To whom it may concern

Please find enclosed submission objecting to the weak nitrate level targets outlined in this plan.

The official submission document is attached.

In the future could Ecan please consider using a fillable e-form to aid accessibility, legibility and promote submissions.

The form summarises my objections based on (more legibly)

1. Public health grounds
   a. Recent Danish Study clearly demonstrated increased colorectal cancer risk in those drinking water with nitrates > 0.87mg/L
   b. Known risks to babies drinking water with high nitrate levels

2. Enforcability
   a. The 6 fold increase in average nitrate levels does not appear as a limit or target in the document and therefore has no status in law as a legal limit
   b. The thresholds described are only averages, based on a 50% accurate statistical model

3. Economics
   a. Process for water treatment and removal of nitrates is reverse osmosis. This is expensive and requires significant new infrastructure – the costs falling on Christchurch rate payers rather than the polluters

4. Process
   a. There has been a subversion of democracy within the recent history of Ecan whereby individual votes of rural dwellers are worth more than those of urban populations, where many rural representatives are conflicted (see Auditor general), where central government has used unelected commissioners, Gerrymandering, abnormal exemptions, removed water conservation orders and used funding from asset sales to fund major irrigation projects – all with the aim of promoting & supporting unsustainable and inappropriate farming (esp intensive high stocking dairy) on unsuitable soils in the face of clear science and urban objections.

I submit that we should be taking a precautionary approach using a statistical model with 95% probability that deep water aquifer nitrate levels will not increase above 0.8mg/L.

This will be undeniably difficult for those who have chosen a risky and unsustainable business plan in the face of clear science and relied instead in the political hegemony to protect their investment at the expense of the environment, and that land use changes may well have to occur.

If the planned allowed increase in nitrate levels is allowed, I further submit that there should be an assessment of the cost of building infrastructure for treating water in the future as part of this plan, and that this cost be front loaded onto nitrate polluters now
through additional levies and placed in a growth fund ready to be used solely such a purpose once nitrate levels rise to levels that impact on public health.

Kind regards

Dr Dan Hartwell
Submission on Proposed Plan
Change 7 to the Canterbury
Land and Water Regional Plan

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Trade Competition

Pursuant to Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

a) adversely affects the environment; and
b) does not relate to trade competition or the effects of trade competition.

Please tick the sentence that applies to you:

☐ I could not gain an advantage in trade competition through this submission; or
☐ I could gain an advantage in trade competition through this submission.

If you have ticked this box please select one of the following:

☐ I am directly affected by an effect of the subject matter of the submission
☐ I am not directly affected by an effect of the subject matter of the submission

Signature:  
Date: 9/4/19

Please note:
(1) all information contained in a submission under the Resource Management Act 1991, including names and addresses for service, becomes public information.
The specific provisions of the Proposed Plan that my submission relates to are:

<table>
<thead>
<tr>
<th>Section &amp; Page Number</th>
<th>Sub-section/Point</th>
<th>Oppose/support (in part or full)</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan change</td>
<td>Oppose</td>
<td>THIS EXCEEDS FIGURE OF 0.87 my/L ASSESS WITH [ ... ] CO2 EMISS PERS [ ... ] TARGET IN[ ... ] NO TARGET IN PLAN</td>
<td></td>
</tr>
<tr>
<td>Reduce Plan</td>
<td>Oppose</td>
<td>DONT APPEAR AS A TARGET OR TARGET</td>
<td></td>
</tr>
<tr>
<td>In particular the Plan</td>
<td>Oppose</td>
<td>IN PLAN change DOCUMENT [ ... ] NO TARGET IN PLAN AND NO CO2 LIMIT</td>
<td></td>
</tr>
<tr>
<td>Nitrates to rise</td>
<td>Oppose</td>
<td>NITRATE IS ONLY AN AVERAGE NOT A MAX [ ... ] NITRATE MATER</td>
<td></td>
</tr>
<tr>
<td>From 0.6 my/L to</td>
<td>Oppose</td>
<td>ECONOMICS [ ... ] PROGRESS FOR REMOVAL OF NITRATES IS [ ... ] COST TO RATEPAYERS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oppose</td>
<td>WATER IS NOT [ ... ] INCREASED</td>
<td></td>
</tr>
</tbody>
</table>

I seek the following decisions from Environment Canterbury:

(Please give precise details for each provision. The more specific you can be the easier it will be for the Council to understand your concerns.)

Add further pages as required – please initial any additional pages.