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| AGENDA ITEM NO:      | SUBJECT MATTER:<br><b>Options for making dryland farming a permitted activity</b> |
| AUTHOR: Lisa Jenkins | DATE OF MEETING: 21 August 2017   |

## Action required

The Zone Committee agree the options to be evaluated to permit dryland farming in the Hurunui Waiau Zone, noting that the technical information for evaluation of these options will not be available until the end of October 2017.

## Introduction

At the 19 June 2017 Zone Committee meeting the Committee agreed to a list of important and urgent issues and proposals for progressing these by December 2018. Changing the HWRRP to provide for dryland farming as a permitted activity was a key issue to be addressed. Included in the proposed actions for progressing this issue, was the identification of a range of options.

This paper sets out a range of options. The purpose of the paper is not to seek recommendations on what options are preferred, but rather to seek agreement that these are the options that should be further investigated and evaluated by the Committee, and identify if there are other options the Zone Committee would like to see included.

## Background

The HWRRP introduced provisions for managing the cumulative effects of land use on water quality. Included in those provisions were rules and a definition to manage land use intensification. These rules and definition are collectively referred to as "the 10% rule". The 10% rule had the unintended effect of requiring all dryland farming operations in the Hurunui catchment to gain resource consent.

In 2015 Environment Canterbury issued an advice note setting out the approach that would be taken to compliance with the 10% rule. The approach effectively stated that Environment Canterbury would not priorities compliance action where no actual change in land use has occurred. The advice note goes on to set out what would be considered an actual change in land use.

While this approach has provided some relief to dryland farmers, uncertainty remains and the Zone Committee has indicated a preference to change the HWRRP to provide greater certainty that dryland farming can continue as a permitted activity.

The National Policy Statement for Freshwater Management (NPSFM) requires that water quality is "maintained or improved". A change in activity status for dryland farming could only be progressed where it can be shown that water quality would at least be maintained. For this reason, the options that are proposed to be investigated and evaluated include various mechanisms for limiting increases in nutrient loss from permitted activity dryland farming.

Technical information is currently being gathered to assist in the evaluation of options. The technical information being gathered includes estimates of nutrient source loads within the Hurunui catchment. It is anticipated that this information will be available, in draft form, near the end of October. Other technical information is nearing completion, including current state social and economic assessments.

## The Options

Five options are set out below. These options represent a range of possible approaches. It is not currently known if these options will achieve the NPSFM requirement to maintain water quality.

In considering these options, we ask that the Committee avoids spending too much time discussing the details of the options, and does not debate the merits of one option or another. Further investigation will inform that, these options just provide the starting point. We are not asking the Zone Committee to agree to a particular option. We would like to know if there are other options that should be considered, and if the Zone Committee are happy that these are the options that should be investigated further.

The five options are:

1. Do nothing – continue with the existing rules and the advice note approach
2. Apply the advice note approach to the definition of “change of land use”
3. Apply PC5 winter grazing limits to the definition of “change of land use”
4. Apply PC5 winter grazing limits to the definition of “change of land use” to provide for a permitted amount of irrigation development (50ha) as per PC5
5. Include a new rule that permits dryland farming within PC5 limits

### Option 1 – Do nothing

| What does it look like?  | Notes  |
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| <p>Make no change to the HWRRP. Keep advice note in place and continue with business as usual.</p> | <p>Risk to Environment Canterbury if we continue to not implement the Plan as written.</p> <p>Community have expressed strong desire for greater certainty through a plan change</p> |

### Option 2 – Change definition to include limits as stated in the advice note

| What does it look like?   | Notes   |
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| <p>The definition of “change in land use” is amended to state:</p> <p>Change in land use means:</p> | <p>For clarity, should also consider including a definition of “normal dryland farming”</p> <p>e.g.</p> |

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| <p>For the purposes of this Plan, a change in land use, is calculated on a per property basis, and is determined as being an increase greater than 10% in the long-term average release of Nitrogen or Phosphorous to land which may enter water, measured on a kg/ha basis, but calculated on the gross per property from the date this Plan is made operative</p> <p><u>For the purpose of this definition, a change in land use from normal dryland farming is considered to include the following:</u></p> <ol style="list-style-type: none"> <li>1. <u>Increasing irrigation</u></li> <li>2. <u>Converting to dairying</u></li> <li>3. <u>Increasing the number of adult cattle wintered on a property with or without irrigation (noting that the scale of the increase will determine if this is a “change in land use” and farmers should seek advice from Environment Canterbury)</u></li> <li>4. <u>Undertaking a feedlot or feedlot support operation</u></li> <li>5. <u>Conversion to arable cropping with or without irrigation.</u></li> </ol> | <p><u>A farming system characterised by the raising of sheep and/or beef cattle, at a seasonally variable stocking rate that can be supported with no irrigation, and where supplementary feed is generally grown on farm (hay, silage and fodder crops) to enable retention of stock over periods of limited feed growth (winter and summer). It does not include dairy, dairy support, arable cropping or feedlot farming systems.</u></p> |
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### Option 3 - Change definition to include winter grazing limits aligned with PC5

| What does it look like?   | Notes   |
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| <p>The definition of “change in land use” is amended to state:</p> <p><u>For the purposes of this Plan, change in land use means:</u></p> <ol style="list-style-type: none"> <li>1. <u>for farms under partial or full irrigation as at 20 December 2013:</u> <ol style="list-style-type: none"> <li>a. <u>An increase greater than 10% in the long-term average release of Nitrogen or Phosphorous to land which may enter water, measured on a kg/ha</u></li> </ol> </li> </ol> | <p>There are some issues that will need to be resolved through further investigation, evaluation and consultation:</p> <p>Is the root/brassica winter feed distinction appropriate?</p> <ul style="list-style-type: none"> <li>• How can we distinguish between normal dryland farming practice and more intensive dairy support?</li> <li>• Is there another indicator such as a stocking rate?</li> <li>• Some root crops like turnips are probably grazed less intensively than, say, sugar beets - i.e. cattle</li> </ul> |

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| <p><u>basis, but calculated on the gross per property from 20 December 2013</u></p> <p>2. <u>For the purposes of this Plan, a change in land use for non-irrigated farms as at 20 December 2013 means:</u></p> <p>a. <u>Development of irrigated land</u></p> <p>b. <u>Conversion to a dairy or arable cropping system</u></p> <p>c. <u>Development a feedlot/feedlot support operation</u></p> <p>d. <u>An increase, from 20 December 2013, in the area of the property used for winter grazing of brassica or root vegetable forage crops of more than:</u></p> <p>i. <u>10 hectares, for any property less than 100 hectares in area; or</u></p> <p>ii. <u>10% of the area of the property, for any property between 100 hectares and 1000 hectares in area; or</u></p> <p>iii. <u>100 hectares, for any property greater than 1000 hectares in area.</u></p> | <p>allowed to graze a larger area = less pugging, better spread of effluent etc</p> <p>Is the 2013 date appropriate with regard to point (2)(d)? - do we have baseline information to check this against?</p> <p>Would the limits work on a total ha basis rather than total increase from 2013 basis?</p> <p>Is a limit of 100ha winter grazing acceptable for permitted dryland farming?</p> <p>Is irrigated/non-irrigated a fair distinction - how will this work for/against partially irrigated dryland?</p> <p>Improved farm drought resilience is going to be an issue to consider - how can this be provided for outside of "irrigation development"</p> <p><b>No need to answer these questions today!!</b></p> |
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**Option 4 - Change definition to include winter grazing and permitted irrigation limits aligned with PC5**

| What does it look like?  | Notes   |
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| <p>The definition of "change in land use" is amended to state:</p> <p>For the purposes of this Plan, change in land use means:</p> <p>1. <u>for farms under partial or full irrigation as at 20 December 2013:</u></p> <p>a. An increase greater than 10% in the long-term average release of Nitrogen or Phosphorous to land which may enter water, measured on a kg/ha basis, but calculated on the gross per property from 20 December 2013</p> <p>2. <u>for non-irrigated farms as at 20 December 2013:</u></p> <p>a. <u>Development of more than 50ha of irrigated land</u></p> | <p>This is the same as option 2 above but also provides for some limited permitted irrigation development.</p> <p>There is a serious question around whether this amount of additional irrigation can be provided for within the context of the NPSFM requirement to maintain water quality – further investigation needed.</p> |

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| <ul style="list-style-type: none"> <li>b. <u>Conversion to a dairy or arable cropping system</u></li> <li>c. <u>Development a feedlot/feedlot support operation</u></li> <li>d. <u>An increase, from 20 December 2013, in the area of the property used for winter grazing of brassica or root vegetable forage crops of more than:</u> <ul style="list-style-type: none"> <li>i. <u>10 hectares, for any property less than 100 hectares in area; or</u></li> <li>ii. <u>10% of the area of the property, for any property between 100 hectares and 1000 hectares in area; or</u></li> <li>iii. <u>100 hectares, for any property greater than 1000 hectares in area.</u></li> </ul> </li> </ul> |  |
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### Option 5 – New permitted activity rule for dryland farming

| What does it look like?  | Notes   |
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| <p>A new rule is added to the HWRRP as follows:</p> <p>Rule 10.1A<br/>Any dryland farming where:</p> <ol style="list-style-type: none"> <li>1. The total irrigated area is less than 50ha</li> <li>2. The total area of the property used for winter grazing of brassica or root vegetable forage crops is not more than: <ol style="list-style-type: none"> <li>a. 10 hectares, for any property less than 100 hectares in area; or</li> <li>b. 10% of the area of the property, for any property between 100 hectares and 1000 hectares in area; or</li> <li>c. 100 hectares, for any property greater than 1000 hectares in area.</li> </ol> </li> <li>3. On or before 1 January 2017 the land is subject to: <ol style="list-style-type: none"> <li>a. An Industry Certification System; or</li> <li>b. A Catchment Agreement; or</li> <li>c. An Irrigation Scheme Management Plan; or</li> <li>d. A Lifestyle Block Management Plan; and</li> </ol> </li> <li>4. a record of the annual average amount of nitrate-nitrogen and phosphorus loss from the land, for the period from 1 July 2012 to 30 June 2016, calculated using the Overseer nutrient budget model (or an alternative nutrient budget model approved by the Canterbury Regional Council) shall be submitted to the Council by 1 October 2016. For production land use activities</li> </ol> | <p>To work, this rule would need a good definition of dryland farming (see option 2).</p> <p>There is a question around being able to provide for some permitted irrigation and still comply with the NPSFM requirement to maintain water quality – further investigation needed.</p> <p>Conditions 3 – 6 of the draft rule for evaluation are copied from existing Rule 10.1.</p> <p>NPSFM requires catchment accounting. Including a new rule for dryland farming may result in inconsistency in requirements of catchment accounting between dryland and other farming systems.</p> <p>Will require a good definition of dryland farming (see option 2).</p> |

where Overseer cannot adequately model nutrient losses, an alternate method such as nutrient loading rates (e.g. kgN/ha/year deposited on the land) for the period from 1 July 2012 to 30 June 2016 shall be submitted to the Council by 1 October 2016;

5. any nitrate-nitrogen leached from the land shall not cause or contribute to any measured exceedence of the Policy 5.3 and Policy 5.3A limits for the 95<sup>th</sup> percentile concentration of nitrate-nitrogen in the mainstem or tributaries of the Hurunui and Waiau Rivers; and
6. contaminants leached from the land shall not cause or contribute to any measured breach of the Resource Management (National Environmental Standards for Human Drinking Water) Regulations 2007 or the guideline values or maximum acceptable values for determinands in the Drinking Water Standards of New Zealand 2008 for any registered drinking water supply takes.

## Recommendations

It is recommended that the Zone Committee confirms options 1 – 5 above, for making dryland farming a permitted activity, are appropriate options to be investigated and evaluated.