

Report

Environmental Management

Land & Water Policy Changes [REG13012]

Job No: 50204#02

Date: 7 May 13

Clarification and Link between submission and evidence.

In February 2013, Synlait Milk Ltd and Synlait Farms Ltd (“Synlait”) both submitted on the Proposed Canterbury Land and Water Regional Plan (“the Proposed Plan”) and in April 2013, Synlait gave evidence to the hearing on the Proposed Plan.

The Proposed Plan provides the framework for water management in Canterbury and is a response to both the National Policy Statement on Freshwater Management 2011 (“NPSFM”) and the (non-statutory) principles and targets of the Canterbury Water Management Strategy (“CWMS”) as well as providing for the statutory need for a plan to meet the requirements of the RMA and the already operative Canterbury Regional Policy Statement (“the RPS”).

The principles underlying the NPSFM, RMA, CWMS, and the RPS is that limits should be imposed on both the discharge of nutrients in order to protect and/or maintain water quality and water quantity in certain specified areas. The underlying thread to these 4 plans, is that the limits that are imposed, beginning in 2017, should be both efficient and effective in achieving water quality and quantity outcomes for Canterbury.

In the hearing, Commissioners David Shepherd, Edward Ellison and Rob van Voorthuysen asked for clarification in respect of the following matters:

(a) Depth at which potable water is free of adverse microbiological effects

Commissioner Shepherd asked for clarification in respect of the depth at which microbiological activity and pathogens are present in groundwater in Canterbury rivers and streams. This in many ways goes to the heart of the assumptions behind both the RPS and the Proposed Plan. It is assumed that drinking water should be able to be abstracted directly from “rivers and streams... without treatment”.¹

(b) Relationship between impaired water quality and nutrients: Nitrogen or Phosphorus?

A further assumption in relation to water quality, aside from being able to abstract potable grade water from every water body in the region, is nitrate levels in surface and low-lying groundwater being attributed to impaired water quality in various water bodies such as the culturally significant Te Waihora/ Lake Ellesmere.

It is acknowledged that s.15(1)((a)-(b)RMA requires resource consents for the discharge of any contaminant into water or onto land where that contaminant may enter water. The RMA definition of water does not distinguish between *inter alia* surface, groundwater or coastal water. However under the RPS, objective 7.2.2(3) RPS requires: “the restoration or enhancement of degraded freshwater bodies and their surroundings”. In the Proposed Plan this is translated to a fixation on Nitrogen as the sole contaminant of concern in relation to impaired water quality in significant and water bodies in the region.

¹ E.g. Page 52, CRPS “Many rivers and streams and some groundwater in the region cannot be used for human drinking water without treatment”

Para in evidence	PLWRP	Amendments proposed by Expert Witnesses NB: s 42a recommendation in italics; changes proposed in bold.	Submission
Dr Bruce McCabe Paras 5.1 – 5.4 Note: Add new category for Te Waihora as for Coopers Lagoon in coastal lakes	Table 1b. Outcomes for Canterbury Lakes	Lake SPI [min grade] Fair	SML Policy 4.2 and page 8.
Dr Bruce McCabe Paras 5.1 – 5.4 Note: Add new category for Te Waihora as for Coopers Lagoon in coastal lakes	Table 1b. Outcomes for Canterbury Lakes	Eutrophication Indicator Trophic Level Index (TLI) [max score] 6.5	SML Policy 4.2 and page 8.
Dr Bruce McCabe Paras 4.1 – 4.12 4.16 - 4.27 10.3 (b)	Table 1c. Default outcomes for nitrate-N	Table 1c. Nitrate – nitrogen concentration (mg/L) Max. <11.3 Compliance depth of 50-60 mbgl.	SML Policy 4.2 and page 8.
Dr Bruce McCabe Paras 4.1 – 4.12 4.16 – 4.27 10.3 (a)	Table 1c. Default outcomes for nitrate-N	Table 1c. Nitrate – nitrogen concentration (mg/L) Average <5.6	SML Policy 4.2 and page 8.
Dr Bruce McCabe Para 6.3	No definitions – shallow groundwater – reference in Table 1c and Policy 4.1..	Shallow groundwater means for the purpose of determining compliance with the plan objectives, groundwater at a depth of between 50 and 60m below ground level.	SML Policy 4.1 and page 8.
Andrew Barton Para 54	New Objective 3.3 in s42A.	<i>Water is recognised as an enabler of the social and economic wellbeing of the region.</i> Supported	SFL Page 4

Para in evidence	PLWRP	Amendments proposed by Expert Witnesses NB: s 42a recommendation in italics; changes proposed in bold.	Submission
Dr Bruce McCabe Para 7.1-7.2 Para 10(f)	Objective 3.5 in original Objective 3.12 as recommended by s42a.	Outstanding freshwater bodies and hapua and their margins are maintained in their existing state or restored where degraded to a defined ecological state if it can be established that such a state can be achieved within the timeframe specified in the NPSFM at a cost that is not unacceptable to the community”.	SML. Page 5.
Dr Bruce McCabe Para. 8.1 Dr John Penno Para 6.7	Policies 4.1 and 4.2	4.1 Lakes rivers, wetlands and aquifers will meet the freshwater outcomes set in Sections 6-15 <i>within the specified timeframes</i> . If outcomes have not been established for a catchment, then each type of lake, river or aquifer will meet the outcomes set out in Table 1 by 2023- 2030 . 4.2 The management of lakes, rivers, wetlands and aquifers will take account of the cumulative effects of land uses, discharges and abstractions in order to meet the freshwater outcomes in accordance with Policy 4.1. Rationale: NPSFM requires achievement by 2030.	SFL & SML. Page 6.
Dr Bruce McCabe 6.1 Support report s42a	Definition.	Nutrient discharge means <i>nutrient loss from the property by surface runoff or leaching below the rootzone</i> .	Pge 36. Remove reference to Overseer.
Dr Bruce McCabe Para. 8.2	Policy 4.29	Support recommendation of s42a report.	SML Page 9
Dr Bruce McCabe Para. 8.3 Dr John Penno Oral presentation –	Policy 4.31	<i>“ or that advanced mitigation practices are applied such that the property operates in the top quartile of nutrient minimisation practices when measured against practices in the relevant farming industry, and that in</i>	SML page 10

Para in evidence	PLWRP	Amendments proposed by Expert Witnesses NB: s 42a recommendation in italics; changes proposed in bold.	Submission
Lead with Pride		<i>any event"</i> Rationale: impossible to determine. Synlait Lead with Pride programme provides farmers with financial incentives to become ISO registered and achieve highest environmental compliance.	
Dr Bruce McCabe Para 8.4 Dr John Penno Paras 9.1 – 9.8 Dr John Penno Oral presentation – Lead with Pride	Policy 4.32	<i>"a changed or new farming activity will be required to show that there is no net increase in nutrients discharged from the property or that advanced mitigation practices are applied such that the property operates in the top 10% of nutrient discharge minimisation practices when measured against practices in the relevant farming industry.</i> Rationale: impossible to determine. Synlait Lead with Pride programme provides farmers with financial incentives to become ISO registered and achieve highest environmental compliance. Farming is not the only nutrient discharging activity in the catchment.	SML page 10
Dr Bruce McCabe Para 8.4 Dr John Penno Paras 9.1 – 9.8 Dr John Penno Oral presentation – Lead with Pride	Policy 4.33	<i>In areas where regional water quality outcomes are not being met, as shown by a red colouring on the Series A planning maps, priority will be given to collaborative catchment management practices that culminate in the promulgation of plan changes to set local water quality outcomes, and methods and timeframes to achieve those outcomes, including nutrient discharge allowances, pro-rata reductions in discharges, or other methods beyond good practice.</i>	SML page 11

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		Rationale: Assumes that N is the limiting factor for all catchments. In NZ, 86% of all catchments are P limited- not N.	
Dr Bruce McCabe Para 8.4 Dr John Penno Paras 9.1 – 9.8 Dr John Penno Oral presentation – Lead with Pride	Policy 4.34	<i>To minimise the loss of nutrients to water where the land owner holds a.. that as a minimum enables compliance with the nutrient management conditions and ensures good practice is being achieved.</i> Support 42a recommendation	SML Page 11
Dr Bruce McCabe Para 8.5 Dr John Penno Paras 9.1 – 9.8 Dr John Penno Oral presentation – Lead with Pride	Policy 4.37 (4.36 in s42a)	All activities shall achieve the nutrient load limit and nutrient <i>discharge</i> allowance or shall comply with an alternative collaboratively agreed mitigation method for the catchment <i>where a load limit or nutrient discharge allowance is set</i> in Sections 6-15 of this Plan. Rationale: impossible to show how an individual activity can affect the specified outcomes in Ss 6-15 of the plan.	SML Page 11
Dr Bruce McCabe Para 8.5 Dr John Penno Paras 9.1 – 9.8 Dr John Penno Oral presentation – Lead with Pride	Policy 4.38 (4.37 in s42a)	If the measured or predicted nutrient load from land uses and discharges exceeds the nutrient load limit for the catchment <i>where a load limit or discharge allowance is set</i> in Sections 6-15 of this Plan, the loss to water of nutrients from land uses in the catchment will be reduced to achieve the nutrient load limit or mitigated to meet collaboratively agreed outcomes for the catchment. Rationale: Support focus on “land uses” and absence of reference to farming per se.	SML Page 11

Para in evidence	PLWRP	Amendments proposed by Expert Witnesses NB: s 42a recommendation in italics; changes proposed in bold.	Submission
		Allows specified mitigation measures to be agreed in each sub-region.	
Andrew Barton Para 19	Policy 4.48	Existing hydro- <i>electricity</i> generation, and irrigation schemes, and their water takes and significant individual investment in groundwater infrastructure are recognised...	SFL para 11
Andrew Barton Para 32- 34 Para 39	Policy 4.50	Any change to abstract surface water for irrigation as a “run of river” take to a “take to storage” is subject to the following conditions to mitigate any adverse effects: (a) A seasonal or allocation limit subject to efficient use ; [Or delete: (a)A seasonal or allocation limit	SFL Page 11-12
Andrew Barton Paras 41- 43	Policy 4.58	The direct cumulative interference effect from new groundwater takes on existing groundwater takes is minimised by limiting the drawdown of any existing bore within a 2 km radius to no more than 20% of the available drawdown or to effects on neighbouring wells that are minor , <i>calculated in accordance with the method in Schedule 12.</i>	SFL Page 12
Andrew Barton Para 35 Para 39	Policy 4.60 (b)	(b) A maximum volume based on reasonable efficient use over the period the water is required <i>except for hydro-electricity generation activities</i> subject to an allowance for more water to be taken in the event of a demand year that exceeds 90%.	SFL page 13
Andrew Barton Para 37 and 39	Policy 4.66	The rate, volume and seasonal duration for which water may be taken will be reasonable efficient for the intended use.	
Andrew Barton Para 20-21	Policy 4.76	Resource consents for the use of land for farming activities ... groundwater allocation zones that are over-allocated will generally be	SFL Page 15

Para in evidence	PLWRP	Amendments proposed by Expert Witnesses NB: s 42a recommendation in italics; changes proposed in bold.	Submission
Dr John Penno Paras 5.1 – 5.8		subject to a 15 five year duration if the land use and associated nutrient discharges ... may impede the ability of the community to find an integrated solution to manage water quality and the over-allocation of water and the integrated solution is an economic proposition for an existing user relative to their existing water supply.	
Dr Bruce McCabe Para 8.8	Ruler 5.43 – 5.45		SML Page 19
Andrew Barton Para 40	Rule 5.96	The taking and use of water from a river or lake is a restricted discretionary... 2. Unless the proposed take is the replacement of a lawfully established ... set in sections 6-15 fpr that surface water body and/or whether water will be used efficiently”	SFL Page 23
Andrew Barton Paras 29-31	Rule 5.104	The taking and use of groundwater that does not meet one or more of conditions 2 and 3 in Rule 5.101 is a prohibited non-complying activity where the taking and use of water in excess of an interim limit in this Plan and a prohibited activity where the taking and use of water is in excess of a limit set by sections 6-15 of this Plan.	SFL Page 24
Andrew Barton Paras 51-52	Rule 5.107 Clause 5	In a catchment where the surface and/or groundwater allocation limits... [Delete in its entirety]	SFL Page 26
Dr Bruce McCabe Para 10d	New definition	New definition: Zone of reasonable mixing: A zone of reasonable mixing for point-source discharges to groundwater up to 2 km down groundwater gradient of s discharge up to a depth of 50 m below ground level over this area.	SML Policy 4.1 and page 8.