My name is Dan Hodgen.

I farm 3 properties totalling 535 hectares near Hawarden in North Canterbury.

In partnership with my parents and sister we run what I would consider to be a moderately intensive Sheep and Beef Operation wintering around 5000 stock units depending on the season.

The Pyramids was purchased by my father’s grandfather in 1924. Mt Hilton by my mother’s father in the 1930’s and the 3rd. Fenelon was added in 2009.

All but 15 hectares of these properties is in the Waipara catchment and the proposed RED ZONE.

Fenelon has 1.5km of the North Branch of the Waipara River running through its Eastern end.

The other 2 properties have wetlands which have been identified as having a high degree of naturalness in a recent Canterbury University study commissioned by HWP. One of these is the internationally significant Pyramid Valley Moa Swamp. This area was protected at the request of my parents by a QE2 covenant in the early 1980’s. This was done to protect it from draining at the hands of the local council and to preserve it for future generations. This above all else showed me that while local and regional councils do what they believe to be the right thing, hindsight has proved them wrong in the past.

Recently I completed a nutrient plan using overseer with the help of my Ravensdown rep. The outcomes were 4kg/ha/yr of nitrogen lost to water and less than 0.1 kg/ha/yr of Phosphorus. This level I am told is less than forestry and about as low as can be reasonably achieved.
I would consider our Farm to be more intensive than most in the north waipara area. Having observed the river through my property I have no doubt that the periphyton growth which is used as a trigger for classifying the waipara catchment as a red zone is at least mostly if not totally caused by the low flow in the river due the lowland nature of the catchment, low rainfall and high summer temperatures. Although there is no Irrigation from the river above or on my property it has still stopped flowing in 3 out of the last 4 summers. The 4th being last year which was one of the wettest summers on record.

As such I would ask that you reconsider and remove the Waipara catchments classification as a Red zone.

The second part of my submission is around the use of Overseer. While I am repeatedly told that it is the best tool available I am sure there would be a public outcry if the NZ Police were to tell us that their speed radars and breathalysers had a margin of error of plus or minus 20% as overseer does according to many experts.

I have serious misgivings about the future viability of many Canterbury farms being hung solely on the back of a trademarked program which I have found to be incredibly difficult to download and use.

At a bare minimum I believe that the option to use any approved Nutrient budgeting tool should be added to the wording of the plan.

The third and perhaps most important part of my submission is regarding the definition of changed in terms of Rules 5.42 to 5.45.

Rule 5.45 states 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.
Part 2 of the definition of 'changed' in the plan states "2. an increase of more 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.

This in my opinion unfairly penalises farms such as my own with a low nitrogen output as 10% of 4 is a very small amount. I believe that my family has always farmed in a responsible and environmentally sustainable manor.

.4 kg/ha/yr could be reached during the normal seasonal fluctuations most dryland sheep and beef farms experience.

This definition may prevent restocking or single applications of Urea used to maximise pre winter grass recovery after a drought.

It would almost certainly prevent any development and probably any increase in the use of Lucerne which is highly regarded for drought proofing and winter supplements.

This definition penalises those who have not created the problem and rewards those who have.

Stock levels on our farm and any other vary season to season. A good summer will lead to higher conception rates among ewes and a larger number of lambs being born the following spring. It can also mean a surplus of feed which enables us to purchase more calves to winter. In a dry year ewe hoggets may be sold to lighten the load and enable us to better provide for breeding stock. While we aim to operate around 5000 stock units this can vary considerably if conditions demand it.
I understand that an officers report has recommended changing this definition to include a 10% increase in stock units. This shows a complete lack of understanding of dryland farming practices. Stock numbers can reduce by 20% or more in a drought and this can take time to repair. Replacing those stock is not always as simple as going to the first sale after a drought as prices can be prohibitive for months to come. I would also point out that stocking rates do not necessarily mean high nutrient outputs and this would again penalise those who are farming in an environmentally sustainable way. I could potentially carry 12 stock units per hectare and due to good wetlands and responsible fertiliser application lose less nutrients than another farmer carrying 8 s.u/ha.

I ask that the definition be changed to read, 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 unless the average over the farm is below 20kg/ha/yr.

The decisions and recommendations made by this panel have the potential to threaten the future viability of many farming families in Canterbury. While I am sure you realise this I would ask that you give it serious consideration when reaching any conclusion. While I accept that there is some very low hanging fruit, environmentally speaking, in farming sectors most farmers have a passion for what they do and the environment in which they do it.

Thank you for your time.
## Block Nitrogen

<table>
<thead>
<tr>
<th>Block name</th>
<th>Total N lost (kg N/yr)</th>
<th>N lost to water (kg N/ha/yr)</th>
<th>N in drainage * (ppm)</th>
<th>N surplus (kg N/ha/yr)</th>
<th>Added N ** (kg N/ha/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brassica Fenelon</td>
<td>55</td>
<td>4</td>
<td>2.8</td>
<td>296</td>
<td>26</td>
</tr>
<tr>
<td>Brassica The Pyramids</td>
<td>52</td>
<td>4</td>
<td>2.8</td>
<td>310</td>
<td>40</td>
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<tr>
<td>Fenelon</td>
<td>805</td>
<td>5</td>
<td>2.5</td>
<td>58</td>
<td>0</td>
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<tr>
<td>Mt Hilton</td>
<td>165</td>
<td>4</td>
<td>2.3</td>
<td>56</td>
<td>0</td>
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<tr>
<td>The Pyramids</td>
<td>1019</td>
<td>3</td>
<td>3.7</td>
<td>58</td>
<td>0</td>
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<tr>
<td>Other farm sources</td>
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<tr>
<td><strong>Whole farm</strong></td>
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<tr>
<td><strong>Less N removed in wetland</strong></td>
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<tr>
<td><strong>Farm output</strong></td>
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<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Estimated N concentration in drainage water at the bottom of the root zone. Maximum recommended level for drinking water is 11.3 ppm (note that this is not an environmental water quality standard).

** Sum of fertiliser and external factory effluent inputs.

N/A: N in drainage not calculated for easy and steep pastoral blocks, or for tree and shrubs, riparian, wetland or house blocks.