

# **Proposed Canterbury Land & Water Regional Plan**

## **Section 42A Report – Volume 2 For Hearing Group 2**

**Report No. R13/11**

Matthew McCallum-Clark

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**Report R13/11**

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## **Preamble**

### **Introduction**

This Report summarises and analyses the submissions made with respect to the “farming” aspects of the proposed Land and Water Regional Plan (pLWRP) and makes recommendations.

It has been written to assist submitters and the Hearing Commissioners in their consideration of the submissions received on the pLWRP.

The Report is the considered opinions of the author – the Hearing Commissioners will give it the weight they consider appropriate and decisions will be made by the Hearing Commissioners following the hearing of evidence from all parties, consideration of the submissions and further submissions and consideration of this Report.

This is Volume 2 of the s42A Report – it considers those matters identified by the Hearing Commissioners to be addressed in “Hearing Group 2”.

### **Reporting assumptions and disclaimers**

In all, approximately 380 submissions were lodged on the pLWRP, followed by 78 further submissions. A significant proportion of the submissions relate to a limited range of policies and rules. That said, there are very few provisions of the pLWRP that have not been subject to any submissions. In order to effectively address the pLWRP provisions, a number of the submitters have been grouped in the discussion of individual objectives, policies or rules. This means that in a number of cases individual submitters are not identified, and discussion of submission points is often at a more generalised level than referencing the individual wording of a large number of similar submission points.

There are further submissions on the majority of submission points. The further submissions have been reviewed, and it is clear that almost all (72 of the 78) are from people or organisations that have lodged submissions in the first instance and are therefore already involved in the process, many substantially so. It is also apparent that there are no consistent patterns or overwhelming numbers of further submissions on particular issues. On this basis, further submissions have been identified and addressed in only limited circumstances in the text of this Report. However, they have been read and considered during the reporting process.

Recommendations are made where appropriate, and these are either to retain provisions without amendment, add to or amend the provisions with the amendment shown by way of strikeout and underlining, or to delete the provisions. All recommended changes have a footnoted reference with a submission point and submitter name that supports the recommended change. Only a single submitter or submission point is shown. However, in many circumstances there are multiple submitters seeking the same change, but are not listed. This has been done as a means of confirming that there is scope within the submissions to make the requested change, rather than identifying or prioritising particular submitters. Where provisions are recommended to be retained without amendment, there is no footnoted reference to any submission point.

The overall intent in considering and analysing the submission points is to better give effect to Part 2 of the RMA, the CRC’s responsibilities under Section 30 and to improve the pLWRP in terms of clarity, workability and certainty. Time and again, the submissions were assessed against these criteria, and the reasoning given in the Report for recommended changes often relate to these criteria.

### **Report author profile**

#### ***Matthew McCallum-Clark***

Matthew McCallum-Clark is a Resource Management Consultant with the firm Incite, and is based in North Canterbury.

He has approximately 19 years' experience working with the RMA, across a range of district, regional and central government issues and planning regimes. His qualifications include a Bachelor of Laws, Bachelor of Commerce (Economics) and a Post Graduate Diploma in Environmental Auditing.

Matthew was closely involved in the drafting of the pLWRP, and has assisted CRC in the development of a number of plan changes and flow and allocation plans for areas including the Waipara catchment, Waimakariri River and Conway River.

### **Conflicts of interest**

The Report author works with organisations that have a multitude of interests with respect to resource management and water issues, including the interests of the clients of the report Author. Inevitably, in this circumstance there is some potential for conflicts of interest to arise. The potential for conflicts of interest have been reduced by:

- The author of this Report has not advised clients, or prepared submissions on the pLWRP, other than with respect to the CRC's own submission;
- Staff involved have not been engaged to prepare or present evidence for other submitters;
- The Report has been thoroughly reviewed by Canterbury regional Council staff; and
- Potential conflicts of interest have been made known to the CRC and these have been dealt with primarily through additional internal review.

While this is a Section 42A report, rather than evidence to the Environment Court, the author has read, and agrees to abide by, the Code of Practice for Expert Witnesses, as contained in section 5 of the Environment Court of New Zealand Practice Note 2011.

### **Abbreviations used**

Abbreviation of submitter names:

<b>Abbreviated Name</b>	<b>Full Submitter Name</b>
Aggregate Group	The Canterbury Aggregate Producers Group (Aggregate Group)
AgResearch ChCh	AgResearch Limited, Christchurch
ANZCO <i>et al</i>	ANZCO Foods Limited, CMP Canterbury Limited, & Five Star Beef Limited
Ashburton DC	Ashburton District Council
Barhill Chertsy	Barhill Chertsey Irrigation Limited
Beef & Lamb	Beef and Lamb New Zealand Limited
Benmore Irrigation	Benmore Irrigation Company Limited
C&PH ChCh	Community & Public Health, Christchurch
CCC	Christchurch City Council, Strategy & Planning

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<b>Abbreviated Name</b>	<b>Full Submitter Name</b>
CIAL	Christchurch International Airport Limited
Corrections	Department Of Corrections, Wellington
CPW	Central Plains Water Limited.
Dairy NZ	DairyNZ Incorporated
Deer Farmers Assn (Canty)	New Zealand Deer Farmers Association, Canterbury Branch
Deer Ind & Deer Farmers	Deer Industry New Zealand & New Zealand Deer Farmers' Association
DOC	Director General of Conservation
CRC	Canterbury Regional Council
EDS	Environmental Defence Society Incorporated
Eel Industry Assn	South Island Eel Industry Association Incorporated
Ellesmere ISI	Ellesmere Irrigation Society Incorporated
FedFarm (Banks Pen)	Federated Farmers Of New Zealand Inc, Banks Peninsula Branch
FedFarm (Combined Canty)	Combined Canterbury Provinces, Federated Farmers of New Zealand
FedFarm (High Country)	Federated Farmers Of New Zealand Inc, High Country Branch
FedFarm (Mackenzie)	The Mackenzie Branch of Federated Farmers of NZ
FedFarm (Temuka)	Federated Farmers Of New Zealand Inc, Temuka Branch
Fertiliser Assn	The Fertiliser Association of New Zealand Incorporated
Fish & Game	Fish & Game New Zealand (Nelson/Marlborough, North Canterbury & Central South Island)
Fonterra	Fonterra Co-Operative Group Limited (Auckland)
Fulton Hogan	Fulton Hogan Canterbury Ltd, Canterbury
Genesis	Genesis Power Limited, Wellington
Glenbrook <i>et al</i>	Glenbrook Station Ltd, Westside Ltd, McAughtrie Farm Ltd, Ellis Lea Farms (2000) Ltd & Others
Greenstreet	Greenstreet Irrigation Association
Groundspread Assn	New Zealand Groundspread Fertilisers' Association Inc., Canterbury Branch
Hodgen <i>et al</i>	Mr M Hodgen, Ms J Hodgen and Ms N Hodgen
HWPL	Hurunui Water Project Limited
Institute for Plant & Food Research	The New Zealand Institute for Plant & Food Research Ltd - Christchurch
Intitute of Primary Industry Mgt	New Zealand Institute Of Primary Industry Management, Canterbury / Westland Branch
Irricon	Irricon Resource Solutions Limited (Geraldine)
Irrigation NZ	Irrigation New Zealand Inc, Christchurch
LINZ	Land Information New Zealand (LINZ) - Wellington
Mackenzie DC	Mackenzie District Council
Meridian	Meridian Energy Limited
Mountford <i>et al</i>	Mountford Vin Waipara Ltd & Mountford Estate Ltd & Hurunui Wines Ltd
Mt Somers Station	Mt Somers Station Farming Limited
Ngā Runanga	Ngā Rūnanga of Canterbury & Te Rūnanga o Ngāi Tahu
NZ Deer Farmers Assn (Sth Canty & Otago)	New Zealand Deer Farmers Association South Canterbury North Otago Branch
NZAAA	NZ Agricultural Aviation Association
NZHPT	New Zealand Historic Places Trust Pouhere Taonga
NZKS	New Zealand King Salmon Company Limited
NZTA	New Zealand Transport Agency
Ohau Protection Soc	Ohau Protection Society Incorporated
Omarama Station	Omarama Station Limited & Ellis-Lea Farms (2000) Limited
Pegasus Bay	Pegasus Bay Vineyard and Winery Limited
Phillips <i>et al</i>	S & N Phillips, S & K Taylor, A & E Bell, H & C Bell
Pork Industry Bd	New Zealand Pork Industry Board
Poultry Assn & Egg Producers	Poultry Industry Assn of NZ (Inc) & Egg Producers Fed of NZ

Abbreviated Name	Full Submitter Name
	(Inc)
Pye Partnership <i>et al</i>	Pye P/ship, Dialan, South Stream, Grantlea & Cloverdene Dairies, & Highfield Farm Holdings
Ravensdown	Ravensdown Fertiliser Co-Operative Limited
RDRML	Rangitata Diversion Race Management Limited
RFBPS (Canty West Coast)	Royal Forest & Bird Protection Society of NZ Inc, Canterbury/West Coast Regional Office
RFBPS Ashburton	Royal Forest & Bird Protection Society of NZ Inc, Ashburton Branch
TrustPower	TrustPower Limited
Waitaki DC	Waitaki District Council
Waitaki Irrigators	Waitaki Irrigators Collective Limited

Abbreviations used in the text generally:

RMA	Resource Management Act 1991
NRRP	Canterbury Natural Resources Regional Plan 2011
pLWRP	Proposed Land and Water Regional Plan
Freshwater NPS	National Policy Statement for Freshwater 2011
RPS 2013	Canterbury Regional Policy Statement 2013
CRC	Canterbury Regional Council
ECan Act	Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010
NES	National Environmental Standard
HWRRP	Hurunui Waiau River Regional Plan

# **1 Introduction**

This volume of the Section 42A report relies on material produced in Volume 1 of the Section 42A Report, and will also have relevance with respect to matters raised in Volume 3 of the report. In particular, Section 1 of the Section 42A Report is relevant to this report, and none of the material produced in Section 1 of Volume 1 is repeated here. On that basis, the statutory framework, description of the process of development of the pLWRP, CWMS, ECan Act and other interpretation issues are taken “as read”.

There are specific parts of the Volume 1 Report that are relevant to this report, and where there is some overlap. This is particularly relevant to the water quality outcomes addressed in the objectives and strategic policies and Table 1A-C. In addition, it is relevant with respect to the increased emphasis in this report on farm environment plans, and potentially the need to include it as a framework that is relied upon in other consenting mechanisms, such as water takes and use for irrigation. Changes, or additional elements with respect to recommendations already made in Volume 1 of the Section 42A Report are specifically identified, and have been discussed with the authors of the Volume 1 Report.

## 2 Pest Control

The pest control provisions cover both animal and plant pest control substances, as well as application via land based methods and aerial spraying. The rules need to be pragmatic in their application. However, there is also an important need to provide for protection of the life supporting capacity of land and water.

The rules in particular were extensively debated through the NRRP process. A change in the general approach has been adopted for the pLWRP. This is particularly related to animal pest control. The NRRP framework resulted in a very complex permitted activity rule, requiring the recording and provision of information, qualifications, application criteria etc. It was determined at an early stage that a controlled activity consent status was far more appropriate for this kind of activity, given the complex nature of the permitted activity rule. In addition, it is noted that the animal pest control methodologies generate significant public interest, particularly the use of 1080. On this basis, controlled activity status with limited opportunity for public involvement was considered to be a more appropriate method of control, rather than through a permitted activity status. This has received opposition, particularly from some submitters, including the DOC, who continue to seek permitted activity status.

While it is of little relevance, it is noted that the activity status and notification undertaken for applications to apply 1080, particularly aerially, vary considerably across the regional councils of the country. While there would appear to be minimal difference in effects across the country, the variability with which such activities are managed does raise questions in the minds of many.

The Rule framework in this section is rather repetitive, and as such, where the same submissions have been put forward for more than one Rule, they are addressed once and are taken to apply to the entire Rule framework.

### Rules 5.21 and 5.22

Rules 5.21 and Rule 5.22 state:

- 5.21 *The discharge of a vertebrate toxic agent via land-based methods, onto or into land, including the bed of a lake or river, in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:*
1. *The substance and the application technique or method is approved for use under the Hazardous Substances and New Organisms Act 1996; and*
  2. *The discharge is not:*
    - (a) *within 5 m of the wetted bed of a river, lake or artificial watercourse, a wetland boundary or the Coastal Marine Area; or*
    - (b) *within 20 m of a bore used for drinking water; or*
    - (c) *within a group or community drinking water supply protection area as set out in Schedule 1.*
- 5.22 *The discharge of a vertebrate toxic agent via land-based methods, onto or into land, including the bed of a lake or river, in circumstances where a contaminant may enter water, that does not meet one or more of the conditions in Rule 5.21 is a discretionary activity.*

There is a great deal of support for these Rules and their activity status, including from Fed Farmers (Combined Canty), DOC and Deer Ind & Deer Farmers.

Fed Farmers (High Country and Temuka) seek to remove the words “via land-based methods”.

C&PH ChCh submits that the distances set for both land based and aerial applications of Vertebrate Toxic Agents are far short of the distances recommended by the Ministry of Health. The Ministry of Health recommend assessing each application of Vertebrate Toxic Agent based on risk to public health therefore, in certain circumstances, the distances set for a permission issued by Community and Public Health may well exceed the distances set out in 5.21 and 5.22. They seek that Environment Canterbury consult with a Medical Officer of Health designated as a Hazardous Substances Enforcement Officer before setting any distances for the application of a Vertebrate Toxic Agent which may pose a risk to public health.

Ngā Rūnanga seek the following amendments:

- Condition 1: The substance and the application technique or method is approved for the dedicated use of vertebrate pest control under the Hazardous Substances and New Organisms Act 1996 and the discharge is to be carried out by a person who is certified for the application technique or method.
- Condition 2(a): Replace “5m” with “10m”.
- Condition 2(b): Replace “drinking water” with “water abstraction”.
- Condition 2(d): Include a new sub-condition which states that the discharge is not to land that is culturally significant.
- Include an advisory note at the bottom of the rule which specifies how one can determine if the land is culturally significant.

The two substantial submissions on this Rule, from C&PH ChCh and Ngā Rūnanga, raise a number of issues to be addressed in the detail of the rules. The setback distances are recommended to be made greater, as some vertebrate toxic agents have significant effects in water and in general, there isn't a need for them to be placed in close proximity to water bodies. The Ngā Rūnanga submission with respect to refocusing the rule on protecting all bores used for water abstraction, rather than just drinking water bores is also useful, as all water users have an expectation that abstracted groundwater will be free of contaminants and the use of water abstracted is often not recorded.

The Ngā Rūnanga submission points are helpful, but in some aspects, particularly around “certification” of the applicators and the requirement that the discharge is not to land that is culturally significant, are not sufficiently certain to include as permitted activity criteria. Ngā Rūnanga may wish to address the requirements for certification and identification of culturally significant sites in their evidence. However, at this point there is insufficient detail to enable these submissions to be recommended to be accepted.

The Fed Farmers (High Country and Temuka) submission essentially seeks to remove the distinction between land based and aerially based application. This is not supported, as it is clear that aerially based application has a range of additional variables that need to be covered, and the physical application of the material is often less accurate.

#### **Recommendation R5.21**

That Rule 5.21 be amended as follows:

- 5.21 The discharge of a vertebrate toxic agent via land-based methods, onto or into land, including the bed of a lake or river, in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:*
- 1. The substance and the application technique or method is approved for use under the Hazardous Substances and New Organisms Act 1996; and*

2. The discharge is not:
- (a) within 10\_5<sup>1</sup> m of the wetted bed of a river, lake or artificial watercourse, a wetland boundary or the Coastal Marine Area; or
  - (b) within 20 m of a bore used for water abstraction ~~drinking water~~<sup>2</sup>; or
  - (c) within a group or community drinking water supply protection area as set out in Schedule 1.

**Recommendation R5.22**

That Rule 5.22 be retained without amendment.

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**Rules 5.23 and 5.24**

Rule 5.23 states:

- 5.23 The discharge of a vertebrate toxic agent from an aircraft, onto or into land, including the bed of a lake or river, in circumstances where a contaminant may enter water, is a controlled activity provided the following conditions are met:
- 1. The substance and the application technique or method is approved for use under the Hazardous Substances and New Organisms Act 1996; and
  - 2. The discharge is not:
    - (a) within 20 m of the wetted bed of a river, lake or artificial watercourse that is more than 3 m wide, a wetland boundary or the Coastal Marine Area or within 20 m of a bore used for drinking water; or
    - (b) within a group or community drinking water supply protection area as set out in Schedule 1.

The CRC reserves control over the following matters:

- 1. Measures to avoid, mitigate or remedy adverse effects on aquatic ecosystems and human or animal drinking water;
- 2. The provision of advice and information about the exercise of the consent to people and authorities in and adjacent to the application area; and
- 3. The adequacy of application methods, systems and management processes to prevent fugitive discharges and the recording of application areas.

*Notification*

Pursuant to sections 95A and 95B of the RMA an application for resource consent under this rule will be processed and considered without public or limited notification.

Note that limited notification to affected order holders in terms of section 95F of the RMA will be necessary, where relevant, under section 95B(3) of the RMA.

- 5.24 The discharge of a vertebrate toxic agent from an aircraft, onto or into land, including the bed of a lake or river, in circumstances where a contaminant may enter water, that does not meet one or more of the conditions in Rule 5.23 is a discretionary activity.

There is also significant support for these Rules. Fed Farmers (High Country and Temuka) seek to delete the Rules.

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<sup>1</sup> 358.24 Ngā Rūnanga

<sup>2</sup> 358.24 Ngā Rūnanga

DOC seeks the following:

- Add “EPA approved” before “vertebrate toxic agent” in condition 1, and
- Delete “controlled” and replace with “permitted” in rule description, and
- Delete condition 1, and
- Add conditions 5 (a) and (b) and 6 from Rule 5.25, and
- Delete all matters for the reservation of Council control, including the heading, and
- Delete all matters for Council notification, including the heading.

NZAAA and Horticulture NZ seek that a new clause be added to the Rule that aerial application should only be undertaken by an AIRCARE accredited operator.

Ngā Rūnanga seeks the following amendment:

- Condition 1: The substance and the application technique or method is approved for the dedicated use of vertebrate pest control under the Hazardous Substances and New Organisms Act 1996 and the discharge is to be carried out by a person who is certified for the application technique or method.
- Condition 2(a): Remove the words “that is more than 3 metres wide”. Include a bore used for “water abstraction purposes”.
- Condition 2(c): Include a new sub-condition which states that the discharge is not to land that is culturally significant.
- Include an advisory note at the bottom of the rule which specifies how one can determine if the land is culturally significant.
- Amend matter 1 to also include effects on Ngāi Tahu values.
- Delete from rule the statement “pursuant to sections 95A and 95B of the RMA an application for resource consents under this rule will be processed and considered without public or limited notification”.

The DoC submission seeks the addition of “EPA approved” rather than the approval process set out under Condition 1. The approval process under condition 1 is considered to be more specific and accordingly the suggested “EPA approved” is not recommended, as it is understood the EPA “approves” use under various mechanisms and often conditionally.

The Ngā Rūnanga submission contains similar points to the matters addressed in Rule 5.21. Additional matters, include removal of the “more than 3 metres wide” requirement for a setback from water bodies, and deletion of the non-notification provisions. The exclusion of water bodies that are less than 3 metres wide is a carryover from the NRRP. It is accepted that discharge into water bodies is not appropriate. However, whether there needs to be a 20 metre setback from smaller waterways remains unresolved.

Non-notification of the controlled activity status is considered important, as it gives parties surety with respect to controlled activity status. The Horticulture NZ and NZAAA submission is also recommended to be accepted. This would potentially have been covered off by a measure over which control is retained under the controlled activity status. However, including it in the rule will increase certainty.

### **Recommendation R5.23**

That Rule 5.23 be amended as follows:

*5.23 The discharge of a vertebrate toxic agent from an aircraft, onto or into land, including the bed of a lake or river, in circumstances where a contaminant may enter water, is a controlled activity provided the following conditions are met:*

1. The substance and the application technique or method is approved for use under the Hazardous Substances and New Organisms Act 1996; and
2. The discharge is not:
  - (a) within 20 m of the wetted bed of a river, lake or artificial watercourse ~~that is more than 3 m wide~~,<sup>3</sup> a wetland boundary or the Coastal Marine Area or within 20 m of a bore used for water abstraction ~~drinking water~~<sup>4</sup>; or
  - (b) within a group or community drinking water supply protection area as set out in Schedule 1.

The CRC reserves control over the following matters:

1. Measures to avoid, mitigate or remedy adverse effects on aquatic ecosystems and human or animal drinking water;
2. The provision of advice and information about the exercise of the consent to people and authorities in and adjacent to the application area; and
3. The adequacy of application methods, systems and management processes to prevent fugitive discharges and the recording of application areas.

#### Notification

Pursuant to sections 95A and 95B of the RMA an application for resource consent under this rule will be processed and considered without public or limited notification.

Note that limited notification to affected order holders in terms of section 95F of the RMA will be necessary, where relevant, under section 95B(3) of the RMA.

#### Recommendation R5.24

That Rule 5.24 be retained without amendment.

#### Rules 5.25 and 5.26

Rules 5.25 and 5.26 state:

- 5.25 The discharge of an agrichemical, or agrichemical equipment or container washwater, into or onto land, including the bed of a lake, river or artificial watercourse, in circumstances where a contaminant or water may enter water is a permitted activity provided the following conditions are met:
1. The agrichemical and application technique or method is approved for use under the Hazardous Substances and New Organisms Act 1996;
  2. The discharge of the agrichemicals is undertaken in accordance with Section 5 and Appendices L and S of New Zealand Standard NZS 8409:2004 Management of Agrichemicals;
  3. No mixing or diluting of an agrichemical or rinsing or cleaning of containers or equipment takes place within:
    - (a) 5 m of a surface water body, or a bore; or
    - (b) in the bed of a river or lake, or within the Christchurch Groundwater Protection Zone as shown on the Planning Maps, unless:

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<sup>3</sup> 358.25 Ngā Rūnanga

<sup>4</sup> 358.25 Ngā Rūnanga

- (i) the mixing or dilution takes place within a sealed, bunded system that will contain a volume of at least 110% of the largest spray tank to be filled; or
  - (ii) the mixing or dilution is for a hand-held application technique or method.
4. If the water used for mixing or dilution is being abstracted from a surface water body or groundwater, a backflow prevention system is in place to prevent the agrichemical from flowing back into the source water.
5. Where the discharge is from an aircraft:
  - (a) the discharge is to be carried out by a person who holds a GROWSAFE® Pilots' Agrichemical Rating Certificate or an AIRCARE™ Accreditation;
  - (b) the flight paths are recorded by an on-board differential global positioning system and this record is kept for at least 12 months following the discharge and made available to the CRC upon request; and
  - (c) the discharge in the bed of a river in Hill and High Country areas does not occur between the first day of September and the last day of November in any year; and
6. The discharge is not within a group or community drinking water supply protection area as set out in Schedule 1 or within 10 m of any bore used for drinking water supply.

*Note: See also the rules on vegetation clearance – 5.143 – 5.154.*

- 5.26 The discharge of an agrichemical, or agrichemical equipment or container washwater, into or onto land in circumstances where a contaminant or water may enter water that does not meet one or more of the conditions of Rule 5.25 is a restricted discretionary activity.

*The CRC will restrict discretion to the following matter:*

1. The effect of not meeting the condition or conditions of Rule 5.25.

*Note: See also the rules on vegetation clearance – 5.143 – 5.154.*

Aquatic Weed Control Ltd seeks a redraft of this Rule to exclude Glyphosphate, Diquat, Garlon360, Aquathol K and Aquathol Super K (i.e. they should be restricted discretionary activities).

Eel Industry Assn prefers the use of herbicides for aquatic weed control, over diggers or other mechanical methods of drain clearance, as there are fewer disturbances to eel habitat. However, Glyphosate is not permitted for use in water, and some other chemicals should be restricted in their use, as pesticide residues in eel flesh can prevent exports. Three further submissions support this.

NZAAA seeks to amend the following:

- Condition 5(a): "The discharge is to be carried out by a person who holds a GROWSAFE Pilots' Agrichemical Rating Certificate ~~or~~ and an aerial application organisation that is AIRCARE (TM) Accredited".
- Condition 6: Delete and add a new condition as follows: Training: All users of agrichemicals must know what to do, and shall hold qualifications according to the task: Where the application is undertaken by a contractor (i.e. for hire and reward) the following qualifications must be held:
  - a) Ground based application: Either GROWSAFE registered Chemical Applicators Certificate, Or GROWSAFE Introductory Certificate and under direct supervision of GROWSAFE Registered Chemical Applicator Aerial application - the pilot must hold a GROWSAFE Pilots Agrichemical Rating Certificate issued by CAA and the application company must hold AIRCARE Accreditation

- b) All other users (other than domestic) must hold a GROWSAFE Introductory Certificate or Registered Chemical Applicators Certificate.

Landcare Services Limited seeks to reclassify the discharge of any chemical to water for aquatic weed control as a restricted discretionary or discretionary activity. The discretion to be exercised by Council should include provision for dealing with biosecurity emergencies, and eradication of outbreaks of serious aquatic weed pests, such as Lagarosiphon, Egeria, Hornwort and Hydrilla.

DOC seeks to add “EPA approved” after “The discharge of” to the rule description and delete “into or onto land, including the bed of a lake, river or artificial watercourse” from the rule description. This will enable pest control for biosecurity and biodiversity purposes consistent with the Act and with DOC’s statutory duties.

LINZ seeks an amendment of clause (5)(c) to ensure existing and future biosecurity control works are not adversely impacted. Alternatively, Clause (5)(c) could specifically exclude gorse and broom control or plant species specified in the Biosecurity NZ Register of Unwanted Organisms or the Canterbury Pest Management Strategy.

Ngā Rūnanga seeks the following amendment:

- Condition 1: Include a condition that requires the discharge to be carried out by a person who is certified for the application technique or method if the discharge is not from an aircraft.
- Condition 2: Include Section 5 and Appendices L and S of the New Zealand Standard 8409:2004 - Management of Agrichemicals in a new Schedule in the Plan.
- Condition 6: Amend wording to include sub-conditions: The discharge is not within:
  - (a) A group or community drinking water supply protection area as set out in Schedule 1;
  - (b) 10 metres of any bore used for water abstraction;
  - (c) 50 metres of any surface water body or the Coastal Marine Area and where the discharge would enter any surface water body;
- 20 metres of a neighbouring property that has not given permission for the discharge to occur on their land.
- Include a new sub-condition which states that the discharge is not to land that is culturally significant.
- Include an advisory note at the bottom of the rule which specifies how one can determine if the land is culturally significant.

DOC seeks to delete the matter for discretion in Rule 5.26 and replace it with a clear list of matters that Council will restrict its discretion to.

Ngā Rūnanga seeks to amend the matters of discretion in Rule 5.26 to:

- The actual or potential adverse effects of the activity on the environment from not meeting the condition or conditions of Rule 5.25.
- The adverse effects of the activity on Ngāi Tahu values.

The submissions on Rules 5.25 and 5.26 have some overlap, in that the banks and beds of watercourses is an area that is typically treated with agrichemicals for weed control. There are a number of submissions that seek greater controls over aquatic weed control, including a number of submissions that request restricted discretionary activity consent status.

With respect to conditions preventing discharges onto or into sites of significance to tangata whenua, case law requires certainty and objectivity for permitted activity rules and permitted activity

performance standards. Without the certainty of identifying locations or values of significance to tangata whenua, inclusion of this condition cannot be supported. Ngāi Tahu may wish to address this matter more fully at the hearing.

Further advice has been sought from Dr. Adrian Meredith on this issue, and his advice is to maintain the Rule in its current state, given that aquatic weed control is a necessary part of management of a number of water bodies, often for the benefit of natural ecosystems, and that application techniques and agrichemicals have been appropriately developed. A number of the submission points on previous rules, particularly those from DoC, NZAAA and Ngā Rūnanga are repeated with respect to these rules and a number of minor amendments to these rules have been recommended below to give effect to the relevant submission points.

#### **Recommendation R5.25**

That Rules 5.25 and 5.26 be amended as follows:

*5.25 The discharge of an agrichemical, or agrichemical equipment or container washwater, into or onto land, including the bed of a lake, river or artificial watercourse, in circumstances where a contaminant or water may enter water is a permitted activity provided the following conditions are met:*

- 1. The agrichemical and application technique or method is approved for use under the Hazardous Substances and New Organisms Act 1996;*
- 2. The discharge of the agrichemicals is undertaken in accordance with Section 5 and Appendices L and S of New Zealand Standard NZS 8409:2004 Management of Agrichemicals;*
- 3. No mixing or diluting of an agrichemical or rinsing or cleaning of containers or equipment takes place within:*
  - (a) 5 m of a surface water body, or a bore; or*
  - (b) in the bed of a river or lake, or within the Christchurch Groundwater Protection Zone as shown on the Planning Maps, unless:*
    - (i) the mixing or dilution takes place within a sealed, bunded system that will contain a volume of at least 110% of the largest spray tank to be filled; or*
    - (ii) the mixing or dilution is for a hand-held application technique or method.*
- 4. If the water used for mixing or dilution is being abstracted from a surface water body or groundwater, a backflow prevention system is in place to prevent the agrichemical from flowing back into the source water.*
- 5. Where the discharge is from an aircraft:*
  - (a) the discharge is be carried out by a person who holds a GROWSAFE® Pilots' Agrichemical Rating Certificate and an aerial application organisation that is AIRCARE™ Accredited or an AIRCARE™ Accreditation,<sup>5</sup>*
  - (b) the flight paths are recorded by an on-board differential global positioning system and this record is kept for at least 12 months following the discharge and made available to the CRC upon request; and*
  - (c) the discharge in the bed of a river in Hill and High Country areas does not occur between the first day of September and the last day of November in any year; and*
- 6. The discharge is not within:*

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<sup>5</sup> 41.1 NZAAA

- (a) A community water supply protection area as set out in Schedule 1; or*  
*(b) 10 metres of any bore used for water abstraction;<sup>6</sup>*  
~~6. The discharge is not within a group or community drinking water supply protection area as set out in Schedule 1 or within 10 m of any bore used for drinking water supply.<sup>7</sup>~~

*Note: See also the rules on vegetation clearance – 5.143 – 5.154.*

- 5.26 *The discharge of an agrichemical, or agrichemical equipment or container washwater, into or onto land in circumstances where a contaminant or water may enter water that does not meet one or more of the conditions of Rule 5.25 is a restricted discretionary activity.*

*The CRC will restrict discretion to the following matter:*

- 1. The effect of not meeting the condition or conditions of Rule 5.25.*
- 2. The adverse effects of the activity on Ngai Tahu values.<sup>8</sup>*

*Note: See also the rules on vegetation clearance – 5.143 – 5.154.*

#### **Rule 5.27**

Rule 5.27 states:

- 5.27 *The discharge of diquat or glyphosate to a surface water body via land based methods is a permitted activity provided the following conditions are met:*
- 1. The discharge is carried out by a person who holds a current GROWSAFE® Registered Chemical Applicator's Certificate issued by the New Zealand Agrichemical Education Trust; and*
  - 2. The discharge is only incidental to the spraying of the bed or bank of a river, the bed of a lake, or an artificial watercourse, or a wetland, undertaken in accordance with Rule 5.25;*
  - 3. The discharge is not:*
    - (a) within a group or community drinking water supply protection area as set out in Schedule 1; or*
    - (b) into a river or artificial watercourse within 250 m upstream or 100 m downstream, or in a lake within 250 m, of any other surface water intake.*

*Note: See also the rules on vegetation clearance – 5.143– 5.154.*

Fed Farmers (Combined Canty) and Simons Pass Ltd seek to make the following changes to Condition 3: The discharge does not have any adverse effect on water takes or other users of water, or take place at the same time as an abstraction activity is occurring from a surface water intake ~~is not:~~

- (a) within a group or community drinking water supply protection area as set out in Schedule 1; or

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<sup>6</sup> 358.26 Ngā Rūnanga (note: "community water supply" terminology dependent on other decisions)

<sup>7</sup> 358.26 Ngā Rūnanga

<sup>8</sup> 358.27 Ngā Rūnanga

- (b) into a river or artificial watercourse within 250 m upstream or 100 m downstream, or in a lake within 250 m of any other surface water intake.

Similarly, Beef & Lamb and and Deer Ind & Deer Farmers seek the following amendment to Condition 3: The discharge does not have any adverse effect on water takes or other users of water, or take place at the same time as an abstraction activity is occurring. ~~is not.~~

Aquatic Weed Control Ltd and Eel Industry Assn seek to delete reference to glyphosate, as it is not allowed to be discharged to water and include Diquat, Aquathol, Aquathol Super K and Garlon; and require these activities to be restricted discretionary.

Landcare Services seeks to reclassify the discharge of any chemical to water for aquatic weed control as a restricted discretionary or discretionary activity. The discretion to be exercised by Council should include provision for dealing with biosecurity emergencies, and eradication of outbreaks of serious aquatic weed pests, such as Lagarosiphon, Egeria, Hornwort and Hydrilla.

DOC seeks to delete “diquat or glyphosate” and replace with “EPA approved agrichemicals”. They also seek to add Condition 5 of Rule 5.25 and to add a condition that the chemical is EPA approved for application to water.

RDRML seeks that Rule 5.27(3)(b) be reworded so that activities associated with the ongoing operation and maintenance of regionally significant infrastructure is specifically excluded from this Rule and that a new rule is inserted which makes the spraying of diquat or glyphosate a permitted activity for regionally significant infrastructure where it is carried out by a person who is certified in its use.

Fed Farmers (High Country and Temuka) seek to remove the words “via land-based methods”.

Ngā Rūnanga seeks to include a new sub-condition which states that the discharge is not to land that is culturally significant and include an advisory note at the bottom of the rule which specifies how one can determine if the land is culturally significant.

The submissions on this Rule fall into two major categories. Firstly, those seeking greater protection of other water users’ rights, and secondly to modify the relevant chemicals to a more appropriate list of chemicals that have approval for use in water. Advice from Dr Adrian Meredith is that the thinking on glyphosate is slowly changing, to the extent that removal of it from the Rule would be a precautionary approach. Several people have submitted that glyphosate is not approved for use in water. A number of submissions seek a requirement that the conditions for the permitted activity include something along the lines of “does not have any adverse effects on water takes or other users of water”. This is a helpful starting point, but is not sufficiently certain for inclusion as a permitted activity condition. On this basis, a recommended change to the wording is made below, which is somewhat more strongly based on the criteria in section 70 of the RMA.

RDRML seeks a specific permitted activity condition that allows for the maintenance of regionally significant infrastructure. Given the potentially significant effects of applying agrichemicals directly into water bodies, and the restrictions contained in section 70 of the RMA, this is not considered appropriate.

With respect to conditions preventing discharges onto or into sites of significance to tangata whenua, case law requires certainty and objectivity for permitted activity rules and permitted activity performance standards. Without the certainty of identifying locations or values of significance to

tangata whenua, inclusion of this condition cannot be supported. Ngāi Tahu may wish to address this matter more fully at the hearing.

**Recommendation R5.27**

That Rule 5.27 be amended as follows:

- 5.27 *The discharge of diquat or ~~glyphosate~~<sup>9</sup> to a surface water body via land based methods is a permitted activity provided the following conditions are met:*
1. *The discharge is carried out by a person who holds a current GROWSAFE® Registered Chemical Applicator's Certificate issued by the New Zealand Agrichemical Education Trust; and*
  2. *The discharge is only incidental to the spraying of the bed or bank of a river, the bed of a lake, or an artificial watercourse, or a wetland, undertaken in accordance with Rule 5.25;*
  3. *The discharge is not:*
    - (a) *within a group or community drinking water supply protection area as set out in Schedule 1; or*
    - (b) *into a river or artificial watercourse within 250 m upstream or 100 m downstream, or in a lake within 250 m, of any other surface water intake; and*
  4. *The discharge does not render fresh water unsuitable for consumption by farm animals or any abstracted water rendered unsuitable for its intended use.<sup>10</sup>*

*Note: See also the rules on vegetation clearance – 5.143-5.154.*

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**Rule 5.28**

Rule 5.28 states:

- 5.28 *The discharge of an agrichemical to a surface water body, that does not meet one or more of the conditions in Rule 5.27 is a restricted discretionary activity.*

*The CRC will restrict its discretion to the following matters:*

1. *Measures to avoid, mitigate or remedy unintended adverse effects on aquatic ecosystems (in addition to the intended removal of the flora or fauna by the application of the relevant agrichemical), and human or animal drinking water;*
2. *The provision of advice and information about the exercise of the consent to people and authorities in and adjacent to the application area; and*
3. *The adequacy of application methods, systems and management processes to prevent fugitive discharges and the recording of application areas.*
4. *The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to human and animal drinking water quality.*

*Notification*

*Pursuant to sections 95A and 95B of the RMA an application for resource consent under this rule will be processed and considered without public or limited notification.*

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<sup>9</sup> 34.2 Aquatic Weed Control Ltd

<sup>10</sup> 320.104 Fed Farmers (Combined Cnty)

*Note that limited notification to affected order holders in terms of section 95F of the RMA will be necessary, where relevant, under section 95B(3) of the RMA.*

Aquatic Weed Control Ltd seeks to amend the Rule to refer to biosecurity outcomes.

Ms Jane Demeter seeks to remove the public or limited notification clause as potential adverse effects should require notified resource consent.

Ngā Rūnanga seeks to include a new matter for discretion to include effects on Ngai Tahu values. As has been stated above, without the certainty of identifying locations or values of significance to tangata whenua, inclusion of this matter for discretion cannot be supported. Ngāi Tahu may wish to address this matter more fully at the hearing.

Ngā Rūnanga and Ms. Jane Demeter seek to remove the restriction on limited or public notification with respect to this rule. The restriction on notification was originally proposed so that the applicants would have some certainty through the resource consent process. However, given that the potential adverse effects of not meeting the permitted activity criteria are quite high, and might include specific effects on individuals, especially in relation to water abstraction, removal of the notification limitation is considered appropriate.

#### **Recommendation R5.28**

That Rule 5.28 be amended as follows:

*5.28 The discharge of an agrichemical to a surface water body, that does not meet one or more of the conditions in Rule 5.27 is a restricted discretionary activity.*

*The CRC will restrict its discretion to the following matters:*

- 1. Measures to avoid, mitigate or remedy unintended adverse effects on aquatic ecosystems (in addition to the intended removal of the flora or fauna by the application of the relevant agrichemical), and human or animal drinking water;*
- 2. The provision of advice and information about the exercise of the consent to people and authorities in and adjacent to the application area; and*
- 3. The adequacy of application methods, systems and management processes to prevent fugitive discharges and the recording of application areas.*
- 4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to human and animal drinking water quality.*

#### *Notification*

~~*Pursuant to sections 95A and 95B of the RMA an application for resource consent under this rule will be processed and considered without public or limited notification.*~~

~~*Note that limited notification to affected order holders in terms of section 95F of the RMA will be necessary, where relevant, under section 95B(3) of the RMA.*~~<sup>11</sup>

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<sup>11</sup> 358.188 Ngā Rūnanga

### 3 Offal and Farm Rubbish Pits

#### Introduction

Offal and farm rubbish pits are a necessary part of rural life. They were provided for under the NRRP, and a slightly revised set of provisions were established in the pLWRP. The submissions on these provisions have been extensive and in general seek to make the provisions more pragmatic and responsive to normal farming activities. In general these farming activities, and the submissions, identify that:

- Larger farms require a greater number of offal pits, potentially of a large size.
- Health requirements dictate that individual farm animals will often be buried on or near the location where they die.
- Protection of water quality is paramount, and the onsite effluent suitability area is not necessarily a good predictor of appropriate locations for offal pits. Greater separation distances and other recognition of specific cultural and environmental values is required.

As there is considerable overlap in the rule framework, and submissions, the rules for offal pits and on-site refuse disposal are grouped and analysed together and a single recommended set of amended rules follows the analysis.

#### Definition – Offal

*Offal means waste comprised of dead animal matter.*

No submissions received.

#### **Recommendation R2.10.123**

That the definition of Offal be retained without amendment.

#### Definition – Offal pit

*Offal pit means a hole excavated in land for the purpose of disposing of offal, but does not include an on-site refuse disposal pit.*

No submissions received.

#### **Recommendation R2.10.124**

That the definition of Offal be retained without amendment.

## Offal Pit Rules

Rule 5.29 states:

5.29 *The use of land for an offal pit and the associated discharges onto or into land in circumstances where a contaminant may enter water are permitted activities provided the following conditions are met:*

1. *The discharge is to a pit that:*
  - (a) *has a volume of less than 50 m<sup>3</sup>;*
  - (b) *is sited and designed to prevent surface runoff entering the pit; and*
  - (c) *is designed to prevent animals from gaining access to the pit; and*
2. *The discharge is only of dead animals or animal parts produced on the site where the pit is located;*
3. *No more than one pit is constructed or used per site per annum;*
4. *When any pit is filled to within 0.5 m of the original land surface, or is no longer used, the contents are covered with soil to a depth of at least 0.5 m or the pit is covered with an impermeable lid; and*
5. *The discharge does not occur:*
  - (a) *within 50 m of a surface water body, a bore used for water abstraction, the boundary of the site, or the Coastal Marine Area;*
  - (b) *within a group or community drinking water supply protection area as set out in Schedule 1;*
  - (c) *outside of the area marked “Septic tank Suitability – Area A” on the Planning Maps, unless there is at least 3 m of soil or sand between the point of discharge and the highest known groundwater level;*
  - (d) *within the Christchurch Groundwater Protection Zone as shown on the Planning Maps; or*
  - (e) *on a site listed as an archaeological site.*

*Note: Nothing in this rule prevents a pit being used for both an offal pit and an on-site refuse disposal pit, if the conditions of both rules are complied with.*

5.30 *The use of land for an offal pit and the associated discharges onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions in Rule 5.29 is a restricted discretionary activity.*

*The CRC will restrict discretion to the following matters:*

1. *The effect of not meeting the condition or conditions of Rule 5.29.*
2. *The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to human and animal drinking water quality.*

Freshpork Farms Limited seeks to delete the references to the word “site”, while eight submitters seek to replace the word “site” with “ha”.

Mr Ross Little seeks to reword Condition 3 by adding after the words “per annum”, unless there is a separation distance of 200 metres from any existing offal pit or property boundary. Twenty submissions seek to delete this condition. Two seek that it be retained. Other submissions seek an amendment of this condition or the definition of “Site” so that large properties can still be compliant while having a number of pits for management purposes.

Mr William Kingston seeks to amend the Rule by allowing larger volumes than 50m<sup>3</sup>. Synlait Milk and Synlait Farms seek to increase the maximum volume to 100 cubic metres or outline areas where the size restriction is of concern and needs closer management.

CRC seeks the following amendments:

- Condition 5(c): ~~outside of the area marked “Septic tank Suitability - Area A” on the Planning Maps, Unless there is at least 3 m of soil or sand between the point of discharge and the seasonal high water table level~~ highest known groundwater level;
- Replace all references to “highest known groundwater level” with “seasonal high water table level”.

Fed Farmers (Combined Canty) and Simons Pass seek significant changes to this Rule:

- Amend the Rule to provide setbacks between offal pits, and dwellings or places of assembly on other landholdings, or at least to include advice notes in reference to other regional and district plans.
- Amend Condition 5(c) as follows: “The discharge does not occur... outside of the area marked “Septic tank Suitability - Area A” on the Planning Maps, unless there is at least 3 m of soil or sand between the point of discharge and the highest known groundwater level' or the site is at least 250 m from the nearest potable water abstraction point or spring fed lowland river. Beef & Lamb also seeks this amendment.
- Add the following new condition to Rule 5.29: 2. The discharge is only of dead animals or animal parts produced on the site where the pit is located, or the activity is carried out under the control of the regional council or a crown agency. Beef & Lamb and Deer Ind and Deer Farmers also seek this amendment.
- Include advice notes that refer to the requirements of the Health Act with respect to the on-farm disposal of fallen stock, for example:
  1. The discharge of carcasses and offal to land must not create a nuisance under the Health Act 1956. This means that the activity must not be offensive, likely to be injurious to health, spread disease, likely to harbour rats and other vermin, or give rise to the breeding of flies or other insects which are capable of transmitting disease.
  2. If the discharge of carcasses and offal creates risks to human health it is appropriate to notify the Medical Officer of Health or Health Protection Officer for the area. Situations where this might be necessary include:
    - potential for microbial contamination of water supplies;
    - any infestations of vermin or other disease vectors;
    - fallen stock left to decompose in the field where they die.
- Include a new rule to provide for one-off disposal in situations where it is not possible to comply with the generic permitted activity rule, for example:

Notwithstanding the conditions of Rule 5.29, the use of land to bury a single dead animal and the associated discharge onto or into land in circumstances where a contaminant may enter water are permitted activities provided the following conditions are met:

  - (i) The dead animal cannot be reasonably disposed of in accordance with all of the conditions of Rule 5.29;
  - (ii) There is no reasonably priced collection service for dead stock available in the area at the time of death;
  - (iii) The material discharged results from agricultural production on the same landholding;
  - (iv) The material is buried in a shallow pit which does not contain any water, and is immediately and completely covered by sufficient soil or plant material so as to prevent discharge of odour to air, or other nuisance;

(v) The burial site shall be at least 20 metres from any surface water body, water abstraction point, archaeological site, dwelling, building used as a work place on another landholding, place of assembly, or waahi taonga.

- Amend Condition 3 of Rule: “No more than one ofal pit is constructed or used ~~per site per annum~~ within 200 metres of any other in-use ofal pit on the same landholding.”

Beef & Lamb seeks the following additional Condition: “5(f) to any naturally formed limestone rock.”

DOC seeks the following amendments:

- Add the following Condition: “Is not discharged where it may enter water within 100m of a schedule 17 site.”

Regarding ofal pits:

- Add the following Condition: “The Council is notified in writing of the intended location and depth of the ofal pit prior to it being dug.”
- Or, alternatively, insert a condition requiring that a standardised form produced by the Council be completed and returned to the Council prior to work on the pit commencing.
- Amend the wording of the note to provide clarity: “Nothing in this rule prevents a pit being used for both an ofal pit and an on-site refuse disposal pit, if the conditions of this Rule and Rule 5.31 are met ~~both rules are complied with.~~”

Regarding on-site refuse disposal pits:

- Add the following Condition: “The Council is notified in writing of the intended location and depth of the on-site refuse disposal pit prior to it being dug.”
- Or, alternatively, insert a condition requiring that a standardised form produced by the Council be completed and returned to the Council prior to work on the pit commencing.
- A further alternative is to reword Rules 5.29 and 5.31 so that they are controlled rather than permitted. Satisfaction of the existing conditions plus notifying the Council in advance as to the location and depth of the pits would be pre-requisites for a consent being issued.

NZHPT seeks that the following matters are inserted into Condition 5:

- Where the activity will adversely affect any historic heritage, or a site listed as an archaeological site.
- That is listed as a heritage item or site of significance to tangata whenua in a district plan and that is identified as a site of significance to tangata whenua in an iwi management plan.

CIAL seeks to have their land included in "Septic tank suitability - Area A" planning map.

Lincoln University seeks to allow multiple smaller ofal pits to be constructed, and to limit ofal pits on a per 100 hectare basis rather than a per site basis, as follows: “The use of land for an ofal pit and the associated discharges onto or into land in circumstances where a contaminant may enter water are permitted activities provided the following conditions are met:

1. The discharge is to a pits that:
  - (a) ~~have~~ has a total volume of less than 50 m3 per 100 hectares per annum;
  - (b) are ~~is~~ sited and designed to prevent surface runoff entering the pits; and
  - (c) are ~~is~~ designed to prevent animals from gaining access to the pits; and
2. The discharge is only of dead animals or animal parts produced on the site where the pits are ~~is~~ located;
3. ~~No more than one pit is constructed or used per site per annum;...~~

Ngā Rūnanga seeks the following amendments:

- Condition 5(e) Include a new sub-condition which states that the discharge is not “into land that is culturally significant”.
- Include an advisory note at the bottom of the rule which specifies how one can determine if the land is culturally significant.
- Insert new sub-condition as follows: “Within any area or zone identified in a proposed or operative district or city plan for residential, commercial or industrial purposes.”

Eight submissions seek to delete Condition 2 from Rule 5.30 and amend with conditions which specifically relate to the areas of discretion. NZKS seeks that it remains unchanged.

NZHPT seeks to add a matter for restricted discretion in Rule 5.30: “Potential damage to any historic heritage, or a site listed as an archaeological site.”

Ngā Rūnanga seeks to include a new matter for discretion in Rule 5.30 to include effects on Ngāi Tahu values.

In general these farming activities, and the submissions, identify that:

- Larger farms require a greater number of offal pits, potentially of a large size.
- Health requirements dictate that individual farm animals will often be buried on or near the location where they die.
- Protection of water quality is paramount, and the onsite effluent suitability area is not necessarily a good predictor of appropriate locations for offal pits. Greater separation distances and other recognition of specific cultural and environmental values is required.

DOC has sought requirements that information be provided to council on the number, location and volume of both offal pits and farm rubbish pits. This is a similar framework to the NRRP. Anecdotal evidence would suggest that this is not occurring under the current framework, and is a condition that is not being presently actively enforced by the CRC. On this basis, it is not recommended that these submission points be accepted.

With respect to conditions preventing discharges onto or into sites of significance to tangata whenua, case law requires certainty and objectivity for permitted activity rules and permitted activity performance standards. Without the certainty of identifying locations or values of significance to tangata whenua, inclusion of this condition cannot be supported. Ngāi Tahu may wish to address this matter more fully at the hearing.

NZHPT has requested that where there is protection of archaeological sites that there should also be reference to historic heritage. It is agreed that the historic heritage should be afforded the same protection as archaeological sites where this is likely to occur. However these controls will typically overlap with district plan controls and the protections under the Historic Places Act 1993. Duplicating these controls will likely lead to increased compliance costs, rather than additional protection. A note is suggested as an alternative.

In general, a number of changes to the offal pits rule regime are outlined in the recommendation. The changes include provision for the burial of a single animal carcass, restrictions on the location of offal pits, both in a general sense and ensuring that they are not located in environmentally sensitive areas, making the size and number restrictions more flexible and the inclusion of additional advice notes.

### On-site Refuse Disposal Rules

Rules 5.31 and 5.32 state:

5.31 *The use of land for an on-site refuse disposal pit and the associated discharges onto or into land in circumstances where a contaminant may enter water are permitted activities provided the following conditions are met:*

1. *The discharge is to a pit:*
  - (a) *located on a site of greater than 20 ha in area;*
  - (b) *with a volume of less than 50 m<sup>3</sup>;*
  - (c) *sited and designed to prevent surface runoff entering the pit; and*
  - (d) *designed to prevent animals from gaining access to the pit; and*
2. *No hazardous substances or agrichemical containers are discharged;*
3. *The discharge is only of refuse produced on the site where the pit is located;*
4. *No kerbside community or local authority refuse collection is available;*
5. *When any pit is filled to within 0.5 m of the original land surface, or is no longer used, the contents are covered with soil to a depth of at least 0.5 m or the pit covered with an impermeable lid; and*
6. *The discharge does not occur:*
  - (a) *within 50 m of a surface water body, a bore used for water abstraction, the boundary of the site or the Coastal Marine Area;*
  - (b) *within a group or community drinking water supply protection area as set out in Schedule 1;*
  - (c) *outside of the area marked "Septic tank Suitability – Area A" on the Planning Maps, unless there is at least 3 m of soil or sand between the point of discharge and the highest known groundwater level;*
  - (d) *within the Christchurch Groundwater Protection Zone as shown on the Planning Maps; or*
  - (e) *on a site listed as an archaeological site.*

*Note: Nothing in this rule prevents a pit being used for both an offal pit and an on-site refuse disposal pit, if the conditions of both rules are complied with.*

5.32 *The use of land for an on-site refuse disposal pit and the associated discharges onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions in Rule 5.31 is a restricted discretionary activity.*

*The CRC will restrict discretion to the following matters:*

1. *The effect of not meeting the condition or conditions of Rule 5.31.*
2. *The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to human and animal drinking water quality.*

Castle Ridge Station Ltd seeks clarification of the definition of "site" in relation to size (Condition 1(a)) and location of an offal pit in relation to a homestead (Condition 3).

CCC seeks to include hazardous wastes and agrichemicals in Condition 2 as follows: "No hazardous substances or wastes, agrachemicals or agrichemical containers are discharged."

Meadow Mushrooms, Lincoln University and Institute for Plant & Food Research seek to include "as defined in Schedule 4" after reference to hazardous substances in Condition 2.

Lake Heron Station seeks to reword Condition 3 to allow within property transfer of refuse between sites.

Waimakariri DC seeks to reword Condition 4 to read: “No kerbside collection is available.”

CRC seeks the following amendment to Condition 6(c): ~~“outside of the area marked “Septic tank Suitability – Area A” on the Planning Maps,~~ unless there is at least 3 m of soil or sand between the point of discharge and the seasonal high water table level ~~highest known groundwater level.~~” Also, all references to “highest known groundwater level” should be replaced with “seasonal high water table level”.

NZHPT seeks the following matters to be inserted into Condition 6:

- Where the activity will adversely affect any historic heritage, or a site listed as an archaeological site.
- that is listed as a heritage item or site of significance to tangata whenua in a district plan and that is identified as a site of significance to tangata whenua in an iwi management plan.

Ngā Rūnanga seek the following:

- Add a new Condition: “Within any area or zone identified in a proposed or operative district or city plan for residential, commercial or industrial purposes” as on-site refuse disposal pits are only appropriate on rural land
- Condition 6(e): Include a new sub-condition which states that the discharge is not “into land that is culturally significant”.
- Include an advisory note at the bottom of the rule which specifies how one can determine if the land is culturally significant.

DOC seeks to clarify the wording of the note which accompanies the Rule (as stated above).

A further alternative is to reword Rules 5.29 and 5.31 so that they are controlled rather than permitted. Satisfaction of the existing conditions plus notifying the Council in advance as to the location and depth of the pits would be pre-requisites for a consent being issued.

Synlait Milk and Synlait Farms seek to increase the maximum volume to 100 cubic metres or outline areas where the size restriction is of concern and needs closer management.

NZHPT seeks to insert the following matter into the restricted discretionary matters in Rule 5.32: “Potential damage to any historic heritage, or a site listed as an archaeological site.”

Ngā Rūnanga seeks to include a new matter for discretion in Rule 5.32 to include effects on Ngai Tahu values.

Farm rubbish pits are also a necessary part of rural life, and the pLWRP rules sought to provide for farm rubbish pits, which are often combined with offal pits. The NRRP provided for farm rubbish pits on any size property, including rural lifestyle properties. The pLWRP sought to impose more restrictions on farm rubbish pits, and there are a range of submissions that seek both tightening of the requirements, along with a range of submissions that seek a more permissive rule regime. Many of the requirements for permitted activity status overlap with the permitted activity status for offal pits, and similar submissions have been made.

In general, landfills of any size need to be closely managed as they are potential sources of contamination of both land and water. Those submissions that have sought loosening of the

provisions, particularly in terms of providing for larger on-farm rubbish pits and inter-property transfer, are recommended to be rejected.

Waimakariri DC seeks to include kerbside collection as a condition is not considered appropriate as kerbside collection is available from commercial operators in very large areas of the Canterbury Plains. Commercial operator kerbside collection is often not available in the volumes that are appropriate for large farming operations.

With respect to conditions preventing discharges onto or into sites of significance to tangata whenua, case law requires certainty and objectivity for permitted activity rules and permitted activity performance standards. Without the certainty of identifying locations or values of significance to tangata whenua, inclusion of this condition cannot be supported. Ngāi Tahu may wish to address this matter more fully at the hearing.

NZHPT has requested that where there is protection of archaeological sites that there should also be reference to historic heritage. It is agreed that the historic heritage should be afforded the same protection as archaeological sites where this is likely to occur. However these controls will typically overlap with district plan controls and the protections under the Historic Places Act 1993. Duplicating these controls will likely lead to increased compliance costs, rather than additional protection. A note is suggested as an alternative.

DOC has sought requirements that information be provided to council on the number, location and volume of both offal pits and farm rubbish pits. This is a similar framework to the NRRP. Anecdotal evidence would suggest that this is not occurring under the current framework, and is a condition that is not being presently actively enforced by the CRC. On this basis, it is not recommended that these submission points be accepted.

#### **Recommendation on Rules 5.29 to 5.32**

##### **Recommendation R5.29**

That Rules 5.29 to 5.32 be amended as follows:

*5.29 The use of land for an offal pit and the associated discharges onto or into land in circumstances where a contaminant may enter water are permitted activities provided the following conditions are met:*

- 1. The discharge is to a pit that:
  - (a) has a volume of less than 50 m<sup>3</sup>;*
  - (b) is sited and designed to prevent surface runoff entering the pit; and*
  - (c) is designed to prevent animals from gaining access to the pit; and**
- 2. The discharge is only of dead animals or animal parts produced on the property site<sup>12</sup> where the pit is located;*
- 3. No more than one pit is constructed or used per 100ha of property area<sup>13</sup> ~~site~~ per annum;*
- 4. When any pit is filled to within 0.5 m of the original land surface, or is no longer used, the contents are covered with soil to a depth of at least 0.5 m or the pit is covered with an impermeable lid; and*
- 5. The discharge does not occur:*

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<sup>12</sup> 73.20 Castle Ridge Station Ltd

<sup>13</sup> 310.24 Lincoln University

- (a) within ~~100~~ 50<sup>14</sup> m of a surface water body, a bore used for water abstraction, the boundary of the site, or the Coastal Marine Area;
- (b) within a group or community drinking water supply protection area as set out in Schedule 1;
- (c) ~~unless there is at least 3 m of soil or sand between the point of discharge and the seasonal high water table level outside of the area marked "Septic tank Suitability – Area A" on the Planning Maps, unless there is at least 3 m of soil or sand between the point of discharge and the highest known groundwater level;~~<sup>15</sup>
- (d) within the Christchurch Groundwater Protection Zone as shown on the Planning Maps; or
- (e) on a site listed as an archaeological site.
- (f) Within any area or zone identified in a proposed or operative district plan for residential, commercial or industrial purposes.<sup>16</sup>

Notes:

- 1. Nothing in this rule prevents a pit being used for both an offal pit and an on-site refuse disposal pit, if the conditions of this Rule and Rule 5.31 are met both rules are complied with.<sup>17</sup>
- 2. Archaeological sites are protected under the Historic Places Act 1993. There may also be additional protections of historic heritage and earthworks in the relevant district plan.<sup>18</sup>
- 3. The discharge of carcasses and offal to land must not create a nuisance under the Health Act 1956. This means that the activity must not be offensive, likely to be injurious to health, spread disease, likely to harbour rats and other vermin, or give rise to the breeding of flies or other insects which are capable of transmitting disease.
- 4. If the discharge of carcasses and offal creates risks to human health it is appropriate to notify the Medical Officer of Health or Health Protection Officer for the area. Situations where this might be necessary include:
  - potential for microbial contamination of water supplies;
  - any infestations of vermin or other disease vectors; or
  - fallen stock left to decompose in the field where they die.<sup>19</sup>

5.29A Notwithstanding Rule 5.29, the use of land to bury a single dead animal and the associated discharge onto or into land in circumstances where a contaminant may enter water are permitted activities provided the following conditions are met:

- 1. The dead animal cannot be disposed of in accordance with the conditions of Rule 5.29;
- 2. The dead animal results from agricultural production on the same property;
- 3. The material is buried in a pit which does not contain any water, and is immediately and completely covered by sufficient soil or plant material so as to prevent discharge of odour to air, or other nuisance;
- 4. The burial location is not within any area or zone identified in a proposed or operative district plan for residential, commercial or industrial purposes; and
- 5. The burial site is at least 50 metres from any:

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<sup>14</sup> 120.146 DOC

<sup>15</sup> 167.30 CRC

<sup>16</sup> 358.30 Ngā Rūnanga

<sup>17</sup> 120.146 DOC

<sup>18</sup> 226.8 NZHPT

<sup>19</sup> 320.108 Fed Farmers (Combined Canty)

- (a) surface water body;
- (b) bore used for water abstraction; and
- (c) property boundary.<sup>20</sup>

5.30 The use of land for an offal pit and the associated discharges onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions in Rule 5.29 is a restricted discretionary activity.

The CRC will restrict discretion to the following matters:

1. The effect of not meeting the condition or conditions of Rule 5.29;
2. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to human and animal drinking water quality;
3. The preparation, compliance with and auditing of the Farm Environment Plan; and<sup>21</sup>
4. Any potential effects on Ngai Tahu values.<sup>22</sup>

5.31 The use of land for an on-site refuse disposal pit and the associated discharges onto or into land in circumstances where a contaminant may enter water are permitted activities provided the following conditions are met:

1. The discharge is to a pit:
  - (a) located on a site of greater than 20 ha in area;
  - (b) with a volume of less than 50 m<sup>3</sup>;
  - (c) sited and designed to prevent surface runoff entering the pit; and
  - (d) designed to prevent animals from gaining access to the pit; and
2. No hazardous substances, hazardous waste, agrichemicals<sup>23</sup> or agrichemical containers are discharged;
3. The discharge is only of refuse produced on the property site<sup>24</sup> where the pit is located;
4. No kerbside community or local authority refuse collection is available;
5. When any pit is filled to within 0.5 m of the original land surface, or is no longer used, the contents are covered with soil to a depth of at least 0.5 m or the pit covered with an impermeable lid; and
6. The discharge does not occur:
  - (a) within ~~100~~ 50<sup>25</sup> m of a surface water body, a bore used for water abstraction, the boundary of the property site<sup>26</sup> or the Coastal Marine Area;
  - (b) within a group or community drinking water supply protection area as set out in Schedule 1;
  - (c) unless there is at least 3 m of soil or sand between the point of discharge and the seasonal high water table level outside of the area marked "Septic tank Suitability — Area A" on the Planning Maps,

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<sup>20</sup> 320.109 Fed Farmers (Combined Cnty)

<sup>21</sup> 318.39 Beef and Lamb

<sup>22</sup> 358.31 Ngā Rūnanga

<sup>23</sup> 106.59 CCC

<sup>24</sup> 73.20 Castle Ridge Station Ltd

<sup>25</sup> 120.147 DOC

<sup>26</sup> 73.20 Castle Ridge Station Ltd

- ~~unless there is at least 3 m of soil or sand between the point of discharge and the highest known groundwater level,<sup>27</sup>~~
- (d) within the Christchurch Groundwater Protection Zone as shown on the Planning Maps: or
  - (e) on a site listed as an archaeological site.
  - (f) Within any area or zone identified in a proposed or operative district plan for residential, commercial or industrial purposes.<sup>28</sup>

Notes:

- 1. Nothing in this rule prevents a pit being used for both an offal pit and an on-site refuse disposal pit, if the conditions of this Rule and Rule 5.29 are met ~~both rules are complied with.~~<sup>29</sup>
- 2. Archaeological sites are protected under the Historic Places Act 1993. There may also be additional protections of historic heritage and earthworks in the relevant district plan.

5.32 The use of land for an on-site refuse disposal pit and the associated discharges onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions in Rule 5.31 is a restricted discretionary activity.

The CRC will restrict discretion to the following matters:

- 1. The effect of not meeting the condition or conditions of Rule 5.31;
- 2. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to human and animal drinking water quality;
- 3. The preparation, compliance with and auditing of the Farm Environment Plan; and<sup>30</sup>
- 4. Any potential effects on Ngai Tahu values.<sup>31</sup>

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<sup>27</sup> 167.30 CRC

<sup>28</sup> 358.32 Ngā Rūnanga

<sup>29</sup> 120.147 DOC

<sup>30</sup> 318.39 Beef and Lamb

<sup>31</sup> 358.33 Ngā Rūnanga

## 4 Animal and Vegetative Waste

### Rules 5.33 and 5.34

Rules 5.33 and 5.34 state:

5.33 *The discharge of solid animal waste, or vegetative material containing animal excrement or vegetative material, including from an intensive farming process or industrial or trade process, into or onto land, or into or onto land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:*

1. *The material does not contain any hazardous substance or hazardous waste;*
2. *The material does not include any waste from a human effluent treatment process; and*
3. *The material is not discharged:*
  - (a) *onto the same area of land more frequently than once every two months;*
  - (b) *onto land when the soil moisture exceeds field capacity;*
  - (c) *within 20 m of a bore used for water abstraction, a surface water body or the Coastal Marine Area; or*
  - (d) *within a group or community drinking water supply protection area as set out in Schedule 1.*

5.34 *The discharge of solid animal waste, or vegetative material containing animal excrement or vegetative material, including from an intensive farming process or industrial or trade process, into or onto land, or into or onto land in circumstances where a contaminant may enter water that does not meet one or more of the conditions in Rule 5.33 is a discretionary activity.*

Three submissions seek to retain this Rule.

Fonterra submits that the definition of ‘hazardous waste’ excludes disposal of the very material that the Rule is designed to authorise. In addition, this rule could be interpreted as regulating discharges from animals. If interpreted that way, discharges from animals to land as part of normal grazing practices would require regional council consent as the conditions could not be complied with e.g. the frequency is limited to no more than once every 2 months. This seems unlikely to be the intent of the Rule. They seek to amend the Rule by adding the following to the beginning of the Rule: “Except where it occurs directly from an animal to pasture, the discharge of solid animal waste, or vegetative material containing...”

DOC seeks to reword the Rule to make discharges of solid animal waste and solid or liquid vegetative waste (whether or not it also contains animal excrement) permitted activities but only where pre-determined quantity thresholds and application rates are provided by the rule. Also, only those discharges which are not likely to enter water can be deemed to be permitted. All other discharges are to be deemed discretionary so long as they meet appropriate criteria (such as those in Rule 5.35(2)) or non-complying if they occur in areas where water contamination might occur.

Nine submissions seek the following amendment:

5.33A *The discharge of solid animal waste, or vegetative material containing animal excrement or vegetative material, including from ~~intensive farming process or~~ industrial or trade processes, into or onto land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:*

1. *The material does not contain any hazardous substance or hazardous waste;*

2. The material does not include any waste from a human effluent treatment process; and
3. The material is not discharged:
  - (a) onto the same area of land more frequently than once every two months;
  - (b) onto land when the soil moisture exceeds field capacity;
  - (c) within 20 m of a bore used for water abstraction, a surface water body or the Coastal Marine Area; or
  - (d) within a group or community drinking water supply protection area as set out in Schedule 1.

5.33B The discharge of solid animal waste, or vegetative material containing animal excrement or vegetative material, including from intensive farming process or industrial or trade process, into or onto land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:

1. The material does not contain any hazardous substance or hazardous waste;
2. The material does not include any waste from a human effluent treatment process; and
3. the material is not discharges:
  - (a) onto the same area of land more frequently than once every two months;
  - (b) onto land when the soil moisture exceeds field capacity;
  - (c) within 20 m of a bore used for water abstraction, a surface water body or the Coastal Marine Area; or
  - (d) within a group or community drinking water supply protection area as set out in Schedule 1.

Several submissions seek to qualify Condition 1 by including various additions after reference to “hazardous substances”

- Three submissions seek to add the words “as defined in Schedule 4”.
- CRC seek to add the words “preservative chemicals”.
- Synlait Milk, Synlait Farms and Dairy NZ seek to add the words: “except where the waste is solid dairy effluent discharge”.

Fonterra seeks to delete Condition 1 from the Rule.

Fish & Game seeks to include an additional condition requiring at least a minimum setback from water bodies that are outstanding or have significant values:

- (e): Within 50 metres of a surface water body listed in Schedule 17 and Schedule XX.
- Include additional permitted activity standards controlling the contaminant levels and composition of the material so that they are at levels or application rates that will ensure that the requirements of s70 RMA are met or amend the activity status of the rule so that the discharges from this activity are managed through a resource consent.
- The rule should be amended so that it does not permit the discharge of animal effluent or other animal waste.

Ms Jane Demeter seeks to amend the Rule to additionally contain a clause for maximum rate of application not to exceed (an agreed to value).

Ngā Rūnanga seeks the following amendment:

- Condition 3(b): Amend to include the following wording after field capacity “and there is at least 3 m of soil or sand between the point of discharge and the highest groundwater level.”
- Condition 3(c): Amend distance to 50 m.

- Include a new sub-condition which states that the discharge is not “into land that is listed as an archaeological site and/or land that is culturally significant”.
- Include an advisory note at the bottom of the rule which specifies how the one can determine if the land is culturally significant.

Ngā Rūnanga also seeks to insert the following Conditions:

- Within any area or zone identified in a proposed or operative district or city plan for residential, commercial or industrial purposes.
- Within 50 metres of a property boundary.

DOC seeks to amend Rule 5.34 to read “The discharge into or onto land of solid animal waste, or vegetative material ~~containing animal excrement or vegetative material, including from an intensive farming process or industrial or trade process, into or onto land, or into or onto land in circumstances where a contaminant may enter water that or~~ vegetative material which contains animal waste which does not meet one or more of the conditions in ~~Rule 5.33~~ Rule 3.53<sup>32</sup> is a discretionary activity.”

Fonterra seeks to amend Rule 5.34 to begin “Except where it occurs directly from an animal to pasture, the discharge of solid animal waste, or vegetative material containing...”

RFBPS (Canty West Coast) seeks the following amendment pertaining to both Rules:

- That all discharges including those of solid animal and animal/plant become part of a global farm consent for each farm covering all significant discharges, i.e. any discharges that could contribute to cumulative effects on water quality.
- Those discharges be considered together with all other point and non-point source discharges as contributors to a cumulative effects and limits regime.
- That the proximity of any discharge site to any identified site of significant indigenous biodiversity or significant waterbodies be taken into account;
- That the extent to which the proposed activity is consistent with the objectives and policies of this plan relating to Ngai Tahu values, indigenous biodiversity values, recreational values, human and animal health and drinking water quality, including Policy 4.11.

The submissions on Rule 5.33 seek clarification that the rule does not apply to the direct discharge from animals to the ground, along with a variety of other refinements and clarifications. The majority of these changes are recommended to be adopted, in one form or another, as they generally add clarity and certainty to the rules and additional protective measures for the environment. This includes splitting the rule into two rules, so that discharges from industrial or trade processes are removed from this rule regime and intensive farming rules are separated. Some submissions seek the additional requirement that application rates be added. The present rule sets out that the discharge can only occur onto the area of land no more than once every two months. An additional criteria has been added, to prevent the discharge of subsequent material, where the existing material has not been absorbed or decomposed.

The “discharge” direct from an animal to the ground is not specifically addressed by the Rule, as Section 15(1) of the RMA does not require a resource consent or a rule to cover this activity, unless the discharge is to land in circumstances where it may enter water or direct to water, in which case other rules of the PLWRP apply to the discharge.

Ngā Rūnanga have sought additional criteria, including that there is at least 3 metres of soil or sand between the point of discharge and the highest groundwater level. This requirement would have merit for the protection of water quality, but may also significantly limit the ability to apply animal effluent

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<sup>32</sup> Original submission refers to “Rule 5.53”. It is assumed that the reference to Rule 3.53 is simply an error and it should refer to 5.33. Rule 5.53 relates to aerial application of fertiliser

based fertilisers and similar uses of this rule. The existing criteria is similar to that in the NRRP, which does not appear to be creating problems.

With respect to conditions preventing discharges onto or into sites of significance to tangata whenua, case law requires certainty and objectivity for permitted activity rules and permitted activity performance standards. Without the certainty of identifying locations or values of significance to tangata whenua, inclusion of this condition cannot be supported. Ngāi Tahu may wish to address this matter more fully at the hearing.

With respect to archaeological sites, these controls will typically overlap with district plan controls and the protections under the Historic Places Act 1993. Duplicating these controls will likely lead to increased compliance costs, rather than additional protection.

Submissions on Rule 5.34 seek additional criteria and general tightening of the rule framework, to ensure that adverse effects are adequately managed. The submissions also suggest that the rule should explicitly require the submission of a farm environment plan, in order to manage the effects of these discharges along with any other activities on the land. This is supported, but through changes to the relevant policy, as this rule is for a discretionary activity.

### **Recommendation R5.33**

That Rules 5.33 and 5.34 be amended as follows:

*5.33 The discharge of solid animal waste, or vegetative material containing animal excrement or vegetative material, including from an intensive farming process or industrial or trade process, into or onto land, or into or onto land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:*

- 1. The material does not contain any hazardous substance or hazardous waste;*
- 2. The material does not include any waste from a human effluent treatment process; and*
- 3. The material is not discharged:*
  - (a) onto the same area of land more frequently than once every two months;*
  - (b) onto land where solid animal waste, or vegetative material containing animal excrement or vegetative material from a previous application is still visible on the land surface;<sup>33</sup>*
  - (c) onto land when the soil moisture exceeds field capacity;*
  - (d) within 20 m of a bore used for water abstraction, a surface water body not listed in Schedule 17<sup>34</sup> or the Coastal Marine Area;*
  - (e) within 50 metres of a surface water body listed in Schedule 17;<sup>35</sup> or*
  - (f) within a group or community drinking water supply protection area as set out in Schedule 1.*

*5.34 The discharge of solid animal waste, or vegetative material containing animal excrement or vegetative material, including from an intensive farming process or industrial or trade process, into or onto land, or into or onto land in circumstances where a contaminant may enter water that does not meet one or more of the conditions in Rule 5.33 is a discretionary activity.*

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<sup>33</sup> 120.149 DOC

<sup>34</sup> 347.140 Fish & Game

<sup>35</sup> 347.140 Fish & Game

## 5 Stock Holding Areas and Animal Effluent

### Introduction

The original intention of the pLWRP rule framework was to take 3 relatively complex permitted activity rules in the NRRP related to stockholding areas, storage of animal effluent and discharges of that animal effluent, and bring them into a single rule that had a restricted discretionary activity status.

Following notification it became apparent that this had a number of unintended consequences, including requiring that existing systems which had passed the relatively complex permitted activity criteria in the NRRP would be required to get resource consent, existing designs were potentially no longer appropriate and the bundling of land use and discharge rules into a single rule framework were potentially causing difficulties with application of the rule.

### Definition – Stock holding area

***Stock holding area** means an area of land in which the construction of the holding area or stocking density precludes maintenance of pasture or vegetative groundcover, and is used for confining livestock for more than 30 days in any 12 month period or for more than 10 consecutive days at any time. For the avoidance of doubt, this definition includes; milking platforms, feedpads, wintering pads, and farm raceways used for stock holding purposes during milking.*

Several submissions seek to amend definition of "Stock holding area" by adding "(Excludes outdoor piggeries)" to the end of the definition.

Several submissions seek: "Means an area of land in which the construction of the holding area or stocking density precludes maintenance of pasture or vegetative groundcover, and is used for confining livestock for more than 30 24 hour days in any 12 month period or for more than 10 consecutive 24 hour days at any time. For the avoidance of doubt, this definition includes; ~~milking platforms~~ dairy yards, feed pads, and wintering pads, and farm raceways used for feeding or containing stock for extended periods of time ~~stock holding purposes during milking.~~"

Two submissions seek to exclude sheep and cattle yards that are used for less than 120 days/year.

Several submissions seek to amend the definition of "Stock holding area" to exclude sheep and cattle yards which do not have an impervious floor area and which are used for not more than 90 days in any 12 month period.

CJ & AM Allen seeks clarification that this does not include stock held in a part of a paddock behind temporary fence at a time of day when stock are denied access to winter feed crop.

Ngā Rūnanga seek to amend the definition of stock holding area to exclude sheep and beef farming and impermeable surface areas which don't drain into surface waterways.

The submissions on stock holding area are generally similar in nature, in seeking to exclude specific types of farm management, stocking types or other farm practices. The changes requested to the definition vary, but are generally along a similar theme.

When analysing these submissions it is clear that exclusion of certain types of stocking is not particularly effects based or likely to have any relevance to the actual amount of nutrients potentially leaving a property. On this basis, it is preferable to get the specific parameters correct in the definition, rather than including or excluding farming types or practices that would otherwise fall within the parameters.

The main parameters are the number of days used per year, and whether this should relate to 24 hour days or parts thereof. The inclusion of 24 hour days in the definition is likely to exclude a range of stock holding areas, particularly areas that are used regularly, but in a transitional nature, such as stock holding and milking areas on dairy farms. Certainly, the 10 consecutive days at a time criteria could have “24 hour days” added to add certainty to the part of the definition that is intended to capture continuous stocking.

Submissions have sought to increase the number of days that a stock holding area can be used to either 90 or 120 days per annum. The current definition uses 30 days per annum. The reasoning given in the submissions for 90 or 120 days is not particularly specific, and additional evidence on this would be appropriate, including from those submitters that have sought to exclude particular farming or farm management practices.

Overall, the definition and rule framework seek to manage land areas that are denuded of vegetation and subject to animal effluent and urine. On this basis, they are potentially significant generators of nutrients, as well as a risk to surface water and groundwater. Minimal changes to the definition have been recommended below, but the issue of the number of days that should trigger the definition is open to change based on evidence provided.

#### **Recommendation R2.10.178**

That the definition of Stock holding area be amended as follows:

***Stock holding area** means an area of land in which the construction of the holding area or stocking density precludes maintenance of pasture or vegetative groundcover, and is used for confining livestock for more than 30 days in any 12 month period or for more than 10 consecutive 24 hour<sup>36</sup> days at any time. For the avoidance of doubt, this definition includes; milking platforms, feed pads, wintering pads, and farm raceways used for stock holding purposes during milking.*

#### **Policy 4.27**

Policy 4.27 states:

*4.27 Any system to store, treat and dispose of animal effluent onto land has sufficient storage capacity to avoid the need to dispose of effluent when soil moisture or weather conditions may result in effluent run-off into surface water or leaching into groundwater; and to avoid fugitive discharges in the case of equipment or system failure.*

Seven submissions support this policy and seek that it be retained.

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<sup>36</sup> 320.115 Fed Farmers (Combined Cnty)

Two submissions seek nutrient discharges below 20 kg/ha to be a permitted activity. They seek to delay enforcement of other rules until the Hurunui Water Zone Committee has finally considered the Waipara catchment and reported its findings/recommendations.

Terralea Partnership seeks the Policy to be more animal class specific.

Silver Fern Farms seek the following addition:

“Animal effluent includes faeces and/ or urine from any animal, collected, stored and treated for the disposal/ application to land. For the avoidance of doubt, this does not include those waste/by-product stream/systems associated with industrial or trade premises where animal waste is a waste stream or by-product of that industry or trade process and may involve any of the above (see wastewater).”

Dairy Holdings Ltd seeks to delete the reference to "sufficient storage capacity" and make reference to the three day requirement under the NRRP or alternatively make provision for the same at a rule or definitions level.

The submissions on Policy 4.27 either support the policy and seek that it be retained, or seek relatively specific changes to the policy, particularly in the nature of excluding particular activities. Some of these matters are addressed by the more general nutrient discharge matters addressed elsewhere in this Report. The Silver Fern Farms amendment seeks to specifically exclude industrial or trade premises waste streams from this Policy. However, the matters contained in the policy would appear to be of universal application, and although oriented at waste storage and disposal as a part of primary production, the aims of the policy would appear to be appropriate also for primary service industry. On that basis, no changes to the policy are recommended.

#### **Recommendation R4.27**

That Policy 4.27 be retained without amendment.

#### **Rules 5.35 and 5.36**

Rules 5.35 and 5.36 state:

- 5.35 *The use of land for a stock holding area, the use of land for the collection, storage and treatment of animal effluent and the subsequent discharge of animal effluent or water containing animal effluent and other contaminants onto or into land where a contaminant may enter water is a restricted discretionary activity, provided the following conditions are met:*
1. *The stock holding area, collection, storage and treatment of animal effluent is not within:*
    - (a) *20 m of a surface water body, a bore used for water abstraction or the Coastal Marine Area;*
    - (b) *a group or community drinking water supply protection area as set out in Schedule 1; and*
  2. *The discharge of animal effluent or water containing animal effluent and other contaminants:*
    - (a) *is not directly to, or within, 20 m of a surface water body (other than a wetland constructed primarily to treat animal effluent), a bore used for water abstraction or the Coastal Marine Area;*
    - (b) *does not occur beyond the boundary of the site;*

- (c) *a group or community drinking water supply protection area as set out in Schedule 1*
- (d) *has backflow prevention installed if the animal effluent or water containing animal effluent is applied with irrigation water; and*
- (e) *is not to potentially contaminated land.*

*The CRC will restrict discretion to the following matters:*

1. *Measures to avoid, mitigate or remedy adverse effects on aquatic ecosystems and human or animal drinking water;*
2. *Measures to store effluent and application rates;*
3. *Methods to store effluent and application rates in times of adverse weather conditions, including frozen ground, or in cases of equipment failure;*
4. *The proximity of any discharge site to any identified site of significant indigenous biodiversity;*
5. *The adequacy of design, construction, systems and management processes to minimise fugitive discharges from the system, including, but not limited to, any design leakage from the stockholding and effluent storage areas, flow paths and mitigation in case of equipment failure or breakage;*
6. *The extent to which the proposed activity is consistent with the objectives and policies of this Plan relating to Ngāi Tahu values, human and animal health and drinking water quality, including Policy 4.11.*

5.36 *The use of land for a stock holding area, the use of land for the collection, storage and treatment of animal effluent and the subsequent discharge of animal effluent or water containing animal effluent and other contaminants into or onto land where a contaminant may enter water that does not meet one or more of the conditions of Rule 5.35 is a non-complying activity.*

LINZ, Hawkins Consulting Limited and Meridian seek to retain the Rules in their current state. Many submissions seek a new framework; others seek a change in activity status or to allow for existing activities. Other submissions simply seek changes in wording, clarification of definitions or tweaks to the conditions or matters for discretion. These are broadly grouped as follows:

### **Permitted activity status**

Fed Farmers (High Country and Temuka) seek a change in the activity status of the Rule to permitted and to delete the matters of restricted discretion.

Fonterra also seeks a permitted activity status and seeks to add the following to the existing conditions:

3. *There shall be no discharge of liquid animal effluent, washdown water or stormwater containing animal effluent onto land except by means of an authorised animal effluent collection and storage and discharge system.*
4. *The base of any stock holding area located on land over an unconfined or semi-confined aquifer shall be sealed with a synthetic liner or concrete or compacted clay or other material of low permeability, such that seepage into land shall not exceed one millimetre per day.*

Alternatively, Fonterra seeks to amend the Rule to establish a permitted activity for the activities presently addressed within the rule with appropriate standards, for example, that require that the activity is not within a community drinking water supply protection area, and is subject to the following controls: sealing standard for stock holding areas and effluent storage facilities, a maximum depth of effluent application based on soil type; timing of effluent application. (i.e. not onto saturated soils); no ponding of effluent or runoff from the disposal area; a minimum effluent storage capacity based on a

set return period; separation distances between waterways and groundwater bores and; provision for backflow prevention where this is required.

Should the Council choose not to adopt such a framework, Fonterra requests the following changes be made to the proposed rules:

- the inclusion of a permitted activity that addresses all of the land use requirements that are in the proposed rule that apply to all existing farms as a minimum;
- the provision of additional guidance on how appropriate effluent storage volumes will be determined;
- the inclusion of a rule that makes the discharge of dairy shed effluent to surface water a non-complying activity; and
- removal of Condition 2 (b) from rule 5.35.

This is supported by four further submissions and opposed by two.

Several submissions including Greenfield Rural Opportunities, seek certain activities to be permitted including:

- All lawfully established stock holding, effluent collection and storage areas, provided appropriate measures are taken to avoid, remedy or mitigate adverse effects of effluent runoff or escape from these areas on surface and groundwater;
- Any new stockholding, effluent collection and storage area which meet the conditions of Rule 5.35 and any such further conditions as need to be imposed in order to minimise the risk of adverse effects on surface or groundwater quality.
- Make consequential changes to Rules 5.35 and 5.36 to ensure that the non-complying activity status only applies in circumstances where there will be a high risk of nitrate-induced significant adverse effects on surface or groundwater quality.

This is supported by five further submissions.

Beef & Lamb and Deer Farmers Assn (Canty) seek to amend the Rule so that stock holding areas be made permitted activities when the surface preparations, design, or stock type result in a lower level of environmental risk compared to what would otherwise occur, for example:

- When location and stocking density are such that the overall environmental risk is significantly reduced compared to other practically available outcomes;
- When used to contain deer;
- When it creates a more sustainable outcome than would otherwise occur.
- These matters could be addressed through a Farm Environment Plan.

This is supported by two further submissions, while two have been lodged in opposition.

Simons Pass seeks to allow stock holding areas and discharge of effluent from a stock holding area as permitted activities.

Fed Farmers (Combined Canty) seeks that the use of land as a stock holding area is provided for as a permitted activity when surface preparations, design, or stock type result in a reduced level of environmental risk compared to what would otherwise occur, for example:

- When there is a roof over the whole area, that excludes rainfall and allows the operation of a 'dry bed' system;
- When the location, stocking density, or stock type are such that the overall environmental risk is significantly reduced to other practically available outcomes on the farm (for example when in an elevated location, on rocky ground, used to contain deer, or an extensive loafing area is available);

- When it creates a more sustainable outcome than would otherwise occur in the context of the whole farm system.

Fed Farmers (Combined Canty) also seeks that the Rule be amended to better protect dwellings or places of assembly on other landholdings from noise, nuisance, and odour effects of stock holding areas, effluent storage ponds, and effluent application areas. Suggested measures include setbacks, advice notes referring to other plans, of specific provision for combined resource consents.

#### **Stockholding areas lawfully established prior to notification**

Fed Farmers (Combined Canty) seeks that stockholding areas lawfully established prior to notification of the Land and Water Regional Plan are able to continue operation as a permitted activity so long as:

- All reasonable steps are taken to prevent the discharge of contaminants to water;
- The conditions of Rule 5.35 are complied with;
- That any stockholding areas are identified and mitigation measures outlined on a property map made available on request.

Synlait Milk and Synlait Farms seek an amendment to the description in the Rule so that all new facilities constructed after 1 January 2013 need to apply and existing facilities continue to be permitted until 5 years after the Plan becomes operative; or continue to allow storage to be permitted in line with Industry Effluent Code of Practice and the Storage Pond calculator.

Lincoln University seeks: “The use of land for a new stock holding area...” this is supported by 2 further submissions.

Simons Pass seeks to allow stocking areas lawfully established before the notification of the pLWRP, to continue operation as a permitted activity.

#### **Discharge of effluent from stock holding areas**

Fed Farmers (Combined Canty) seeks that the discharge of effluent from a stock holding area is provided for as a permitted activity (subject to conditions) when the nature of the activity or the manner in which it is carried out ensures that the risk of adverse environmental effects is minor, for example when:

- applying to soils in “Septic Tank suitability - Area A”, or;
- the application to land is directly supervised by a qualified person (as might occur with a contract effluent spreader);
- the effluent management system (including storage and application to land) complies with the Farm Dairy Effluent (FDE) Design Code of Practice and the Farm Dairy Effluent (FDE) Design Standards, and the operator presents on request evidence that it has been audited by a suitably qualified assessor in the past 12 months;
- the overall scope and scale of the activity is minor, for example a small amount of runoff from a dairy farm lane, or piles of stone trap cleanings.

Fish & Game seek the following amendments:

- Include within the rule framework (amendments to existing rules or new rules) requirements for farming activities being managed for nutrient discharges to meet the prerequisites of the Overseer model.
- Amend any rules that are not expressly discharge rules but which implicitly control discharges through the ‘bundling’ concept by either decoupling the management of discharges from rules managing other aspects of activities, or by amending the rules controlling activities so that they clearly specify that they are controlling associated

discharges and that appropriate matters of control and discretion are included in those rules to manage discharges.

- Add a new rule to the Plan which makes direct discharge of animal effluent to water a prohibited activity.

Irricon seeks to amend the wording of the Rule as follows:

The discharge of animal effluent or water containing animal effluent and other contaminants onto or into land where a contaminant may enter water is a restricted discretionary activity, provided the following conditions are met:

- (a) is not directly to, or within, 20 m of a surface water body (other than a wetland constructed primarily to treat animal effluent), a bore used for water abstraction or the Coastal Marine Area;
- (b) does not occur beyond the boundary of the site;
- (c) a group or community drinking water supply protection area as set out in Schedule 1
- (d) has backflow prevention installed if the animal effluent or water containing animal effluent is applied with irrigation water; and
- (e) is not to potentially contaminated land.

### **Conditions**

Several submitters seek changes or additions to the various conditions of the Rule, they are summarised as follows:

- Mr Peter Farrant seeks to change Condition 2(b) to reasonable means of preventing backflow.
- Mr Andrew Hart seeks to delete Condition 2(b).
- C&PH ChCh seeks to include performance criteria for constructed wetlands referred to in Condition 2(a).
- Ashburton DC seeks to add the words "does not occur within" to the start of Condition 2(c).
- CRC seek an amendment to Condition 2(e): "is not onto or into contaminated or potentially contaminated land."
- Synlait Milk and Synlait Farms seek to amend Condition 2(e) to state any land with the exemption of Schedule 3 A8.
- ANZCO *et al* seeks to delete conditions 2(b)-(e).

### **Matters of discretion**

Several submitters seek changes or additions to the matters of discretion, they are summarised as follows:

- Fed Farmers (Combined Canty) seeks to amend the second matter for discretion as follows: "Measures to prevent application of effluent at a depth that exceeds water deficit at the time of application, or at a rate that exceeds soil infiltration rate."
- CCC seeks to include as an assessment matter a reference to sites of ecological significance that are identified in District Plans.
- EDS seeks to add a seventh matter of discretion: "7. The nutrient limits that have been set for the catchment and how the discharge will affect those limits."
- Fish & Game seeks to include the following in the matters of discretion:
  - The proximity of any discharge site to any identified site of significant indigenous biodiversity, and Schedule 17 and Schedule XX waterbodies;
  - The extent to which the proposed activity is consistent with the objectives and policies of this Plan relating to Ngāi Tahu values, recreational values, human and animal health and drinking water quality, including Policy 4.11.

## NRRP

Bowden Environmental seeks to delete the Rule and retain comparative rules in the NRRP.

### Separate the activities

DOC seeks to separate the rules as follows:

#### *Rules 5.35 A*

*The use of land for stock holding areas is a restricted discretionary activity provided the following conditions are met:*

1. *The stock holding area is not within:*
  - (a) *20m of a surface water body, a bore used for water abstraction or the Coastal Marine Area; or*
  - (b) *A group or community drinking water supply protection area as set out in Schedule 1.*

#### *Rule 5.35B*

*The use of land for the collection, storage or treatment of animal effluent is a restricted discretionary activity provided the following conditions are met:*

1. *The stock holding area is not within:*
  - (a) *20m of a surface water body, a bore used for water abstraction or the Coastal Marine Area; or*
  - (b) *A group or community drinking water supply protection area as set out in Schedule 1.*

#### *Rule 5.35C*

*The discharge of animal effluent, or water containing animal effluent and other contaminants, from a stock holding area or effluent collection, storage or treatment area onto or into land where a contaminant may enter water is a restricted discretionary activity provided the following conditions are met:*

1. *The discharge of animal effluent or water containing animal effluent and other contaminants:*
  - (a) *Is not directly to, or within, 20m of a surface water body (other than a wetland constructed primarily to treat animal effluent), a bore used for water abstraction, or the Coastal Marine Area;*
  - (b) *Does not occur beyond the boundary of the site;*
  - (c) *Does not occur in a group or community drinking water supply protection area as set out in Schedule 1;*
  - (d) *Has backflow prevention installed if animal effluent or water containing animal effluent is applied with irrigation water;*
  - (e) *Is not to potentially contaminated land;*
  - (f) *Is not onto land when the soil moisture exceeds field capacity; and*
  - (g) *Is not onto land covered by snow.*

*The CRC will restrict discretion in relation to Rules 5.35A, B and C to the following matters:*

1. *Measures to avoid, remedy or mitigate adverse effects on aquatic ecosystems, significant indigenous biodiversity...[continue with list as set out in proposed Plan]..”*

Ngā Rūnanga seeks to separate sub-condition 2(a) into additional sub-conditions as follows:

- *Is not directly to a surface water body (other than a wetland constructed primarily to treat animal effluent);*
- *Is not within 20 metres of a bore used for water abstraction;*

- Is not within 50 metres of a surface water body or the Coastal Marine Area OR not within 20 metres of a surface water body or the Coastal Marine Area if there is riparian planting located adjacent to the surface water body or the coastal marine area.

### **Miscellaneous**

There are several submissions that seek minor alterations or additions to the wording which are summarised as follows:

- Peter Farrant seeks to remove the Rule or properly quantify the discretionary matters.
- Mr Ross Little seeks to add to this rule a note referring to the definition of Stock holding area.
- Southern Pork seeks an amendment on the definition of “stock handling areas”.
- Blue Gum Trading Ltd and Maungatahi Farm Limited seek to exclude sheep and cattle yards that are used for less than 120 days / year
- The Fuel Companies seek to delete references to “potentially contaminated land”
- Corrections, Poultry Assn & Egg Producers seek that the Rule be amended as follows: The use of land for a stock holding area, the use of land for the collection, storage and treatment of animal effluent from a stock holding area and the subsequent discharge of animal effluent or water containing animal effluent and other contaminants onto or into land where a contaminant may enter water is a restricted discretionary activity, provided the following conditions are met...
- CJ & AM Allen seeks clarification that this does not include stock held in a part of a paddock behind temporary fence at a time of day when stock are denied access to winter feed crop. 3 in support, 2 oppose.
- DOC seeks to insert the following: “Is not discharged where it may enter water within 100m of a schedule 17 site.”

Simons Pass seeks greater protection of dwellings or places of assembly on other landholdings.

Fish & Game seeks to redraft the Rule to include 50 metre setbacks (at minimum) to water bodies listed in Schedule 17 and the proposed Schedule XX; and to limit nitrogen-loading and application depth and rate dependent on soil type and the quality of the receiving environment.

Ngā Rūnanga, in addition to the above requests, seeks the following:

- Condition 2(e): that is contaminated or potentially contaminated
- Include a new sub-condition which states that the discharge is not “into land that is listed as an archaeological site and/or land that is culturally significant”.
- Include an advisory note at the bottom of the rule which specifies how one can determine if the land is culturally significant.
- Include a new condition which relates to the capacity of the storage facility being determined through the use of the “Effluent Storage Pond Calculator”.
- Include a new Condition as follows: “Is only onto land when soil moisture does not exceed field capacity.”
- Include a new Condition which limits the amount of nitrogen that can be applied per hectare to land or limits the amount of nitrogen that is allowed to be leached into water.
- Expand discretion to include effects on surface water quality.
- Amend reference to animal health to include fish and bird health.
- Remove specific reference to Policy 4.11
- Expand discretion to encourage the implementation of riparian planting.

- Expand discretion to include effects on Ngāi Tahu values not just whether the proposed activity is consistent with the objectives and policies of this Plan. This wording needs to be made clearer so it reflects the wording in s.104 of the RMA.

### **Rule 5.36**

Many submissions on this Rule are outlined above as well as many requesting a change in activity status.

Fed Farmers (Combined Canty) and Simons Pass seek a discretionary status.

DOC seeks to harmonise the Rules with those pertaining to Animal and Vegetative Waste and those covering Stock Holding Areas and Animal Effluent. They also seek to clarify whether “industrial and trade processes” include or exclude farming. They propose the following separation of the Rule:

#### *Rule 5.36A*

*The use of land for a stock holding area that does not meet one or more of the conditions in Rule 5.35A is a non-complying activity*

#### *Rule 5.36B*

*The use of land for the collection, storage or treatment of animal effluent that does not meet one or more of the conditions in Rule 5.35B is a non-complying activity*

#### *Rule 5.36C*

*The discharge of animal effluent, or water containing animal effluent and other contaminants, from a stock holding area or effluent collection, storage or treatment area onto or into land where a contaminant may enter water that does not meet one or more of the conditions in Rule 5.35C is a non-complying activity.*

Irricon seeks that a new rule needs to be added:

The use of land for a stock holding area, the use of land for the collection, storage and treatment of animal effluent is a permitted activity provided the following conditions are met:

1. The stock holding area, collection, storage and treatment of animal effluent is not within:
  - (a) 20 m of a surface water body, a bore used for water abstraction or the Coastal Marine Area;
  - (b) a group or community drinking water supply protection area as set out in Schedule 1; and
  - (c) the volume stored is sufficient to meet on farm requirements; and
  - (d) is sealed to not lose more than 1mm per day from the base or sides.

Fonterra seeks the following:

- Amend the Rule from non-complying to restricted discretionary activity status, with the Council’s discretion restricted to matters to do with water quality such as:
  - (a) The proposed management practices to avoid or minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land;
  - (b) The potential effects of the land use on surface and groundwater quality, and sources of drinking water;
  - (c) The contribution of nutrients from the proposed activity to the nutrient allocation status of the management zone.
  - (d) The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the

objectives and policies of this Plan relating to nutrient management and water quality

- Should the Council choose not to adopt such a framework, Fonterra requests the following changes be made to the proposed rules:
  - (a) the inclusion of a permitted activity that addresses all of the land use requirements that are in the proposed rule that apply to all existing farms as a minimum;
  - (b) the provision of additional guidance on how appropriate effluent storage volumes will be determined;
  - (c) the inclusion of a rule that makes the discharge of dairy shed effluent to surface water a non-complying activity; and
  - (d) removal of condition 2 (b) from rule 5.35.

Overall, the submissions have sought a wide range of changes to the rule framework, and in particular the “un-bundling” of the rules. A return to something more akin to the NRRP framework is requested by many submitters.

It is also clear that a number of submitters are concerned that existing activities, permitted under the NRRP, or subject to consenting of one aspect under the NRRP, would require fresh consenting under the pLWRP.

It is acknowledged that the bundling of the three existing rules into a single rule with restricted discretionary activity status was an error, and the recommendation below is to create three separate rules. It is also notable that the suggested rule frameworks are also based around farm environment plans, as the types of activities that require stockholding areas, on-farm effluent storage and disposal are the kinds of activities that are likely to give rise to more significant adverse effects and, in particular, nutrient discharges.

In general, stock holding areas, holding and treatment of effluent and the discharge of the effluent will require a resource consent for the at least the discharge element. A problematic element of the NRRP rules related to the volume of storage required to enable storage in adverse weather situations or in the event of equipment breakdown. This is recommended to be managed under the discharge rule and as a matter of discretion, to enable site and system specific assessment.

#### **Recommendation R5.35**

That Rules 5.35 and 5.36 be amended as follows:

5.35 The use of land for a stock holding area is a permitted activity, provided the following conditions are met:

1. The stock holding area is not within:
  - (a) 20 m of a surface water body, a bore used for water abstraction or the Coastal Marine Area;
  - (b) a group or community drinking water supply protection area as set out in Schedule 1; and
2. All liquid animal effluent, washdown water or stormwater containing animal effluent is collected and disposed of to an animal effluent collection and storage system authorised under Rules 5.35B to 5.36B;
3. The base of any stock holding area located on land over an unconfined or semi-confined aquifer shall be sealed such that seepage into land does not exceed one millimetre per day.

5.35A The use of land for a stock holding area that does not meet one or more of the conditions of Rule 5.35 is a discretionary activity.

5.35B The use of land for the collection, storage and treatment of animal effluent is a permitted activity, provided the following conditions are met:

1. The land used for the collection, storage and treatment of animal effluent is not:
  - (a) within 20 m of a surface water body (other than a wetland constructed primarily to treat animal effluent), a bore used for water abstraction or the Coastal Marine Area;
  - (b) within 50m of the boundary of the property;
  - (c) within a group or community drinking water supply protection area as set out in Schedule 1;
2. The collection, storage and treatment system is sealed, such that seepage into land does not exceed one millimetre per day; and
3. The total volume of animal effluent stored on a property is no greater than 1,500 m<sup>3</sup>.

5.35C The use of land for the collection, storage and treatment of animal effluent that does not meet one or more of the conditions of Rule 5.35 is a discretionary activity.

5.36 The discharge of animal effluent or water containing animal effluent and other contaminants onto or into land where a contaminant may enter water is a restricted discretionary activity, provided the following conditions are met:

1. The discharge of animal effluent or water containing animal effluent and other contaminants:
  - (a) is not directly to, or within, 20 m of a surface water body (other than a wetland constructed primarily to treat animal effluent), a bore used for water abstraction or the Coastal Marine Area;
  - (b) does not occur beyond the boundary of the site;
  - (c) is not within a group or community drinking water supply protection area as set out in Schedule 1
  - (d) has backflow prevention installed if the animal effluent or water containing animal effluent is applied with irrigation water; and
  - (e) is not to contaminated land; and
2. A Farm Environment Plan is prepared, implemented and audited in accordance with Schedule 7 Parts A and C.

The CRC will restrict discretion to the following matters:

1. The preparation, compliance with and auditing of the Farm Environment Plan;
2. Measures to avoid, mitigate or remedy adverse effects on aquatic ecosystems and human or animal drinking water;
3. Application rates and total nitrogen load;
4. Methods to store effluent and application rates in times of adverse weather conditions, including frozen ground, or in cases of equipment failure;
5. The proximity of any discharge site to any identified site of significant indigenous biodiversity;

6. The adequacy of design, construction, systems and management processes to minimise fugitive discharges from the system, including, but not limited to, mitigation in case of equipment failure or breakage;
7. The adverse effects of the activity on Ngai Tahu values;
8. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to water quality.

5.36A The discharge of animal effluent or water containing animal effluent and other contaminants into or onto land where a contaminant may enter water that does not meet one or more of the conditions of Rule 5.36 is a non-complying activity.<sup>37</sup>

~~5.35 The use of land for a stock holding area, the use of land for the collection, storage and treatment of animal effluent and the subsequent discharge of animal effluent or water containing animal effluent and other contaminants onto or into land where a contaminant may enter water is a restricted discretionary activity, provided the following conditions are met:~~

- ~~1. The stock holding area, collection, storage and treatment of animal effluent is not within:~~
  - ~~(a) 20 m of a surface water body, a bore used for water abstraction or the Coastal Marine Area;~~
  - ~~(b) a group or community drinking water supply protection area as set out in Schedule 4; and~~
- ~~2. The discharge of animal effluent or water containing animal effluent and other contaminants:~~
  - ~~(a) is not directly to, or within, 20 m of a surface water body (other than a wetland constructed primarily to treat animal effluent), a bore used for water abstraction or the Coastal Marine Area;~~
  - ~~(b) does not occur beyond the boundary of the site;~~
  - ~~(c) a group or community drinking water supply protection area as set out in Schedule 4~~
  - ~~(d) has backflow prevention installed if the animal effluent or water containing animal effluent is applied with irrigation water; and~~
  - ~~(e) is not to potentially contaminated land.~~

~~The CRC will restrict discretion to the following matters:~~

- ~~1. Measures to avoid, mitigate or remedy adverse effects on aquatic ecosystems and human or animal drinking water;~~
- ~~2. Measures to store effluent and application rates;~~
- ~~3. Methods to store effluent and application rates in times of adverse weather conditions, including frozen ground, or in cases of equipment failure;~~
- ~~4. The proximity of any discharge site to any identified site of significant indigenous biodiversity;~~
- ~~5. The adequacy of design, construction, systems and management processes to minimise fugitive discharges from the system, including, but not limited to, any design leakage from the stockholding and effluent storage areas, flow paths and mitigation in case of equipment failure or breakage;~~

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<sup>37</sup> Several submission points relied on, including 120.151 DOC, 320.116-120 Federated Farmers (Combined Canty), and 318.39 Beef & Lamb NZ

- ~~6. The extent to which the proposed activity is consistent with the objectives and policies of this Plan relating to Ngāi Tahu values, human and animal health and drinking water quality, including Policy 4.11.~~
- ~~5.36 The use of land for a stock holding area, the use of land for the collection, storage and treatment of animal effluent and the subsequent discharge of animal effluent or water containing animal effluent and other contaminants into or onto land where a contaminant may enter water that does not meet one or more of the conditions of Rule 5.35 is a non-complying activity.~~

## 6 Silage Pits and Compost

### Rules 5.37 and 5.38

Rules 5.37 and 5.38 state:

5.37 *The use of land for a silage pit or the stockpiling of other fermenting or decaying organic matter and any associated discharge into or onto land where a contaminant may enter water is a permitted activity provided the following conditions are met:*

1. *The volume of any silage pit or stockpile is less than 20 m<sup>3</sup>; or*
2. *The volume of any silage pit or stockpile is greater than 20 m<sup>3</sup> and is not sited:*
  - (a) *within 20 m of a surface water body, the boundary of the site, a bore or the Coastal Marine Area;*
  - (b) *within a group or community drinking water supply protection area as set out in Schedule 1; or*
  - (c) *within the Christchurch Groundwater Protection Zone as shown on the Planning Maps;*
3. *Any liquid that drains from the silage pit or stockpile does not enter a surface water body, other than a wetland constructed primarily to treat animal effluent; and*
4. *Any fermenting or decaying organic matter does not originate from an industrial or trade process.*

5.38 *The use of land for a silage pit or the stockpiling of other fermenting or decaying organic matter and any associated discharge into or onto land where a contaminant may enter water, that does not meet one or more of the conditions in Rule 5.37 is a restricted discretionary activity.*

*The CRC will restrict discretion to the following matters:*

1. *The effect of not meeting the condition or conditions of Rule 5.37.*
2. *The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to water quality.*

Fed Farmers (Mackenzie) seek to retain Rule 5.37.

Four submissions seek to amend the Rule to include either advice notes referring to other plans, or else include additional conditions, to protect dwellings on nearby landholdings and places of assembly from adverse odour and nuisance effects associated with the operation and use of silage pits. They also seek that Condition 2 be clearer to provide a realistic permitted activity rule for larger silage pits, for example: The volume of any silage pit or stockpile greater than 20 m<sup>3</sup> is not sited: (a) within 20 m of a surface water body, the boundary of the subject landholding, a bore, or the Coastal Marine Area.

DOC seeks to harmonise the Rules with those pertaining to Animal and Vegetative Waste and those covering Stock Holding Areas and Animal Effluent and make it clear whether “industrial and trade processes” include or exclude farming.

CRC seeks that Conditions 3 and 4 be renumbered to (d) and (e).

Synlait Milk and Synlait Farms seek to amend Condition 4 to state that material cannot originate from land used under schedule 3, and provide greater clarity on interpretation of condition.

CJ & AM Allen seek to amend the Rule to clarify that the constraints for this permitted activity do not apply to that of tube line wilted silage.

Fish & Game seek to amend the rule by including at least a 50m setback from significant or outstanding water bodies as identified by Fish and Game, for example, by including a condition such as: (d) within 50 metres of a surface water body listed in Schedule 17 or Schedule XX.

Ms Jane Demeter seeks to amend the Rule to combine (1) and (2) to read “Any silage pit or stockpile is not sited: ....”

Ngā Rūnanga seek the following:

- Combine conditions one and two and include the sub-conditions under condition 2 for both sizes of pits and stockpiles.
- Include a new sub-condition which states that the discharge is not “into land that is listed as an archaeological site and/or land that is culturally significant”.
- Include an advisory note at the bottom of the rule which specifies how one can determine if the land is culturally significant.
- Include conditions around the discharge of liquid from silage pits or stockpiles as follows:  
The liquid is not discharged:
  - (a) Onto land when the soil moisture exceeds field capacity
  - (b) Within 20 metres of a bore used for water abstraction
  - (c) Within a group or community drinking water supply protection area as set out in Schedule 1
  - (d) Within 50 metres of a surface water body or the Coastal Marine area
  - (e) Onto land unless there is at least 3 m of soil or sand between the point of discharge and the highest groundwater level.

RFBPS (Canty West Coast) seek that all discharges including those from silage pits are required to become part of a global farm consent covering all significant discharges, i.e. any discharges that could contribute to cumulative effects on water quality. Also, that all discharges be considered together with all the other on-farm discharges (via OVERSEER and the rules regime) as contributing to cumulative effects and therefore defined by limits.

Two submissions oppose Rule 5.38.

DOC seeks to harmonise the Rules with those pertaining to Animal and Vegetative Waste and those covering Stock Holding Areas and Animal Effluent. They also seek to make it clear whether “industrial and trade processes” include or exclude farming.

Deer Ind & Deer Farmers submit that silage pits should also be located a sufficient distance away from boundaries, dwellings or other places where people congregate.

Ngā Rūnanga seeks to amend wording of the restrictions of discretion in Rule 5.38 to:

1. The actual or potential adverse effects of the activity on the environment from not meeting the condition or conditions of Rule 5.37.
2. The adverse effects of the activity on Ngai Tahu values.

The submissions on these two rules relating to silage pits and compost are generally quite specific, and seek clarity and certainty around the relevant rules. Some submissions, particularly those from Fish & Game, Ms Jane Demeter and Ngā Rūnanga seek additional controls on all silage pits and particular additional controls on more significant silage pits and compost piles.

It is important to recognise that small compost heaps and “domestic scale” piles of leaves or other vegetation could be caught by this rule, and on that basis, minimum conditions have been put forward for small compost heaps.

In order to improve clarity of this rule, and to separate out silage pits and compost, it is recommended below that the rule be broken into two parts, firstly a rule that relates to compost, and secondly a rule that relates to silage pits. In addition, a number of changes are recommended to the conditions and the addition of various advice notes.

The DOC submission seeking to harmonise the rules with those relating to animal and vegetative waste and stockholding areas and animal effluent is a helpful suggestion, and some of the “harmonisation” has occurred through the recommendations below.

With respect to conditions preventing discharges onto or into sites of significance to tangata whenua, case law requires certainty and objectivity for permitted activity rules and permitted activity performance standards. Without the certainty of identifying locations or values of significance to tangata whenua, inclusion of this condition cannot be supported. Ngāi Tahu may wish to address this matter more fully at the hearing.

The submissions on Rule 5.38 are limited, and generally relate to matters already addressed under Rule 5.37. An additional requirement that is recommended to be included is the requirement for a farm environment plan to be triggered by this rule. This requires an additional matter for discretion listed below, which in part gives effect to the submission from the RFBPS (Canty West Coast) in relation to Rule 5.37.

#### **Recommendation R5.37**

That Rules 5.37 and 5.38 be amended as follows:

*5.37 The use of land for the stockpiling of decaying organic matter (compost) and any associated discharge into or onto land where a contaminant may enter water is a permitted activity provided the following conditions are met:*

- 1. The volume of any silage pit or stockpile is less than 20 m<sup>3</sup>; or*
- 2. Any liquid that drains from the stockpile does not enter a surface water body, other than a wetland constructed primarily to treat animal effluent; and*
- 3. Any decaying organic matter does not originate from an industrial or trade process.<sup>38</sup>*

*5.37A The use of land for a silage pit or the stockpiling of fermenting or decaying organic matter not permitted by Rule 5.37 and any associated discharge into or onto land where a contaminant may enter water is a permitted activity provided the following conditions are met:*

- 1. The silage pit or stockpile of other fermenting or decaying organic matter is not sited:*
  - (a) Within 50 ~~20~~<sup>39</sup> m of a surface water body, the boundary of the property site, a bore or the Coastal Marine Area;*
  - (b) within a group or community drinking water supply protection area as set out in Schedule 1; or*

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<sup>38</sup> 320.122 Fed Farmers (Combined Canty)

<sup>39</sup> 347.145 Fish & Game

- (c) within the Christchurch Groundwater Protection Zone as shown on the Planning Maps;
- 2. Any liquid that drains from the silage pit or stockpile does not enter a surface water body, other than a wetland constructed primarily to treat animal effluent; and
- 3. Any fermenting or decaying organic matter does not originate from an industrial or trade process.

5.38 The use of land for a silage pit or the stockpiling of other fermenting or decaying organic matter and any associated discharge into or onto land where a contaminant may enter water, that does not meet one or more of the conditions in Rule 5.37 or 5.37A is a restricted discretionary activity.

The CRC will restrict discretion to the following matters:

- 1. The effect of not meeting the condition or conditions of Rule 5.37 or 5.37A.
- 2. The adverse effects of the activity on Ngai Tahu values.<sup>40</sup>
- 3. The preparation, compliance with and auditing of the Farm Environment Plan; and<sup>41</sup>
- 4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to water quality.

Note: Rules 5.37 to 5.38 do not apply to the storage of baled and wrapped silage, whether stored in individual bales or a continuous tube.<sup>42</sup>

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<sup>40</sup> 358.38 Ngā Rūnanga

<sup>41</sup> 364.41 RFBPS (Canty West Coast)

<sup>42</sup> 329.5 CJ & AM Allen

## 7 Fertiliser Use

The rules relating to fertiliser spreading have some inherent overlap with the nutrient management rules. The primary purpose of the fertiliser rules is to prevent direct discharge of fertiliser into surface waterbodies or into areas of land where the soil is saturated to the point that water is ponding on the surface.

The majority of the submissions on the rules seek relatively minor changes, particularly in terms of reducing restrictions on fertiliser application.

### Rule 5.52

Rule 5.52 states:

- 5.52 *The discharge of fertiliser onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:*
1. *There is no fertiliser discharged when there is water ponding on the surface of the land; and*
  2. *Fertiliser is not discharged directly into or within 10 m of the bed of a permanently flowing river, lake, artificial watercourse or within 10 m of a wetland boundary or any identified significant indigenous biodiversity site unless the equipment used has a current Spreadmark Certificate, in which case the setback distance is reduced to 5m.*

*Note: The discharge of fertiliser may also be restricted by Rules 5.39 to 5.51.*

Several submissions seek to add a size component to the rule so that it applies to: Rivers which are over 1m in width and where water is flowing; and Wetlands which are 0.5 hectares or greater in size.

Blue Gum Trading and Maungatahi Farm Limited state the following: Nutrient discharges below 20 kg/ha are a permitted activity. Delay enforcement of other rules until the Hurunui Water Zone Committee has finally considered the Waipara catchment and reported its findings / recommendation.

DOC seeks to retain or amend to accord with the tests laid down in Section 70 of the RMA and in response to evidence presented to the Hearing Committee. Also, that the Rules associated with these Policies be made consistent with Policy 4.20.

Mrs Pamela Richardson submits that not all significant sites should be excluded from fertiliser application eg. tussock grassland, connecting corridors.

Fish & Game seeks to amend the Rule to either include controls on the application rate or losses of nutrients associated with fertiliser application or amend the rules in the Plan that control primary production activities so that any nutrients associated with fertiliser use are accounted for and managed via those rules.

Several submissions seek to amend the rules to apply minimum setbacks for fertiliser application from all water bodies, with setback distances set, as a minimum, at a distance that is sufficiently precautionary to ensure that the requirements of s70 RMA will be met. Greater setbacks should be applied to significant and outstanding water bodies.

Mrs A & Mr M Hamblett seeks to remove this as a permitted activity.

Condition 1

Fed Farmers (Combined Canty) seeks to amend Condition 1 to read: "There is no fertiliser discharged when there is water flowing on the surface of the land."

Groundspread Assn seeks to amend the Condition to read: "There is no fertiliser discharged when there is water flowing on the surface of the land". The amendment is sought to recognise the argonomic need to urgently replace N losses in growing cereal crops in the spring.

Several submissions seek: "There is no fertiliser discharged when there is water flowing on the surface of the land."

Fertiliser Assn and Ravensdown seek the following wording: "There is no fertiliser discharged when there is water flow associated with water ponding on the surface of the land; and.."

Condition 2

Fed Farmers (Combined Canty) seeks to amend Condition 2 to read: "Fertiliser is not discharged directly into or within 10 metres of the bed of a permanently flowing river, lake, artificial watercourse or within 10 metres of a wetland boundary or any identified significant indigenous biodiversity site, unless the equipment used has straight-edge boundary placement capacity fitted by the fertiliser spreader manufacturer or has a current Spreadmark certificate, in which case the setback distance is reduced to 5m."

Ellesmere ISI seeks: "Fertiliser is not discharged directly into the bed of a permanently flowing river, lake, artificial watercourse or a wetland or any identified significant indigenous biodiversity site."

Groundspread Assn supports a reduced setback distance for Spreadmark certified fertiliser spreaders from 10 to 5m.

CCC seeks: "Fertiliser is not discharged directly into or within 10 m of the bed of a permanently flowing river, lake, artificial watercourse or within 10m of a wetland boundary, or any significant indigenous biodiversity site identified within the appropriate Proposed or Operative District Plan."

Ms Debra Hasson seeks to add the words "that is more than 2m wide" after "artificial watercourse". She submits that if Rule 5.52 is not intended to recognise an artificial watercourse as more than 2m wide but to include drains as drainage channels, tiles and mole drains, then insert new clause into Rule 5.52 as follows: "Where a permanently flowing drain is less than 2m in width and fenced with established natural vegetation and/or riparian planting then fertiliser is not to be discharged within 5m of that waterbody unless the equipment used has a current Spreadmark Certificate in which case the set back is reduced to 2.5m."

Talbot Agriculture seeks to remove the term Spreadmark and any conditions relating to it from Rule 5.52 and replace with "Operators must use the best industry practise to keep all fertilizer clear of waterways by at least 5m".

Several submissions seek the following wording: "Fertiliser is not discharged directly into or within 5 metres of a sensitive area."

Horticulture NZ seek to delete Clause 2 and replace it with: "There is no direct discharge of fertiliser to surface water bodies."

The majority of the submissions on Rule 5.52 seek deletion of conditions or the reduction in compliance requirements. This is particularly related to both limitations on applying fertiliser when water is ponding on the surface of the land and the reduced setback distance that is achieved through Spreadmark certification. Some submissions request additional tightening of rules to protect waterbodies, particularly significant and outstanding waterbodies.

The current rule framework is strongly based on the rule framework that was determined after considerable debate in the NRRP hearings. The setbacks for Spreadmark certification have been simplified; in the NRRP they relied on the slope of the land. Also relevant to the setback distance are a number of submissions that seek additional protection for identified indigenous biodiversity sites. The submission of CCC is helpful in identifying significant indigenous biodiversity sites listed in relevant district plans. As the pLWRP does not identify any significant indigenous biodiversity sites, reliance on district plans is required if this is to be adopted.

### **Recommendation R5.52**

That Rule 5.52 be amended as follows:

*5.52 The discharge of fertiliser onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:*

- 1. There is no fertiliser discharged when there is water ponding on the surface of the land; and*
- 2. Fertiliser is not discharged directly into or within 10 m of; the bed of a permanently flowing river, lake, artificial watercourse or within 10 m of a wetland boundary or any ~~identified~~ significant indigenous biodiversity site identified in the relevant district plan<sup>43</sup> unless the equipment used has a current Spreadmark Certificate, in which case the setback distance is reduced to 5m.*

*Note: 1. The discharge of fertiliser may also be restricted by Rules 5.39 to 5.51.*  
*2. If resource consent is held for the discharge of a substance that may also meet the definition of fertiliser then no additional resource consent is required under Rules 5.53 or 5.54.*<sup>44</sup>

### **Rule 5.53**

Rule 5.53 states:

*5.53 The discharge of fertiliser from an aircraft onto or into land in circumstances where a contaminant may enter water and into any river is a permitted activity provided the following conditions are met:*

- 1. There is no fertiliser discharged when there is water ponding on the surface of the land;*
- 2. The equipment used has a current Spreadmark Certificate;*
- 3. The discharge is carried out by a person who holds a GROWSAFE® Pilots' Agrichemical Rating Certificate or an AIRCARE™ Accreditation;*
- 4. Fertiliser is not discharged directly into or within 10 m of the bed of a permanently flowing river or artificial watercourse that is more than 2m wide, any lake, or any wetland boundary ;and*

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<sup>43</sup> 106.66 CCC  
<sup>44</sup>

5. *The flight paths are recorded by an on-board differential global positioning system and this record is kept for at least 12 months following the discharge and made available to the CRC upon request.*

*Note: The discharge of fertiliser may also be restricted by Rules 5.39 to 5.51.*

Several submissions including Fed Farmers (Combined Cnty) seek the following:

- Amend Condition 1 to read: There is no fertiliser discharged when there is water flowing on the surface of the land.
- Retain Conditions 2, 4 & 5.
- Retain Condition 3, noting that for aerial fertiliser spreading, Spreadmark as part of "Aircare" is the industry approved qualification.

NZAAA seeks to amend condition 3 to read "the discharge is to be carried out by a person who holds a GROWSAFE Pilots' Agrichemical Rating Certificate and an aerial application organisation that is AIRCARE (TM) Accredited"

Groundspread Assn seeks to amend Condition 1 to read: "There is no fertiliser discharged when there is water flowing on the surface of the land", and Condition 3: Note that Spreadmark is part of "AIRCARE" as the industry approved qualification. GROWSAFE is not required for fertiliser application.

Fertiliser Assn and Ravensdown seeks to amend Condition 1 as follows: "There is no fertiliser discharged when there is water flow associated with water ponding on the surface of the land;"

ANZCO *et al*: "Note: the discharge of fertiliser may also be restricted by Rules 5.39 to 5.51. However, if resource consent is required for a discharge that may also meet the definition of fertiliser then no additional resource consent is required under Rules 5.53 and 5.54.

Fish & Game seeks to amend the Rule to either include controls on the application rate or loss of nutrients associated with fertiliser application or amend the rules in the Plan that control primary production activities so that any nutrients associated with fertiliser use are accounted for and managed via those rules. They also seek to amend the Rule to apply minimum setbacks for fertiliser application from all water bodies, with setback distances set, as a minimum, at a distance that is sufficiently precautionary to ensure that the requirements of s70 RMA will be met. Greater setbacks should be applied to significant and outstanding water bodies.

Rule 5.53 relates to the discharge of fertiliser from aircraft. It is essentially a peer to go with the land based discharge rule, 5.52, and contains additional restrictions relating to aerial application. Again there are a number of submissions seeking minor changes to the conditions, many of which have been recommended for acceptance below, as they improve the rule and use the correct references for external accreditation. Aerial discharge of fertiliser was a significantly debated issue in the NRRP hearings, and the position arrived at recognised the realities of applying fertiliser from aircraft, particularly in the high country. It also recognised that aerial application of fertiliser is inherently self-limiting in that it is an expensive option and does not occur on any one piece of land frequently.

### **Recommendation R5.53**

That Rule 5.53 be amended as follows:

- 5.53 *The discharge of fertiliser from an aircraft onto or into land in circumstances where a contaminant may enter water and into any river is a permitted activity provided the following conditions are met:*

1. There is no fertiliser discharged when there is water ponding on the surface of the land;
2. The equipment used has a current Spreadmark Certificate;
3. The discharge is be carried out by a person who holds a GROWSAFE® Pilots' Agrichemical Rating Certificate or an organisation that holds an<sup>45</sup> AIRCARE™ Accreditation;
4. Fertiliser is not discharged directly into or within 10 m of; the bed of a permanently flowing river or artificial watercourse that is more than 2m wide, any lake, or any wetland boundary or any significant indigenous biodiversity site identified in the relevant district plan,<sup>46</sup> and
5. The flight paths are recorded by an on-board differential global positioning system and this record is kept for at least 12 months following the discharge and made available to the CRC upon request.

*Note: The discharge of fertiliser may also be restricted by Rules 5.39 to 5.51.*

#### **Rule 5.54**

##### **Rule 5.54**

- 5.54 *The discharge of fertiliser onto land, or onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions in Rule 5.52 or rule 5.53 is a discretionary activity.*

Several submissions including Fed Farmers (Combined Cnty) and Groundspread Assn seek to change the activity status from discretionary to restricted discretionary. Fertiliser Assn and Ravensdown also seek this and that the Council may restrict its control to the condition not met.

Fed Farmers (Mackenzie) seeks to amend Condition 1 to allow aerial application of non-nitrogenous fertilisers avoiding areas with ponding by 10m.

Fish & Game seeks to amend the Rule to either include controls on the application rate or loss of nutrients associated with fertiliser application or amend the rules in the Plan that control primary production activities so that any nutrients associated with fertiliser use are accounted for and managed via those rules. Amend rule to apply minimum setbacks for fertiliser application from all water bodies, with setback distances set, as a minimum, at a distance that is sufficiently precautionary to ensure that the requirements of s70 RMA will be met. Greater setbacks should be applied to significant and outstanding water bodies.

Rule 5.54 has received a limited range of submissions, primarily seeking that it be reclassified as a restricted discretionary activity. As the effects of fertiliser application that may not meet one or more of the conditions of Rules 5.52 or 5.53 are reasonably well known, it is considered appropriate to alter the status to restricted discretionary with controls based on the condition that is not met and the objectives and policies relating to water quality.

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<sup>45</sup> 41.2 NZAAA

<sup>46</sup> 106.66 CCC Consequential

**Recommendation R5.54**

That Rule 5.54 be amended as follows:

- 5.54 *The discharge of fertiliser onto land, or onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions in Rule 5.52 or rule 5.53 is a restricted<sup>47</sup> discretionary activity.*

*The CRC will restrict discretion to the following matters:*

- 1. The effect of not meeting the condition or conditions of Rules 5.52 or 5.53.<sup>48</sup>*
- 2. The adverse effects of the activity on Ngai Tahu values.<sup>49</sup>*
- 3. The preparation, compliance with and auditing of the Farm Environment Plan; and<sup>50</sup>*
- 4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to water quality.<sup>51</sup>*

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<sup>47</sup> 320.152 Fed Farmers (Combined Canty)

<sup>48</sup> 265.55 Ravensdown

<sup>49</sup> 358.38 Ngā Rūnanga

<sup>50</sup> 364.41 RFBPS (Canty West Coast)

<sup>51</sup> Consequential to 320.152 Fed Farmers (Combined Canty)

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## 8 Stock Exclusion from Water Bodies

### Introduction

The management of stock in water bodies is a significant cultural and environmental issue. It was a significant issue in the development of the NRRP, and absorbed considerable time during the hearing process for that plan. In addition, the CRC has invested considerable resources in to educating the farming community and encouraging compliance with the existing NRRP rules.

Stock access to water ways is a significant water policy issue, as stock access generates significant fine sediment, phosphorus and E.coli. In addition, considerable damage to wetlands and river beds and banks can occur, particularly through removal of vegetation and pugging of the soil.

Stock in water bodies is also a cultural issue, both in terms of community expectations and a particular issue for Ngai Tahu. Keeping effluent out of fresh water requires no explanation or justification.

The NRRP rules sought to focus on “intensively farmed stock”. As will become apparent further through this analysis, there are a range of triggers for stock access rules. However, focus on the particular types of stock that cause the most damage is a logical and reasonable position.

In concert with the NRRP rules, the CRC has established education and outreach programmes to the farming community, and has staggered the introduction of the rules so that there is a reasonable time for compliance and the costs, particularly of fencing, are able to be spread over several years.

It is clear that the existing rule framework, particularly the prohibited activity status, is now gaining considerable traction. In addition, it is clear that there are significant community expectations with respect to the continuation of these rules.

### Issues and Options

There are a number of issues that have arisen from the NRRP policy framework, some of which were addressed through the notified LWRP, and a number of further issues that have arisen through submissions, which are addressed further below. The key issues are:

- It is clear that the existing NRRP wording had some minor issues with clarity and certainty. That said, the NRRP wording was carried over with little change in to the pLWRP, due to the staged introduction of the rules. Significantly changing the rules just months after they had come into effect would lead to confusion and mixed messaging that would be unhelpful for the ongoing education programmes.
- The NRRP and pLWRP rely significantly on prohibited activity status. It is clear that prohibited activity status is inflexible and that no application is able to be lodged even in the most unusual or pragmatic situation. This has led to potential compromise of council officers whereby strict enforcement would lead to unintended and unreasonable consequences.
- The inclusion of particular types of stock has been debated at length through the NRRP process and is again raised in pLWRP submissions. The NRRP settled on a level of intensity in combination with particular stock types. That issue has been further analysed below.

- The existing NRRP and LWRP rules focus on lakes, rivers and wetlands. There is some argument that land drainage networks, particularly open drains, should be included. This is especially relevant where they ultimately discharge to sensitive lowland water bodies, such as coastal lakes, hapua or spring-fed streams.
- A further difficulty arises with the minimum “size” of streams to include in the rule framework. Clearly the RMA definition of “river” is difficult in that it includes ephemeral streams and water bodies that may only flow in significant rain events, possibly only a handful of times per year. This is particularly relevant in areas with heavy soils or rolling hill country. It is unrealistic to exclude stock from these areas on a permanent basis.
- The cost and practicality, particularly of fencing, is significant especially in hill country and areas subject to significant flooding, which can damage or destroy fencing in break out areas. While complete and total stock exclusion in all areas of the region, including the hill and high country, may be desirable to some people, the practical realities and cost of stock exclusion in these areas mean that some more permissive framework is necessary.

In reality, the management of stock access to water bodies, and exclusion of the kinds of stock that lead to highest water quality effects is a simple and effective “gain” in terms of water quality. The potential gain is comparatively high compared to the costs of managing stock access and it has become a performance level expected by the community.

#### **Definition – Outdoor intensive farming**

***Outdoor intensive farming*** means:

1. *any stock grazed on irrigated land in or adjoining the bed of a river or lake, in a wetland or adjacent to a wetland boundary;*
2. *cows, whether dry or milking and calves at hoof, in a dairy herd;*
3. *farmed pigs; or*
4. *livestock contained for break-feeding of winter feed crops in or adjacent to the bed of a river or lake, in a wetland or adjacent to a wetland boundary.*

Ellesmere Irrigation Society Inc. seeks to delete points 1 and 4. Wainui Station Ltd also seeks to specifically exclude sheep from point 1.

Claire Mulcock seeks to amend the definition to include: “Cows including calves at hoof, in a dairy herd, but excluding dry cows.”

DOC seeks to include in this definition “...and the phrase outdoor intensively farmed livestock shall have the same or similar meaning”. This received three further submissions in support.

Both Corrections and Poultry Assn & Egg Producers seek to remove this definition if there are no provisions in the pLWRP that relate to it. Three further submissions support this and one opposes.

Fonterra seeks an amendment of the definition to more equitably address all intensive land use practices by including reference to intensive arable and horticulture land uses. RFBPS (Canty West Coast) seeks a similar amendment to capture all intensive farming activities which have similar effects in terms of degree of nutrient loss to surface and ground-water.

Overall, the following key points can be taken from the submissions, and lead to the recommended changes identified below. Further, some of the matters included in the submissions on the related

rules lead to some recommended changes, as the definition is the best place to respond to those submissions.

The definition clearly needs altering, as the words used in the policy and rules are not “outdoor intensive farming”, but some variation of that term. “Intensive farming” has other uses, particularly in relation to indoor farming of chickens and pigs, and while adding “outdoor” separates the kinds of activities being undertaken, a change in terminology to “intensive stocking” reduces any potential for confusion, and it is the “stock” element, not the farming type that should trigger the rules.

The Fonterra and RFBPS (Canty West Coast) submissions that seek other types of farming be included in this definition are not appropriate, as this definition solely relates to stock exclusion from waterways. If there is a desire to address other types of farming, such as arable, then a rule framework will need to be developed.

The phrasing “in or adjoining the bed of a river or lake, in a wetland or adjacent to a wetland boundary” in the first and fourth part of the definition is unnecessary, as that issue is addressed in the rules.

### **Recommendation R2.10.128**

That the definition of Outdoor Intensive Farming be amended as follows:

~~Outdoor Intensive stock farming~~<sup>52</sup> means:

1. ~~cattle, pigs or deer~~<sup>53</sup> ~~stock grazed on irrigated land in or adjoining the bed of a river or lake, in a wetland or adjacent to a wetland boundary;~~<sup>54</sup>
2. ~~dairy cattle, including any cows, whether dry or milking, heifers and calves, whether on irrigated land or not at hoof, in a dairy herd;~~<sup>55</sup>
3. ~~farmed pigs; or~~
4. ~~cattle, pigs or deer~~<sup>56</sup> ~~livestock contained for break-feeding of winter feed crops in or adjacent to the bed of a river or lake, in a wetland or adjacent to a wetland boundary.~~<sup>57</sup>

### **Policy 4.26**

Policy 4.26 states:

- 4.26 To avoid damage to the banks of waterbodies, sedimentation and disturbance of the water body, direct discharge of contaminants, and degradation of aquatic ecosystems:
- (a) intensively farmed stock is excluded from water bodies and wetlands; and
  - (b) stock is excluded from sensitive sites; and
  - (c) access to banks and beds by other stock is limited to stock species that prefer to avoid water and at stocking rates that avoid evident damage.

This policy received support from many individual submitters as well as from Ngai Tahu Properties, DOC, EDS and Meridian. RFBPS (Ashburton) supports the policy and seeks to make the conditions even more specific, however do not specify what they should be.

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<sup>52</sup> 120.232 DOC

<sup>53</sup> 347.173 Fish & Game

<sup>54</sup> 120.11 DOC

<sup>55</sup> 364.4 RFBPS (Canty West Coast)

<sup>56</sup> 347.173 Fish & Game

<sup>57</sup> 120.11 DOC

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EDS seeks an amendment to specifically state what animals are to be excluded from water bodies and wetlands.

Terralea Partnership seeks to amend the policy to allow access to water bodies but in a defined manner like a confined zone fenced for only limited stock number at one point in time.

Six submitters seek to change the wording to be consistent with the above definition: “(a) outdoor intensive farmed stock...”

Fed Farmers (Combined Canty), and several other submitters seek to include a statement following (a) and (b) that stock will be excluded for the purpose of protecting water quality but that the exclusion is not absolute, recognising that there may be times when stock access is essential to farming operations and that this can be accommodated with minimal environmental impact. Fed Farmers (Combined Canty) seek the deletion of (c) because it is not practical as written as it potentially excludes cattle on hill and high country and potentially precludes taking a mob of animals across the bed of a water body.

Deer Ind & Deer Farmers and Beef & Lamb recognise that total exclusion may not be appropriate and suggest that this could be addressed through inclusion in a Farm Environment Plan.

Waitaki Irrigators Collective Limited and Wainui Station Limited seek to either provide an exception for sheep in this policy, or amend the definition of "outdoor intensive farming".

Irrigation NZ seeks to either accept the amended definition of *Water body* in the definitions or specifically exclude irrigation and stock races from this policy. Livestock are commonly used to graze water races for vegetation control purposes. Recommendation 2.10.202 in the Section 42A Report Volume 1 does not support an amendment of the definition of *Water body*.

CCC seeks to qualify (b) by excluding stock from “ecologically sensitive sites.” Ashburton DC seeks a definition of “sensitive sites”. Fonterra seeks to amend the policy by replacing the words “sensitive sites” with “the active bed of any water body”.

CRC seeks the following amendment: “To avoid damage to the banks of waterbodies, sedimentation and disturbance of the bed of the water body, direct discharge of contaminants, and degradation of aquatic ecosystems..”

Deer Farmers Assn (Canty) oppose this policy arguing that there should not be a policy which excludes all stock having access to river banks and beds as grazing in dry conditions when no free flowing water is present, particularly in fenced-off riparian zones can improve the efficiency of riparian zone and its ability to filter nutrients discharges.

Fish & Game seeks the following amendment: *Cattle, domestic or farmed deer and domestic or farmed pigs, horses do not have access to the bed of any lake, river or wetland except in the areas above 900m a.s.l or a slope >25° or at specific and pre-identified, agreed river crossing points.*

~~*To avoid damage to the banks fo waterbodies, sedimentation and disturbance of the water body, direct discharge of containants, and degradation of aquatic ecosystems*~~

~~*(a) intensively farmed stock is excluded from water bodies and wetlands; and*~~

~~*(b) stock ix excluded from sensitive sites; and*~~

~~*(c) access to banks and beds by other stock is limited to stock species that prefer to avoid water and at stocking rates that aboid evidence damage.*~~

Water Rights Trust Inc seeks the following rewording: "To avoid damage to the banks of waterbodies, sedimentation and disturbance of the water body, direct discharge of contaminants, and degradation of ecosystems, cattle, domestic or farmed deer and domestic or farmed pigs do not have access to the bed of any lake or river except in the area shown on the planning maps as hill and high country or at specific river crossing points."

There is clearly a significant diversity of views on the policy position, with extremes being to relax the policy to make it more "pragmatic" through to making it a very strict policy which would support a no access rule regime. In general, there are few, if any, submitters seeking removal of the policy, or relaxation to the point that the existing positioning, such that stock access is generally discouraged, is removed.

Many submissions seek adjustment of the policy to provide greater specificity as to ecologically sensitive sites or the significance of the water body in question. Many of these submission points have been accepted in part, in the recommendation below. However, as has been identified in the discussion above on the definition of the type of stock that trigger the rules, the preference is not to change to some form of slope or land contour above which stock access is acceptable, and below which it is unacceptable. The policy and rule framework takes a more pragmatic view of requiring the effects to be managed, in all situations where stock access is allowed.

#### **Recommendation R4.26**

4.26 ~~To avoid Damage to the bed and<sup>58</sup> banks of waterbodies, sedimentation and disturbance of the water body, direct discharge of contaminants, and degradation of aquatic ecosystems is avoided by<sup>59</sup>:~~

- ~~(a) excluding intensive stock ~~intensively farmed stock is excluded~~<sup>60</sup> from lakes, rivers water bodies<sup>61</sup> and wetlands; and~~
- ~~(b) excluding stock is excluded<sup>62</sup> from swimming, salmon spawning and other sensitive areas and closely upstream sites<sup>63</sup>~~
- ~~(c) access to banks and beds by other stock is limited to stock species that prefer to avoid water and at stocking rates that avoid evident damage.<sup>64</sup>~~

4.XX Effects arising from any authorised stock access on water clarity and colour, land stability, vegetation cover and soil structure are minimised through design and construction of stock crossing points and management of the stock.<sup>65</sup>

#### **Rules – Stock exclusion from waterbodies**

Rules 5.133 to 5.137 state:

5.133 *The use and disturbance of the bed of a lake or river or a wetland by outdoor intensively farmed livestock for temporary or permanent stocking or temporary access is a prohibited activity.*

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<sup>58</sup> 167.16 CRC

<sup>59</sup> Consequential change

<sup>60</sup> Consequential change

<sup>61</sup> 31.1 RFBPS (Ashburton)

<sup>62</sup> Consequential change

<sup>63</sup> 31.1 RFBPS (Ashburton)

<sup>64</sup> 320.21 Fed Farmers (Combined Canty)

<sup>65</sup> 351.18 Water Rights Trust

- 5.134 *The use and disturbance of the bed of a lake or river or a wetland by cattle or farmed deer for temporary or permanent stocking is a prohibited activity in the following areas:*
1. *In an inanga or salmon spawning site listed in Schedule 17;*
  2. *Within 1000 m upstream of a group or community water supply intake as listed in Schedule 1;*
  3. *Within 1000 m upstream in the bed of a lake or flowing river of a fresh water bathing site listed in Schedule 6; or*
  4. *In a bed of a Spring-fed plains river.*
- 5.135 *The use and disturbance of the bed of a lake, river or wetland for temporary or permanent stocking or temporary access and any associated discharges is a permitted activity, provided the following conditions are met:*
1. *The use or disturbance is not a prohibited activity under Rules 5.133 or 5.134*
  2. *The disturbance by livestock shall not, outside the Mixing Zone cause:*
    - (a) *a conspicuous change in colour or clarity of the water;*
    - (b) *the concentration of Exherichia coli to exceed 550 E.coli per 100 millilitres;*
  3. *The disturbance shall not result in the following effects being clearly visible in or on the bed, including the banks of a river or lake:*
    - (a) *pugging or trampling of the land; or*
    - (b) *areas of bare ground; and*
  4. *The disturbance of a wetland shall not result in:*
    - (a) *a conspicuous change in colour or clarity of the water;*
    - (b) *any clearly visible pugging or trampling of land.*
- 5.136 *The use and disturbance of a bed of a lake, river or wetland for a permanent stock crossing point and any associated discharges is a permitted activity, provided the following conditions are met:*
1. *The use or disturbance is not a prohibited activity under Rules 5.133 or 5.134;*
  2. *The crossing point is not more than 20 m wide;*
  3. *The crossing point is perpendicular to the direction of water flow, except where this is impracticable owing to the natural contours of the riverbed or adjoining land;*
  4. *The crossing point aligns with a constructed track or raceway on either side of the crossing point;*
  5. *The crossing point does not obstruct the passage of fish;*
  6. *The approaches to the crossing shall be located, constructed and maintained to ensure that the parts of the crossing approaching the area of the bed covered by water under low flow conditions are underlain by compacted gravel or some other material with an equivalent or better stability against erosion.*
- 5.137 *The use and disturbance of the bed of a lake or river or a wetland for temporary or permanent stocking and any incidental discharges that does not comply with one or more of conditions 2 to 4 in Rule 5.135, and for a permanent stock crossing point that does not comply with one or more of conditions 2 to 6 in Rule 5.136, is a discretionary activity.*

As these rules have a considerable amount of overlap in their structure, many submissions relate to the group of rules as a whole.

Several submitters seek to qualify the rules with a definition of "River" as flowing over 1 m width, and "wetland" defined as 0.5 hectares or greater in size. Mr Ross Little seeks a qualified definition of river and water body to be added excluding intermittently flowing grassed waterways which are normally dry.

Sth Rakaia Bach Owners express difficulty with the interpretation of these rules. This is supported in a further submission by Fed Farmers (Combined Canty).

Several submissions including LINZ and Meridian seek that these rules be retained without amendment.

*Rule 5.133*

Fed Farmers (Combined Canty) and Simons Pass Station Ltd seek to amend the Rule to better reflect the risks and to remove the prohibited activity status, and that reference only be made to wetlands that are ecologically significant, for example: "The use and disturbance of the bed of a permanently flowing lake or river or an ecologically significant wetland by outdoor intensively farmed livestock for temporary or permanent stocking or temporary access is a non-complying activity."

Fonterra seeks the following: (i) Add an exemption to the Rule for access across the bed of a river for the purposes of conveying stock over a bridge or culvert structure or (ii) Include a new definition of "active bed" in the definitions section of the Plan: *"Active bed means that part of a river bed permanently covered by water and any area adjacent to, or within, a braided river system that is not covered by permanently flowing water but which is predominantly unvegetated and comprises sand, gravel, boulders or similar material."* and (iii) amend Rule 5.133 to commence: "The use and disturbance of the active bed of a lake or river or a wetland...."

Whyte Farming object to the rule stating that to exclude stock from water bodies is impractical with fencing. If current practices are not disturbing these sites to their detriment, why can't we retain the status quo.

Deer Farmers Assn (Sth Canty, Nth Otago) oppose this Rule as under extreme circumstances intensively farmed stock may need to cross beds of lakes and rivers on animal welfare grounds due to extreme weather conditions.

Deer Farmers Assn (Canty) submits that this rule's definitions are too general and all-encompassing especially in regards to wetlands. The definition of "intensively farmed" needs clarification in regard to deer farming and it could be a permitted activity on a case by case basis.

Waihora Ellesmere Trust seeks the rule be extended to larger drains in the Selwyn Waihora Catchment. Also, outdoor intensively farmed livestock should be excluded from the banks as well as beds of rivers. Four further submissions support this submission, Ngā Rūnanga opposes it.

Beef & Lamb and Deer Industry New Zealand & New Zealand Deer Farmers' Association seek to include provisions for stock of any type to cross rivers, lakes or wetlands in certain circumstances as a permitted activity where bridges or culverts are not feasible. Alternatively, these matters could readily be addressed in a Farm Environment Plan. Three further submissions support this while four oppose it.

Fish & Game seeks to amend rules 5.133 to 5.137 to ensure that all intensively farmed stock are excluded from fresh water bodies, and that cattle, deer, pigs and other extensively farmed animals that wallow or linger in water bodies are excluded from water bodies except where topographical constraints prevent this from occurring. Also, amend the rules so that stock crossing points for the stock listed above must be bridged or have a culvert installed.

Ngā Rūnanga seeks to amend the Rule to include permanent access.

*Rules 5.134 & 5.135*

Several submitters seek to create separate rules for the use and disturbance of a wetland outside the bed of a lake or river. The submitters seek to prohibit the use and disturbance of such wetlands only where this will result in irreversible harm to wetlands which are ecologically significant for the purposes of s6(c). Three further submissions support this submission.

*Rule 5.134*

Fed Farmers (Combined Canty) and Simons Pass Station Ltd seeks a more flexible activity status such as non-complying. They also seek to clarify that “spring fed plains river” is as referenced in the planning maps, otherwise remove clause 4 from the Rule.

C&PH ChCh seek that the distances in Rule 5.134 comply with the National Environmental Standard for Sources of Human Drinking Water Regulations 2007 and the 2010 Drinking Water Targets in the CWMS.

DOC seeks to include “Within 1000m upstream of a tidal influence boundary” in the list of areas.

Deer Farmers Assn (Canty, Sth Canty, Nth Otago) submits that there should be no blanket exclusion of all Spring-fed plains rivers by farmed deer in Rule 5.134(4) if water quality leaving the farm boundary is compliant with the plan's rules.

Several submitters suggest a map should be developed to exclude the appropriate areas and to show the differentiation between significant and not significant areas.

Wainui Station Ltd seeks that there should be a review of the science regarding sensitive sites for salmon spawning and subsequently amend all policies and rules which refer to sensitive sites for salmon spawning.

Mr Philip Smith seeks to amend the Rule so that only beds of lakes or rivers or wetlands that have significant natural values or that can be protected at a reasonable cost are captured.

*Rule 5.135*

Greenfield Rural Opportunities Limited seeks an amendment to condition 4 of Rule 5.135 to read "in the bed of any spring-fed plains river identified in the planning maps" and amend the planning maps to record such rivers.

Fed Farmers (Combined Canty) seeks an amendment to Rule 5.135 to allow for grazing of non-significant wetlands, such as areas of pasture or other production land that have little or no ecological value, but are permanently or intermittently wet and support some native species such as rushes or tussocks adapted to wet conditions, for example through the following amendments to the definition of “wetland”: Wetland: includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions, but excludes areas of pasture that are intermittently wet, or that contain species associated with wet areas such as rushes, but have little or no natural value.

Mr Ross Little seeks to include a condition that permits stock crossings across waterbodies (or rivers), where the Land Use Classification has a low nitrogen output, such as extensive grazing. If this is

unacceptable, he suggests a limit could be added to restrict such a crossing activity to no more than 20 times a year.

DOC seeks that stock access to wetlands is not a permitted activity but rather a restricted discretionary activity.

Orari River Protection Group (Inc) submits that the Rule only recognises the visual effects; it should also include increased nutrient run-off.

Synlait Milk and Synlait Farms seek that the reference to "bed" in condition (3) should be accompanied by a map of the areas to which this relates.

Lake Heron Station submits that in extensive grazing systems with low stocking rates (predominantly in the hill and high country) it is impractical to fence stock from all streams and wetlands. They also raise the issue of how to determine what permanent is with regard to crossing points.

Simons Pass Station Ltd seeks to allow the grazing of non-significant wetlands.

Beef & Lamb seeks to refer to "ecologically significant" wetlands in the Rule. They also seek to amend condition 3(b) to clarify that it relates to bare ground arising from significant stock activity.

Ngā Rūnanga seeks to amend the Rule by deleting references to lakes and wetlands.

#### *Rule 5.136*

Mr Ross Little submits that the term "perpendicular" in condition 3 is replaced with 'right angles' or similar, as common usage of perpendicular suggests vertical or upright.

Fed Farmers (Combined Cnty) and Simons Pass Station Ltd suggest that the use and disturbance of a bed of a lake, river or wetland for a ~~permanent~~ stock crossing point and any associated discharges is a permitted activity, provided the following conditions are met:

1. The use or disturbance is not a prohibited activity under Rules 5.133 or 5.134;
2. The crossing point is not more than 20 m wide, or result in any conspicuous change in colour or visual clarity beyond the Mixing Zone as defined in Schedule 5;
3. The crossing point is perpendicular to the direction of water flow, except where this is impracticable owing to the natural contours of the riverbed or adjoining land;
4. Except in the hill and high country environment, the crossing point aligns with a constructed track or raceway on either side of the crossing point;
5. The crossing point does not obstruct the passage of fish

DOC seeks to amend the Rule so that permanent crossings of lakes and riverbeds are, as a minimum, dealt with on a controlled activity basis such that the conditions listed 1 through 6 (subject to DOC's further amendments) are matters over which the control is exercised.

Beef & Lamb and Deer Ind & Deer Farmers seek to amend the Rule to provide for extensive pastoral situations, or manage through Farm Environment Plans.

Fed Farmers (Temuka, High Country) request a definition of "permanent stock crossing point" which identifies "permanent" to mean no more than 20 return crossings per annum, otherwise delete conditions 2, 4 and 6.

Ngā Rūnanga seeks to amend the Rule by deleting references to lakes and wetlands.

*Rule 5.137*

Lake Heron Station submits that in extensive grazing systems with low stocking rates (predominantly in the hill and high country) it is impractical to fence stock from all streams and wetlands. They also raise the issue of how to determine what permanent is with regard to crossing points.

**Analysis**

There are a range of common themes in the submissions regarding the workability of these rules:

- There is potential overlap between the rules – this leads to confusion and compliance issues
- Whether prohibited activity status is appropriate.
- Clarity that the rules do not apply to extensively farmed hill/high-country stock.
- Provision for crossing places/access when it is “necessary”.
- Some form of significance or size based definition of “bed” and “wetland” is sought.
- Confusion is generated by “permanent” and “temporary” – what do these actually mean?

The submissions do not generally seek extension of controls to drains (other than in Selwyn/Te Waihora). Fish & Game seek extension to all fresh water bodies, which would presumably include drains. Drainage networks are covered by a separate set of rules in the pLWRP, which require certain performance standard to be met at the point of discharge into natural water bodies. In many ways this will require the management of stock access through this rule regime. At this point, the recommended approach is to continue to not manage drains, but if there is specific reason to include their management in sub-regional sections of the pLWRP, this can be done at a future date.

The general submissions that seek some definition of the size of relevant river beds, and the value of wetlands to be included, do have merit. With respect to wetlands, the RMA definition is acknowledged to be somewhat vague, but this issue is difficult to address in a manner that satisfies all interested parties. While it is likely that the exclusion of some rivers, particularly ephemeral streams or small water bodies will attract some criticism, it is a realistic measure, which has been accepted with a degree of pragmatism in the Clean Streams Accord 2003. The Clean Stream Accord 2003 dimensions may be too great, given the importance of small shallow waterbodies in Canterbury for trout and inanga spawning.

Overall, a significant number of changes to the rule regime are recommended, with the general aim of making the rule regime both more pragmatic and certain. It is acknowledged that it arrives at something of a middle ground, and that many submitters, from both those seeking more pragmatism through to those seeking the greater restrictions on stock access, will not be fully satisfied.

**Recommendation R5.133**

That Rules 5.133 to 5.136 be amended as follows:

*5.133 The use and disturbance of the bed (including the banks)<sup>66</sup> of a river, that is greater than 1m wide or 100mm deep at the time when and place where stock access it,*

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<sup>66</sup> 244.12 Waihora Ellesmere Trust

~~that does not comply with the conditions of Rule 5.134A<sup>67</sup> or of a lake or river<sup>68</sup> or a wetland by intensive stock and any associated discharge to water outdoor intensively farmed livestock for temporary or permanent stocking or temporary access<sup>69</sup> is a prohibited activity.~~

5.134 The use and disturbance of the bed (including the banks)<sup>70</sup> of a lake or river or a wetland by intensive stock or cattle and any associated discharge to water<sup>71</sup> is a prohibited activity in the following areas:

1. In an inanga or salmon spawning site listed in Schedule 17;
2. Within 1000 m upstream of a group or community water supply intake as listed in Schedule 1;
3. Within 1000 m upstream ~~in the bed of a lake or flowing river~~<sup>72</sup> of a fresh water bathing site listed in Schedule 6; or
4. In ~~the a-bed~~ of a Spring-fed plains river as shown on the Planning Maps.<sup>73</sup>

5.134A The use and disturbance of the bed (including the banks)<sup>74</sup> of a river, that is greater than 1m wide or 100mm deep at the time when and place where stock access it, by intensive stock and any associated discharge to water is a discretionary activity if the following conditions are met:

1. The use or disturbance and any associated discharge is not a prohibited activity under Rule 5.134;
2. A Farm Environment Plan is prepared, complied with and audited in accordance with Schedule 7; and
3. The use and disturbance of the bed does not occur on more than four occasions per annum, for a duration not exceeding 1 hour on each occasion and the crossing stock is accompanied by a person at all times.<sup>75</sup>

5.135 The use and disturbance of the bed (including the banks)<sup>76</sup> of a lake, river or wetland ~~for temporary or permanent stocking or temporary access~~ and any associated discharge ~~to waters~~ is a permitted activity, provided the following conditions are met:

1. The use or disturbance and any associated discharge is not a prohibited activity under Rules 5.133 or 5.134, or a discretionary activity under Rule 5.134A;
2. The disturbance of a lake or river by livestock does shall not, outside the Mixing Zone, cause:
  - (a) a conspicuous change in colour or clarity of the water;
  - (b) the concentration of ~~Exherichia~~ Escherichia<sup>77</sup> coli to exceed 550 Escherichia<sup>78</sup> coli per 100 millilitres;

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<sup>67</sup> 39.7 Blue Gum Trading Ltd

<sup>68</sup> Consequential change

<sup>69</sup> 12.5 South Rakaia Bach Owners Association Incorporated

<sup>70</sup> 244.12 Waihora Ellesmere Trust

<sup>71</sup> Consequential to definition recommendation

<sup>72</sup> Redundant words removed to simplify rule

<sup>73</sup> 320.189 Fed Farmers (Combined Canty)

<sup>74</sup> 244.12 Waihora Ellesmere Trust

<sup>75</sup> 16.20 Ross Little

<sup>76</sup> 244.12 Waihora Ellesmere Trust

<sup>77</sup> 84.1 Eliot Sinclair & Partners Limited

<sup>78</sup> 84.1 Eliot Sinclair & Partners Limited

3. At a permanent stock crossing point on a river, the stock crossing point is not more than 20 m wide, is perpendicular to the direction of water flow, except where this is impracticable owing to the natural contours of the riverbed or adjoining land, and is aligned with a constructed track or raceway on either side of the crossing point;
4. Other than at a permanent stock crossing point the disturbance does not result in pugging or de-vegetation that exposes bare earth in the bed (including the banks) of a lake or river; and shall not result in the following effects being clearly visible in or on the bed, including the banks of a river or lake:
  - ~~(a) pugging or trampling of the land; or~~
  - ~~(b) areas of bare ground; and~~<sup>79</sup>
5. The disturbance does not result in a conspicuous change in colour or clarity of the water, or pugging or de-vegetation that exposes bare earth of a wetland shall not result in:
  - ~~(a) a conspicuous change in colour or clarity of the water;~~
  - ~~(b) any clearly visible pugging or trampling of land.~~<sup>80</sup>

~~5.136 The use and disturbance of a bed of a lake, river or wetland for a permanent stock crossing point and any associated discharges is a permitted activity, provided the following conditions are met:~~

- ~~1. The use or disturbance is not a prohibited activity under Rules 5.133 or 5.134;~~
- ~~2. The crossing point is not more than 20 m wide;~~
- ~~3. The crossing point is perpendicular to the direction of water flow, except where this is impracticable owing to the natural contours of the riverbed or adjoining land;~~
- ~~4. The crossing point aligns with a constructed track or raceway on either side of the crossing point;~~
- ~~5. The crossing point does not obstruct the passage of fish;~~
- ~~6. The approaches to the crossing shall be located, constructed and maintained to ensure that the parts of the crossing approaching the area of the bed covered by water under low flow conditions are underlain by compacted gravel or some other material with an equivalent or better stability against erosion.~~<sup>81</sup>

~~5.1367 The use and disturbance of the bed (including the banks)<sup>82</sup> of a lake or river or a wetland for temporary or permanent stocking and any associated incidental<sup>83</sup> discharges that does not comply with one or more of conditions 2 to 54 in Rule 5.135, and for a permanent stock crossing point that does not comply with one or more of conditions 2 to 6 in Rule 5.136,<sup>84</sup> is a discretionary activity.~~

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<sup>79</sup> Consequential change

<sup>80</sup> Consequential change

<sup>81</sup> 19.106 Ellesmere ISI

<sup>82</sup> 244.12 Waihora Ellesmere Trust

<sup>83</sup> Consequential change to make references to discharges consistent

<sup>84</sup> Consequential change

## 9 Nutrient Management

### Introduction

The management of nutrients is a relatively new concept contained in the pLWRP. In the NRRP, the need to manage nutrients was recognised, and the management regime was triggered through rules that required nutrient management for arable or very heavily stocked land, where nutrient leaching was over certain limits. In practice, those mechanisms were not particularly effective, particularly in the linkages between the objectives, policies and rules and in dealing with cumulative effects.

The pLWRP approach is advanced from a significant on-going work programme, partially informed by on work in the in the Hurunui-Waiau and Selwyn/Waihora catchments. It is also influenced by advances in nutrient management that have been occurring, particularly in the central North Island.

The emphasis on nutrient management was also given additional focus through the Freshwater NPS. The Freshwater NPS requires the acknowledgement of limits, in terms of water quality, and managing point source and non-point source discharges. The NPS also has a consistent focus on cumulative effects.

Across the country there have been a variety of mechanisms used to manage nutrients. These include voluntary mechanisms, industry-based self-management, input controls, setting catchment-wide limits, “grandfathering” (which is a form of protection of existing activities), and “natural capital” or land-use capability which recognises the productive potential of different soil types. These alternatives have been fully discussed in the Horizons One-Plan Environment Court decision<sup>85</sup>.

Rightly or wrongly, after significant industry consultation and involvement, the CRC settled on a form of “enhanced grandfathering” for management of nutrients. The enhancement takes the form of significant reliance on “industry articulated good practice”, which is the focus of an on-going project to identify and quantify “good practice”.<sup>86</sup> Overlaying this is the sub-regional framework which enables location specific solutions to be developed and implemented.

A range of submissions have been lodged on the type of nutrient management framework contained in the pLWRP. There are a range of submissions that seek a fundamentally different approach, with voluntary management, industry based self-management, input controls and “natural capital” being identifiable alternatives raised. However, no particular details of what plan provisions should be included are offered by those submitters seeking “natural capital” or input controls. Input controls are used in a number of countries, and it is understood that many European countries base nutrient management on input controls, primarily fertiliser management. It is understood that there is not a particular desire for this to occur in the Canterbury region, particularly given the preference to enable farming to adapt to achieve water quality outcomes within a flexible framework.

The pLWRP provisions are strongly based on a “pre-2017 and post-2017” framework. The pre-2017 framework is primarily identified as a holding position, with the explicit recognition that Schedule 8<sup>87</sup> of the pLWRP would be completed in the intervening period, and the region-wide controls would shift to a “industry articulated good practice” framework based on different stocking types, climate and soil characteristics, and whether or not the property is irrigated.

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<sup>85</sup> Ref paragraphs 5-8 to 5-11, 5-84 to 5-142

<sup>86</sup> See the s32 report at pages 40-44

<sup>87</sup> Commonly referred to as the “look-up table”

In parallel to this, there is a range of sub-regional planning projects underway or programmed to occur in the coming years. These are led by the Selwyn/Waihora process that is currently underway. These projects are focused on the areas that have an over-allocated status with respect to nutrients, and the sub-regional planning projects seek to find local solutions, often based around nutrient management, other mitigations and offsets, and the identification of refined water quality outcomes. They are also integrated with water quantity and land use considerations.

The pLWRP framework also focused strongly on nitrogen, and this received significant criticism through the submissions process. It is clear that a number of Canterbury water bodies are affected by a range of nutrients, and the management of nitrogen alone is unlikely to achieve a number of the water quality outcomes for some catchments. However, there is some attraction in focusing on nitrogen management, in that the primary software tool (Overseer) is most developed with respect to nitrogen, and is able to give specific numbers with respect to leaching. This creates a relatively simple control framework whereby the numbers produced can easily be compared against thresholds. The difficulty is that, as with any model, Overseer is subject to limitations of both accuracy and input management. In addition, many submissions consider that Overseer is inappropriate to use in a number of farming situations.

### **Overall analysis**

Nutrient management in Canterbury is inherently a fine balancing act given the RMA philosophies, the Freshwater NPS, the CWMS and the Government's public statements about the desirability of additional irrigation in Canterbury<sup>88</sup>.

Evidence has already been given to the pLWRP hearing that additional irrigation, even efficient, well-managed spray irrigation, will lead to a significant increase in land-surface recharge.<sup>89</sup> This additional land-surface recharge is primarily water-leaching through the root zone of soils. It commonly occurs following rainfall, as the soil moisture content is typically higher under irrigated scenarios, and therefore soils reach saturation quicker during rainfall events. Overall, it is difficult to avoid the simple logic of increased irrigation leading to increased water and nutrient leaching through the root zone or surface run-off. In contrast, the NPS requires the identification of water bodies that are degraded from a water quality perspective, the setting of water quality limits, maintaining or improving the overall quality of fresh water within a region, and the requirement for resource consents to ensure those water quality limits will be met.<sup>90</sup>

The water bodies in Canterbury are diverse, with a range of lakes, alpine rivers and rain-fed or spring-fed hill country or lowland rivers and coastal lakes. The hill-fed and spring-fed rivers and coastal lakes are particularly sensitive to nutrient increases, especially as they are subject to low summer flows and warm temperatures. In these situations the water bodies are often subject to excessive weed and algal growth. The net result is a significant reduction in life-supporting capacity, as well as having wide-ranging effects on recreational use and cultural and amenity values. The dichotomy between providing for significant additional irrigation and the inherent effects with respect to nutrients, along

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<sup>88</sup> Speech to Beef + Lamb NZ Future Farming Conference, David Carter, 22 March, 2012 "The Government's provision of \$400 million from the Future Investment Fund to support the construction of well-designed irrigation schemes – along with the \$35 million Irrigation Acceleration Fund – stand to greatly boost prosperity for the primary sector. I want to see more areas of New Zealand reliably irrigated and I'm pleased that discussions are taking place with promoters of schemes in the Wairarapa, Marlborough, Canterbury, Otago – and of course here in Hawke's Bay. This work must be done sooner rather than later."

<sup>89</sup> This land-surface recharge increase has been speculated to be between 30% and 50% by Mr Callendar and Mr McIndoe, in response to questions on 26 Feb 2013.

<sup>90</sup> Objective A2, Policy A1 and Policy A3

with requirements to set allocation limits and avoid over-allocation with respect to water quality, is the fundamental difficulty to be addressed through the pLWRP provisions.

The submissions on the pLWRP nutrient provisions are varied, and cover the full spectrum between those that seek a significant tightening of the policy and rule regime, significant adjustment to limits and implementation dates, those that seek minor and detailed changes to the regimes, those that seek the entire nutrient management policy and rule regime be abandoned, through to those that consider the policy and rule regime and the tools by which it is to be implemented are unsuitable, not sufficiently scientifically robust or are inappropriate to the particular farming circumstances of the submitter.

The whole raft of policies, objectives and mapping have been submitted on extensively, with these provisions attracting more submissions than any other in the pLWRP. A number of the submission points are repetitive, with a great many submitters adopting the same or similar positions to Federated Farmers or other industry bodies. Similarly, a large number of submitters have made essentially the same statements and requests with respect to each definition, policy, rule and schedule. On this basis, the summarising of the submissions and issues raised and the pages to follow are inherently paraphrasing a number of positions and do not specifically identify individual submitters.

It is also apparent in the submissions that a number of submitters have struggled with how to make specific wording changes to the existing policies and rules in a manner that gives effects to their desired outcome. Often the opening statement in submissions gives a clear impression of the submitter's desired outcomes, which are often for relatively fundamental changes to the nutrient management provisions, including changes to the entire philosophy behind the provisions. This is often in contrast to the specific decisions requested by the submitters, which are often very specific, and commonly relatively minor, wording changes to existing policies and rules.<sup>91</sup> On this basis a relatively broad view of submission scope has been taken, with only modest emphasis on the specific wording changes requested, especially where this is in contrast to more general statements. It is also apparent that across the various sectors, industries, NGO's and individuals, there are no clear frameworks that are acceptable to a wide range of parties. Indeed, within the farming sector, there are a range of positions and desired outcomes.

Due to the range of positions being advanced and on-going work programmes underway, a meeting was held with a range of the submitters on the nutrient provisions to identify whether there was any common ground, or advances in position following the submission period. This meeting was attended by representatives of the Canterbury Regional Council, Irrigation NZ, Federated Farmers, Fish & Game, Ngai Tahu, Dairy NZ and HortNZ. That meeting identified that there are a range of nutrient management projects underway by industry. It identified that all of the submitters have specific and individual preferences for the policy and rule regime for the management of nutrients. The meeting was also helpful for the testing of some ideas with respect to nutrient management provisions and for the clarity raised, particularly around the shorter term positioning on nutrient management.

There are a range of issues that have consistently attracted a significant number of submissions. These include:

- use of various forms of audited self-management or other voluntary mechanisms
- the use of Overseer
- the focus on nitrogen alone
- the complexity or inability to manage some farming types
- the need to allow for some development and investment certainty
- a lack of connection between outcomes in Table 1 and the rule framework

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<sup>91</sup> See for example Federated Farmers (Combined Canty), Dairy Holdings Ltd (DHL) and Deer Industry New Zealand (DINZ) and New Zealand Deer Farmers' Association (NZDFA)

- the timeframe for implementation
- a minimum size limit or discharge quantity below which there are no compliance requirements
- the difference between “site” and “property”

Each of these matters will be addressed in summary form here, as they are consistently raised with respect to the definitions, policies, rules and schedules, and in general statements on the pLWRP, and these matters have significantly informed the recommended changes to the policies and rules. They are also often inter-related such that dealing with the issues in a single location is more appropriate – for example the use of Overseer is related to the focus on nitrogen, which is related to a lack of connection between outcomes in Table 1 and the rule framework.

### ***Use of various forms of audited self-management or other voluntary mechanisms***

A range of submitters have suggested that various self-management, voluntary approaches or audited self-management ought to be adopted, instead of policy and rule regimes that may require resource consents or set limits. This is a fundamental basis of the submission from Irrigation New Zealand, and has also had substantial support from individual farmers, Federated Farmers and other industry groups.

Voluntary regimes and self-management are typically an attractive option when faced with complexity of management, significant buy-in required by the industry and when various industries provide the required leadership.

On the other hand, there is considerable community uncertainty around self-management programmes and voluntary adoption of standards. A parallel to this is the previously mentioned stock access to waterways. This issue has been the subject of both regulatory approaches and voluntary, industry-led initiatives.

Overall, the industry-led initiatives are seen to be a significant and positive contribution towards managing nutrients. However, there needs to be a regulatory framework within which all parties, whether they choose to adopt an industry-led initiative, or operate outside of a voluntary process, are accommodated.

Further, it is noted that many of the audited self-management or industry-led initiatives are at present in a relatively early state or still under development. On this basis, it is recommended, as a part of the policy and rule regime, that industry initiatives and a form of audited self management be provided for, with a regulatory backstop managed by the CRC to manage poor performance, people who choose to not adopt an audited self-management framework or where such a framework does not exist.

Under the pLWRP rule framework, farm environment plans were set out in some of the rules as a condition of permitted activity status. Reflection on the issue, and acknowledgement of the case law that has developed around nutrient management, has identified that permitted activity status has some difficulties, particularly around compliance, monitoring and administration costs.

There is reasonably detailed reasoning set out in the decision of Judge Thompson in the Horizons One Plan decision on why permitted activity status is not appropriate where a farm plan is required.<sup>92</sup> This goes against a number of submitters’ wishes, particularly those who have sought permitted activity status with industry led management. In particular, submissions from farming groups have requested that in the long term “90 per cent of farming activities are permitted”.

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<sup>92</sup> See para 5-199

The situation in Canterbury is somewhat different, in that potentially thousands of properties will be affected by the nutrient management provisions. There is a strong message in the submissions to give some form of audited self management an opportunity to achieve water quality outcomes. This is supported, but under a much stronger farm environment plan framework and independent auditing framework. This is recommended to be backed up by a resource consenting framework for farming activities where there is poor performance, people who choose to not adopt an audited self-management framework or where such a framework does not exist. Further, resource consenting is recommended to be required where the potential effects are greater.

### ***The use of Overseer***

Overseer, as a tool to calculate nutrient losses, has been debated thoroughly in council hearings and the Environment Court, particularly in the Taupo area and Manawatu. Overseer is not without its issues, but has generally been considered to be fit for purpose in those hearings and Environment Court cases.

It is notable that as a modelling tool there is a margin of error, and it is subject to manipulation of input data. As a comparative tool, used to assess the effect of changes in farming operation it is particularly useful. However, there has been a very strong emphasis in the submissions against the use of Overseer.

This issue has been further complicated as at the time of notification of the pLWRP, version 6.0 of Overseer was released. Version 6 is a considerable upgrade and two particular issues were brought into focus:

1. the significantly increased modelled nitrogen discharge from lighter soils; and
2. the increased complexity in user inputs required.

The increase in complexity in user inputs has highlighted the difficulty of Overseer being used by untrained people, and its susceptibility to poorly evidenced input variables.

In addition, numerous submissions have identified that Overseer is unsuited to use with some farming types, particularly arable, horticulture, and pig farming.

The issues raised with respect to the use of Overseer, despite its attractiveness for outputting numbers that could be compared to thresholds in the Schedule 8 lookup table, meant that overall, the confidence in the nutrient management system and its applicability across all farms in Canterbury has been brought into question.

In this transitional phase, before the introduction of a “lookup table” in Schedule 8, there is an opportunity to step back from Overseer in the interim period to enable it to be developed more fully and gain the required confidence. On this basis, thresholds in the recommended definitions and rules are based on measures other than modelled outputs from Overseer.

***The focus on nitrogen alone***

The pLWRP focuses almost exclusively on nitrogen in the policies, rules and in Schedules 7 and 8. In contrast, the nutrient allocation mapping was undertaken as a more outcomes focused assessment of the state of the various waterbodies. This is addressed fully below in the discussion on the mapping.

What has become apparent through the submissions and subsequent analysis is that the focus on nitrogen, while being comparatively easy when numeric thresholds and the use of Overseer are utilised, is not appropriate for all waterbodies. Indeed, numerous submissions on some catchments have identified that nitrogen is not the issue that needs to be managed in some circumstances.

The emphasis in the revised recommended policy and rule framework below is toward good practice implemented through farm environment plans. These are not specifically nitrogen focused, and indeed other environmental effects, beyond nutrient management, are intended to be managed through farm environment plans.

This broadening in focus beyond nitrogen will satisfy some parties, particularly those who have been critical of the lack of focus on phosphorous and sediment run-off. It may also satisfy some parties who have objected to the lack of a relationship between the categorisation of some catchments and the management regime in the pLWRP.

***The complexity or inability to manage some farming types***

A number of submitters, particularly in the arable and horticultural sectors, along with some intensive farming activities, have submitted that their activities are too complex to be managed under the nitrogen and Overseer focused policy and rule regime in the pLWRP.

It is acknowledged that Overseer is less suited to some farming types, particularly intensive farming of outdoor pigs, some arable and some horticultural cropping regimes. Improvements are consistently being made, but at this point it is accepted that the pLWRP rule regime may have been difficult to implement for some industries and farming types.

The broadening of the provisions toward farm environment plans and wider nutrient management may assist this matter. However, it is noted that the horticultural sector, in particular with movement around different properties leased seasonally, will be difficult to manage and no obvious solution to this problem is foreseen.

***The need to allow for some development and investment certainty***

A number of the policies and rules in the pLWRP are seen by submitters to have placed an undue restriction on further development of individual properties and irrigation scheme areas, particularly in areas marked as “red” on the nutrient allocation status mapping. The mapped red areas are likely to be subject to additional iterations, as the sub-regional sections will take some time to develop, and in the interim, the region-wide provisions are intended to operate as a “holding position” until the sub-regional sections are developed.

This is potentially unrealistic and some policies, such as Policy 4.34, are likely to be unachievable on a property where development is proposed, even with the best mitigation. Similarly, non-complying activity status, while sending a discouraging message, is potentially an inappropriately high hurdle, as stronger policy direction can more effectively set out the expectations of the CRC and the community,

and accepts the reality that some development will continue to occur. A number of submitters consistently raise the need for on-going investment in primary production in Canterbury, and the need for investment certainty. This is particularly relevant with the potentially changing rule regimes in 2017 and through the sub-regional planning processes.

The on-going work in the Selwyn/Waihora sub-region has identified the potential to have further development, providing it is based on the adoption of “advanced mitigation” activities, so that the nutrient discharges are minimised. This framework, along with additional requirements for existing high nutrient risk activities has been recommended in the policies and rules below, on the basis that improvements across farming in an entire area will be a relatively low cost opportunity to allow for some additional development to occur prior to comprehensive solutions developed at a sub-regional level.

The issue of trading of nutrient discharge allowances has not been addressed in the pLWRP for two reasons:

- Trading requires a rule framework based on discharge consents, and as the majority of the proposed rules are based around land use consent, this does not create a tradable framework; and
- There remains considerable uncertainty about the nature and viability of a trading regime, such that when one is developed it ought to be introduced through a plan change process so that it can be widely debated and all facets understood.

#### ***A lack of connection between outcomes in Table 1 and the rule framework***

A number of submissions criticise the lack of connection between Table 1 and the policy and rule framework. This is particularly a focus for those submissions that question whether Table 1 will ever be able to be achieved, particularly given the rule framework that is based on and good practice and managing high risk activities.

It is inherent in the region-wide rule regime that the actual environmental capacity with respect to nutrients has not been calculated for each catchment, as this is seen as part of the role of the sub-regional planning processes, where the absorptive capacity and other mitigation measures will be addressed, along with other potential location specific changes to the water quality outcomes for that sub-region.

The lack of connectivity between the Table 1 outcomes and the nutrient rule regime is acknowledged as an issue for the region-wide regime and could be overcome with further work on these matters, particularly with a movement toward sub-regional planning.

#### ***The timeframe for implementation***

A significant number of submitters seek the timeframe for implementation of the “post-2017” rule framework be amended, either by shortening it to a more immediate timeframe (often stated as 2014) or alternatively delaying it to enable a “soft start” to the nutrient management framework.

In the background, it is acknowledged that there is a significant work programme underway to develop Schedule 8, and the rule regime to apply post-2017. Recent developments have identified that the 2017 timeframe is not achievable for the kind of rule regime and Schedule 8 that had been initially proposed. On this basis, I understand there is on-going work and consultation towards a revised framework, potentially with a shortened timeframe for implementation. This is primarily in order to

reduce uncertainty, provide clearer guidance for the sub-regional section development and to create a more workable regime for the future.

The net result is uncertainty at this point for the long term nature of the policy and rule regime at a region-wide level. On this basis, there is considerably more emphasis on the interim framework in the policy and rules below, with only limited identification of how the policy and rule framework may appear under a future regime.

***A minimum size limit or discharge quantity below which there are no compliance requirements***

A large number of submitters have requested a change to the rule regime such that particularly small properties, or those undertaking low risk activities, be omitted from the rule regime. The pLWRP rule regime captures all farming properties, including those with very low contribution to the nutrient levels in a catchment.

There are approximately 17,000 “farms” in Canterbury. It is acknowledged that the rule regime needs to more particularly focus on the significant nutrient contributors. On this basis, it has been recommended below that the regime not apply to small properties (less than 5 hectares) and also to larger properties (up to 50 hectares) that are undertaking low risk activities, such as dry-land sheep and beef farming.

This is likely to remove around 10,000 “farms” from the rule regime, and make for a far more implementable framework.

It is acknowledged that a minimum nitrogen leaching value (for example 10kg/ha/pa as requested by many submitters) could also be used. This has advantages in that large properties with low contribution to catchment nutrient levels could be excluded. This option would require more people to use Overseer, which raises issues as have been identified above. Some combination of the two options may also be workable.

***The difference between “site” and “property”***

The issues around property and site have been addressed in the Volume 1 Section 42A Report, and it was concluded in that Report that a definition of property needed to be included, and for it to be used within the policy and rule framework. That recommendation has been carried through into the recommended changes discussed below, as it has been a strong theme in the submissions that many farms are operated as a single unit, but may comprise various land holdings (sites). The property definition proposed in the Volume 1 Report required these land holdings to be adjacent. This is supported, but it is recognised that such a definition will not satisfy all parties, particularly those in the horticultural and arable sectors, who often lease a range of properties.

## 9.1 Nutrient Definitions

There are several definitions that are relevant to nutrient management, primarily relevant to the rule framework. In particular, the definition of changed has attracted a very significant number of submissions, more than any other provision in the pLWRP.

The existing definition has two components, an increase in the amount of irrigation or secondly, an increase in nutrient discharge above an average of a two year period, with the assessment to be undertaken through the Overseer model.

### Changed

**Changed** means a change in land use, calculated on a per property basis that arises from either:

1. a resource consent to use, or increase the volume of, water for irrigation on a property; or
2. an increase of more than 10% in the loss of nitrogen from land used for a farming activity above the average nitrogen loss from the same land for the period between 1 July 2011 and 30 June 2013. The amount of nitrogen loss shall be calculated using the Overseer<sup>TM</sup> nutrient model for the 12 months preceding 1 July in any year and expressed as kilograms per hectare per year.

Several submissions seek to delete this definition or amend it, the submissions are summarised below.

CPWL seeks the following amendments:

- That the irrigation component should be removed from the definition.
- The measurement timeframe given needs clarification. If input based thresholds are introduced ...could alleviate some issues.
- Amend definition of "changed" to an approach which combines a percentage threshold with a threshold number.

Several submissions seek an amendment as follows:

- There is no ambiguity as to when it is deemed that there is a change application increasing the volume of water;
- There is an option to use methods than Overseer other to establish to a similar or better level the likely or actual nitrate outputs from the land use;
- Any application to take, use, or change the use or taking of water that does not change, or decrease the overall nitrate output will not be considered to be a change of use under this definition;

Further, Killermont Station Ltd seeks that changes to low intensity dry land farming that will not result in a change to intensive farming are permitted.

Ngai Tahu Property seeks that the first sentence of Part 2 of this definition be redrafted as follows:

"An increase of more than 20% in the loss of nitrogen from a property used for a farming activity above the average nitrogen loss for the same property in the two previous years";

and that a third clause be added:

"This provision shall not apply to properties of less than 10ha, unless they undertake intensive indoor farming."

Mr Paul Davey and several other submitters seek that the definition needs to be established after careful consultation with primary industry groups and with the appropriate consideration of economic and social impacts to the region.

Fed Farmers (Mackenzie) seeks to allow a nitrogen loss of up to 20kg per ha per year until 2017 without the need to obtain consents outside red area where WQ outcomes are not being met and the Lake zone. Where a different version of OVERSEER is used which calculates higher nitrogen loss with the same inputs, no change is deemed to have occurred.

Fed Farmers (Combined Canty) seeks the following amendments:

- Delete part 1 of the definition because well managed irrigation enables better management of nutrients than in a rain-fed system.
- Amend part 2 by focusing on a genuine change in land-use, based on a threshold proportion of land area on which the change occurs (e.g. 20%); or
- Amend as follows:
  - Increase the percentage threshold; or
  - Use an absolute number (at least 5 kg/ha/year); or
  - Use an absolute number at the lower end of the range (e.g. 5 kg/ha/year) and a percentage at the upper end of the range; and
  - Extend the baseline for comparison from 2 years to at least 5 years, ideally any 5 year period in the last 10.
- Delete increase in water use for irrigation as a criterion for defining land use change.
- Amend the rest of the definition so that only genuine land use change is caught e.g. dairy conversions. This could be done by raising the percentage increase in N loss threshold for defining land use change and/or by adjusting the periods over which averaging is done.
- Careful thought needs to be given to the use of Overseer to estimate N discharge in a compliance context. Its lack of precision must be acknowledged. One way of doing this would be to increase the N loss threshold for defining land use change.

Mr Ian Syme seeks that the definition needs to focus on genuine land use change, and cater for different and varied farming systems. The base line should be extended to at least 5 years. The percentage should be extended or based on actual figures or use actual numbers (at least 5kg/ha/year).

Several submissions seek to amend the definition of "Changed" to make it clear that the requirement for a land use consent does not apply where the land use is not actually changing, and establish a threshold to exempt very small scale farming activities.

Mr Robert Johnston seeks to replace 10% with 20%. The Grant Family seeks an increase to 25%.

Property Brokers seeks to amend the definition of change to a soil type and rainfall data based assessment for nutrient levels.

Blue Gum Trading Ltd and Maungatahi Farm Limited seeks to amend the definition of "Changed" to make it clear that the requirement for a land use consent does not apply where the land use is not actually changing, and establish a threshold to exempt very small scale farming activities.

Several submissions seek to amend the definition of 'changed' to a farming activity to be either:

- (a) The application of irrigation water or an increase in irrigation water; or
- (b) A change in land use which increases the nitrogen discharged per hectare to over 20/kg/ha/yr, averaged over the farm.

NJ & MJ Brooks Ltd seeks to amend the definition of "Changed" to make it clear that the requirement for a land use consent does not apply where the land use is not actually changing, and establish a threshold to exempt very small scale farming activities.

Several submissions including James McDonald seek that the definition of change in terms of Rules 5.42 to 5.45 needs to be further expanded and ensure all reading the plan are aware of ECAN objectives for this definition. Further expansion or examples of situations when this rule comes into effect. It would only come into effect when there is an actual change in the farming practices/stock type e.g. sheep and beef to dairy or dryland to irrigated. Additional consideration needs to go into a fairer mechanism that does not penalise those that have not developed and have low N outputs. They need the ability to grow in the future. This is particularly important for those who happen to be located in "red zones" and are undeveloped and have low N losses.

Beechwood Trustees Limited seeks to amend the definition of changed by raising the percentage increase threshold of nitrogen loss to a percentage with an upper limit, that captures genuine land use changes and which is more in line with the reliability of the OVERSEERTM Nutrient Model.

CRC seeks the following amendment:

Changed (in terms of Rules 5.39 to 5.51)

means a change in land use (including from any other activity to farming), calculated on a per property basis that arises from either:

1. a resource consent to use, or increase the volume of, water for irrigation on a property; or
2. an increase of more than 10% in the loss of nitrogen from land used for a farming activity above the average nitrogen loss from the same land for the period between 1 July 2011 and 30 June 2013. The amount of nitrogen loss shall be calculated using the OverseerTM nutrient model for the 12 months preceding 1 July in any year and expressed as kilograms per hectare per year.

Synlait Milk and Synlait Farms seek to amend the definition as follows:

- Delete part (1)
- Amend part (2) to focus on a genuine change in land-use, based on a threshold proportion of land area on which the change occurs (e.g. 20%); or
- Increase the percentage threshold; or use an absolute number (at least 5 kg/ha/year); or use an absolute number at the lower end (e.g. 5 kg/ha/year) and a percentage at the upper end of the range; and
- Extend the baseline for comparison from 2 years to at least 5 years.

Dunsandel Water Users Group and Irrigation NZ seek the following amendments:

- Remove part (1) from the definition of 'Changed'; or relate to additional irrigated area.
- Re-write part (2) of the definition as a combination of a percentage (20%) combined with a number once a threshold is reached (25kg/ha with a +5kg/ha as the maximum change).

Meridian Energy Limited seeks the following amendments to the definition:

means a change in land use, calculated on a per property basis that arises from either:

1. a resource consent to use, or increase the volume of, water for irrigation on a property; or
2. ~~an increase of more than 10%~~ any net increase in the loss of nitrogen or phosphorous from land used for a farming activity above the average nitrogen or phosphorus loss from the same land for the period between 1 July 2011 and 30 June 2013. The amount of nitrogen or phosphorous loss shall be calculated using the OverseerTM nutrient model for the 12 months preceding 1 July in any year and expressed as kilograms per hectare per year.

Rab McDowell seeks to delete part (1) of the definition and amend part (2) by focusing on a genuine change in land use, based on a threshold proportion of land area on which the change occurs. No specific wording provided for part 2.

CIAL seeks to amend the definition of "Changed" by increasing the nitrogen loss trigger threshold for defining land use change to a level that more appropriately reflects significant and genuine changes to the farm system.

Ravensdown seeks the following amendment:

- Delete the definition of "changed". Consider an alternative approach/definition with application specifically for those rules which apply prior to 2017, with any definition adopting a broad definition of 'property' that relates to the area being farmed.
- An alternative definition for "change " could be:
  - i) Greater than 20% of the farm area changing from one of the listed farm activities to another farm activity, or
  - ii) Increase in average Nitrogen loss/ha/yr as estimated by Overseer of more than 6 kgN/ha/yr.

Listed farm activities being: dairy, drystock grazing, cropping, horticulture, irrigated farming.

Note: The rationale for selecting a change of 6 kg N loss/ha/yr as a definition of land use change is made on the basis of there being 20% of an arbitrary 30 kgN/ha/yr benchmark N loss for most farms, (assuming 20kg kgN/ha/yr is too low to be practicable for most farms, using Overseer Version 6).

Fonterra seeks that the definition be amended so that:

- The percentage specified in Scenario 2 is adjusted to account for the margin of error in Overseer.
- The definition, in so far as it applies to additional water, refers to "additional irrigated area".
- The definition provides a more generous benchmark timeframe (such as six years) when a land owner provides evidence of a long term approach to mixed cropping land uses.

DHL seeks the following amendments:

- To remove the reference to increased irrigation water and a change in land use resulting from a resource consent;
- What is currently (2) to accommodate either (or such other number as is determined to be appropriate):
  - (a) a higher percentage (perhaps 30%?) to cover total loss of nitrogen
  - (b) a 10% increase in the loss of nitrogen over and above reasonably anticipated farming practices for the general farming type, and /or
- The 2 year period be amended to 5 years.

The Bennett Family seeks to amend the definition of "changed" to focus on genuine change in land use, for example:

- Change from dry-stock vs arable vs dairying vs market gardening;
- An increase in irrigation.

They also seek to remove the second part of the definition, after (2), or else amend it to be more reasonable.

Lincoln University seeks to amend definition of "changed" by raising the percentage increase threshold of nitrogen loss to a percentage that captures genuine land use changes and which is more in line with the reliability of the OVERSEER nutrient model.

Simons Pass Station Ltd seeks the following amendments:

- Delete increase in water use for irrigation as a criterion for defining land use change.
- Amend the rest of the definition so that only genuine land use change is caught e.g. dairy conversions.
- Raise the percentage increase in N loss threshold for defining land use change and/or by adjusting the periods over which averaging is done.
- Amend definition Change in land use either through increasing the percentage or not using a percentage.

ANZCO *et al* seeks the following amendment:

Changed (in terms of Rules 5.42 to 5.45) - means a change in land use, calculated on a per property basis that arises from ~~either~~:

1. a resource consent to use, or increase the volume of, water for irrigation on a property; ~~or~~ and
2. an increase of more than 10% in the loss of nitrogen from land used for a farming activity above the five year rolling mean of average nitrogen loss from the same land ~~for the period between 1 July 2011 and 30 June 2013~~. The amount of nitrogen loss shall be calculated using the Overseer TM nutrient model for the 12 months preceding 1 July in any year and expressed as kilograms per hectare per year.

Beef & Lamb supports the Fed Farmers (Combined Canty) submissions with the following amendments:

- Delete increase in water use for irrigation as a criterion for defining land use change, or add to the above with a proviso of 'where there is no increase in nutrient loss, or where it is part of an approved irrigation scheme'.
- Amend the definition so that only genuine land use change is captured i.e. at a sector level e.g. sheep to arable, arable to dairy. Alternatively a way to do this would be by raising the threshold for the percentage increase in N loss for defining land use change and/or by adjusting the periods over which averaging is done.
- Further consideration is needed on the use of Overseer to estimate N discharge in a compliance context including the lack of precision, perhaps by increasing the N loss threshold for defining land use change or state a range.

McIntyre & Williamson Partnership objects to the change in land use definition because it is outside the margin of error of overseer and the limit may be exceeded by standard farming practice by sowing a greenfield crop or winter brassica. They would like to see the following alternatives considered: More flexibility and a higher threshold to allow for subtle changes in farm management so that significant change - i.e. dairy farm conversion can be considered.

CJ & AM Allen seek to amend the definition of change in land use by substantially increasing the percentage threshold or by moving away from a percentage increase in N discharge entirely. Extend the average time up to 10 years if that needs to be proved that it is normal farming operation.

The submissions have raised a number of issues with this definition, and fall within the following major categories:

- The use of Overseer as a model for determining the threshold of changed has attracted considerable criticism, often based on the supposed margin of error, and the Overseer model. Some other industry groups have also identified that Overseer is not appropriate for their industry.
- The timeframe over which the assessment period is to be averaged (2 years) has been criticised by many, with several seeking three years and others 5 years.

- The threshold of an increase in irrigation has been criticised by a number of parties, and supported by some others. Those opposed to the criteria generally state that well managed irrigation can be undertaken in a manner that does not result in any increase in nitrogen loss. Some submissions seek to address the threshold of either farm size or level of nutrient discharge (kg/hectare/per annum) below which the rule regime does not apply. This matter has been addressed elsewhere in the policy and rule framework and accordingly does not need to be addressed here.
- Some submitters have sought a change to an alternative threshold based on farming type, particularly conversion to dairy or other change in stocking or farming type.

Overall, the definition of changed is critical to the interpretation of the rules, and the thresholds beyond which resource consent is required for activities, particularly in orange and red zones and sensitive lake catchments as shown on the planning maps. The definition of changed is therefore required to be particularly certain and not open to interpretation or input errors.

For the reasons discussed above, the recommendation below is to move away from the use of Overseer as a mechanism to calculate whether a threshold has been reached. This is for a variety of reasons, including the desirability of moving away from a strict nitrogen-based framework, the lack of support for Overseer within the submissions, acceptability of the input issues and margin of error, and the relatively arbitrary nature of a percentage change in modelled nitrogen discharges.

On this basis, the definition below has been recommended to be based on stocking rates or arable production, or an increase in the amount of water consented to be applied to the property. As discussed above, the definition along with the other aspects of the policy and rule framework are recommended to be based on property rather than site.

The other notable change is to an increase in the averaging timeframe, so that greater variability in seasons can be accommodated within the changed definition. While some submitters seek a considerably longer averaging period, this is difficult to achieve without delaying the implementation of the rules. In addition, the information on stocking rates and horticultural or arable yield and consented volumes of water would be among the most rudimentary information held by all farmers.

#### **Recommendation R2.10.21**

That the definition of Changed be amended as follows:

~~**Changed** means a change in land use, calculated on a per property basis that arises from either:~~

- ~~1. a resource consent to use, or increase the volume of, water for irrigation on a property; or~~
- ~~2. an increase of more than 10% in the loss of nitrogen from land used for a farming activity above the average nitrogen loss from the same land for the period between 1 July 2011 and 30 June 2013. The amount of nitrogen loss shall be calculated using the Overseer<sup>TM</sup> nutrient model for the 12 months preceding 1 July in any year and expressed as kilograms per hectare per year.~~

Change in farming activity means any one or more of:

1. irrigation of all, or any part of, a property that was un-irrigated at 11 August 2012;
2. an increase in the consented volume of water available to be used on the property compared with that consented at 11 August 2012;
3. greater than a 10% increase in the annual average stock units carried on the property, compared with the annual average stock units averaged over 1 July 2010 to 30 June 2013; or

4. greater than a 20% increase in the annual horticultural or arable yield, compared with the annual horticultural or arable yield averaged over the period 1 July 2010 to 30 June 2013.  
and “Changed” in relation to the nutrient management policies and rules has the same meaning.<sup>93</sup>

#### Environmental Management Strategy for irrigation

*Environmental Management Strategy for irrigation means an environmental management plan for an irrigation scheme using the methodology described in: “An Environmental Management System for Irrigation Schemes in New Zealand” by C. Mulcock, S. Cumberworth, and I. Brown (June 2009).*

Three submissions seek that this definition be deleted.

Ellesmere ISI seeks to re word the definition to explain exactly what the Environmental Management Strategy for irrigation is without referring to another document.

Synlait Milk and Synlait Farms seek to amend definition of 'Environmental Management Strategy for irrigation' to refer to a specific system and outline what minimum requirements are needed for an Environmental Management Strategy.

Dunsandel Groundwater Users Group seeks to update definition to better account for recent changes in the regulatory environment.

Fonterra seeks to add “and any subsequent amendment to or replacement of that document” to the definition.

Irrigation NZ submits that this definition will need to be updated as the given methodology is currently being updated to better account for the recent changes in the regulatory environment. This is an INZ project, being undertaken by the same authors, and due for completion in March 2013. The goal is now to have this work finalised before the LWRP hearings.

Prior to the pLWRP being notified, the Canterbury Regional Council advertised a list of documents referenced in the pLWRP, as required by the First Schedule of the RMA. The referenced document in this definition was the only externally referenced document to receive opposition through that process. Three letters objecting to the document were received.

As it transpires, the notified pLWRP did not use the term “Environmental Management Strategy for irrigation”. In addition, it is not a term recommended to be used in the revised policies and rules and on this basis, it is appropriate to delete the definition.

#### **Recommendation R2.10.56**

That the definition of Environmental Management Strategy for irrigation be deleted.<sup>94</sup>

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<sup>93</sup> Several submissions relied on, in addition to original wording, including 249.3 Rab McDowel, 311.8 Simons Pass Station, and 318.10 Beef and Lamb

<sup>94</sup> 131.9 HWPL

### Farm Environment Plan Auditor

**Farm Environment Plan Auditor** means a person who has either:

1. a Certificate of Completion in Sustainable Nutrient Management in New Zealand Agriculture and a Certificate of Completion in Advanced Sustainable Nutrient Management in New Zealand Agriculture from Massey University;
2. a Certificate of Completion in Sustainable Nutrient Management in New Zealand Agriculture from Massey University and can provide evidence of at least 5 years professional experience in the management of pastoral, horticulture or arable farm systems; or
3. a tertiary qualification in agricultural sciences and can provide evidence of at least 5 years professional experience in nutrient management for pastoral, horticulture or arable farm systems.

Ravensdown and Fertiliser Assn seek to delete the definition of 'Farm Environment Plan Auditor' and give recognition to Industry Certification as they apply for their given purpose.

Ellesmere ISI seeks to insert the word “or” at the end of point 1 of the definition. They also seek to re-word the definition to either remove reference to Massey University or add in wording that would allow other Universities to be accepted if they then too decide to make the same course available.

Synlait Milk and Synlait Farms submissions are a little confusing. However, a subsequent telephone conversation has identified that they seek that all auditors are suitably experienced, as well as qualified.

Waihora Ellesmere Trust seeks points 1 and 2 be deleted and reference to specific university courses removed from this definition as courses and their content are subject to change from year to year.

The audit process for farm environment plans is critically important to the integrity of the outcomes and the community acceptance of the process. On this basis, the qualifications and experience of the auditors is considered to be important. The Ravensdown and Fertiliser Association submission that seek to rely on industry certification is not considered appropriate, in the absence of clarity and precision as to what that industry certification entails and the ongoing robustness of the industry process.

The other submissions seek less reliance on the specific university courses, and in the case of Synlait Milk and Synlait Farms, an increase in the emphasis on experience. The use of a more generic “other approved courses” may resolve both the industry certification and broaden the academic qualification beyond Massey University. Further, the requirement for experience as well as qualification is considered appropriate across all qualification categories. In the absence of a course approval process, as is recommended below, it will require a plan change to be undertaken for any changes in the listed courses.

### Recommendation R2.10.59

That the definition of Farm Environment Plan Auditor be amended as follows:

**Farm Environment Plan Auditor** means a person who can provide evidence of at least 5 years professional experience in the management of pastoral, horticulture or arable farm systems and holds<sup>95</sup> ~~has either:~~

1. ~~a Certificate of Completion in Sustainable Nutrient Management in New Zealand Agriculture and<sup>96</sup> a Certificate of Completion in Advanced Sustainable Nutrient Management in New Zealand Agriculture from Massey University; or<sup>97</sup>~~

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<sup>95</sup> 187.93 Synlait Milk

2. a Certificate of Completion in Sustainable Nutrient Management in New Zealand Agriculture from Massey University ~~and can provide evidence of at least 5 years professional experience in the management of pastoral, horticulture or arable farm systems;~~ or
3. such other qualification that has been approved by the Chief Executive of the Canterbury Regional Council as containing adequate instruction and assessment on agricultural sciences or nutrient management. ~~a tertiary qualification in agricultural sciences and can provide evidence of at least 5 years professional experience in nutrient management for pastoral, horticulture or arable farm systems.~~<sup>98</sup>

## Nutrient discharge

**Nutrient discharge** means the modelled discharge of nutrients using Overseer<sup>TM</sup>.

Eight submissions seek to amend the definition of 'Nutrient Discharge' to include "Where Overseer cannot model farming practices (e.g. outdoor pig farming) nutrient loading rates to soils will be reported.

Ellesmere ISI seeks that the definition should be re-worded or deleted until the point when it is known exactly what model is the appropriate one to use for this work. As yet there are no accurate models for this determination.

HWPL seeks to delete the current definition of "nutrient discharge" and replace it with a meaning that refers to nutrient loss from the farms by surface runoff or by leaching below the root zone.

Synlait Milk and Synlait Farms seeks to add the words "actual water quality data or other appropriate models" to the end of the definition of 'Nutrient discharge'.

Fertiliser Assn and Ravensdown seek to amend the definition so that it may have meaning regardless of the land use activities, for example "Nutrient loss from the farm system boundary by surface run off or by leaching below the root zone".

The definition in the pLWRP is reliant on the Overseer<sup>TM</sup> modelling software to identify nutrient discharges. A number of submitters clearly have concerns about use of that model and concerns that the definition does not match what is actually occurring "on farm". On this basis, a more simple definition that does not rely on Overseer<sup>TM</sup> is recommended, and if Overseer<sup>TM</sup> or any other model is required to calculate the amount of nutrient discharge, this can be referenced through the relevant policy and rule.

### Recommendation R2.10.122

That the definition of Nutrient Discharge be amended as follows:

**Nutrient discharge** means nutrient loss from the property by surface runoff or by leaching below the root zone ~~the modelled discharge of nutrients using Overseer<sup>TM</sup>~~<sup>99</sup>.

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<sup>96</sup> 244.13 Waihora Ellesmere Trust

<sup>97</sup> 19.13 Ellesmere ISI

<sup>98</sup> 19.12 Ellesmere ISI

<sup>99</sup> 265.9 Ravensdown

## New Definitions

In order to allow some potential for development to continue to occur in “at risk” areas shown as orange on the nutrient allocation status mapping and over-allocated areas shown as red, the rule framework has been adjusted to include provision for higher levels of mitigation. These activities are listed under a new definition of “advanced mitigation”.

It is acknowledged that almost all farming activities are likely to incorporate one or more aspect of advanced mitigation in any event. However, the rule regime and definition framework are based around significant adoption of advanced mitigation techniques and a demonstration of their implementation through the Farm Environment Plan, and therefore better nutrient discharge performance. Over time there may be additional matters that get added to the advanced mitigation techniques definition, and some of the more normal farming activities may be removed from the definition, to reinforce the concept that advanced mitigation techniques are at the forefront of good farming practice.

### Recommendation R2.10.XX

Advanced mitigation measures means the adoption of multiple techniques from the following list to minimise nutrient losses from a property:

1. Winter shelter
2. Restricted grazing
3. No winter grazed fodder crops
4. Reduced stocking rates
5. Low N feed
6. Reduced/Nil fertiliser
7. Improved animal efficiency
8. Improved irrigation efficiency (better than 80%)
9. Nitrification inhibitors
10. Optimum Olsen P
11. Low solubility P fertiliser
12. Effluent management
13. Reduced water use
14. Catch cropping
15. Improved soil physical condition to reduce erosion
16. Natural wetlands
17. Floodplain wetlands
18. Constructed wetlands
19. Riparian margins
20. Grass buffers
21. Swales
22. Sediment traps/ponds<sup>100</sup>

With the introduction of a revised definition of changed, and the slightly revised wording framework of the rules, it has been identified that there needs to be a definition of “new farming activity” and “existing farming activity”. Definitions for these two terms are recommended below, and are not complex or difficult.

The definition of new farming activity is required as it has become apparent during the administration of the pLWRP that there are certain types of farming activity that are occurring on land that has not

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<sup>100</sup> Consequential to policy changes

previously been “farmed”. While the definition of “farmed” is not included in the pLWRP, confusion has arisen, particularly for land that has previously been in forestry, which is being converted to farming activities, particularly dairy. By including a definition of new farming activity it is clear that this is included in the rule regime.

The definition of existing farming activity is required, as the date criteria has been removed from the rules related to nutrient discharges. It also fills the gap of farming activities that may be slightly different to that occurring on 11 August 2012, and are therefore not strictly “existing”, but have not triggered the definition of “changed”.

**Recommendation R2.10.XX**

Existing farming activity means the use of land for primary production (excluding forestry) that is not a “changed farming activity”.<sup>101</sup>

**Recommendation R2.10.XX**

New farming activity means the use of land for primary production (excluding forestry) where no primary production has occurred on that land in the previous three years.<sup>102</sup>

Because of a change in the recommended rule framework to rely on greater management of higher risk activities, a new definition is recommended that details those higher risk activities. This definition is inserted mainly as an economy of words, in that the criteria for high nutrient risk activities could be set out in full in each of the relevant rules, but it is simpler to set it out once in the definition.

The activities included within the definition are those that are recognised as having higher risk of significant nutrient discharges, although it is acknowledged that any one of the listed activities could be undertaken in a manner that has lower nutrient discharges than a poorly operated “low risk activity”.

**Recommendation R2.10.XX**

High nutrient risk farming activity means any one or more of:

1. feeding cattle on a fodder crop that has been established on irrigated land;
2. arable farming or horticulture (excluding grapes);
3. farmed pigs; or
4. irrigated dairy.<sup>103</sup>

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<sup>101</sup> Consequential to rule and definition changes

<sup>102</sup> Consequential to rule and definition changes

<sup>103</sup> Consequential to rule and policy changes

## 9.2 Nutrient Policies

### Heading “Farming”

Synlait seeks to replace “Farming” with “Nutrient Discharge”.

Corrections seeks “Discharge to Land” or words to similar effect.

Several submissions including Fed Farmers (Combined Canty) seek “Nutrient Management”.

### Recommendation RH

That the heading for this section be entitled “Nutrient Management”.

### Nutrient discharges – General

Similar submission content consistently arises throughout the entire policy and rule framework. The submission points have not all been listed under each Policy heading in order to avoid continuous repetition. However, they will be considered in the context of the whole policy framework.

Listed below are a range of different issues that arose consistently throughout the submissions:

- Include other contaminants in the management regime, especially phosphorous.
- Include Audited Self-Management or “other established alternatives” as “methods” to achieve water quality and nutrient loss outcomes as opposed to “nutrient discharge allowances”.
- Water quality limits should be set by the Zone Committees on a sub-regional basis.
- That the CRC should provide justification to the public as to how the nutrient allocation zones were decided upon to ensure that they are scientifically robust.
- Adopt the RMA term “avoid, remedy or mitigate” in lieu of “minimise”.
- That 2017 should be replaced with 2014
- The blanket requirement for nutrient management

RFBPS (Canty & West Coast) seeks that the limits and standards in Tables 1 (with amendments supplied by Fish and Game) be applied universally and immediately throughout Canterbury. They also seek that these should apply to all catchments: to over-allocated catchments because they are already in crisis; and to all other areas in order to prevent them from becoming over-allocated.

DOC submits that the Policies (and associated Rules) be retained or amended to accord with the tests laid down in Section 70 of the RMA and in response to evidence presented to the Hearing Committee. Also, that the Rules associated with these Policies not be inconsistent with Policy 4.20 (Protect Sources of Drinking Water).

The framework adopted below is to identify the submission points for each policy and to set out a recommended set of revised policies at the end. The analysis of the submissions has largely been undertaken above in the introduction to section 9, and is not restated below.

**Policy 4.28**

Policy 4.28 states:

*4.28 The loss of nitrogen to water is minimised through first, raising awareness of the nitrogen losses from farming by requiring record-keeping on existing farms, secondly, supporting the use of industry articulated good practice and finally, introducing, through plan changes to Sections 6-15 of this Plan, nutrient discharge allowances to achieve collaboratively agreed catchment-based water quality outcomes.*

Four submissions seek to amend the policy to include other sources of nitrogen loss and replace “nutrient discharge allowances” with “methods”.

Fed Farmers (Combined Canty) and Simons Pass Station also supports the use of “methods” as follows:

“introducing, through plan changes to Sections 6-15 of this plan, nutrient discharge allowances or alternative methods to achieve collaboratively agreed catchment-based water quality outcomes.”

Three submissions seek to reword the Policy in the following way:

“introducing, through plan changes to Sections 6-15 of this Plan, nutrient discharge allowances and/or established alternative methods to achieve collaboratively agreed catchment-based water quality outcomes.”

Two submissions seek the following amendment:

“...and finally, introducing, ~~through plan changes to Sections 6-15 of this Plan,~~ nutrient discharge ~~allowances~~ targets within an Audited Self Management framework, or other alternative methods, to achieve collaboratively agreed catchment-based water quality outcomes.”

Horticulture NZ seeks the following amendment:

“...Plan changes to Sections 6-15 of this Plan where required to establish discharge targets to achieve the collaboratively agreed catchment water quality outcomes.”

Ms Hilary Iles seeks the following amendment:

“The loss of nitrogen/cadmium to water is minimised through first, raising awareness of the nitrogen losses from farming by requiring record-keeping on existing farms, secondly, supporting the use of industry articulated good practice and thirdly, introducing, through plan changes to Sections 6-15 of this Plan, nutrient discharge allowances to achieve Scientifically / nationally agreed catchment-based water quality outcomes. Finally if non compliance is not achieved there will be court action.”

ANZCO *et al* seeks to amend the policy to recognise that some farming activities pose a higher risk to achieving water quality objectives than others as follows:

“The effects associated with the loss of nitrogen to water ~~are is minimised avoided, remedied or mitigated~~ through ~~first, raising awareness of the nitrogen losses from farming by requiring record-keeping on existing farms, secondly,~~ supporting the use of industry articulated good practice and ~~finally,~~ introducing, through plan changes to Sections 6-15 of this Plan, nutrient discharges allowances to achieve collaboratively agreed catchment-based water quality outcomes.”

Water Rights Trust seeks to amend the policy to:

"...through plan changes to Sections 6-15 of this plan, nutrient discharge allowances to achieve collaboratively agreed catchment-based water quality outcomes the same or better than Table 1, but those discharge allowances to be no more than 20 kilograms per hectare averaged over three consecutive years."

Fed Farmers (Combined Canty) also seek to change the term "discharge allowances" to "discharge targets" because of the limitations of the management tools available. Fonterra seeks to replace the phrase "nutrient discharge allowances" with "methods to achieve water quality limits".

Ellesmere ISI submits that this policy should only become active when appropriate limits have been set and researched. At present this has not been achieved.

Blue Gum Trading Ltd and Maungatahi Farm Limited seek the following: Nutrient discharges below 20 kg/ha are a permitted activity. Delay enforcement of other rules until the Hurunui Water Zone Committee has finally considered the Waipara catchment and reported its findings / recommendation.

Canterbury Pastoral Ltd seeks that the plan be based on the water quality settings and limits as decided by the local and regional zone committees currently underway.

Mr William Kingston seeks that the plan be amended to include the following:

- Farmers leaching below a prescribed level to have the discretion to alter their farm program and allow for them to complete development as long as their nutrient losses do not exceed the prescribed level.
- The prescribed level should be set by ECAN in consultation with industry good practice based on good science.
- To allow the farmers more time and resources to implemented the plan.

Waihora Ellesmere Trust supports the policy but submits that it should refer to best practice rather than good practice.

Fish & Games seeks the following additional policies:

- 4.28A As an interim measure, any catchments identified in this plan as over-allocated in map XX shall be managed in accordance with policy 4.28B and other policies in this section, and those which are approaching full nutrient allocation shall be managed in accordance with policy 4.28C and other policies in this section.
- 4.28B In catchments which are classified as over-allocated for nutrient discharge, any land use or any discharge of contaminants will not, singularly or cumulatively, result in any further deterioration of the quality of fresh water in the receiving environment. No permitted activity rules shall allow discharge of nutrients from any sources, including land uses, in any such catchments.
- 4.28C In catchments which are classified as approaching full allocation for nutrient discharge, any land use or any discharge of contaminants will not, singularly or cumulatively, result in the catchment becoming over-allocated for nutrient discharge.
- 4.28E All land uses will adopt best management practice to minimise the risk of the ancillary discharge of nutrients directly or indirectly into fresh water bodies.
- 4.28F All irrigators will be required to develop and implement a farm plan to manage discharges of nutrients, considering the values of, objectives for and sensitivity of the receiving environment.
- 4.28G When considering applications for the take or supply of irrigation water or alterations to any existing consent for the take or supply of irrigation water, the integrated management of land and water will be achieved:

- (a) For irrigation schemes, by considering the cumulative effects of increasing the area of land irrigated in a catchment or the reliability of irrigation water on land uses and any actual or potential changes in land uses or discharges of contaminants, over the command area of the irrigation scheme, and
- (b) For individual irrigators using their own water sources, by considering the effects of increasing the land area irrigated or reliability of irrigation water on land uses and any actual or potential changes in land uses or discharges of contaminants, over the area irrigated.

Several further submissions were received relating to this submission, the majority opposed it.

RFBPS (Canty & West Coast) supports the policy and limits and standards in Tables 1 (with amendments supplied by Fish and Game) be applied universally and immediately throughout Canterbury. That these should apply to all catchments: to over-allocated catchments because they are already in crisis; and to all other areas in order to prevent them from becoming over-allocated.

#### **Policy 4.29**

Policy 4.29 states:

- 4.29 Priority will be given to collaborative catchment management processes to introduce plan changes to set nutrient discharge allowances where regional water quality outcomes are not being met, as shown on the Planning Maps, and in the interim risks to the environment from the loss of nitrogen to water will be managed through compliance with industry articulated good practice or, in the absence of any such articulation, granting, subject to conditions, or refusing applications for resource consents.*

Ngai Tahu Property Limited seeks to delete the words "or, in the absence of any such articulation, granting, subject to conditions, or refusing applications for resource consents".

Several submissions seek either the replacement of "nutrient discharge allowances" with "established alternative methods" or to have this as an addition to the policy.

Synlait seeks the following amendments:

- Replace "nutrient discharge allowances" with "methods"
- Delete the words "as shown on the Planning Maps", and outline the preferred approach for providing a robust classification of areas where water quality outcomes are not being met and bringing all other sources of nutrient loss up to a minimum performance standard.

EDS seeks the following addition: "plan changes to set nutrient discharge allowances where regional water quality outcomes are not being met will be notified by 11 August 2014."

Trustpower seeks an amendment as follows: "Priority will be given to collaborative catchment management processes to introduce plan changes to set nutrient discharge allowances where regional water quality outcomes are not being met, as shown on the Planning Maps. Nutrient discharge allowances will be established with consideration of the following:

- (1) The life-supporting values and the health of ecosystems;
- (2) The natural character values of water bodies;
- (3) The cultural significance of the fresh water bodies;
- (4) Drinking water and stockwater uses;

- (5) Contact recreation values; and  
(6) Existing and reasonably foreseeable land and water uses, including the operation of existing irrigation and water infrastructure schemes.  
~~, and in the interim risks to the environment from the loss of nitrogen to water will be managed through compliance with industry articulated good practice or, in the absence of any such articulation, granting, subject to conditions, or refusing applications for resource consents."~~

Waitaki Irrigators seek the setting of targets through an Audited Self-management framework. They also oppose the Nutrient Discharge Allowance mechanism to achieve sub-regional limits.

Horticulture NZ seeks to delete the policy and replace it with:

"Priority will be given to plan changes to Sections 6-15 of this Plan where required to establish discharge targets to achieve the collaboratively agreed catchment water quality outcomes."

They seek to add the following new policies:

- Environment Canterbury will work with industry groups to articulate industry good practice for the management of loss of nitrogen to water.
- Recognise Audited Self-Management programmes, such as NZGAP, as a means to articulate 'industry good practice', which includes both good and best management practice.

Fish & Game seek the following amendment:

"Priority will be given to collaborative catchment management processes to introduce plan changes to set limits on the nutrient load and nutrient discharge allowances to operate within those limits where regional water quality outcomes are not being met, as shown in red on the Planning Maps, and in the interim risks to the environment from the loss of nitrogen to water will be managed through compliance with industry articulated good practice or, in the absence of any such articulation, granting, subject to conditions, or refusing applications for resource consents to undertake intensive land uses with high leaching of nutrients."

#### **Policy 4.30**

Policy 4.30 states:

*4.30 Until 1 July 2017 the loss of nitrogen to water from existing farming activities will be minimised by raising awareness of the actions and activities that give rise to these discharges and the effects of these discharges on the environment and as a result of nitrogen discharges being recorded by each farming enterprise.*

McIntyre & Williamson Partnership objects to having nutrient discharge zones within the region.

C & PH ChCh seeks to amend the policy to consider the existing condition of the receiving environment.

Deer Farmers Assn (South Canterbury, North Otago) seeks to remove the compulsory requirement to record nutrient discharge in every farming situation.

Canterbury Pastoral Ltd seeks that all contaminants N, P, sediments and microbiological be included in the plan. Meridian also seeks to include phosphorous and to add "and within lake zones by requiring the preparation, implementation, and audit of farm environment plans" to the end of the policy.

Deer Farmers Assn (Canty) supports the awareness and development of a land management plan for low intensity farming systems, but do not consider that a compulsory nutrient budget is required in those situations.

Irricon submits that until 1 July 2017 the loss of nitrogen to water from existing farming activities will be minimised by the following methods:

- By raising awareness of the actions and activities that give rise to these discharges, and,
- the effects of these discharges on the environment; and,
- as a result of nitrogen discharges being recorded by each farming enterprise.

Synlait Milk and Synlait Farms and Dairy NZ seek to replace the word “farming” with “nutrient sources”.

EDS seeks to replace “1 July 2017” with “Until 11 August 2014”. Water Rights Trust seeks that the date be 1 July 2015.

ANZCO *et al* seeks that the policy recognise that some farming activities pose a higher risk to achieving water quality objectives than others as follows:

"Until 1 July 2017 the effects associated with the loss of nitrogen to water from existing farming activities will be ~~minimised~~ avoided, remedied or mitigated by raising awareness of the actions and activities that give rise to these discharges and the effects of these discharges on the environment ~~and as a result of nitrogen discharges being recorded by each farming enterprise.~~"

Horticulture NZ supports the policy but seeks to add “where appropriate tools exist for such recording.”

#### **Policy 4.31**

*4.30 Minimise the loss of nitrogen to water from any change in farming activities in an area coloured red on the Planning Maps, by demonstrating the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved or the nitrogen discharges from the property are a significant and enduring reduction from existing levels.*

Several submissions seek to amend the policy to require demonstration that there will be no increase in the estimated N discharge from a property, rather than significant and enduring reduction from existing levels, as follows:

“...or the nitrogen discharges from the property do not increase compared with existing levels. Land use change and the benefits that flow from it should not be prevented if it can be demonstrated that there is no net increase in estimated N discharge.”

CCC seeks a change to improve water clarity with the following amendment:

“Minimise the loss of nitrogen to water from any change in farming activities in an area ~~coloured red on the Planning Maps~~ within a Nutrient Allocation Zone in which water quality outcomes are at risk (area coloured red on the Series A Planning Maps), by demonstrating that the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved or that the nitrogen discharges from the property are a significant and enduring reduction from existing levels.”

Synlait seeks an amendment as follows:

"Minimise the loss of nitrogen to water from any change in ~~farming activities~~ in an area where water quality outcomes are not being met ~~coloured red on the Planning Maps~~, by demonstrating the nitrogen loss from the proposed activity, ~~when assessed in combination with the effects of other land uses or discharges~~, will not prevent the water quality outcomes of Policy 4.1 being achieved or the nitrogen discharges from the activities do not further degrade water quality where water quality outcomes are not being achieved ~~property are a significant and enduring reduction from existing levels.~~"

Dunsandel Groundwater Users Group questions the achievability of the policy in terms of water quality because of its limited focus on nitrogen and because of the lack of accountability for water quality. They seek the following:

"...by demonstrating the discharges nitrogen loss from the proposed activity, ~~when assessed in combination with the effects of other land uses or discharges~~, will not prevent the water quality outcomes of Policy 4.1 being achieved or the nitrogen discharges from the property are a significant and enduring reduction from existing levels."

Irrigation NZ seeks the following:

"...by demonstrating ~~the nitrogen loss~~ the discharges from the proposed activity, ~~when assessed in combination with the effects of other land uses or discharges~~, will not prevent the water quality outcomes of Policy 4.1 being achieved ~~or the nitrogen discharges from the property are a significant and enduring reduction from existing levels.~~"

RDRML seeks to delete the policy, however if this is not accepted they seek to reword in the following way:

"Minimise the loss of nitrogen to water from any change in farming activities in an area coloured red on the Planning Maps, by demonstrating the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved ~~or the nitrogen discharges from the property are a significant and enduring reduction from existing levels.~~"

EDS seeks an amendment so the Policy reads:

"Minimise the loss of nitrogen to water, by requiring any change in farming activities in an area coloured red on the Planning Maps to demonstrate that:

- The nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved; or
- as a result of the change in farming activities the nitrogen discharges from the property will be significantly and enduringly reduced from existing levels."

Fertiliser Assn and Ravensdown seek to make a sub-catchment approach to setting limits. Flexibility is sought in setting and amending zone boundaries as new science and information becomes available.

They seek the following wording:

"Minimise the loss of nitrogen to water from any change in farming activities in an area coloured red on the Planning Maps, by demonstrating the nitrogen loss from the proposed activity, ~~when assessed in combination with the effects of other land uses or discharges~~, will not prevent the water quality outcomes of new Objective XX ~~Policy 4.1~~ being achieved ~~or the nitrogen discharges from the property are a significant and enduring reduction from existing levels.~~"

Landcorp Farming seeks the following amendment:

"Minimise the loss of nitrogen to water from any change in farming activities in an area coloured red on the Planning Maps, by demonstrating the nitrogen loss from the proposed activity, when

assessed in combination with the effects of other land uses or discharges by the regional council, will not prevent the water quality outcomes of Policy 4.1 being achieved or the nitrogen discharges from the property are a significant and enduring reduction from existing levels or are compliant with industry developed good - practice nitrogen discharge allowances".

They also seek clarification on the criteria used to assess proposed farming activities against water quality outcomes of Policy 4.1.

Fonterra seeks the following amendment:

"Minimise the loss of nitrogen to water from any change in farming activities in an area coloured red on the Planning Maps, by demonstrating that either

- a. the nitrogen loss from the proposed activity:
  - i. when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved; or
  - ii. be at, or below, the rate of loss of the activity displaced by the land use change on an on-going basis; or
- b. where neither outcomes i. or ii. are possible, that the change in farming activity:
  - i. will be consistent with industry articulated good industry practice for nitrogen management; and
  - ii. overall water management outcomes of Policy 4.1 will be advanced through enhanced management of the full range of agricultural contaminants (including phosphorus, E.coli and sediment) affecting the outcomes listed in that table including through the enhanced management of the riparian margin. "

Horticulture NZ seeks to delete and replace with:

"Minimise the loss of nitrogen to water from any change in farming activities in an areas coloured red on the Planning Maps, by demonstrating the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, ~~will not prevent the water quality outcomes of Policy 4.1 being achieved or the nitrogen discharges from the property are a significant and enduring reduction from existing levels and good management practices already adopted, to demonstrate reductions over time.~~"

Fish & Game seeks the following amendment:

"Minimise the loss of nitrogen to water from any change in farming activities in an area coloured red on the Planning Maps, by demonstrating the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved, or limits to rates of nutrient loss being exceeded, or the nitrogen discharges from the property are a significant and enduring reduction from existing levels."

Waitaki Irrigators seeks better consistency between the Rules and Policies.

Beef & Lamb seeks to provide for exceptional circumstances where substantial and enduring nutrient loss reduction may not be appropriate e.g. where water quality or environmental benefits exceed the gains from reduced nutrient loss.

Water Rights Trust seeks to replace "1 July 2017" with "1 July 2015".

Sheffield Water Users Group opposes the classification of parts of Canterbury as "red" until sufficient technical information provided through CWMS process. In the interim classify requiring discretionary activity consent.

C & PH Ch-Ch seek to amend the Policy to include a statement that a precautionary approach will be adopted for areas already over allocated for nutrients.

HWPL seeks to delete the references to the timeframe, they seek that the timeframes should be agreed to through the Zone Committee process.

Silver Fern Farms Ltd seeks to amend and add as follows: "...or the nitrogen discharges from the property ~~are a significant and enduring reduction from~~ do not result in a net increase compared with existing levels."

Opuha Water Ltd seeks that the Temuka zone should be orange.

#### **Policy 4.32**

*4.32 To minimise the risk of the outcomes in Policy 4.1 not being achieved, where there is no industry articulated good industry practice nitrogen discharge limit for a particular industry sector included in this Plan prior to 1 July 2017 then all farming activities in that industry sector will be required to obtain a resource consent to continue the farming activity and any proposal will be required to demonstrate the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved or the nitrogen discharges from the property are a significant and enduring reduction from existing levels..*

Terralea Partnership seeks a better definition of what "industry good practice" is and to clarify what a change in farm practice is.

Synlait seeks to replace the words "are a significant and enduring reduction" with "do not increase" and delete the words "when assessed in combination with the effects of other land uses and discharges..."

Dunsandel Groundwater Users Group seeks to delete requirement for a resource consent and amend policy to allow for a wider focus than just nitrogen management in Good Management Practise.

Fertiliser Assn and Ravensdown seek in the first instance to delete the policy, otherwise to adapt the following wording:

"To minimise the risk of the outcomes in Objective XX ~~Policy 4.1~~ not being achieved, where there is no industry articulated good industry practice nitrogen discharge limit for a particular industry sector included in this Plan prior to 1 July 2017 then all farming activities in that industry sector ~~will be required to obtain a resource consent to continue the farming activity and~~ any proposal will be required to demonstrate the nitrogen loss from the proposed activity, ~~when assessed in combination with the effects of other land uses or discharges,~~ will not prevent the water quality outcomes of Objective XX ~~Policy 4.1~~ being achieved ~~or the nitrogen discharges from the property are a significant and enduring reduction from existing levels."~~

Landcorp seeks the following amendment:

"To minimise the risk of the outcomes in Policy 4.1 not being achieved, where there is no industry articulated good industry practice nitrogen discharge limit for a particular industry sector included in this Plan prior to 1 July 2017 then all farming activities in that industry sector will be required to obtain a resource consent to continue the farming activity and any proposal will be required to demonstrate the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges by the regional council, will not

prevent the water quality outcomes of Policy 4.1 being achieved or the overall nitrogen discharges from the property(ies) are a significant and enduring reduction from existing levels.”

Silver Fern Farms seeks the following: “...where there is no industry articulated good industry practice nitrogen discharge limit or credible alternative method for a particular industry sector included in this Plan ~~after~~ prior 1 July 2017 then all farming activities in that industry sector will be required to obtain a resource consent to continue the farming activity...”

Fonterra seeks the following amendment:

“To minimise the risk of the outcomes in Policy 4.1 not being achieved, where there is no industry articulated good management practice nitrogen discharge limit for a particular industry sector included in this Plan prior to 1 July 2017 then all farming activities in that industry sector will post 1 July 2017 be required to obtain a resource consent to continue the farming activity and any proposal will be required to demonstrate that:

- a. the nitrogen loss from the farming activity:
  - i. when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved; or
  - ii. be at, or below, the rate of loss of the activity that existed prior to 1 July 2017; or
- b. where neither outcomes i. or ii. are possible, that the farming activity:
  - i. will be consistent with industry articulated good industry practice for nitrogen management; and
  - ii. overall water management outcomes of Policy 4.1 will be advanced through enhanced management of the full range of agricultural contaminants (including phosphorus, E.coli and sediment) affecting the outcomes listed in that table including through the enhanced management of the riparian margin.”

Aqualink Research seeks “...or the nitrogen discharges from the property do not increase compared with ~~are a significant and enduring reduction from~~ existing levels.”

#### **Policy 4.33**

Policy 4.33 states:

*4.33 Prior to 1 July 2017, to minimise the risk of the outcomes in Policy 4.1 not being achieved the loss of nitrogen to water from any change in farming activities in an area coloured green, orange or light blue on the Planning Maps, will be managed through resource consent conditions requiring, as a minimum, the preparation and implementation of a farm environment plan and the regular audit of that plan.*

CCC seeks the following amendment:

“Prior to 1 July 2017, to minimise the risk of the loss of nitrogen to water from any change in farming activities ~~in an area coloured green, orange or light blue on the Planning Maps~~ within a Nutrient Allocation Zone identified as 'meets water quality outcomes', 'at risk', or 'unclassified' (coloured green, orange or light blue respectively on the Series A Planning Maps), will be managed through resource consent conditions requiring as a minimum, the preparation and implementation of a farm environment plan and the regular audit of that plan.”

Several submissions seek to delete the word “farming” from this policy.

Fertiliser Assn seeks to include a provision in the Policy for a sub-catchment approach to setting limits. Flexibility sought in setting and amending zone boundaries as new science and information becomes available.

Horticulture NZ:

“Prior to July 2017 minimise the loss of nitrogen to water from any change in farming activities in an areas coloured green, orange or light blue on the Planning Maps, by demonstrating the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, and good management practices already adopted, to demonstrate reductions over time. A Farm Environment Plan may be used as a means to demonstrate such reductions.”

Fish & Game seeks the following:

“Prior to 1 July 2017, to minimise the risk of the outcomes in Policy 4.1 not being achieved the loss of nitrogen to water from any change in farming activities in an area coloured green, orange or light blue on the Planning Maps, will be managed through resource consent conditions requiring, as a minimum, the preparation and implementation of a farm environment plan including rates of nutrient loss for each of the previous five years and the regular audit of that plan.”

## **Nutrient Zones**

Dr Hugh Thorpe seeks to include “(refer to maps)” in the heading.

## **Policy 4.34**

Policy 4.34 states:

*4.34 Prior to 1 July 2017, to minimise the loss of nitrogen to water from any change in farming activities in an area coloured red or within a Lake Zone as shown on the Planning Maps, an applicant for resource consent must demonstrate that the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved and show that the nitrogen discharges from the property are a significant and enduring reduction from existing levels.*

Fed Farmers (Combined Canty) seeks to amend the policy so that it does not require both an absence of adverse effects on water quality targets, and a reduction in N loss, as follows:

“...will not prevent the water quality outcomes of Policy 4.1 being achieved or show that the nitrogen discharges from the property are managed through an audited nutrient management programme ~~are a significant and enduring reduction from.~~”

Amend the policy to require demonstration that there will be no increase in the estimated N discharge from a property, rather than significant and enduring reduction from existing levels, as follows:

“...and show that the nitrogen discharges from the property ~~are a significant and enduring reduction from~~ do not increase compared with existing levels.”

Change in land use and the benefits that flow from it should not be prevented if it can be demonstrated that there is no net increase in estimated N discharge.

Synlait Milk and Synlait Farms seek the above wording but also seek: “...any change in farming activities in an area ~~coloured red~~ where water quality outcomes are not being met or within a...”

ADAM Environmental Ltd seeks to delete the words "and show that the nitrogen discharges from the property are a significant and enduring reduction from existing levels"

CCC seeks the following amendment: "Prior to 1 July 2017, to minimise the loss of nitrogen to water from any change in farming activities in an area ~~coloured red or within a~~ within a Nutrient Allocation Zone in which water quality outcomes are at risk (areas coloured red on the Series A Planning Maps) or within a Lake Zone as shown on the Planning Maps, an applicant for resource consent must demonstrate that the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved and show that the nitrogen discharges from the property are a significant and enduring reduction from existing levels."

Mr Edward Snowdon seeks to retain the use of the Lake Zone.

HWPL seeks clarification of the process of determination and accuracy of the Nutrient Zones and in particular a review of the 'red' classification of the Waipara catchment.

CRC seek a minor word change, "...outcomes of Policy 4.1 being achieved ~~and~~ and show that the nitrogen discharges..."

RDRML seeks the following amendments:

That before Nutrient Zones are confirmed within the pLWRP, the Council first adopt a more robust assessment of nutrient zones, which is better aligned with catchment and sub-catchment responses to nutrient management and should be advanced based on the following approach:

- (1) First determine the assimilative capacity of the receiving environments (water ways, water bodies and groundwater).
- (2) Determine the 'nodes' at which the assimilative capacity can be measured and monitored. This would include establishing the way in which each node is to be monitored.
- (3) At the same time as (2), determine the areas (catchments or sub-catchments) that contribute to each of the nodes.
- (4) Then assign a nutrient discharge allowance at each node.
- (5) Assess the discharges that can reasonably and robustly be expected from activities that are permitted, both in the district and regional contexts. Subtract this from the nodal nutrient discharge allowances.
- (6) Implement a mechanism to allocate the nodal nutrient discharge allowances in the contributing catchment. As with the allocation of water, it is critical that this mechanism enables the transfer of allowances from one user to another.

Alternatively, they seek to delete the final sentence of the policy: ~~and show that the nitrogen discharges from the property are being significant and enduring reduction from existing levels."~~

Fertiliser Assn and Ravensdown seek the following amendment:

~~"...the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Objective XX Policy 4.1 being achieved and show that the nitrogen discharges from the property are a significant and enduring reduction from existing levels."~~

Trustpower seeks the following amendment:

~~"Prior to 1 July 2017, t~~To minimise the loss of nitrogen to water from any change in farming activities in an area coloured red or within a Lake Zone as shown on the Planning Maps, an

applicant for resource consent must demonstrate that the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being progressively achieved by the timeframes specified in that policy or Sections 6 -15 and show that the nitrogen discharges from the property are a significant and enduring reduction from existing levels.”

Landcorp seeks clarification on the criteria used to assess proposed farming activities against water quality outcomes of Policy 4.1.

CIAL seeks that the Christchurch West Melton zone be separated into nutrient allocation sub zones that better reflect the varying nutrient status of the zone.

Mr Neville & Mrs Andrea Chalmers seek to amend the policy to require demonstration that there will be no increase in the estimated N discharge from a property, rather than significant and enduring reduction from existing levels, as follows: “...and show that the nitrogen discharges from the property are a significant and enduring reduction from do not increase compared with existing levels.” They also seek a change of definition for “change” which allows types of farms ie arable, arable mix to change rotations and ratios within 20% without needing a “land change consent”.

Dairy NZ seeks the following amendment:

“Prior to 1 July 2017, to minimise the loss of nutrients ~~nitrogen~~ to water from any change in farming activities in an area coloured red or within a Lake Zone as shown on the Planning Maps, an applicant for resource consent must demonstrate that the nutrient ~~nitrogen~~ loss from the proposed activity , when assessed in combination with the effects of other land uses or discharges, will ~~not prevent the water quality outcomes of Policy 4.1 being achieved, over the duration of the consent, contribute to the achievement of water quality outcomes of Policy 4.1 and show that the nitrogen discharges from the property are a significant and enduring reduction from existing levels.~~”

Fish & Game seek to add the following to the end of the Policy: “towards achieving the necessary limits to protect water quality in each catchment in accordance with the time requirements of the NPS on Freshwater.”

Peter McClelland seeks to reword flood margin works to avoid ambiguity, in particular to 4.34, clearly flood protection work will reduce flooding. He also seeks to provide clarity as to what is maintenance and some definition to that and what is capital works in river margins.

Sheffield Water Users Group oppose the classification of parts of Canterbury as "red" until sufficient technical information provided through CWMS process. In the interim classify as requiring discretionary activity consent.

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#### **Policy 4.35**

Policy 4.35 states:

*4.34 To minimise the loss of nitrogen to water prior to 1 July 2017, where the land owner holds an existing water permit to take and use water, or is a shareholder in an irrigation scheme, and there are conditions on the water permit that address nutrient management, any change in farming activities will be enabled subject to requirements to prepare and*

*implement a farm environment plan, the regular audit of that plan and to record, on a per enterprise basis, nitrogen discharges.*

Significant support has been received for this Policy.

CRC seeks the following amendment:

“To minimise the loss of nitrogen to water prior to 1 July 2017, where the land owner holds an existing water permit to take and use water, or is a shareholder in an irrigation scheme, or holds a discharge permit, and there are conditions on the ~~water~~ permit that address nutrient management, any change in farming activities will be enabled subject to requirements to prepare and implement a farm environment plan, the regular audit of that plan and to record, on a per enterprise basis, nitrogen discharges.”

RDRML seeks the following amendment:

“To minimise the loss of nitrogen to water prior to 1 July 2017, where the land owner holds an existing water permit to take and use water, or is a shareholder in an irrigation scheme or Principal Water Supplier, and there are conditions on the water permit that address nutrient management, any change in farming activities will be enabled subject to requirements to prepare and implement a farm environment plan, the regular audit of that plan and to record, on a per enterprise basis, nitrogen discharges.”

Hunter Downs Irrigation seeks the following amendment:

“To minimise the loss of nitrogen to water ~~prior to 1 July 2017~~, where the land owner holds an existing water permit to take and use water, or is a shareholder in an irrigation scheme, and there are conditions on the water permit that address nutrient management, any change in farming activities will be enabled subject to requirements to prepare and implement a farm environment plan, the regular audit of that plan (except where required by the conditions of the water permit) and to record, on a per enterprise basis, nitrogen discharges.”

Fish & Game seeks the following amendment:

“To ~~minimise~~ reduce the loss of nitrogen to water prior to 1 July 2017, where the land owner holds an existing water permit to take and use water, or is a shareholder in an irrigation scheme, and there are conditions on the water permit that address nutrient management, any change in farming activities will ~~be enabled subject to requirements to~~ require the preparation and implementation of a farm environment plan, the regular audit of that plan and to record, on a per enterprise basis, nitrogen discharges.”

Dairy NZ seeks to replace the rem “nitrogen” with “nutrient”.

ANZCO *et al* seeks to replace “minimise” with “avoid, remedy or mitigate the effects associated with...”

Horticulture NZ seeks to ass “or audited self-management programme”.

#### Policy 4.36

Policy 4.36 states:

- 4.35 *Irrespective of the nutrient allocation status of a catchment as shown on the Planning Maps, to allow the following discharges:*
- (a) *wastewater discharge from a marae;*
  - (b) *community wastewater treatment schemes; or*
  - (c) *wastewater discharge from a hospital, a school or other education institution.*

Several submissions including Fed Farmers (Combined Canty) seek to allow the discharges “subject to implementation of good management practice.”

Dunsandel Groundwater Users Group seeks: “Irrespective of the nutrient allocation status of a catchment as shown on the Planning Maps, to allow the following discharges, providing a continuous improvement and Good Management Practice approach is implemented:” Irrigation seeks the same rewording but would allow only the “following existing discharges”.

Fonterra seeks to delete the Policy or alternatively, amend it by adding “discharges from existing regionally and nationally significant large scale and capital intensive facilities which process perishable food products” as a first priority.

Dairy Holdings seeks to amend the Policy in the following way: “or is a member of a Water Users Group, and there are conditions on ~~the~~ a water permit relating to the use of water on the relevant land...” or similar.

Fish & Game seeks the following amendment:

“Irrespective of the nutrient allocation status of a catchment as shown on the Planning Maps, to allow the following discharges subject to resource consent:

- (a) *wastewater discharge from a marae;*
- (b) *community wastewater treatment schemes; or*
- (c) *wastewater discharge from a hospital, a school or other education institution.”*

They also seek to add the following policy:

4.36A Any catchment for which a catchment process has not been completed by 1 July 2017 shall be subject to the requirements of Table 1.

#### Policy 4.37

Policy 4.37 states:

- 4.37 *All activities shall achieve the nutrient load limit and nutrient allowance for the catchment in Sections 6-15 of this Plan.*

Several submissions including Fed Farmers (Combined Canty) and Fonterra seek to replace “nutrient load limits” and “nutrient allowances” with “water quality limits” as follows:

“All activities shall achieve the water quality limits for the catchment in Sections 6-15 of this Plan.”

HWPL seeks clarity of the Policy to identify the interim position as no nutrient load limits exist in the sub-regions at present, with any amendments also subject to clarity around how "catchment" is defined.

Canterbury Pastoral Ltd seeks that all farmers be required to contribute to achieving the water quality standards set for their specific catchment as determined by the zone and regional committees.

Synlait Milk and Synlait Farms seek the following amendment:

"All activities shall achieve the nutrient load limit and nutrient allowance or an alternative collaboratively agreed mitigation method for the catchment in Sections 6-15 of this Plan."  
Horticulture NZ seeks "or other agreed measures."

RDRML seeks to include sub-catchments in the Policy. Fertiliser Association seeks to include them as well as changing "load" to "loss", as follows:

"All activities shall achieve the nutrient ~~load~~loss limit and nutrient allowance for the catchment and sub-catchments in Sections 6-15 of this Plan."

Fish & Game seeks to add "No specific catchment limits established in Sections 6-15 of this plan can breach the standards set out in Table 1" to the end of the Policy.

Mrs A & Mr M Hamblett seeks to include the requirement that the nutrient load limits and allowances are set high enough to ensure an improvement in water quality in all catchments.

Water Rights Trust seeks to extend wording to include: "...and nutrient allowance for the catchment in Sections 6-15 of this plan but in no catchment to be more than 20 kilograms per hectare averaged over three consecutive years."

#### **Policy 4.38**

Policy 4.38 states:

*4.38 If the measured or predicted nutrient load from land uses and discharges exceeds the nutrient load limit for the catchment 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 for the catchment.*

Fed Farmers (Combined Cnty) seeks to amend the Policy to be consistent with the NPS for Freshwater Management, as follows:

"If the measured or predicted nutrient loss from land uses or discharges result in breach of the water quality limits in Sections 6-15 of this Plan, the loss to water of nutrients from land uses in the catchment will be reduced over time to achieve the water quality ~~nutrient load~~ limits for the catchment."

Maungatahi Farm Limited seeks that Nutrient discharges below 20 kg/ha be a permitted activity and delay enforcement of other rules until the Hurunui Water Zone Committee has finally considered the Waipara catchment and reported its findings / recommendation

Synlait seeks to amend as follows: "...to achieve the nutrient load limit, or mitigated to meet collaboratively agreed water quality outcomes, for the catchment."

Dairy NZ seeks: "...to achieve the nutrient load limit, or mitigated to meet collaboratively agreed water quality outcomes, for the catchment."

ANZCO *et al* seeks to consider the overall loss to water of nutrients.

Fish & Game seeks to add to the end of the Policy: "within the timeframes established under this plan and in the Freshwater NPS."

Water Rights Trust seeks to include: "...the loss to water of nutrients from land uses in the catchment will be reduced within a two year period, to achieve the nutrient limit for the catchment."

## **Recommended Policies**

The recommended policy framework below is a substantial refinement of the as-notified policy position. It is based strongly on the analysis contained above. It has been developed in order to reduce the emphasis on the pre-2017/post-2017 framework in the pLWRP, increase certainty for consent applicants and processing officers as to the acceptability of different types of proposals in different areas, increase emphasis on farm environment plans and increase flexibility in areas that are near or over-allocated in terms of nutrients.

There is also a need to adjust some of the recommendations made in the Volume 1 Section 42A Report, which have already been subject to hearings. This particularly relates to the increased emphasis on farm environment plans and the requirement for farm environment plans that apply to water takes and other kinds of discharges. These recommended additions are also listed below.

### ***Nutrient management discharges—General***

~~4.28 The loss of nitrogen to water is minimised through first, raising awareness of the nitrogen losses from farming by requiring record-keeping on existing farms, secondly, supporting the use of industry articulated good practice and finally, introducing, through plan changes to Sections 6-15 of this Plan, nutrient discharge allowances to achieve collaboratively agreed catchment-based water quality outcomes.~~

~~4.29 Priority will be given to collaborative catchment management processes to introduce plan changes to set nutrient discharge allowances where regional water quality outcomes are not being met, as shown on the Planning Maps, and in the interim risks to the environment from the loss of nitrogen to water will be managed through compliance with industry articulated good practice or, in the absence of any such articulation, granting, subject to conditions, or refusing applications for resource consents.~~

### ***Nutrient Discharges—Region-wide policies***

~~4.30 Until 1 July 2017 the loss of nitrogen to water from existing farming activities will be minimised by raising awareness of the actions and activities that give rise to these discharges and the effects of these discharges on the environment and as a result of nitrogen discharges being recorded by each farming enterprise.~~

~~4.31 Minimise the loss of nitrogen to water from any change in farming activities in an area coloured red on the Planning Maps, by demonstrating the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land~~

~~uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved or the nitrogen discharges from the property are a significant and enduring reduction from existing levels.~~

~~4.32 To minimise the risk of the outcomes in Policy 4.1 not being achieved, where there is no industry articulated good industry practice nitrogen discharge limit for a particular industry sector included in this Plan prior to 1 July 2017 then all farming activities in that industry sector will be required to obtain a resource consent to continue the farming activity and any proposal will be required to demonstrate the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved or the nitrogen discharges from the property are a significant and enduring reduction from existing levels..~~

~~4.33 Prior to 1 July 2017, to minimise the risk of the outcomes in Policy 4.1 not being achieved the loss of nitrogen to water from any change in farming activities in an area coloured green, orange or light blue on the Planning Maps, will be managed through resource consent conditions requiring, as a minimum, the preparation and implementation of a farm environment plan and the regular audit of that plan.~~

#### **Nutrient Zones**

~~4.34 Prior to 1 July 2017, to minimise the loss of nitrogen to water from any change in farming activities in an area coloured red or within a Lake Zone as shown on the Planning Maps, an applicant for resource consent must demonstrate that the nitrogen loss from the proposed activity, when assessed in combination with the effects of other land uses or discharges, will not prevent the water quality outcomes of Policy 4.1 being achieved and show that the nitrogen discharges from the property are a significant and enduring reduction from existing levels.~~

4.28 In all areas, the loss of nutrients to water is minimised through:

1. raising awareness of the nutrient losses by requiring record-keeping;
2. all activities that discharge nutrients operating at good practice or better;
3. requiring the provision of information to enable better decision-making; and
4. supporting the use of farm environment plans to achieve and demonstrate good practice or better.

4.29 Prioritise improving the performance of higher nutrient risk activities and farming and other activities in the catchments of waterbodies that are more sensitive to increases in nutrients.

4.30 Support industry and irrigation scheme-based initiatives to improve land and water use practices, reduce nutrient discharges and facilitate consenting, including group and irrigation scheme-wide initiatives, reporting and auditing of their constituent farmers.

4.31 In areas where regional water quality outcomes are at risk of not being met, as shown by an Orange colouring on the Series A Planning Maps, 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 farming practices are applied such that the property operates in the top quartile of nutrient discharge minimisation practices when measured against practices in the relevant farming

industry, and that in any event the regional water quality outcomes are still being met.

4.32 In areas where regional water quality outcomes are not being met, as shown by a Red colouring on the Series A Planning Maps and in Lake Zones as shown on the Series A Planning Maps, 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 farming 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.

4.33 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 processes 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 nutrient discharges, or other methods beyond good practice.

4.345 To minimise the loss of ~~nutrients~~ nitrogen to water ~~prior to 1 July 2017~~, where the land owner holds an existing water permit to take and use water, or is a shareholder in an irrigation scheme that holds a water permit to take and use water, and there are conditions on the water permit that address nutrient management, any change in farming activities will be enabled subject to requirements to prepare and implement a farm environment plan that, as a minimum, enables compliance with the nutrient management conditions and ensures good practice is being achieved, the regular audit of that plan and to record, on a per enterprise basis, nitrogen discharges.

4.356 Irrespective of the nutrient allocation status of a catchment as shown on the Series A Planning Maps, to allow the following discharges, provided the design and management of the discharge treatment system minimises the discharge of nutrients that may enter water:

- (a) wastewater discharge from a marae;
- (b) community wastewater treatment schemes; or
- (c) wastewater discharge from a hospital, a school or other education institution.

#### **Nutrient discharges—sub-regional chapters**

4.376 All activities shall achieve the nutrient load limit and nutrient discharge allowance for the catchment where a load limit or nutrient discharge allowance is set in Sections 6-15 of this Plan.

4.387 If the measured or predicted nutrient load from land uses and discharges exceeds the nutrient load limit for the catchment, where a load limit or nutrient discharge allowance is set, 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 for the catchment.

4.38 Farm environment plans are used as a primary means of identifying and delivering good practice across a range of farming activities, including nutrient discharge management, efficient and effective use of water for irrigation, stock movements across waterways, offal and farm rubbish pits, effluent storage and application and fertiliser use.

4.38A Resource consents are required for activities that discharge nutrients where:

1. auditing of farm environment plans shows the farm environment plan is inadequate or there is poor performance in terms of its implementation;
2. farm environment plans are not prepared or audited; or
3. where the potential effects of nutrient discharges are greater.

4.38B Applications for resource consents for farming activities will routinely be accompanied by a farm environment plan and the conditions of any resource consent granted will specify:

1. Procedures and criteria for timely review and updating of the Farm Environment Plan;
2. A requirement to meaningfully implement the Farm Environment Plan;
3. Monitoring and information provision; and
4. Requirements for the independent auditing of the Farm Environment Plan and the implementation of it and remedying of compliance issues raised.<sup>104</sup>

Existing Recommended Policies to be further amended (addition in bold):

4.60 Any abstraction of surface water or stream depleting groundwater with direct, high, or moderate depletion, is subject to conditions specifying:

- (a) the maximum instantaneous rate of take;
- (b) a maximum volume based on reasonable use over the period the water is required except for hydro-electricity generation activities;
- (c) a minimum flow at which abstraction ceases in accordance with the relevant flow and allocation limits;
- (d) the area or property within which the water is to be used;
- (e) the location of the take;
- (f) the prevention of fish entering any intake in accordance with Schedule 2; and
- (g) when partial restrictions (when rivers are flowing above the minimum or residual flow limit but below the full allocation block) come into force-
- (h) **where the water is used for irrigation, the need for, compliance with, and auditing of a farm environment plan.**

4.62 Any abstraction of groundwater is subject to conditions specifying:

- (a) the maximum instantaneous rate of take;
- (b) a maximum seasonal volume based on reasonable use over the period the water is required;
- (c) the area or property within which the water is to be used;
- (d) the location of the abstraction;
- (e) any minimum groundwater levels at which abstraction ceases if specified in Sections 6-15; and
- (f) any other conditions to regulate the rate or volume of water that may be abstracted relative to the estimated volume of groundwater stored in a groundwater zone, if specified in Sections 6-15.

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<sup>104</sup> A range of submission points have been used to develop the above provisions. In particular, the following submissions have been used to formulate the recommendations: Fish and Game (347), Beef and Lamb (318), Ngā Rūnanga (358), Fed Farmers (Combined Canty) (320), Fonterra (270), DairyNZ (315), and the Fertiliser Assn (239).

- (g) where the water is used for irrigation, the need for, compliance with, and auditing of a farm environment plan.**

## 9.3 Nutrient Rules

### General submissions applying to the entire Rule framework

Fonterra seeks the following:

- Amend Rules 5.39-5.46 to require reporting for the period from 1 June to 31 May the subsequent year to line up with the dairy season or to allow flexibility of reporting period.
- Amend Rules 5.39-5.46 to enable provision of information prepared as part of the Fonterra's Supply Fonterra Protocols for Overseer to be viewed as sufficient to satisfy the requirement to keep a record of the annual amount of nitrogen loss from the land. Also allow for updated versions of this document to be incorporated as it changes over time by including in the Rules reference to any subsequent amendment or replacement of that document in order to allow the operation of clause 30 of the First Schedule to the Act.
- Replace the word "calculated" as it applies to the use of Overseer in Rules 5.39, 5.40, 5.42, and 5.46 with "estimated".

Fish & Game seeks the following:

- Amend Rules 5.39 to 5.51 and add or delete rules to achieve an objectives and policy framework that gives effect to the relevant statutory documents and as proposed by Fish and Game.
- Amend Rules 5.39 to 5.51 and any consequential or associated rules managing nutrient discharges in such a way that the total nutrient discharges from activities will, cumulatively, achieve nutrient discharge limits that will achieve the objectives.
- Apply default nutrient discharge allowances to take effect from when the plan becomes operative.
- The rule structure and content should be amended to give effect to the following:
  - In the red zone: New or increased scale of activities involving nutrient discharges are prohibited. Existing activities involving nutrient discharges will require resource consent from 2014. Remove reference to permitted activities
  - In the orange zone: New or increased scale of activities involving nutrient discharges are non-complying. Existing activities involving nutrient discharges will require resource consent from 2016. Remove reference to permitted activities
  - In the pale blue and green zone: Retain requirement for resource consents for new or increased scale activities.
- Define "farming" or "farming activity" to clarify the bundle of activities covered by these rules. Add specific and detailed criteria and assessment matters relevant to each aspect of the bundle of activities, (such as for controlling discharges).
- Nitrogen leaching allowances should be set on a per hectare basis, allocated to reflect the natural capital of the land, and be derived from the water quality limits required to achieve the objectives.

Several submissions including Fed Farmers (Combined Cnty) seek the following amendments:

- Develop/adopt a protocol for the appropriate use of OVERSEER, recognising that it is not appropriate for generating absolute values for compliance purposes.
- Amend wording to replace the term *calculated* with *estimated*, in the context of N discharge values generated by OVERSEER.
- Acknowledge that N discharge may not be the primary issue. Other nutrients such as P may be more significant in an environmental context
- Consider animal welfare and soil conservation matters alongside N discharge.
- Also, amend to state that where OVERSEER cannot model farming practices (e.g. outdoor pig farming), nutrient loading rates will be recorded/reported.

Meridian seeks to amend the Rule to capture phosphorous loss.

K A McCusker Consulting seeks to include a minimum threshold for farm size based either on hectares or stock numbers or another criteria.

Mr Brian Falkingham: General criticism of OVERSEER and the need for an alternative solution for activities not covered by OVERSEER as a permitted activity. He also seeks to include the planning maps.

Mr Robert Johnston seeks to suspend reliance on Overseer until accuracy improved and substitute input based guidelines. Encourage speed-up of improvements to remove variability

Ellesmere ISI seeks that the reference to 'farm' or farming activity' in these rules needs to be deleted and replaced with other terminology that relates to the effect not 'farming activity', and reference to the Lake Zone needs to be replaced with 'Sensitive Lake Catchment'.

Harvey Norman Ltd opposes the use of the term farming and seeks a definition for farming which excludes low intensity rural activities. Seeks permitted stocking rates for low intensity rural activities.

Mr Andrew Swallow seeks to amend the Rule to allow relatively minor land use changes.

Blue Gum Trading Ltd and Maungatahi Farm Limited seek the following:

- Nutrient discharges below 20 kg/ha are a permitted activity.
- Delay enforcement of other rules until the Hurunui Water Zone Committee has finally considered the Waipara catchment and reported its findings / recommendation.

Mr Andrew Hart seeks to delete and replace with rules based on robust science.

DOC seeks the following:

- Superscript TM on OVERSEER to read "OVERSEER<sup>TM</sup>".
- Clarify in all relevant rules the version of OVERSEER to be used and how plan will deal with OVERSEER upgrades in the future.
- Clarify if it is the total, annual average or both required for reporting in condition 1 and 4 of Rules 5.5.39 and 5.40 respectively.
- They also seek that the Rule be retained or amended to accord with the tests laid down in Section 70 of the RMA and in response to evidence presented to the Hearing Committee and that the Rules associated with these Policies be made consistent with Policy 4.20.

Beechwood Trustees Limited encourage Environment Canterbury to consider the full economic implications of compliance costs for land holders as introduced in the proposed plan when assessing all submissions received and making recommendations.

EDS seeks the following amendment: "..the use of land for a farming activity which existed at 11 August 2012, and where there is no change to the existing farming activity, and outside of the Lake Zone, and outside nutrient allocation zones coloured red or orange on the planning maps....."

LINZ seeks that the requirement to prepare and implement a Farm Environment Plan in accordance with Schedule 7 of the Proposed Plan be retained where outlined in Rule 5.39 and 5.40.

Corrections and Poultry Assn & Egg Producers seek that farming activities that do not result in any discharge to land be exempted from having to comply with the nutrient budget requirements of the Rule.

Poultry Assn & Egg Producers seeks an amended wording from 'the use of land for any farming activity' to state 'the discharge to land from a farming activity'.

Landcorp seek that the wording of these rules allow for measured field data and other calibrated nutrient management tools to be used in place of generalised OVERSEER<sup>TM</sup> models where the data are more representative of the farm.

Mr Mark Hunter objects to any Rule in the plan that will stop him completing the development of a profitable dairy farm.

Ngā Rūnanga seeks to delete the Rules and replace them with the following:

- Include a rule for the use of land and associated discharge of nutrients from farming as a permitted activity where nutrient discharges will be below 20kgN/ha/yr. This submission suggests a rule which reads:  
Rule A. The use of land and any associated discharge of nutrients from any farming activity is a permitted activity provided it complies with all of the following conditions:
  - (i) The farming activity does not carry more than 10 stock units per hectare averaged over any two year period;
  - (ii) Fertiliser (including that drilled into the ground but excluding urine and dung discharged by animals grazing on the property) is not applied to any land area more than twice in any twelve month period;
  - (iii) Any fertiliser application complies with rules 5.52 and 5.53;
  - (iv) Fertiliser is not applied to bare land, except where it is direct drilled into the ground with the sowing of a seed crop;
  - (v) The land area is not used to spread stored effluent; and
  - (vi) The land area is not used to graze dairy herds.
- Any existing activity which does not comply with this rule shall comply with the nutrient discharge allowance set for the activity in Schedule 8, or Rule B applies.
- Add a new Rule B which reads:  
Any "change" in a farming activity or any existing farming activity which does not comply with Rule "A", is a restricted discretionary activity in the Nutrient 1 Zone. The consent authority shall restrict its discretion to assessing whether any increase in non-point source discharge of contaminants resulting from the change in farming activity will either singularly or in combination with other land uses in the catchment, adversely affect existing water quality in the catchment, and the effectiveness of any proposed mitigation measures. Any existing farming activity which does not comply with Rule "A" is discretionary activity in the Nutrient 2 Zone. Any "change" in a farming activity is a non-complying activity in the Nutrient 2 Zone.
- There is an opportunity here to introduce a regime where industry groups hold the necessary resource consents for nutrient discharges of behalf of their industry sector and undertake Audited Self-Management.

Several submissions including Greenfield Rural Opportunities Limited seeks to amend Rules 5.41 to 5.45 inclusive and the zoning maps to which those rules refer so that:

- There is an option to use methods other than Overseer other to establish to a similar or better level the likely or actual nitrate outputs from the land use;

- The nutrient zoning is suspended until such time as the zones have been redefined on the basis of more appropriate localised boundaries based on more robust and appropriate data.

#### **Rule 5.39**

Rule 5.39 states:

*5.39 Prior to 1 July 2017, the use of land for any farming activity existing at 11 August 2012 and outside of the Lake Zone shown on the Planning Maps, is a permitted activity if the following condition is met:*

- 1. A record of the annual amount of nitrogen loss from the land, for the period from 1 July in one year to 30 June in the following year, calculated using the OVERSEER<sup>TM</sup> nutrient model, is kept and is provided to the CRC upon request.*

Terralea Partnership seeks a review of the OVERSEER model application and its relevance to the arable industry.

Irricon seeks that any version of Overseer to be used must be defined and the rule state: "calculated using the Overseer version XX nutrient model." Canterbury specific Overseer protocols need to be developed in consultation with industry to ensure that Overseer inputs are consistent.

CIAL seeks to define farming activities that require OVERSEER analysis to be limited to large/intensive farming operations in locations where elevated nutrient concentrations have the potential to contribute to an adverse effect.

Horticulture NZ seeks an additional clause as follows: "For arable and horticultural operations nutrient losses over a rotation are to be estimated using an appropriate modelling tool, such as APSIM or LUCI, if available for the crops being grown, and provided to CRC upon request."

Derrylin Limited seeks to trial this approach to nutrient management before rules take effect.

Erralyn Farms seeks that the wording (relative to OVERSEER) should say "or equivalent". Synlait seeks an amendment so that OVERSEER is not the only method that can be used to model nutrient losses.

Killermont Station Ltd seeks to amend the Rule to exclude low intensity dry land farming from the need for resource consent and enable the use of alternative nutrient tools and models.

Mr Paul Davey seeks the following amendments:

- Delete 11 August 2012 and replace with 1 November 2013.
- Delete "loss from the land" and "calculated using the OVERSEER nutrient model"
- Amend to "annual amount of nitrogen Nutrient Discharge"

Several submitters seek to amend the Rule by deleting the words "outside of the Lake Zone shown on the Planning Maps" and the whole of condition 1.

AgResearch seeks to retain the permitted activity status.

Many District Councils seek the following:

“Prior to 1 July 2017, on properties of 10 hectares and greater the use of land for any farming activity existing at 11 August 2012 and outside of Lake Zone shown on Planning Maps, is a permitted activity if the following condition is met..”

Kaikoura District Council seeks the following:

- Either, “Prior to 1 July 2017, on properties of 10 hectares and greater, or that are not Carbon Farming, Organic farming, protected areas including QEII Covenants areas the use of land for any farming activity existing at 11 August 2012 and outside of the Lake Zone shown on the Planning Maps, is a permitted activity if the following condition is met:” OR,
- “Prior to 1 July 2017, the use of land for any farming activity which uses more than 60kg/N/Ha/year (or insert amount supported by scientific research) existing at 11 August 2012 and outside of the Lake Zone shown on the Planning Maps, is a permitted activity if the following condition is met:”

Several submissions seek the following:

“Prior to 1 July 2017, the use of land for any farming activity existing at ~~41 August 2012~~, 1 of November 2013 and outside of the lake Zone shown on the Planning Maps, is a permitted activity if the following condition is met:

1. A record of the annual amount of nitrogen nutrient discharge, for the period from 1 July in one year to 30 June in the following year, ~~calculated using the OVERSEER TM nutrient model~~, is kept and is provided to the CRC upon request.”

Waimakariri Irrigation Limited seeks to only require OVERSEERTM assessments for properties with irrigation areas greater than 20ha; or for water users who hold shares in an irrigation company, only require OVERSEERTM assessments on a representative selection of farms sufficient for the company to estimate nutrient loss across the entire irrigation scheme area.

Mr Ross Little seeks that at least until 2017, consideration is given to exclude zones or areas from requirements to measure nutrient losses where there are natural or physical barriers to intensifying land use, based on the light blue and green Nutrient Zones mapped.

NZ Deer Farmers Assn (Sth Canty & Otago) seeks to remove requirement for Overseer outside a Lake Zone and develop and implement a land environmental plan level 1.

Canterbury Pastoral Ltd seeks that all farmers be required to develop, implement and report Farm Environment Plans, irrespective of farm location. Auditing can be prioritised to the red zone in the first instance. Also, that overseer is no longer applied as a regulatory tool but as a decision support system to enable farmers to undertake "what-if" scenarios" and hence select the most cost effective option to improve water quality.

RDRML supports those rules that provide for ongoing farming activities as a permitted activity.

G S and K D Wigley Farms seek that ECAN abandon restrictions on farming and the inflicting of unscientifically supported costs on farming families.

Fertiliser Assn and Ravensdown support the general intent of Rule 5.39 while seeking clarification of the meaning of “Lake Zone” and 'any farming activity'. They submit that annual nutrient budgets should be valid for up to three years unless there is significant farm system change.

Dairy NZ seeks to amend the Rule by inserting an explanatory note that states that a protocol for data input and interpretation will be agreed between primary industry and Environment Canterbury by a defined date.

Beef & Lamb and the Deer Ind & Deer Farmers seeks to amend the Rule to provide for properties where N loss is not an issue to provide an annual report of fertiliser volume and stocking policy, instead of Overseer.

#### **Condition 1**

Dunsandel Groundwater Users Group and Irrigation New Zealand Inc seek to amend as follows: "A record of the annual amount of nitrogen loss from the land An annual nutrient budget, for the period from 1st July in one year to the 30th June in the following year, calculated is undertaken using the OVERSEERTM nutrient model, is and kept, and is provided available to the CRC upon request."

#### **Maps**

Synlait seeks to refine the Nutrient map so that the red zone around Te Waihora reflects the contributing catchment.

Several submissions seek to delete "and outside the Lake Zone shown on the Planning Maps".

#### **Exemptions**

D & P Foster Family Trust seek a schedule of realistic exemptions from compliance with this provision worked out with farming representatives.

Beechwood Trustees Limited seeks to include an exemption for small rural-residential blocks where a 'farming activity' is not the primary economic activity and where stock and crop production is not intensive enough to warrant the nitrogen loss recording that larger more intensively farmed blocks will be subject to.

#### **Rule 5.40**

Rule 5.40 states:

- 5.40 Prior to 1 July 2017, the use of land for a farming activity existing at 11 August 2012 and within the Lake Zone shown on the Planning Maps, is a permitted activity if the following conditions are met:*
- 1. A record of the annual amount of nitrogen loss from the land, for the period from 1 July in one year to 30 June in the following year, calculated using the OVERSEER<sup>TM</sup> nutrient model;*
  - 2. A Farm Environment Plan is prepared and implemented in accordance with Schedule 7;*
  - 3. The Farm Environment Plan is externally audited each year for the first three years by a Farm Environment Plan Auditor. Following three consecutive years of full compliance, the audit shall occur once every three years; and*
  - 4. A record of the audit compliance grading and the average annual loss of nitrogen for the property is provided to the CRC by 31 August of that year.*

Several submissions seek that this Rule be deleted; others are supportive of the attempts to control nutrient loss.

Sth Rakaia Batch Owners support the introduction of farm management plans and on farm monitoring of nutrient and nitrate discharges.

Mr Peter Farrant seeks that unless better science and objectivity is documented in the plan for Overseer, remove its reference and simplify farm environment plan and be more specific or remove its reference. Also, remove “auditor” and replace with “Suitably experienced consultant or industry representative”.

Whyte Farming objects to the following:

- using “Overseer” in its present format as a regulatory tool because of its inaccuracy and unsuitability in our environment.
- whole farm plan, and auditing.
- cost involved in doing the farm plan.

Several submissions seek the following:

“Prior to 1 July 2017, the use of land for any farming activity existing at ~~41 August 2012, 1 of November 2013~~

1. A record of the annual amount of nitrogen nutrient discharge ~~loss from the land~~, for the period from 1 July in one year to 30 June in the following year, ~~calculated using the OVERSEER™ nutrient model.~~”

ANZCO *et al* seeks the following amendment:

“Prior to 1 July 2017, the use of land for an outdoor intensive farming activity existing at 11 August 2012 and within the Lake Zone shown on the Planning Maps, is a permitted activity if the following conditions are met:”

NZ Deer Farmers Assn (Sth Canty & Otago) support the development and implementation of a farm environment plan level -1, however, not within the scope of schedule 7. Auditing requirement need to be established by consultation with industry, council and community to establish an appropriate level of verification of farm plans.

HWPL seeks clarification of the meaning of “Lake Zone” and “a farming activity”. Also, amend the Rule so low intensity farming operations may not need to complete the auditing requirements for nutrient budgets and nutrient management.

Mount Arrowsmith Station submits that Overseer should only be used as a guide with Farm Environment Plans only being triggered as a compulsory requirement in defined circumstances. Nutrient measurement must have regard to the full range of possible sources.

Waimakariri Irrigation seeks to only require OVERSEER™ assessments for properties with irrigation areas greater than 20ha; or for water users who hold shares in an irrigation company, only require OVERSEER™ assessments on a representative selection of farms sufficient for the company to estimate nutrient loss across the entire irrigation scheme area.

RDRML seeks that the auditing requirements in Rule 5.40 be amended to once every three years where this relates to an individual property. Also, that a new condition be added to Rule 5.40 that recognises and provides for the auditing of properties that are part of an established irrigation scheme or Principal Water Supplier which is managed through a Scheme Management Plan. The following relief is sought to address these schemes:

“For those properties who form part of an irrigation or Principal Water Supply scheme (where these schemes are managed under a Scheme Management Plan) following the first annual audit, every property shall be audited at least once every 5 years, with at least 20% of Farm Management Plans being audited each year within each Scheme Management Plan. The results of the audits shall be reported to the Council by the 31st of October of each year.”

Irricon seeks that any version of Overseer to be used must be defined and the rule state: “calculated using the Overseer version XX nutrient model.” They also seek to change the wording to “Annual amount of nitrogen loss from land in kg/ha/yr”.

Fertiliser Assn: The general intent of Rule 5.40 is supported, subject to;

- Clarification of what the Lake Zone is;
- Certainty regarding what ‘a farming activity’ might mean; Clarification of the purpose and implications of the ‘audit compliance grading’ ;
- Nutrient budgets being valid for 3 years;
- Reporting of nitrogen losses 1 June to 31 May, to remain consistent with farming season

Mr Hamish Rennie seeks the following amendments:

- Need measures to control conversions to allow higher nutrient discharging land uses prior to new limits being set in place.
- Lack of confidence in Overseer.
- Suggestion for a moratorium on land conversion to activities that will probably increase effluent discharges above the current discharges that the site receives.

#### **Rule 5.41**

Rule 5.41 states:

*5.41 The use of land for a farming activity that does not comply with one or more of the conditions of Rules 5.39 or 5.40 is a restricted discretionary activity.*

*The CRC will restrict discretion to the following matters:*

- 1. The proposed management practices to avoid or minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land;*
- 1. The potential effects of the land use on surface and groundwater quality, sources of drinking water;*
- 2. The contribution of nutrients from the proposed activity to the nutrient allocation status of the management zone.*
- 3. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to nutrient management and water quality.*

*Notification*

*Pursuant to sections 95A and 95B of the RMA an application for resource consent under this rule will be processed and considered without public or limited notification.*

*Note that limited notification to affected order holders in terms of section 95F of the RMA will be necessary where relevant, under section 95B(3) of the RMA.*

Mr Peter Farrant seeks to delete the Rule and requests that more effort be put into proper descriptions.

Several submissions including Fonterra seek to delete point 4, while others seek that the whole Rule be deleted.

Hort NZ seeks that the Rule be amended to a “controlled activity” and the matters of discretion become “matters of control”.

#### **Rule 5.42**

Rule 5.42 states:

*5.42 Prior to 1 July 2017 the use of land for a change to an existing farming activity is a permitted activity if the following conditions are met:*

- 1. The land holder has been granted a water permit, or holds shares in an irrigation company that has been granted a water permit, that authorises irrigation on the land and the land is subject to conditions that specify the maximum amount of nitrogen that may be leached;*
- 2. The property is outside a Lake Zone as shown on the Planning Maps;*
- 3. A record of the annual amount of nitrogen loss from the land, for the period from 1 July in one year to 30 June in the following year, calculated using the OVERSEER<sup>TM</sup> nutrient model;*
- 4. A Farm Environment Plan is prepared and implemented in accordance with Schedule 7;*
- 5. The Farm Environment Plan is externally audited each year for the first three years by an Farm Environment Plan Auditor. Following three consecutive years of full compliance, the audit shall occur once every three years; and*
- 6. A record of the audit compliance grading and the average annual loss of nitrogen for the property is provided to the CRC by 31 August of that year.*

Several submissions draw attention to the issues surrounding the definition of “change”; however these are dealt with separately in the definitions section of this Report.

Several submissions raised issues regarding Condition 1, they are summarised as follows:

- Waimakariri Irrigation Limited seeks to delete Condition 1.
- Synlait seeks to replace the words "specify the maximum amount of nitrogen that can be leached" with "address nutrient management" in Condition 1.
- Jane Demeter seeks to delete the text that refers to irrigation companies, or modify the Condition to provide more enforceable and effective requirements for nitrogen leaching maxima and other adverse effects.

Glenbrook Station Ltd, Westside Ltd, McAughtrie Farm Ltd, Ellis Lea Farms (2000) Ltd & Others seek to amend the Rule and the zoning maps to which those rules refer so that:

- There is an option to use methods other than Overseer other to establish to a similar or better level the likely or actual nitrate outputs from the lands use;
- The nutrient zoning is suspended until such time as the zones have been redefined on the basis of more appropriate localised boundaries based on more robust and appropriate data.

P J and J E Harrison Lochaber Station seeks the following amendments:

- That “June 2014” be added to rules 5.42 to 5.45 as to when the change definition is given effect to.
- Further expansion or examples of situations when this rule comes into effect, with our opinion that it would only come into effect when there is an actual change in the farming practices / stock type e.g. sheep and dairy or dryland to irrigated.
- Additional consideration needs to go into a fairer mechanism that does not penalise those that have not developed and have low N outputs. They need the ability to grow in the future. This is particularly important for those who happen to be located in “red zones” and are undeveloped and have low N losses.

Several submissions including New Zealand Pork seek the following rewrite of Condition 3: A record of the annual amount of nitrogen ~~less~~ nutrient discharge - from the land, for the period from 1 July in one year to 30 June in the following year, ~~calculated using the OVERSEER™ nutrient model.~~

Intitute of Primary Industry Mgt submits that the plan requires nutrient management plans be submitted by 31st August, following a 30th June year .... We recommend at least 6 months be allowed for submission.

NZ Deer Farmers Assn (Sth Canty & Otago) seeks to develop a Land Environment Plan instead of using OVERSEER.

Beechwood Trustees Limited seeks to amend the Rule so that it permits changes in land use where land holders do not require a water permit, or have been granted a water permit that does not contain conditions specifying the maximum amount of nitrogen that may be leached. In addition, the rule should be amended to introduce a permitted interim method or upper limit for nitrogen loss for these two scenarios that will achieve a good environmental outcome until the industry standards are introduced in 2017. These amendments could be contained within one new condition to the rule.

RDR seeks that the auditing requirements be amended to once every three years where this relates to an individual property. They also seeks that a new condition be added that recognises and provides for the auditing of properties that are part of an established irrigation scheme or Principal Water Supplier which is managed through a Scheme Management Plan. The following relief is sought to address these schemes:

“For those properties who form part of an irrigation or Principal Water Supply scheme (where these schemes are managed under a Scheme Management Plan) following the first annual audit, every property shall be audited at least once every 5 years, with at least 20% of Farm Management Plans being audited each year within each Scheme Management Plan. The results of the audits shall be reported to the Council by the 31st of October of each year.”

Irricon seeks to add the following condition:

“Or the land holder holds a resource consent that is required to give effect to the change in land use e.g. dairy discharge consent and that land is subject to conditions that specify the maximum amount of Nitrogen that may be leached.”

EDS seeks to add the following condition: “The property is outside the nutrient allocation zones coloured red or orange on the planning maps.”

Fertiliser Assn supports the intent of the Rule, subject to clarification of a number of terms used, including the alignment of reporting dates for the year to 1 June to 31 May and establishing the practicality of the requirement for a maximum amount of nitrogen that could be leached being on an existing water permit.

Ravensdown seeks that the auditing requirements for nutrient budgets and nutrient management plans be changed to once every three years.

Landcorp seek that the wording of these rules allow for measured field data and other calibrated nutrient management tools to be used in place of generalised OVERSEER<sup>TM</sup> models where the data are more representative of the farm.

Lincoln University seeks the following amendments:

- Amend the Rule so that it permits changes in farming activities in instances where land holders do not require a water permit, or have been granted a water permit that does not contain conditions specifying the maximum amount of nitrogen that may be leached.
- In addition, the rule should be amended to introduce a permitted interim method or measure for these two scenarios that will avoid adverse environmental effects on water quality until the industry standards are introduced in 2017. These amendments could be contained within one new condition to the rule.

Hunter Down seeks the following amendment to the Rule:

“Prior to 1 July 2017 the use of land for a change to an existing farming activity is a permitted activity if the following conditions are met:

1. The land holder has been granted a water permit that has been given effect to, or holds shares in an irrigation company that has been granted a water permit that has been given effect to, that authorises irrigation on the land and the land is subject to conditions that addresses nutrient management, and in particular the requires the preparation, implementation, and auditing of a farm environment/management plan(s)~~specify the maximum amount of nitrogen that may be leached;~~
2. The property is outside a Lake Zone as shown on the Planning Maps;
3. A record of the annual amount of nitrogen loss from the land, for the period from 1 July in one year to 30 June in the following year, calculated using the OVERSEER<sup>TM</sup> nutrient model;
4. A Farm Environment Plan is prepared and implemented in accordance with Schedule 7 (except as provided in 1 above);
5. The Farm Environment Plan is externally audited each year for the first three years by an Farm Environment Plan Auditor (except as provided in 1 above). Following three consecutive years of full compliance, the audit shall occur once every three years; and
6. A record of the audit compliance grading and the average annual loss of nitrogen for the property is provided to the CRC by 31 August of that year (except as provided in 1 above).”

ANZCO *et al* seeks the following amendment:

“Prior to 1 July 2017 the use of land for a change to an existing farming activity including any associated discharge of nutrients onto or into land is a permitted activity if the following conditions are met:

- ~~1. The land holder has been granted a water permit, or holds shares in an irrigation company that has been granted a water permit, that authorises irrigation on the land and the land is subject to conditions that specify the maximum amount of nitrogen that may be leached;~~
2. 1. The property is outside a Lake Zone as shown on the Planning Maps;
3. 2. A record of the annual amount of nitrogen loss from the land, for the period from 1 July in one year to 30 June in the following year, calculated using the OVERSEER<sup>TM</sup> nutrient model;
4. 3. A Farm Environment Plan is prepared and implemented in accordance with Schedule 7;

~~5.4.~~ The Farm Environment Plan is externally audited each year for the first three years by a Farm Environment Plan Auditor. Following three consecutive years of full compliance, the audit shall occur once every three years; and

~~6.5.~~ A record of the audit compliance grading and the average annual loss of nitrogen for the property are provided to the CRC by 31 August of that year.”

Horticulture NZ seeks the Rule to apply to “existing farming activity excluding arable or horticultural operations”.

Mr Hamish Rennie submits the following:

- Need measures to control conversions to allow higher nutrient discharging land uses prior to new limits being set in place.
- Lack of confidence in Overseer.
- Suggestion for a moratorium on land conversion to activities that will probably increase effluent discharges above the current discharges that the site receives.
- Add necessary policies to achieve this end.

#### Rule 5.43

Rule 5.43 states:

*5.43 Prior to 1 July 2017, the use of land for a change to an existing farming activity that does not comply with Condition 1 in Rule 5.42 and is within an area coloured pale blue or green on the Planning Maps is a restricted discretionary activity.*

*The CRC will restrict the exercise of discretion to the following matters:*

- 1. The proposed management practices to avoid or minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land;*
- 2. The potential effects of the land use on surface and groundwater quality, and sources of drinking water;*
- 3. The contribution of nutrients from the proposed activity to the nutrient allocation status of the management zone.*
- 4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to nutrient management and water quality.*

Several submissions seek that the status of restricted discretionary be amended to controlled and delete all of Point 4 as it is covered in points 1-3. Irrigation NZ also seeks to add a notification paragraph to this Rule as per Rule 5.41.

CCC seeks the following amendment:

“Prior to 1 July 2017, the use of land for a change to an existing farming activity that does not comply with Condition 1 in Rule 5.42 and is within ~~an area coloured pale blue or green on the Planning Maps~~ a Nutrient Allocation Zone identified as 'unclassified' or 'meets water quality outcomes' (coloured light blue or green respectively on the Series A Planning Maps) is a restricted discretionary activity.”

Institute of Primary Industry Mgt seeks the following amendments:

- Farmers leaching below a realistic prescribed level to have the discretion to alter their farm program and allow for them to complete development as long as their nutrient

losses do not exceed the prescribed level and they submit a farm environmental plan with their consent application.

- The prescribed level should an interim tep set by ECAN in consultation with industry good bodies based on good science, eg, Dairy NZ, FAR, Beef & Lamb, Lincoln University, within the next 2 months to avoid the confusion and uncertainty that currently exists with the proposals.

Institute for Plant & Food Research seeks that the words “an area” be replaced with “a Nutrient Allocation Zone”.

Poultry Assn & Egg Producers seeks that farming activities which do not result in any discharge to land be exempted from having to comply with the nutrient budget requirement under the Rule and that the wording of be amended from referring to 'the use of land for any farming activity' to state 'the discharge to land from a farming activity'.

Horticulture NZ seeks the Rule to apply to “existing farming activity excluding arable or horticultural operations”.

Mrs A & Mr M Hamblett seeks that the Rule includes all contaminants, particularly Cadmium.

#### **Rule 5.44**

Rule 5.44 states:

*5.44 Prior to 1 July 2017, the use of land for a change to an existing farm activity that does not comply with Condition 1 in Rule 5.42 and is within an area coloured orange on the Planning Maps is a discretionary activity.*

Ngai Tahu Property Limited seeks to add the words "or red" after the word "orange" in Rule 5.44, and make Rule 5.44 a restricted discretionary activity, with discretion limited to the measures to limit effects on water quality and preparation of and compliance with a farm management plan prepared under Schedule 7.

Several submissions seek that the status be changed from discretionary to restricted discretionary, and add the following matters for discretion:

1. The proposed management practices to avoid or minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land;
2. The potential effects of the land use on surface and groundwater quality, and sources of drinking water;
3. The contribution of nutrients from the proposed activity to the nutrient allocation status of the management zone.

Fed Farmers (Mackenzie) follows the same line of submissions as Ngai Tahu Property, with several other additions:

"Prior to 1 July 2017, the use of land for a change to an existing farm activity that does not comply with condition 1 in Rule 5.42 and is within an areas coloured orange on the Planning Maps is a restricted discretionary activity. A Consent will not be required if the estimated nitrogen loss is less than 20kg/N/Ha/year after the use of land for a change to an existing farm activity is completed.

The CRC will restrict the exercise of discretion to the following matters:

- 1) the proposed management practices to avoid or minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land;
- 2) the potential effects of the land use on surface and groundwater quality, and sources of drinking water;
- 3) the contribution of nutrients from the proposed activity to the nutrient allocation status of the management zone;
- 4) the extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to nutrient management and water quality".

CCC seeks the following amendment:

"Prior to 1 July 2017, the use of land for a change to an existing farm activity that does not comply with Condition 1 in Rule 5.42 and is within ~~an area coloured orange on the Planning Maps~~ a Nutrient Allocation Zone identified as 'at risk (coloured orange on the Series A Planning Maps) is a discretionary activity."

Several submissions raise issues with the definition of "land use change", this issue will be addressed in the definitions section.

Institute of Primary Industry Mgt seeks the following amendment:

- Farmers leaching below a realistic prescribed level to have the discretion to alter their farm program and allow for them to complete development as long as their nutrient losses do not exceed the prescribed level and they submit a farm environmental plan with their consent application.
- The prescribed level should an interim step set by ECAN in consultation with industry good bodies based on good science, eg, Dairy NZ, FAR, *Beef & Lamb*, AgResearch, Lincoln University, within the next 2 months to avoid the confusion and uncertainty that currently exists with the proposals.

Institute for Plant & Food Research seeks that the words "an area" be replaced with "a Nutrient Allocation Zone".

Horticulture NZ seeks the Rule to apply to "existing farming activity excluding arable or horticultural operations".

#### **Rule 5.45**

Rule 5.45 states:

*5.45 Prior to 1 July 2017, the use of land for a change to an existing farm activity that does not comply with Condition 1 in Rule 5.42 and is within an area coloured red or within a Lake Zone shown on the Planning Maps is a non-complying activity.*

Several submissions seek to delete this Rule. RFBPS strongly supports these rules.

Several submissions raise issues with the definition of change, predominantly that June 2014 be the date when the change definition is given effect to. These issues will be addressed in the definitions section.

Several submissions, including Killermont Station Ltd, seek to amend Rules 5.42 to 5.45 inclusive and the zoning maps to which those rules refer so that:

- Changes to low intensity dry land farming that will not result in a change to intensive farming are permitted.
- There is an option to use methods other than Overseer to establish to a similar or better level the likely of actual nitrate outputs from the land use.
- The nutrient zoning is suspended until such time as the zones have been redefined on the basis of more appropriate localised boundaries based on more robust and appropriate data.

Several submissions including Fed Farmers (Combined Canty), seek a change of activity status to discretionary. Beef & Lamb New Zealand Limited support this and seek to require a Farm Environment Plan to manage specific issues. Others seek a restricted discretionary activity status.

Fed Farmers (Combined Canty) also seeks to require an assessment of the activity against the fresh water objectives and policies relevant to the catchment within which the land use change is proposed.

P J and J E Harrison Lochaber Station seeks the following amendments:

- That the definition of 'change' in terms of Rules 5.42 to 5.45 needs to be further expanded to ensure all reading the plan are aware of ECAN objectives for this definition.
- June 2014 is added to rules 5.42 to 5.45 as to when the change definition is given effect to.
- Further expansion or examples of situations when this rule comes into effect, with our opinion that it would only come into effect when there is an actual change in the farming practices / stock type e.g. sheep and dairy or dryland to irrigated.
- Additional consideration needs to go into a fairer mechanism that does not penalise those that have not developed and have low N outputs.
- They need the ability to grow in the future. This is particularly important for those who happen to be located in "red zones" and are undeveloped and have low N losses.

CCC seeks the following amendment: “Prior to 1 July 2017, the use of land for a change to an existing farm activity that does not comply with Condition 1 in Rule 5.42 and is within ~~an area coloured red or within a Lake Zone shown on the Planning Maps~~ a Nutrient Allocation Zone identified as an area in which water quality outcomes are at risk (areas coloured red on the Series A Planning Maps) or within a Lake Zone shown on the Planning Maps is a non-complying activity.”

Institute of Primary Industry Mgt seeks the following amendment:

- Farmers leaching below a realistic prescribed level to have the discretion to alter their farm program and allow for them to complete development as long as their nutrient losses do not exceed the prescribed level and they submit a farm environmental plan with their consent application.
- The prescribed level should an interim tep set by ECAN in consultation with industry good bodies based on good science, eg, Dairy NZ, FAR, *Beef & Lamb*, AgResearch, Lincoln University, within the next 2 months to avoid the confusion and uncertainty that currently exists with the proposals.

Irrigation NZ also seeks to add a notification paragraph to this Rule as per Rule 5.41.

EDS seeks the following amendment:

~~“Prior to 1 July 2017~~11 August 2014, the use of land for a change to an existing farming activity that ~~does not comply with Condition 1 in Rule 5.42 and~~ is within an area coloured red or within a Lake Zone shown on the Planning Maps is a non-complying activity.”

Poultry Assn & Egg Producers seeks that the wording of Rule 5.45 be amended from referring to 'the use of land for any farming activity' to state 'the discharge to land from a farming activity'.

Fert Assn seeks to include a provision for a sub-catchment approach to setting limits.

Erralyn Farm Limited seeks clarification of what “new activity” means.

The Bennet Family seeks to separate the rule so that if nitrogen loss is less than 20kg per ha per year it is a restricted discretionary activity, whereas if it is more than 20kg per ha per year it is a non-complying activity.

#### **Rule 5.46**

Rule 5.46 states:

- 5.46 From 1 July 2017, the use of land for any farming activity, is a permitted activity if the following conditions are met:*
- 1. The land is outside a Lake Zone shown on the Planning Maps; and*
  - 2. The average annual loss of nitrogen does not exceed the rate for the relevant farming activity in Schedule 8; and*
  - 3. The annual average loss of nitrogen, averaged over three consecutive years is less than 20 kilograms per hectare a record of the annual amount of nitrogen loss from the land, for the period from 1 July in one year to 30 June in the following year, calculated using the OVERSEER<sup>TM</sup> nutrient model, is kept and is provided to the CRC upon request; or*
  - 4. If the annual average loss of nitrogen, averaged over three consecutive periods from 1 July in one year to 30 June in the following year, is 20 kilograms per hectare or more:*
    - (a) a Farm Environment Plan is prepared and implemented in accordance with Schedule 7;*
    - (b) the Farm Environment Plan is externally audited each year for the first three years by an Farm Environment Plan Auditor. Following three consecutive years of full compliance, the audit shall occur once every three years; and*
    - (c) a record of the audit compliance grading and the average annual loss of nitrogen for the property is be provided to the CRC by 31 August of that year.*

Several submissions seek to delete the entire rule, while others seek to delete specific conditions of the Rule.

Mr Paul Davey seeks the following amendments:

- Amend Condition 2, Condition 3 and 4, to specify that the average loss of N must be averaged over at least 5 years, reflecting the fact that OVERSEER is designed to provide average long-term estimates of nutrient flows.
- Review condition 3 and 4 and review the 20kg/ha limit to determine if still appropriate with the release of OVERSEER 6.
- Review condition 4 to reflect the capacity of the rural sector to be able to meet the conditions by 2017.

Several submissions including Fed Farmers (Combined Canty) seek the following amendments:

- The loss of N must be averaged over at least 5 years, reflecting that fact that OVERSEER is designed to provide average long-term estimates of nutrient flows.
- Delete Condition 1 and amend Condition 4 to include a reference to the Lake Zone as follows: “If the average annual loss of nitrogen, averaged over three consecutive periods

from 1 July in one year to 30 June in the following year, is 20 kilograms per hectare or more, or if the land is within a Lake Zone: ...”

Several submissions seek the Rule to apply from 1<sup>st</sup> July 2020.

Mr Robert Johnston seeks that 20kg be replaced with 25kg. Other submissions seek a robust and scientific process to establish these limits at both a catchment and sub-catchment level while some submissions simply seek a higher limit.

Kaikoura District Council seeks the following:

- Either, “From 1 July 2017, on properties of 10 hectares and greater, or that are not Carbon Farming, Organic farming, protected areas including QEII Covenants areas the use of land for any farming activity is a permitted activity if the following conditions are met:” OR,
- “From 1 July 2017, the use of land for any farming activity which uses more than 60kg/N/Ha/year (or insert amount supported by scientific research) is a permitted activity if the following conditions are met:”

Waimakariri Irrigation Limited seeks to only require OVERSEER™ assessments for properties with irrigation areas greater than 20ha; or for water users who hold shares in an irrigation company, only require OVERSEER™ assessments on a representative selection of farms sufficient for the company to estimate nutrient loss across the entire irrigation scheme area.

RDR seeks that a new condition be added to Rule 5.46 that recognises and provides for the auditing of properties that are part of an established irrigation scheme or Principal Water Supplier which is managed through a Scheme Management Plan. The following relief is sought to address these schemes:

*“For those properties who form part of an irrigation or Principal Water Supply scheme (where these schemes are managed under a Scheme Management Plan) following the first annual audit, every property shall be audited at least once every 5 years, with at least 20% of Farm Management Plans being audited each year within each Scheme Management Plan. The results of the audits shall be reported to the Council by the 31st of October of each year.”*

EDS seeks to clarify that the Rule applies to activities which exist as at 11 August 2014.

G S and K D Wigley Farms seek to drop all restrictions to farmers changing farming activity.

DairyNZ Incorporated seeks to delete the reference to the need for a FEP to be prepared and implemented when nitrogen loss is greater than 20 kg/ha/yr.

Deer Ind & Deer Farmers and Beef & Lamb seek to amend the Rule to include a threshold for N application below which a simple record of N applied, and stocking rate is provided to ECan. Changes are either to be assessed by ECan to determine if an Overseer budget is required or the threshold is reached or not. Optionally, a Farm Environment Plan could be used to manage low N use/leaching properties. This could be a trigger for a more permissive approach to consent requirements.

Glenmore Station Limited seeks an amendment to Condition 1 as follows:

- The activity is outside the lake zone on the Planning maps; or if within the lake Zone the land holder has a resource consent that is subject to conditions that specify the maximum amount of nitrogen that may be leached.

Horticulture NZ seeks that for arable and horticultural operations, clauses 2 - 4 will not apply but the operation must:

- Have an audited self-management programme.
- Model nutrient losses over a rotation using an appropriate modelling tool, such as APSIM or LUCI, if available for the crops being grown, and provided to CRC upon request.

Fertiliser Assn and Ravensdown seek to delete Condition 4 and amend Condition 3 as follows:

~~"The annual average loss of nitrogen, averaged over three consecutive years is less than 20 kilograms per hectare - a~~ A record of the annual average amount of nitrogen loss from the land, for the period from 1 ~~June~~ July in one year to 30 ~~June~~ 31 May in the following year, calculated using the OVERSEERTM nutrient model, is kept and is provided to the CRC upon request; ~~or.~~"

Landcorp seek the following:

- The 20kg/ha/yr limit in Conditions 3 and 4 be removed until Schedule 8 is established;
- When Schedule 8 is established, the default limit for permitted activities not addresses in Schedule 8 is set at 35 kg/ha/yr [we interpret this limit is set at the paddock scale where intensive farming occurs, acknowledging that less intensive land use will also occur on the property].
- That guidance be provided on the meaning of loss and how it will be applied/managed; (e.g. loss below the root zone, to shallow groundwater, or beyond the property boundary?)
- That guidance be provided as to where the nitrogen loss is being managed (local or catchment scale).

Ms Jane Demeter seeks to delete "upon request" and replace with "by September 1 of each year" in Condition 3.

#### **Rule 5.47**

Rule 5.47 states:

*5.47 From 1 July 2017, the use of land for any a farming activity that does not meet Condition 2 in Rule 5.46 or where there is no rate for the relevant farming activity specified in Schedule 8 and where the property is within an area coloured pale blue or green on the Planning Maps is a restricted discretionary activity.*

*The CRC will restrict the exercise of discretion to the following matters:*

- 1. The proposed management practices to avoid or minimise the discharge of nitrogen, phosphorus, sediment and microbiological contaminants to water from the use of land;*
- 2. The potential effects of the land use on surface and groundwater quality, and sources of drinking water;*
- 3. The contribution of nutrients from the proposed activity to the nutrient allocation status of the management zone.*
- 4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to nutrient management and water quality.*

Several submissions including Fed Farmers (Combined Canty) seek to change the activity status from restricted discretionary to permitted with appropriate site standards, which is appropriate for low risk

zones where water quality outcomes are being met. Other submissions seek that it be amended to a controlled activity status.

Horticulture NZ seeks that it be a controlled activity and that "matters of discretion" is changed to 'matters of control'. They also seek to amend the Rule by adding after 'Schedule 8': '...or Audited self-management programme'

Several submissions seek a review of the colour zoning using a robust process.

CCC seeks the following amendment: From 1 July 2017, the use of land for any a farming activity that does not meet Condition 2 in Rule 5.46 or where there is no rate for the relevant farming activity specified in Schedule 8 and where the property is ~~within an area coloured orange on the Planning Maps~~ a Nutrient Allocation Zone identified as 'unclassified' or 'meets water quality outcomes' (coloured light blue or green respectively on the Series A Planning Maps) is a restricted discretionary activity."

Deer Farmers Assn (Canty) seeks that post 1 July 2017 the establishment of schedule 8 should continue to be a collaborative approach between industry, Council and community. Making farming activities a restricted discretionary activity if discharge rates have not been established is unreasonable. There is significant knowledge gaps and validation of modelling discharge rates before we can rely on the discharge rates in schedule 8. Continuing to work with industry to promote best practice must continue passes the arbitrary date of 1 July 2013.

Fonterra seeks the following:

- Amend rules 5.47-5.49 so that the consent categorisation is consistent with that applying prior to 1 July 2017 as proposed in this submission (see above) i.e. Rule 5.47 would be controlled, Rule 5.48 would be RDA and Rule 5.49 would be discretionary.
- Provide for the definition of a five year "transition" period within which land owners may transition toward the values listed in the "look up" tables.

#### **Rule 5.48**

Rule 5.48 states:

- 5.48 From 1 July 2017, the use of land for any farming activity is a discretionary activity where either:*
- a. The activity does not meet Condition 2 in Rule 5.46 or there is no rate for the relevant farming activity specified in Schedule 8 and where the property is within an area coloured orange on the Planning Maps; or*
  - b. The activity complies with Condition 2 but not Condition 1 in Rule 5.46; or*
  - c. The activity does not meet Condition 3 or 4, whichever is relevant, in Rule 5.46.*

Several submissions including Fed Farmers (Combined Canty) seek to amend the activity status from discretionary to restricted discretionary because the nature of effects is known so discretion should be limited. They also seek to delete (b).

Several submissions seek a review of the colour zoning using a robust process.

Ravensdown seeks to delete (c) and clarify what is meant by the terms "any farming" and "any farming activity".

Horticulture NZ seeks to amend the Rule by adding after 'Schedule 8': '...or Audited self- management programme'

#### Rule 5.49

Rule 5.49 states:

- 5.49 *From 1 July 2017, the use of land for any a farming activity that does not meet Condition 2 in Rule 5.46 or where there is no rate for the relevant farming activity specified in Schedule 8 and where the property is within an area coloured red or within a Lake Zone shown on the Planning Maps is a non-complying activity.*

Several submissions seek to amend the status for the change of land uses from non-complying to restricted discretionary activity and apply the discretion from Rule 5.47. Others seek that it be changed to a discretionary activity.

Deer Farmers Assn (Canty) seeks that the plan must promote continued collaboration between all stakeholders now and in the future without primary industry being exposed to unreasonable regulations after a prescribed date.

CCC seeks the following amendment:

"From 1 July 2017, the use of land for any a farming activity that does not meet Condition 2 in Rule 5.46 or where there is no rate for the relevant farming activity specified in Schedule 8 and where the property is within ~~an area coloured red on the Planning Maps or within a Lake Zone shown on a Planning Map~~ a Nutrient Allocation Zone identified as an area in which water quality outcomes are at risk (areas coloured red on Series A Planning Maps) or within a Lake Zone shown on the Planning Maps is a non-complying activity."

#### Rule 5.50

Rule 5.50 states:

- 5.50 *The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA is a permitted activity, provided the following condition is met:*
1. *The land use activity associated with the discharge is authorised under Rules 5.39 to 5.49.*

Several submissions seek to include an additional Condition 2, which is an alternative to Condition 1, and is drafted in a way that ensures that consent is only required for the discharge of liquid and solid waste from farm animals where stock densities and locations are such that they will, or are likely to result in a directly measurable increase in nitrate levels associated with those particular animals to a water body at risk of nitrate induced adverse effects on the environment.

#### Rule 5.51

Rule 5.51 states:

- 5.51 *The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA and does not meet the condition in Rule 5.50 is a discretionary activity.*

No new submission points that have not been addressed above.

#### **Recommendation on Nutrient Rules**

The recommended rules below inherently follow from the overall analysis at the beginning of section 9 of this report, and the recommendations on the policies. In addition, a number of more detailed submission points summarised above have been adapted into these recommendations.

That Rules 5.39 to 5.51 be amended to:

- 5.39 The use of land for an existing farming activity, a changed farming activity or a new farming activity is a permitted activity provided the following conditions are met:

1. If the land is not in a Lake Zone as shown on the Series A Planning Maps and:
  - (a) the area of the property is less than 5 ha; or
  - (b) the area of the property is more than 5 ha and less than 50 ha and there is no high nutrient risk farming activity occurring on the property.
2. If the land is in a Lake Zone as shown on the Series A Planning Maps and:
  - (a) the area of the property is less than 5 ha; and
  - (b) there is no high nutrient risk farming activity occurring on the land.

- 5.40 The use of land for an existing farming activity that is not permitted by Rule 5.39 in an area coloured Orange, Green or Pale Blue on the Series A Planning Maps is a permitted activity provided the following conditions are met:

1. Information on the farming activity, in accordance with Schedule 7 Part D is provided to the Canterbury Regional Council.

- 5.41 The use of land for an existing farming activity that is not permitted by Rule 5.39, where the property is partly or wholly in an area coloured Red on the Series A Planning Maps, is a permitted activity provided the following conditions are met:

1. If there is no high nutrient risk farming activity occurring on the property, information on the farming activity, in accordance with Schedule 7 Part D is provided to the Canterbury Regional Council.
2. If there is high nutrient risk farming activity occurring on the property, then a farm environment plan is prepared and audited in accordance with Schedule 7 Parts A and C and the audit grade is "A-B" or better.

- 5.42 The use of land for an existing farming activity that is not permitted by Rule 5.39, where the property is partly or wholly in a Lake Zone as shown on the Series A Planning Maps, is a permitted activity provided the following conditions is met:

1. There is no high nutrient risk activity occurring on the land; and
2. A farm environment plan is prepared and audited in accordance with Schedule 7 Parts A and C and the audit grade is "A-B" or better.

5.43 The use of land for an existing farming activity, where the property is partly or wholly in a Lake Zone as shown on the Series A Planning Maps and there is a high nutrient risk farming activity occurring on that part of the property within the Lake Zone, is a restricted discretionary activity provided the following conditions is met:

1. A farm environment plan is prepared, implemented and audited in accordance with Schedule 7 Parts A and C.

The CRC will restrict the exercise of discretion to the following matters:

1. The content of, compliance with, and auditing of the Farm Environment Plan;
2. The potential effects of the land use on surface and groundwater quality, and sources of drinking water;
3. The contribution of nutrients from the proposed activity to the nutrient allocation status of the management zone.
4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to nutrient management and water quality.

5.44 The use of land for a changed or new farming activity that is not permitted by Rule 5.39, where the property is wholly in an area coloured Green or Pale Blue on the Series A Planning Maps, is a permitted activity provided the following condition is met:

1. Information on the farming activity, in accordance with Schedule 7 Part D is provided to the Canterbury Regional Council.

5.45 The use of land for a changed farming activity or a new farming activity, where the property is partly or wholly in an area coloured Orange on the Series A Planning Maps, is a restricted discretionary activity provided the following condition is met:

1. A farm environment plan is prepared, implemented and audited in accordance with Schedule 7 Parts A and C.

The CRC will restrict the exercise of discretion to the following matters:

1. The content of, compliance with, and auditing of the Farm Environment Plan;
2. The potential effects of the land use on surface and groundwater quality, and sources of drinking water;
3. The contribution of nutrients from the proposed activity to the nutrient allocation status of the management zone.
4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to nutrient management and water quality.

5.46 The use of land for a changed farming activity or a new farming activity, where the property is partly or wholly in a Lake Zone as shown on the Series A Planning Maps or coloured Red on the Series A Planning Maps is a discretionary activity.

5.47 The use of land for an existing farming activity, a changed farming activity or a new farming activity that does not meet the relevant conditions of Rules 5.39 to 5.45 or is not classified by Rules 5.39 to 5.45 is a discretionary activity.

5.50 The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA is a permitted activity, provided the following condition is met:

1. The land use activity associated with the discharge is authorised under Rules 5.39 to 5.46-5.49.

5.51 The discharge of nutrients onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene s15(1) of the RMA and does not meet the condition in Rule 5.50 is a non-complying discretionary activity.<sup>105</sup>

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<sup>105</sup> A range of submission points have been used to develop the above provisions. In particular, the following submissions have been used to formulate the recommendations: Fish and Game (347), Beef and Lamb (318), Ngā Rūnanga (358), Fed Farmers (Combined Canty) (320), Fonterra (270), DairyNZ (315), and the Fertiliser Assn (239).

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## 9.4 Schedule 7

Schedule 7 of the pLWRP sets out the requirements for a farm environment plan.

Several submissions, including Mr Mark Mulligan, submit that a definition of 'appropriate professional qualification' is required as it relates to Schedule 7. Their advice is that a farmer with an appropriate professional qualification should be able to author their own FEP.

Fed Farmers (Combined Canty) seeks to ensure that Schedule 7 enables emerging primary sector initiatives that will meet its requirements.

Sth Rakaia Bach Owners submits that Schedule 7 needs to include guidance on how Management Objective 4(d) is to be achieved.

Blue Gum Trading Ltd and Maungatahi Farm Limited seek that nutrient discharges below 20 kg/ha are a permitted activity. Delay enforcement of other rules until the Hurunui Water Zone Committee has finally considered the Waipara catchment and reported its findings/recommendation.

Ms Claire Mulcock seeks the following amendments:

- The first line: "A Farm Environment Plan shall be prepared approved by a person with..."
- Amend 5. To: "Nutrient budgets are prepared by a person with appropriate professional qualifications, using Overseer....."
- Not clear where assigned industry 'good practices' are to be found
- Management objectives in 4. need to be re-written to provide for goals and objectives to achieve the higher level goals
- Delete soil management from 4, since it is covered in other areas of the Farm Environment Plan.
- Delete the Livestock Management topic from 4. and;
- Amend "Wetlands and Riparian Management" to "Waterway and Wetland Management: To manage water bodies, wetlands and their margins to avoid stock damage, direct and indirect stock damage, direct and indirect input of nutrients, sediments and microbial pathogens".
- Amend 4(b) to: "Irrigation Management: To have an irrigation system that is capable of applying water efficiently and is managed so that actual use is efficient and losses are minimised."

C & PH ChCh submits the following:

- That the plan details how Farm Environment Plans will be prepared, approved, implemented and audited.
- Include consideration of impacts on groundwater recharge zones in requirements (2) and (3) of Schedule 7.
- Specify factors that should be taken into account in relation to groundwater, such as its direction of flow in requirements (3) and (4) of Schedule 7.
- Include contingency plans for incidents where farming activities exceed the permitted nutrient loading limit in Farm Environment Plans in Schedule 7.
- Specify mechanisms for informing the relevant authorities of any incidents (in relation to Schedule 7).
- That the Farm Environment Plan provisions in Schedule 7 include standardised assessment criteria showing how management objectives will be met and how audits will be carried out.

- Include as an Appendix to Schedule 7, additional guidance material for the preparation and auditing of Farm Environment Plans.

Several submissions, including C W & J M Trengrove, seek to ensure that proposed plans reflect industry initiatives.

Ms Hillary Iles seeks that Farm Environment Plans set region wide cadmium limits for soils.

Mount Arrowsmith Station Limited seeks that Farm Environment Plans be voluntary with costs shared by the community.

Deer Farmers Assn (Canty) submits the following:

- Supports the use of farm environment plans but believe there is no requirement to have an "appropriate professional" to prepare a farm plan.
- Supports the use of *Beef & Lamb* New Zealand Land Environment Plan (LEP).
- As part of the LEP an appropriate nutrient budget should be prepared however OVERSEER™ is not necessary
- Verification of farm plans should be a collaborative process between industry and Council.

Irricon seeks that if a farmer can complete his own FEP then no relief is required, as the differentiation is quite clear. If a farmer cannot author his own plan, then relief is sought so that two individuals from the same company are able to author and then audit the FEP e.g. one authors and the second individual audits the FEP.

Fertiliser Assn and Ravensdown seek that the Regional Council have regard to national consistency, and consistency in industry programmes, for the application of farm planning tools and audits when ratifying sub regional schemes. There should be a clear definition of "farms", for which the Farm Environment Plan and Schedule 8 limits apply, and that definition should exclude small 'hobby' farms to ensure the provision can be applied practicably as described by accredited and qualified practitioners.

Mrs Pamela Richardson seeks acknowledgement and the opportunity for the landowner to compile the farm plan with the support/input of professionals if necessary.

Fonterra seeks the following amendments:

- Amend schedule 7 to make clear that a farmer's Supply Fonterra documentation will satisfy a number of the requirements of the Farm Environment Plan.
- Through amendments to the Rules, the definitions and Schedule 7, make clear that a farmer participating in the Supply Fonterra programme need not have any additional audit requirements.

Beef & Lamb and Deer Ind & Deer Farmers seek the following:

- Clarify what the expectation is for "appropriate professional qualifications."
- Suggest that 'appropriate experience' would be more appropriate.
- As noted elsewhere, Overseer may not be required on many properties and an alternative threshold could be used to identify the circumstances where Overseer would be required.

Further, Deer Ind & Deer Farmers suggest that a definition for the term "property" is required:

"Property, means any contiguous area of land held in one, or more than one, ownership that is utilised as a single operating unit, and may include one or more titles/ sites."

Horticulture NZ seeks the following:

- Delete the first sentence of Schedule 7.
- Add an additional point to plan requirements at the end of 2 put OR 3 will apply to:
  - All areas that are part of a horticultural operation rotational system
- NOTE: Where an operation is accredited under NZGAP a Farm Environment Plan is not required.
- Delete 'Overseer' from Requirement 5 and replace with 'an appropriate nutrient budget model'.

Fish & Game seeks the following amendment:

2. A map(s) or aerial photograph at a scale that clearly shows:
  - (a) The boundaries of the property
  - (b) The boundaries of the main land management units on the property.
  - (c) The location of permanent or intermittent rivers, streams, lakes, drains, ponds or wetlands, specifically identifying any waterbodies listed in Schedule 17 or Schedule XX of this Plan.
  - (d) The location of riparian vegetation and fences adjacent to water bodies.
  - (e) The location of storage facilities, offal or refuse disposal pits, feeding or stock holding areas, effluent blocks, raceways, tracks and crossings.
  - (f) The location of any areas within or adjoining the property that are identified in a District Plan as "significant indigenous biodiversity".

Mrs A & Mr M Hamblett seeks that the plan state explicitly what 'good practice' means for all activities across the plan. This should be explicit with, objectives, targets and standards.

Mr Mark Williams seeks to take into consideration other factors and do not take the information from Overseer on a standalone basis in regards to nutrient leaching.

Ms Jane Demeter seeks the following amendments:

- Retain as worded with addition of items to management objectives:
- Add 4 (g) Significant indigenous biodiversity management: to manage risks associated with land use and operation of irrigation systems to ensure protection of significant indigenous ecosystems and species.
- Modify 4 (a) "...minimising nutrient losses to ground and surface water.."
- Add to end of 4 (b) "so there is no ponding nor excessive runoff or loss to groundwater. Where possible use real-time soil and water data".
- Add to end of 4 (c) "...including loss of topsoil with water and wind erosion and damage to soil structure and health"
- Modify 4 (d) delete "direct" from "avoid direct input of nutrients". Add to end "in constructed wetlands".
- Add "Protect naturally occurring wetlands"

Schedule 7 of the pLWRP contains the framework for farm environment plans. Farm environment plans, as set out in Schedule 7, are oriented towards nutrient management, particularly nitrogen, and reflected the positioning at the time with respect to the wider application of farm environment plans. A number of submissions have been made with respect to farm environment plans, and in addition evidence has been led at the Group 1 Hearings, with respect to water takes and some kinds of discharges to the effect that farm environment plans are a more appropriate method of managing some kinds of effects. With the increased focus in the submissions on wider application of farm environment plans, greater emphasis on audited self-management and industry developed farm environment plans, it has been necessary to recommend relatively significant changes to the farm

environment plan framework. As has been recommended below, the changes fall into four broad areas:

- The ability to use industry-developed farm environment plan regimes, provided they meet certain basic criteria and have the approval of the CRC.
- Revisions to the “default” farm environment plan, which sets out minimum requirements for farm environment plans if there is no industry standard farm environment plan template in place, or the individual applicant decides not to use the industry standard.
- A revised set of criteria that specify the requirements for auditing of farm environment plans, and in particular a grading of the plans with clarification that the auditing is to require a certain level of quality of plan as well as performance against the plan.
- A new set of requirements that identify information requirements for all farming types, where the rules specify that information is to be provided.

Overall, the changes to Schedule 7 are not significant with respect to the requirements for farm environment plans, but they have been broadened to allow other industry based farm environment plans, wider application beyond just nutrient management and have set out a tighter framework with respect to auditing. These changes have been discussed at length as a part of the Selwyn-Waihora sub-regional section development. It is clear that the farm environment plan and auditing of the farm environment plan is still a developing area of practice and science. However, it is considered to be a significant opportunity to manage nutrient discharges and other farming practices that require a level of sophistication beyond what can be achieved through resource consent conditions. Further, they will drive a behavioural shift to good practice and be the foundation for further improvement at a catchment level.

#### **Recommendation RS7**

##### **Part A – Farm Environment Plans**

A Farm Environment Plan can be based on either of:

1. Industry prepared Farm Environment Plan templates and guidance material that:
  - (a) Include the following minimum components:
    - (i) The matters set out in 1, 2, and 3 of Part B below;
    - (ii) Contains a methodology that will enable development of a plan that will identify environmental effects and risks specific to the property, addresses those effects and risks and has a high likelihood of appropriately avoiding, remedying or mitigating those effects;
    - (iii) Performance measures that are capable of being audited as set out in Part C below; and
  - (b) Has been approved as meeting the criteria in (a) and being acceptable to the Canterbury Regional Council by the Chief Executive of the Canterbury Regional Council.

OR

2. The material set out in Part B below.

##### **Part B – Farm Environment Plan Default Content**

The plan requirements will apply to:

- (a) a plan prepared for an individual property; or
- (b) a plan prepared for an individual property which is part of a collective of properties, including an irrigation scheme, an Industry Certification Scheme, or catchment club.

The plan shall contain as a minimum:

1. Property details
  - (a) Physical address
  - (b) Description of the ownership and name of a contact person
  - (c) Legal description of the land and farm identifier
2. A map(s) or aerial photograph at a scale that clearly shows:
  - (a) The boundaries of the property
  - (b) The boundaries of the main land management units on the property.
  - (c) The location of permanent or intermittent rivers, streams, lakes, drains, ponds or wetlands.
  - (d) The location of riparian vegetation and fences adjacent to water bodies.
  - (e) The location on all waterways where stock access or crossing occurs.
  - (f) The location of any areas within or adjoining the property that are identified in a District Plan as “significant indigenous biodiversity”.
3. The full text of any resource consents held for the property and the conditions of the consents.
4. An assessment of the environmental effects and risks associated with the farming activities on the property and how the identified effects and risks will be managed, including irrigation, application of nutrients, effluent application, stock exclusion from waterways, offal pits and farm rubbish pits.
5. A description of how each of the following will, where relevant, be met.
  - (a) Nutrient management: To maximise nutrient use efficiency while minimising nutrient losses to water.
  - (b) Irrigation management: To operate irrigation systems efficiently and ensuring that the actual use of water is monitored and is efficient.
  - (c) Soil management: To maintain or improve the physical and biological condition of soils in order to minimise the movement of sediment, phosphorus and other contaminants to waterways.
  - (d) Collected animal effluent management: To manage the risks associated with the operation of effluent systems to ensure effluent systems are compliant 365 days of the year.
  - (e) Livestock management: To manage wetlands and water bodies so that stock are excluded as far as practicable from water, to avoid damage to the bed and margins of a water body, and to avoid the direct input of nutrients, sediment, and microbial pathogens.
  - (f) Offal pits and rubbish pits: To manage the number and location of pits to minimise risks to health and water quality.
6. The plan shall include for each issue in 5 above:
  - (a) detail commensurate with the scale of the environmental effects and risks;
  - (b) defined measurable targets that clearly set a pathway and timeframe for achievement, and set out defined and auditable “pass/fail” criteria;
  - (c) a description of the good management practices together with actions required;
  - (d) the records required to be kept for measuring performance and achievement of the target.

7. Nutrient budgets are prepared by a suitably qualified person using a nutrient budget model, (such as OVERSEER<sup>TM</sup>), for each of the identified land management units and the overall farm.

### **Part C – Farm Environment Plan Audit Requirements**

The Farm Environment Plan must be audited by a Farm Environment Plan Auditor who is independent of the farm being audited (is not a professional adviser for the property) and has not been involved in the preparation of the Farm Environment Plan, either personally or as an employee or contractor of the industry group, supplier or consultancy that has prepared the Farm Environment Plan.

The Audit framework will give a grade of A, B or C for the Farm Environment Plan itself, and a grade of A, B or C for performance against the Farm Environment Plan actions.

The Farm Environment Plan will be assessed against the following minimum criteria:

1. Whether the Plan is technically sound and feasible
2. Does the Plan identify and address the principal environmental effects and risks?
3. Does the Plan enable all statutory obligations, including resource consents, to be met?
4. Is the detail in the Plan, actions and timeframes for achievement commensurate with the scale of the environmental effects and risks?

The farming activity occurring on the property will be audited against the following minimum criteria:

1. Compliance with all relevant statutory requirements;
2. An assessment of the performance against the targets, good practices and timeframes in the Farm Environment Plan;
3. An assessment of the robustness of the nutrient budget/s;
4. An assessment of the efficiency of water use (if irrigated).

Farm Environment Plans shall be audited annually and the audit results provided to the CRC no later than 31 December for the previous 1 July to 31 June year, or such other annual period nominated. Once a farm environment plan review and audit period is nominated, each successive audit may be no more than 12 months apart.

A grade of “A” for the Farm Environment Plan itself and “B” for performance against the Farm Environment Plan actions is considered an “A-B” grade in terms of Rules 5.39-5.51.

Any audit result that does not result in an “A-B” grade may be submitted with a revision of the farm environment plan, a list of corrective actions and a follow-up audit that shows an “A-B” grade within 6 months of the original audit without penalty under Rules 5.39 to 5.51.

### **Part D – Farming Information**

Whenever one of Rules 5.39-5.51 requires information to be submitted, the following information is to be provided either in writing or via the Canterbury Regional Council’s website:

- 1 The site area to which the farming activity relates;
- 2 A map or aerial photograph marked to identify the different blocks within the farm and the area in hectares of each;
- 3 Identification of any wetlands, watercourses, drains and swales on or adjacent to the property;
- 4 Monthly stocking rates (numbers, types and classes) including breakdown by stock class;
- 5 Annual yield of arable or horticultural produce;
- 6 A description of the farm management practices used on each block including:
  - (a) Ground cover – pasture, crops, fodder crops, non-grazed areas (including forestry, riparian and tree areas);
  - (b) Stock management – lambing/calving/fawning dates and percentages, any purchases and sales and associated dates, types and age of stock;
  - (c) Fertiliser application – types and quantities per hectare for each identified block;
  - (d) Quantities of introduced or exported feed;
- 7 Farm animal effluent, pig farm effluent, feed pad and stand-off pad effluent management including:
  - (a) Area of land used for effluent application;
  - (b) Annual nitrogen loading rate and nitrogen load rate per application;
  - (c) Instantaneous application rate;
- 8 Irrigation – areas, rates, monthly volumes and system type.

The information is to collated for the period 1 July to 31 June in the following year and be provided annually, no later than the 31<sup>st</sup> of October.<sup>106</sup>

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<sup>106</sup> A range of submission points have been used to develop the above provisions. In particular, the following submissions have been used to formulate the recommendations: Deer Farmers Assn (Canty) (175), Horticulture NZ (326), Beef and Lamb (318), Fed Farmers (Combined Canty) (320), Fonterra (270), C & PH ChCh (93), and the Fertiliser Assn (239).

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## 9.5 Schedule 8

Schedule 8 of the pLWRP is essentially blank at this point, and is there as a place holder for future development of “industry articulated nitrogen discharges”. It currently states:

### ***Schedule 8 - Industry Derived Nitrogen Discharges***

*This Schedule is currently blank, but will be established, to articulate industry developed good-practice discharge allowances, and build upon Report No. R10/127 Estimating nitrate-nitrogen leaching rates under rural land uses in Canterbury.*

Fed Farmers (Combined Canty) seeks the following amendments to this Schedule:

- Retain flexibility as to what the values in Schedule 8 represent and how they are to be used because thinking is evolving along with increased information and improved understanding of relevant processes.
- Aim to improve the environmental performance of primary industries - for individuals this must be reasonable and able to be achieved in a cost effective manner.
- Define good practice based on productive, profitable farms.
- Focus on all critical factors relevant to water quality outcomes (at least N, P & sediment).
- Provide flexibility to allow for the adjustment of farming systems.
- Allow for 90% of farms to be a permitted activity post-2017

Blue Gum Trading Ltd and Maungatahi Farm Limited seek that nutrient discharges below 20 kg/ha are a permitted activity.

Several submissions seek to delay the enforcement of any rules for managing nutrient discharges until the Hurunui / Waiau Zone committee has fully considered the Waipara Catchment and reported its findings and recommendations.

Several submissions, including Freshpork Farms Limited, seek the following amendments:

- Good management practice targets.
- Explicitly state the goal is to allow for 90% of farms to be a permitted activity post 2017
- Give flexibility to allow for the adjustment of farming systems.
- Allow for focus on critical environmental factors (present focus solely on N will not work in catchments where some other factor, such as P, is having most influence on environmental indicators)

Ms Hilary Iles seeks that this Schedule should be formed in a scientifically robust and open manner.

Mr Samuel Nevin seeks that ECAN include an interim Rule and/or Table and/or Schedule outlining acceptable increases in nutrient loading and leaching on a per hectare basis arising from a "change" in land use in each colour for the Nutrient Allocation Zones. The interim measure will be superseded by Schedule 8.

Several submitters, including Mr Alec Baxter, seek as a first preference, to delete the provisions for managing nutrient discharges from the Waipara Catchment and address the matter through the sub-regional plan section in due course.

Several submissions, including Mr Alec Baxter, seek as a second preference, develop appropriate nutrient discharge allowances or other controls for existing farming activities first, and then notify the plan provisions once they have been developed. They seek to include the following rules:

The discharge of nutrients from any farming activity is a permitted activity provided it complies with all of the following conditions:

- (i) The farming activity does not carry more than 10 stock units per hectare averaged over any two year period;
- (ii) Fertilizer (except for urine and dung discharged by animals grazing on the property) is not applied to any land area more than once in any six month period;
- (iii) Any fertilizer application complies with rules 5.52 and 5.53;
- (iv) The land area is not irrigated;
- (v) The land area is not used to spread stored effluent; and
- (vi) The land area is not used to graze dairy herds.

Any activity which does not comply with these conditions shall be a permitted activity if it complies with the nutrient discharge allowance for that activity shown in the plan and that nutrient discharge allowance is less than 20kg/ha/yr; or

A discretionary activity if it cannot comply with the nutrient discharge allowance or the nutrient discharge allowance is over 20kg/ha/yr.

Schedule 8 of the pLWRP is essentially blank at this point, and is there as a place holder for future development of “industry articulated nitrogen discharges”. The project to develop the tables to fill out Schedule 8 is on-going, but has had a number of changes of programme and commitments, such that the reference to the particular document contained in the schedule is no longer appropriate. It is still an essential component of the overall approach to nutrient management within the Plan and while at this stage there is some uncertainty as to the exact final outcome of the Schedule 8, it is recommended to be retained as a specific location to include the good practice information, as it is developed.

### **Recommendation S8**

That Schedule 8 be amended to read:

#### *Schedule 8 – Nutrient Management ~~Industry Derived Nitrogen Discharges~~*

*This Schedule is currently blank, but will be established, to articulate ~~industry developed~~ good-practice nutrient management. ~~discharge allowances, and build upon Report No. R10/127 Estimating nitrate-nitrogen leaching rates under rural land uses in Canterbury.~~*<sup>107</sup>

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<sup>107</sup> 239.77 Fertiliser Assn

## **9.6 Nutrient Allocation Zone Mapping**

The mapping of nutrient allocation zone status is shown on page 4-8 of the pLWRP, and is shown in more detail on the Series A planning maps.

Mr Ross Little seeks an amendment to remove the Waipara River catchment from the red zone classification for nutrient zone management, and a separate classification is used for catchments such as the Waipara where there are natural effects causing algal growth, as this requires different consideration in the Plan provisions.

CRC seeks the following amendments:

- The key on all maps to be altered so that the term “Sensitive Lake Catchments” is altered to “Lake Zone”.

Birchwood Run and West Edge Limited seek to amend zoning maps so that:

- There is an option to use methods other than Overseer other to establish to a similar or better level likely or actual nitrate outputs from the land use;
- The nutrient zoning is suspended until such time as the zones have been redefined on the basis of more appropriate localised boundaries based on more robust and appropriate data.

Mr William Palmer seeks the following amendments:

- Remove Red nutrient zones which do not drain towards Lake Ellesmere. Or,
- Classify Red nutrient zones as 'at risk' as the default position, until further technical work has been done

Irricon seeks ECAN to provide justification to the public as to how the nutrient allocation zones were decided upon to ensure they are scientifically robust.

Meridian seeks to retain the following as shown on the Planning Maps unchanged:

- The “over allocated” nutrient allocation status of the Upper Waitaki - Ahuriri Arm;
- The “at risk” nutrient allocation status for the remainder of the Upper Waitaki Catchment;
- The extent of the sensitive lake catchments (lake zones) for Lakes Middleton, the Wairepo Arm, and Kellands Pond;

Meridian and Hunter Downs also seek to amend the planning maps to address the following issues:

- The water quality management units for lakes are not shown and are indistinguishable from the nutrient allocation zones shown on the A maps;
- The notation used on the planning map index to refer to Septic Tank Suitability does not correspond with the notation used on the A map key, and conflicts with the notation used for HH soil erosion areas;
- The notation used on the map index to refer to aquifer systems does not correspond with the notation used on the B maps;
- The notation used on the map index to indicate where the “damming fill flow is prohibited” does not relate to any policy or rule in the Proposed Plan;

Dairy NZ seeks that the map of nutrient zones be reviewed and rezoned in light of the technical review, prior to the LWRP Hearings. Change the rule regime in accordance with the proposed activity statuses for Rules 5.43-5.45 and 5.47-5.49.

Tinline Downs Trusteed Limited seeks that the map be revised based on a ruling which used to exist prior to the 11 August 2012 that large farm areas over a certain size be exempt from these ridiculous

rules. They seek to revert back to the original rules and remove the map which doesn't correctly identify the area for septic tank suitability at all.

Blue Gum Trading Ltd and Maungatahi Farm Limited seek to reclassify the gully from Bain Road to Waipara River on map A-037 - Hill Fed - lower (green).

Mr David Barlass seeks that the property located at 713 Mt Hutt Station Road be classified green and not red on Map A-056.

Ms Debra Hasson seeks to amend Map1 B-66 and insert pink lines representing the spring-fed plains flows for Silverstream, McGraths and Snake creeks flowing to Coes Ford, Selwyn River.

Ellesmere ISI seeks to delete the map and produce new maps with correct information.

Opuha Water Limited seeks to include Lake Opuha on planning map A-082.

Mr Peter Farrant opposes map A-095 as he rejects the existing and incorrect "small to medium sized high country Lake" classification and seeks to reclassify it correctly as "Artificial lakes on Other".

Ohau Protection Society Incorporated seeks the retention of Lake Middleton, the Wairepo Arm of Lake Ruataniwha, the whole of Lake Ruataniwha, Lake Ohau and the Kelland Ponds as a "sensitive lake catchment". They also seek to consider including all lakes in the Mackenzie high country as "sensitive lake catchments".

Fed Farmers (Combined Canty) seeks to review the nutrient allocation zones using a robust and transparent process, based on criteria which recognise that the Canterbury plains is a highly populated working landscape. Provide sound scientific/technical justification for the criteria used and a rigorous analysis of the social and economic impacts of applying nutrient allocation zones.

Several submissions oppose in full the Nutrient Zones map until a robust review has been undertaken to determine whether the colour values are appropriate to meet environmental, economic and social impacts on the region.

Ellesmere ISI seeks to delete the map or revise when more knowledge is known about the nutrient levels in these areas.

Mr Robert Johnston seeks a review of the Nutrients Zones map to ensure it is credible, defensible and fit for purpose.

RFBPS (Ashburton) seeks to add Lake Denny, and possibly the Spider Lakes group to the "Sensitive Lake Catchment" on the map of "Nutrient Zones".

Maghera Farms Limited seeks to oppose a one size fits all approach taken in the Nutrient Zones map particularly in relation to Kaikoura.

Several submissions, including Mr Hugh Wigley, seek that the nutrient zone map is redone to include only nitrogen losses and is peer reviewed.

Mr Mark Hunter objects to the zoning of their property. It appears to be zoned red for nutrients.

Rab McDowell seeks to redraw Nutrient Allocation Zones to more accurately reflect community knowledge and aspirations.

Nga Runanga seeks to replace by way of Variation to PLWRP Nutrient Zone Map (p4-8) with a map classifying the Region into two nutrient zones based on the sensitivity of the receiving environment to further nutrient enrichment from land uses and non-point source discharges.

Factors considered in identifying the sensitivity of the receiving environment should include not only current water quality, but the propensity of land uses to contribute to nutrient enrichment in water bodies in the catchment considering soil types, geography and geohydrology, and the sensitivity of the receiving ecosystems to nutrient enrichment.

The Nutrient 1 Zone should include catchments where land uses are not making a contribution or a significant contribution to poor water quality in the catchment.

The Nutrient 2 Zone should include catchments where non-point source discharges from land uses are the cause of poor water quality and any intensification of land uses discharging more than 20kgn/ha/yr, will result in degradation of water quality in the catchment.

The nutrient allocation zone mapping has received a large number of submissions. These fall into three major categories:

- Requests for specific properties and sites to be changed in terms of their allocation status.
- A substantial technical review of the methodology used to develop the nutrient allocation zone mapping.
- An appreciation of other criteria, such as the need for economic development and the highly modified nature of the Canterbury Plains, to be included as criteria for the mapping process.

Overall, the framework behind the mapping was outlined in a Memo titled “Derivation of nutrient status zones” attached as Appendix 6 the Section 32 Report. The basic criteria and analysis contained in that memo continues to stand, and Dr Adrian Meredith, as the primary scientist responsible for the mapping continues to stand behind both the methodology and the outcomes.

There will continue to be debate about the scientific methodology, the broad scale at which the mapping has been undertaken and the appropriateness of individual properties being included within the mapped areas.

It is also apparent that some of the frustrations from the mapping have arisen due to the lack of connection between the mapping and some of the rule frameworks, particularly related to the focus on nitrogen. As has been stated above, this focus is recommended to be broadened, as has been included in the recommendations above.

The nutrient allocation mapping is also a tool to prioritise the development of the sub-regional sections and this sub-regional section development will allow catchment specific approaches, which may entail alternative criteria and mapping scales.

On the basis of the reasoning above, no amendments to the mapping, either through a technical review or alterations to exclude or include specific properties has been recommended for acceptance.

***Recommendation RMap***

That the Nutrient Allocation Zone mapping be retained without amendment.

## **9.7 Submissions on the Nutrient Management Provisions Generally**

The following submission points cover a variety of issues relating to nutrient management, often at a more conceptual level. They are recorded for completeness, and all have been considered in the development of the recommended provisions above. No specific recommendations are made with respect to these submissions points.

Mr & Mrs M N & S H McKenzie seeks as a first preference, to delete the provisions for existing farming activities and manage any 'claw-back' of over-allocated catchments through the sub-regional plan sections.

Castle Ridge Station Limited seeks to amend plan to acknowledge that N discharge may not be the primary issue in the environment. Amend Farm Management Plans as voluntary tools.

CCC seeks that the Plan should:

- Be consistent in the use of the terminology, and/or define difference between 'good' and 'best' practice.
- Indicate how the 'good' or 'best' practice can be determined, such as through industry best practices guidelines

One or other of the terms should be selected if the intended meaning for both terms is the same. If there is a need to use both 'good' and 'best' practice, then these terms need to be clearly distinguished from one another, preferably with clear and distinctly different definitions of both terms in Section 2 Definitions.

Mr Neville & Mrs Andrea Chalmers express general support for CWMS. Concern about use of OVERSEER as a nutrient management tool for arable farming because it is not designed to be a "within season" tool. General concern at the way nutrient allocation zones have been mapped and a request for sufficient time to adapt to nutrient discharge limits.

DairyNZ seeks the following amendments:

- Seeks an independent technical review of the Nutrient Allocation Zones Maps
- Seeks a change to the nutrient management rules regime to account for the significant economic and social costs that are likely to accrue to farmers and the regional and national economies.
- Clarify in the decisions on the plan that the economic implications of water quality limits, and associated social impacts, are taken into account.
- Seeks a thorough consideration of costs and benefits of a range of different allocation mechanisms before notifying an allocation mechanism.

Mr Hamish Rennie seeks to replace "good practice" throughout the Plan with "best practice" to reflect established RMA wording. This should refer to an approved programme which should be approved by the Minister for the Environment (wording similar to that for Commissioner's courses) plus professional certification from NZARM or EIANZ for full membership of NZPI.

Fish & Game seek the following amendments:

- That land use and ancillary discharge rules for both intensive and extensive land uses manage sediment, faecal, phosphorus, and nitrogen discharges, and include standards (limits or targets) in relation to these contaminants;
- That in at or under allocated catchments (where numerical water quality or quantity limits are met but not exceeded) Land use and ancillary discharge activities are regulated to

discharge/ leaching standards to ensure that at a minimum the water resource (quantity and quality) is used efficiently;

- That in over allocated catchments (where numerical water quality or quantity limits are currently being exceeded) Land use and ancillary discharge activities are regulated to discharge/ leaching standards which are set to progressively decline over time to ensure that discharges/ leaching is reduced to meet the receiving water numerical limits/ targets and achieve the objectives of the Plan;
- That land use and ancillary discharge activities are regulated to ensure that 'good environmental management' practices are achieved at a minimum;
- That land use and ancillary discharge activity rules are holistic;
- That land use and ancillary discharge activity rules meet the requirements of s70 RMA, and relevant planning considerations;
- That nitrogen leaching rights are allocated within catchments in such a way that there is equitable allocation of a total catchment nitrogen limit to all users/activities who may wish to use the available resource;
- That nitrogen leaching standards are established and allocated based on the natural capacity of soil such as Land Use Capability or a similar alternative;
- That a nutrient transfer or trading regime is established where catchment caps have been established to enable nitrogen leaching reductions to be achieved at least cost and to enable maximum flexibility of resource use to enable economic benefits to be maximised from the available resource;

RFBPS (Canty, West Coast) strongly supports the intent of the Plan to limit nutrient and contaminant losses on the basis of their cumulative environmental effects, so that they do not exceed defined parameters, or bottom lines. They also strongly support the setting and achieving of ecologically defensible environmental flows for all water bodies.

Although this is the apparent intent of the Plan, it falls short of a credible, definitive path to keeping water contamination within defined limits and bringing environmental flows up to defined levels in several important respects:

- The timelines are too loose: Environmental conditions are almost certain to worsen in the interim as a result.
- Existing uses, a key vector in creating the current (worsening) situation, are not adequately captured.
- The Plan needs regionally consistent, ecologically defensible water quality targets and limits for nutrients and contaminants. RFBPS adopt Fish & Game's amended Table 1 which in our view better provides these numerical values than the Proposed Plan.
- Regional limits should be applicable to the whole region. The Proposed Plan encourages each of the 10 zones to decide on their own limits, which then take precedence over the regionally defined limits. This introduces a high level of uncertainty for the environment and is not consistent with the NPS on freshwater.
- The 'Permitted Activity' status for so many activities does not provide the clearly defined, monitored and enforced compliance regime that is clearly needed to clean up our rivers, lakes and groundwater or prevent them from deteriorating further.

Several submissions, including P J and J E Harrison Lochaber Station, seek that ECAN provide justification to the public as to how the nutrient allocation zones were decided upon to ensure they are scientifically robust.

Several submissions, including Mr Alec Baxter, seek to introduce a new policy which reads: "In the Blue/X Zone, to ensure any change in land uses and associated increase in nutrient discharges do not, singularly or cumulatively, exacerbate periphyton growth or any other water quality issues in the catchment." As a second preference, they seek to reclassify the Waipara Catchment from Red Zone

to Blue Zone (unclassified); or develop a new classification for catchments such as the Waipara where water quality outcomes for periphyton are not being met but which the predominant cause is not nutrient discharges from land uses.

Ravensdown seeks the following amendments:

- Provide an indication of which rules implement the policies.
- The strategic objectives (Policies 4.1 -4.8) are all water related with no strategic policies for land.
- There are no references to Schedule 8 (Industry Derived Nitrogen Discharges) in the Strategic Policies.
- The policies are not written using the SMART approach (specific, m measurable, achievable, r realistic, and with time frames) As a result many are poorly written, and require clarification and amendment.
- Question the appropriateness of figures in Policy 4.1 to represent the outcomes for Canterbury rivers, lakes and aquifers being expressed through objectives and policies.
- Policies refer to '*catchments*'; however these are not water catchment areas, but catchment committee boundaries. This causes some confusion when considering policies.

CJ & AM Allen seeks to add a new policy that allows farming activities to disregard nutrient rules at a time of bio security incursion or animal welfare issue directed by government agency i.e. TB and associated stock movement controls

Mr Paul Davey opposes the Rules as they stands until a robust review has been undertaken that determines if the zones' colour values are appropriate to meet environmental objectives as well as reflect the social impacts on the region.

Several submissions, including Greenfield Rural Opportunities Limited, seek the following amendments:

- amend all other rules in section 5 that apply to farming activities to ensure that existing lawfully established farming activities are a permitted activity if they have in place adequate measures to ensure that they do not release nitrate into the receiving environment in a way, rate or at a location that will cause unacceptable adverse effects on water quality in water bodies.
- that the rules in section 5 be amended to include permitted activity rules that expressly allow the application of dairy effluent to land where:
  - It is very unlikely that any nutrient from the application activity may enter water; or
  - If it does there will be minimal adverse effects due to the nature and location of the discharge and the receiving environment.
- Insert a controlled activity rule for dairy effluent application where standard conditions and receiving environment nature are unlikely to ensure adverse effects on water quality are avoided, remedied or mitigated to the requisite level.
- Amend the discretionary activity rule to ensure it only applies to those activities which cannot meet the permitted or controlled activity conditions.

Birchwood Run and West Edge Limited seek to amend all other rules in section 5 that apply to farming activities to ensure that existing lawfully established farming activities are a permitted activity if they have in place adequate measures to ensure that they do not release nitrate into the receiving environment in a way, rate or at a location that will cause unacceptable adverse effects on water quality in water bodies.

Fonterra seeks the following amendments:

- (i) Include a new permitted activity rule:  
*“Prior to 1 July 2017, the use of land for a change to an existing farm activity is a permitted activity if building consents for a dairy shed were obtained prior to 1 January 2013.”*  
Or words to like effect; or
- (ii) Include a new permitted activity rule where the land owner can show a financial commitment to change entered into before 11 August 2012; or
- (iii) Include a new permitted activity rule that permits the use of land for a change to an existing farm activity on listed or scheduled properties, where evidence shows that land use change on those properties commenced before notification of the Plan.
- (iv) Through amendments to the Rules, the definitions and Schedule 7, make clear that a farmer participating in the Supply Fonterra programme need not have any additional audit requirements.

Horticulture NZ seeks to add the following Rules:

Rule 5.xP

Prior to 1 July 2017 the use of land for a change to an existing arable and horticultural operation is permitted if the following conditions are met:

1. The operation has an audited self-management programme.
2. Nutrient losses over a rotation are estimated using an appropriate modelling tool, such as APSIM or LUCI, if available for the crops being grown, and provided to CRC upon request.

Rule xRDA

Prior to 1 July 2017 the use of land for a change to an existing arable and horticultural operation that does not meet the requirements of Rule 5.xx will be a restricted discretionary activity.

The matters of discretion will be those matters set out in Rule 5.43.

CJ & AM Allen seeks to add a new Rule that specifically allows farming properties that have been leased out, that at end of lease the farm property can be farmed in a way that is appropriate to its farm type and physical characteristics and not pre-determined by lessor farming practices. Including in red zones.

Ms Jane Demeter seeks to add a new rule for 2015 that requires land owners in red and orange coloured catchments to show a decrease in nutrient loss from 2013.

Nga Runanga seek to develop appropriate nutrient discharge allowances for existing farming activities and notify the provisions for existing farming activities once they have been developed. They also think there is an opportunity here to introduce a regime where industry groups hold the necessary resource consents for nutrient discharges on behalf of their industry sector and undertake Audited Self Management.

RFBPS (Canty, West Coast) seeks a more consistent and simple approach would be to require each farm to have a single consent covering all discharges; whether from shed effluent, grazing animals, fertiliser application (whether urea or animal waste), or silage pits.

Ellesmere ISI seeks to delete the title "Farming" and replace with following: 'Nitrogen Loss'. Castle Ridge Station Limited seeks to amend the heading "Farming" to "Nutrient Management". Poultry Assn & Egg Producers seeks that the heading be amended to "Discharge to Land" or words to similar effect.

EDS seeks to amend the rules so that a change in farming activities within an area coloured orange is a discretionary activity and a change in farming activities within an area coloured red is a non-complying activity regardless of whether condition 2 to Rule 5.46 is complied with.

CRC seeks the following new Rule to be added immediately after Rule 5.45 as follows:

5.X Prior to 1 July 2017, the use of land for a change to an existing farming activity that does not comply with one or more of Conditions 2 to 6 in Rule 5.42 is a discretionary activity.