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#### Cheers

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## **SUBMISSION: Variation 1 Canterbury Land and Water Regional Plan**

Date: 04/02/14

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(Andrew Curtis, CEO IrrigationNZ)

Irrigation New Zealand wishes to be heard in support of its submission. However, if others make a similar submission we are happy to present jointly.

## **OVERVIEW**

- 1. IrrigationNZ (INZ) is a national body that promotes excellence in irrigation. INZ represents the interests of over 3,600 irrigators (irrigation schemes and individual irrigators) totaling over 350,000ha of irrigation (approximately 60% of NZ's irrigated area). It also represents the interests of the majority of irrigation service providers (over 150 researchers, suppliers, designers, installers and consultants).
- 2. INZ has a strong membership base in the Selwyn-Waihora zone with widespread support from both irrigator user groups (Dunsandel Ground Users and Ellesmere Irrigation Society), Central Plains Water Ltd and other individual irrigators.
- 3. All INZ members businesses are founded on secure, on-going access to a reliable water supply for irrigation they need certainty to enable investment and thus continually improve their productivity and resource use efficiency. Without certainty they and the considerable flow on benefits to the regional economy, would be severely impacted. The national economy would also be significantly impacted upon given that NZ is predominantly an agricultural export based economy. INZ actively engages with its members on planning issues, proactively facilitating a wider understanding of the relevant issues by all.

# **SUBMISSION**

Reference	Issue	Relief Sought
Section 11 bullet point 2	A water allocation limit does not deliver an ecological or cultural flow - only direct interventions such as stream augmentation or Managed Aquifer Recharge can do this. Limits provide a volume or a rate of take available for use that have been assessed as an acceptable level of impact upon a flow regime. These are very different concept and should not be confused.	Amendthat have an acceptable level of impact upon ecological and cultural flows.
Section 11 bullet point 3	The concept of managing within limits should be applied to this statement.	Amend is reduced <i>back to the limit</i>
Section 11 bullet point 7	It is important that further improvements in the management of phosphorous and sediment are also included. For some activities in some parts of the zone improved management of phosphorous and sediment are far more important than gains in nitrogen, and this needs to be recognised.	Amend in managing nitrogen, phosphorous and sediment
11.4.5	INZ supports the need to prohibit takes from these wahi tapu sites in the long-term. However there are currently existing legally established takes from these sites. These consent holders need to be given a time period to find new cost-effective options for their businesses irrigation water supply.	Amend and prohibit any new and phase out the existing abstraction
11.4.12 (a)	The nitrogen baseline definition is problematic and needs to be updated for the Selwyn-Waihora subregional chapter. Currently the practical implementation of the nitrogen baseline definition is creating many issues for farming enterprises that have increased their intensity of operation between 2009-13. An average over this period is being used to derive their baseline. This means a number of enterprises are now finding themselves 'non-compliant' through 'Business As Usual'.	Add new definition for Selwyn-Waihora subregional chapter Nitrogen Baseline: the maximum discharge of nitrogen approved by the Chief Executive of Environment Canterbury, averaged over the period of 01 July 2009 – 30 June 2013,
11.4.13 (b) & 11.4.14 (b)	It is not possible for farmers to achieve the Good Management Practice nitrogen discharge levels and subsequent reductions as set out in the variation, as they have not yet been defined. The current Matrix of Good Management (MGM) project (a partnership between the primary sector, government and regional council's that was initiated by Environment Canterbury and is scheduled to deliver outcomes in 2015) will provide the Good Management Practice Nitrogen loss rates for a properties baseline land use. A multi-million dollar investment is being made in the MGM by all parties.	Oppose and delete

11.4.17 (b)	INZ suggests that it would be more productive to delete these policies and their associated rules until such time that the MGM delivers in 2015. A subsequent variation can then be made. In the mean time the Good Management Practices listed in schedule 24 in combination with Audited Farm Environment Plans and the nitrogen baseline rules as laid out in the LWRP will ensure the requirements of the Freshwater Management NPS are met.  See comment from 11.4.14 (b)	Oppose and delete
11.4.22	Better enabling the transfer of water is an important mechanism for driving improved water use efficiency - one of the main targets of the Canterbury Water Management Strategy (CWMS). Water use efficiency is also a principle driver for the achievement of the region's water quality objectives (another CWMS target) as it is linked to reduced nutrient loss through reduced drainage and/or surface run-off. It also decreases water infrastructure requirements (in-take, storage and distribution), aiding both the hydrological achievability and financial viability of improved water supply reliability and increased irrigated area (again CWMS targets).  Water use efficiency can be broken into technical, allocative and dynamic components. However it is dynamic efficiency (enabling water to move to its highest value use over time - transfer) that is paramount. Enabling dynamic efficiency drives both allocative and technical efficiency - it will help ensure the Canterbury region receives the 'best value use and return' from its ample water resources.  Lastly over-allocation should be dealt with through a catchment specific inclusive approach. Confusing over allocation policies and rules with those for transfer will create unintended outcomes for the zones CWMS targets and must therefore be avoided.  (a) INZ agrees with the need to prevent existing irrigators that are CPW shareholders from transferring their groundwater consents to other parties, otherwise an over-allocation will likely remain in the zone. However a number of CPW shareholders (particularly stage 2 & 3 shareholders) have bought into CPW to irrigate additional dryland within their current farming enterprises. In some instances to do this in a cost effective manner (scheme distribution infrastructure design considerations for example) they intend to transfer existing water allocation consents to dryland blocks within their farming enterprise and use CPW water on their existing irrigated land. It is also important that until such time a water storage option is	(a) AmendPlanning Maps can only transfer their permits to take and use groundwater within their farming enterprise.  Note: for this amendment the definition of farming enterprise may need to be redefined for the Selwyn sub-regional chapter. It is INZ's understanding that the farming enterprise definition in the LWRP interprets 'aggregation' as contiguous parcels of land. For this proposed amendment to become workable a farming enterprise must be able to consist of multiple discrete parcels.  (b) & (c) Oppose and delete

	available to increase reliability of supply to over 90% that groundwater takes are able to be maintained	
	by existing CPW irrigators to deal with potential reliability issues from the CPW surface water supply.	
	Both these scenarios should not be compromised as it is essential that the introduction of alpine water is	
	fully enabled to solve the over allocation issue in the Selwyn-Waihora zone.	
	(b) & (c) are nonsensical and inequitable and have been included in the plan as a crude over-allocation	
	clawback mechanisms. No analysis of the perverse outcomes they create has been undertaken. Technical	
	evidence will be provided at the hearing that will potentially demonstrate, with the increased recharge	
	from new irrigated land combined with the introduction of alpine water to replace groundwater takes,	
	that no further reduction in allocation is required. Policies (b) & (c) therefore serve no purpose and	
	should be deleted. However, if a further reduction in water allocation is shown to be still required post	
	the technical evidence, an alternative enabling transfer regime will be provided that also deals with the	
	over-allocation concerns.	
11.4.23	The concepts of water allocation and actual use (demonstrated use) should not be confused. This is of	Amend at a rate and volume that reflects reasonable use based on a nine in ten year reliability and 80% application efficiency
	particular importance in NZ where irrigation season rainfall significantly impacts upon actual use from	
	one season to another. INZ opposes the use of demonstrated use as a reallocation mechanism as -	
	• It does not account for NZ's cyclical climatic variations - NZ has irregular (3-10 year) climate cycles.	
	Irrigators need a given reliability of supply, calculated from long-term climate data, to allow them to	
	successfully manage cyclical climatic variables through irrigation. Without this investment in efficient irrigation is compromised.	
	• It does not provide for rotational cropping farming systems - Cropping farmers typically run a 4 – 8	
	year rotation to avoid issues such as increased disease resistance or incidence, and to meet market	
	entry requirements, seed crop quarantine needs for example. Crops vary significantly in their water	
	needs based on their rooting depth, leaf area, the length of their growing season, the soil they are	
	grown and there planting date. As some takes are due for renewal within the next few years,	
	applying a demonstrated use approach to their allocation has a high probability of unfairly reducing	
	the reliability of supply for a cropping irrigator - allocating them less water than their farming system	
	requires to efficiently operate.	

	Instead a reasonable use test should be applied based on nine in ten year reliability and 80% application efficiency.	
11.4.25	See comment under 11.4.23. Method 2 in Schedule 10 is the applicable methodology for determining 'reasonable use' prior to the transfer of an existing resource consent when no seasonal volume has been applied to the resource consent.	Amend with <i>method 2</i> in Schedule 10.
11.4.26	The reliability of supply for consented volumes should remain at a nine in ten year level. Reliability of supply greater than 90% is key to enabling the efficient use of the water resource. This is clearly identified in the CWMS targets. Evidence will be provided at the hearing to demonstrate the groundwater limits can be further refined (with increased certainty over the present methodology) and that this will allow for a consented volume of nine in ten years. Lastly the difference in volume between eight and a half and nine years is insignificant when put in the context of resulting environment gains and the uncertainty that surrounds the modelling.	Amenddemand conditions in nine out of ten years for a system
11.4.31	The assessment of potential storage sites in the Selwyn-Waihora zone noted issues to be resolved if water storage was to occur upon these parts of the Selwyn River. However there was no agreement by the zone committee that prohibited activity status should be applied to them as a result. The plan therefore does not reflect the Zone Committee agreed position as outlined in the ZIP Addendum. If the plan does not reflect the community agreed position one questions the purpose of over 2 years of collaboration prior to the plan notification?	Oppose and remove
11.4.32 (a) & (c)	The combination of these policies gives unfettered discretion to Ngai Tahu. They allow iwi to at their discretion demand anything they see fit of a future water storage development through their own cultural impact assessment. This is not equitable approach.	Amend (c) 'Adverse effects on cultural values are avoided or mitigated.
11.4.32 (h)	This policy should refer to known significant trout and salmon spawning grounds. Without this it is overly restrictive in enabling the balance to be struck between and sports fishing and economic interests.	Amend (h) 'Inundation of known significant trout and salmon spawning areas is avoided.
11.5.9 discretion points 2., 3. & 4.	See comment under 11.4.13 (b) & 11.4.14 (b) and see comment under 11.7.3	Oppose and delete
11.5.15 2.	See comment under 11.7.3	Support subject to new nitrogen loss calculation for table 11(j) (see 11.7.3)

11.5.32 6.	See comment under 11.4.23	Amend
		with method 2 in Schedule 10;
		and
11.5.37 3 (c) & (d)	See comment under 11.4.22	Oppose and delete (c) & 4
&		Amend (d)
11.5.37 4		on the Planning Maps unless it
		is within a farming enterprise;
		and
11.5.42	See comment under 11.4.31	Oppose and delete
11.6	As the science used to derive the freshwater outcomes is not technically robust it is difficult to assess	Oppose and delete
	how achievable the proposed Freshwater outcomes are. Technical evidence will be provided at the	Alternative table to be provided
	hearings to demonstrate this and alternative outcomes provided through more robust science as	at the hearings
	applicable.	
11.7.1	A number of the proposed minimum flows contained in tables 11(c) and 11 (d) are not sound as the	Oppose and delete
	science used to derive them is not technically robust. Also a number of these limits differ from those	Alternative table to be provided
	reached through the recent Selwyn-Rakaia consent review process. A fundamental question to be asked	at the hearings
	is why the positions reached through this recent hearing and subsequent environment court process are	
	now being deviated from?	
11.7.2	The proposed groundwater limits contained in tables 11(e) through 11(h) are not sound as the science	Oppose and delete
	used to derive them is not technically robust. Technical evidence will be provided at the hearings to	Alternative table to be provided
	demonstrate this alongside the provision of more robust limits.	at the hearings
11.7.3	A number of the proposed water quality limits and targets contained in tables 11(i) through 11(m) are	Oppose and delete
	not based technically robust science. Technical evidence will be provided at the hearings to demonstrate	Alternative table to be provided
	this alongside the provision of more robust limits and targets.	at the hearings
Schedule 10	See comment for 11.4.26	Oppose amendment and delete