " with <u>"microbial</u> <u>contaminants"</u>
2.3	Policies 13.4.11 to 13.4.12	Policies 13.4.11 to 11.4.12 are supported.	To manage the cumulative effects of farming land use on water quality in the catchment and to reduce nitrogen overallocation, it is important that the requirements in these policies are	Policies 13.4.11 to 13.4.12 are retained as notified.

DOC Reference	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
			implemented as a minimum.	
2.4	Policies 13.4.13	Policy 13.4.13 is supported in part	The use of the word "enabling" in this nitrogen contamination is inappropriate in this policy context. The Policy is not consistent with the NPS Freshwater, the RPS, or the CWMS and would be better expressed as "controlling" as it establishes a maximum rate and area for landuse intensification.	Amend Policy 13.4.13 by deleting "enabling"from sub-section (c) and replace with "controlling."
2.6	Policies 13.4.14	Policy 13.4.14 is supported in part.	Some clarification in the criteria would improve this Policy further	Amend Policy 13.4.14 by replacing c) and d) with the following: (c) "Adverse effects of inappropriate fish passage." and (d) "There is no net loss of significant indigenous biodiversity habitat and species."
2.7	Policy 13.4.15	Policy 13.4.15 is supported.	The NPS, RPS and CWMS require the active enabling of activities such as these to protect and restore freshwater ecosystems	Retain Policy as notified
2.8	Policy 13.4.16	Policy 13.4.16 is supported in part.	¥	Amend Policy 13.4.16 to by adding after schedule 10 follows:

DOC	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
Reference			ecosystems and species in drains and a strict method 1 schedule 10 approaches would result in these ecosystems being dewatered, and is not appropriate in these situations.	"except as provided for by Policy 13.4.21".
2.9	Policy 13.4.17	Policy 13.4.17 is supported.	Retention of the adaptive management conditions gives effect to the Freshwater NPS, The RPS and the Vision and Principles of the CWMS.	Retain policy as notified
2.10	Policies 13.4.18	Policy 13.4.18 is supported in part.	The intention to introduce a plan change is supported in the medium term. Until the Hinds drain working party have finished their deliberations.	Amend this Policy by deleting "30 June 2020". And adding at the end of the Policy: "Until replaced by minimum flow and allocation limits introduced by a plan change."
2.11	Policy 13.4.19	Policy 13.4.19 is opposed.	This potentially is a very poor minimum flow and this Policy is no longer required with the proposed amendments to Policy 13.4.18 above.	Delete this Policy
2.12	New Policy 13.4.20	New Provision.	A Policy framework on wetlands is required	New Policy to read or to like effect:

DOC Reference	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
Reference			in the catchment	"Encourage the development of constructed wetlands in the Hinds/Hekeao Plains area to reduce nutrients and microbial contaminants and provide ecosystem services, mahinga kai and fish and bird habitat."
2.13	New Policy 13.4.21	New Provision.	A Policy framework on targeted stream augmentation would improve policy and rule coherence	New Policy to read or to like effect: "Enable targeted stream augmentation east of SH1 in the Lower Hinds/Hekeao areas to sustain freshwater ecosystems while providing water reticulation services to supply existing irrigation schemes."

DOC Reference	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
PART 2 - R	ULES Rules 13.5.7	Rule 13.5.7 is opposed.	This rule duplicates EPA requirements who have given authority for DOC (and other parties) to use aquatic herbicides into or onto water. The rule as written imposes different requirements than the EPA to address exactly the same matters. For instance the EPA requires 5 days for the landowner notification. 48 hour notification as proposed in condition 1 of the variation is difficult to plan in advance for weed operations.	Delete rule 13.5.7, and Replace this rule with a 5.22 rule note only to ensure no duplication occurs with EPA requirements.
			Any future changes to the EPA requirements will also potentially result in a need for a plan change to rule 13.5.7 resulting in inefficiencies and duplication.	
3.2	Rules 13.5.8 to 13.5.23	Rules 13.5.8 to 13.5.23 are supported.	These property and irrigator rules will give effect to the policy intent to control nitrogen losses in the catchment.	Rules 13.5.8 to 13.5.23 are retained as notified.

DOC Reference	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
3.3	Rule 13.5.24-26	Rules 13.5.24 and 13.5.26 are supported.	The rules ensure that nitrogen is managed on an individual farm or scheme basis. The rule should note that the Land and Water provisions on drainage water still apply to ensure the requirements of section 70 RMA are met.	Retain rules as notified. Add a note to rules: Relevant Land and Water Plan Drain rules 5.76 to 5.80 also apply.
3.4	Rules 13.5.27	Rules 13.5.27 is supported in part.	This activity has the potential to disturb spring and autumn spawning of various fish and freshwater species and therefore should be confined to the summer month period. Also this activity is only likely to be effective for trout habitat management in the drains that flow into the Hinds and Ashburton Rivers, so the condition should be limited to those drains.	Amend by adding two conditions: 8. The activity occurs between the months of November and March 9. The activity only occurs in the drains flowing into the Hinds and Ashburton Rivers.
3.5	Rule 13.5.30	Rule 13.5.30	This rule needs to be amended to enable	Add a new condition

DOC	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
Reference			targeted stream augmentation for existing irrigation schemes. A strict application of schedule 10 will not be appropriate to	Add <u>"s</u> "to condition 1
			provide the environmental flows necessary for targeted stream augmentation to occur.	Add at the end of condition 1 "or,
			This will give effect to the Director-General's proposed amendments to Policy 13.4.6.	2. In the case of an existing irrigation scheme, the rate consented for targeted stream augmentation.
3.6	Rule 11.5.31	Rule 11.5.31 is supported in part	There is no reason why this replacement to deep groundwater from surface water and shallow groundwater should apply just to one property and should be enabled throughout the catchment where appropriate. Consequential amendments are proposed to allow this to occur. A more specific condition seeks to make clear such replacement consents can only be exercised if the existing surface water and shallow groundwater consents have been surrendered.	Delete "an" and "permit" in the rule and replace "permit" with "consents". Delete condition 1 and replace with: 1. "There is no increase in the annual volume." Add a new condition 4: "4. The groundwater consent may only be exercised when the existing groundwater or surface water consent has been surrendered under section 138 (4) RMA." (or to like effect)
3.7	Rules 13.5.33-35 and 37	Rules 13.5.33-35 and 37 are supported.	These rule are required to adequately manage the effects of managed aquifer recharge	Retain rules as notified

DOC Reference	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
3.8	Rule 13.5.36	Rule 13.5.36 is supported in part.	"Rate" and "volume of discharge" will need to be applied as a matter of discretion as this is a key parameter to manage the effects of managed aquifer recharge downstream. It also makes it consistent with Land and Water Plan rule 5.128 Take and Use Groundwater, condition 1.	1A "Rate and volume of the
3.9	New Methods	Additional Methods	Insert a methods into the variation to show that a range of non-statutory interventions are required to develop and integrated approach to managing water quality in the Hinds/Hekeao catchment as rules. They methods are detailed in the Meredith and Lessard (2014) ECan report R14/70 "Local Scale mitigations for Hinds catchment streams and waterways". This report indicates that interventions are required in the catchments that are methods other than rules. Therefore the use of methods from this report is appropriate in this catchment.	Add new method 13.5.38 The following management methods will also be applied where appropriate in the catchment to achieve the outcomes desired in the ZIP solutions package in the Hinds/Hekeao Plains: 1. Riparian management and fencing 2. Improved Drain management 3. Point source Discharge management 4. Well head Protection 5. Legacy sediment removal 6. In-Stream Habitat Restoration 7. River mouth opening 8. Fish Passage management

DOC Reference	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
				9. Existing Wetland management 10. Constructed wetland establishment and management
PART 3 and	l l 4 – TABLES, LIMIT	TS AND SCHEDULES	1	<u> </u>
4.1	Tables 13 d) f) g) h) i) j) k))	These Tables are supported.	These tables will establish limits and targets which are necessary to achieve the requirements of the NPS Freshwater and RPS. The NPS Freshwater requires a defined time in the future to meet a target. This does not exclude the possibility of various limits at various times, resulting in a gradually reduced nitrogen load over time as envisaged by Policy 13.4.13. Successful environmental monitoring programmes, such as ECan's air quality requires that the nitrogen load trend be managed by a policy and appropriate methods over a long period, rather than a particular focus on a date far into the future.	

DOC	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
Reference				
			This enables management adjustment over time to ensure the limits can be adjusted.	
			This means that a "sliding scale" of nitrogen reductions as a target over time may be preferable to a single target set far into the future. This is consistent with Primary Industry group recommendation 4 on nutrient management.	
			Note that new technology may enable cost effective nitrogen reductions for other farming activities into the future.	
4.2	Table 13 e)	These tables are supported in part.	We believe that a plan change or variation should achieve this and that the date does not need to be specified as long as ECan is	Delete "1 October 2014 – 30 June 2020" from the heading of the table
			committed to this plan change in the medium term. The critical issue is that the	Delete "Lower Beach Road" as the minimum flow site for Windermere
			Hinds Drain working party has adequate time to consider.	drain and replace it with
				" <u>Poplars Road</u> "
				Otherwise retain table 13 (e) as notified
4.3	Schedule 7	Schedule 7 is supported.	These provisions seek to reduce nitrogen loss rate contamination.	Retain schedule 7 as notified.
4.4	Schedule 24a-	Schedule 24a is	These provisions will apply good practice	Retain the provisions as notified.

DOC	Plan Provision	Oppose/ support	Position and Reason	Relief Sought
Reference				
	Farm Practice	supported.	management to these areas and assist with giving effect to the NPS Freshwater, the RPS, the Land and Water Plan and the principles of the CWMS.	
PARI 5 - P.	LANING MAPS		<u>, </u>	
5.1	Index and Planning maps A01-07	Support.	The location of the plan provisions and demarcation of the Upper and Lower Hinds/Hekeao Areas and Groundwater Allocation zones are required for this plan to work effectively.	Retain maps as notified.

Janel Hau

Sarah Drummond From: Sent: Tuesday, 28 October 2014 10:05 a.m. To: Mailroom Mailbox Subject: TRIM: FW: Hekeao **Attachments:** Hekeao.pdf **Follow Up Flag:** Follow up Flag Status: Completed **Categories: Purple Category HP TRIM Record Number:** C14C/197377 For Trimming Please From: Herb Familton [mailto:hfamilton@doc.govt.nz] **Sent:** Tuesday, 28 October 2014 9:45 a.m. To: Sarah Drummond Subject: Hekeao Enc a signed digital Pdf version of the Hinds submission. Hard copy in mail. Regards Herb

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