
and: submissions and further submissions in relation to proposed variation 1 to the proposed Canterbury Land and Water Regional Plan

and: Central Plains Water Limited
Submitter

Summary of submissions on behalf of Central Plains Water Limited

Dated: 13 October 2014
SUMMARY OF SUBMISSIONS ON BEHALF OF CENTRAL PLAINS WATER LIMITED

INTRODUCTION

1. These submissions are provided on behalf of Central Plains Water Limited (Central Plains) in relation to proposed variation 1 (Variation 1) to the proposed Canterbury Land & Water Regional Plan (pLWRP).

2. Central Plains has a significant interest in the outcome of Variation 1. Although the Zone Committee (pre-dating the immediate Variation 1 process) and the Council in drafting Variation 1 appear to have genuinely attempted to accommodate the development of the Scheme within the Variation 1 framework a number of concerns remain.

3. These submissions provide an outline of what Central Plains considers to be the key issues (and relief sought) under Variation 1.

4. This includes:

4.1 a discussion of the Central Plains Water Enhancement Scheme (the Scheme) load in Table 11(f);

4.2 the proposed prohibition on main stem damming in the upper Selwyn and the Wainiwhaniwa Valley;

4.3 transfers; and

4.4 the need for version control in OVERSEER.

5. The final substantive section in these submissions addresses the 'existing environment' as it is relevant to the continuing presence of the Scheme.

OUTLINE OF KEY ISSUES AND RELIEF SOUGHT

6. Central Plains has provided detailed original and further submissions in respect of Variation 1. A summary of the more material matters along with references to the original/further submission (as might apply) is set out in Annexure 1.

7. The key issues for Central Plains (and a further outline of the relief sought) are set out below.
1) Scheme N load

Background to re-calculation of scheme load

This is the core concern for Central Plains in respect of Variation 1 and relates to the issue of ensuring there is sufficient allocation of nitrogen (N) in Table 11(j) to support the full implementation of the Scheme.

As proposed, Variation 1, Table 11(j) provides:

<table>
<thead>
<tr>
<th>Irrigation Scheme</th>
<th>Tonnes of nitrogen per year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>From 1 January 2017</td>
</tr>
<tr>
<td>Central Plains Water</td>
<td>1944</td>
</tr>
</tbody>
</table>

This load (the one of immediate relevance being 1944 tonnes of N from 1 January 2017) is based on the Council’s calculation of N required for the full development of the Scheme, including:1

10.1 ‘existing irrigation’ at 964 tonnes of N per year for an area of 30,000 hectares (i.e. an average of 32.1kg N/ha/year); and

10.2 ‘new irrigation’ (including existing baseline land uses) at 902 tonnes of N per year for an area of 30,000 hectares (i.e. an average of 30kg N/ha/year).2

These numbers are not directly based on actual farm data and associated OVERSEER analysis (against which actual Scheme compliance will be assessed) but rather the Liburne values for land use leaching.3 As Mr Stuart Ford concludes in his evidence the Council’s “method to allocate the N leaching total to CPW is very theoretical in nature and is not based on a very robust method of allocation”.4 As Liburne herself states:5

“... the values in this report are a reasonable starting point to gain an understanding of the regional implications of land use in relation to nitrate-N leaching. An important point that was raised and agreed

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1 See Annexure 4.1 from the Statement of evidence of Susan Goodfellow and Derek Crombie. The new irrigation includes the existing N loss from the dryland operations.

2 The calculation for ‘new irrigation’ includes the losses that are already occurring by virtue of the pre-existing baseline/non-irrigated landuses. These make up the majority of losses and on the Council’s assessment of new Scheme irrigation, less than half of the 902 tonnes is actual true new or ‘top up’.


4 Statement of evidence of Stu Ford, para [31] and [138].

5 See Conland & Ors statement of evidence, para 7.3.
by participants at the Caucus Workshop was that while these values are suitable for exploration of regional or large catchment scale land use scenarios and for screening the effects of proposed changes in land uses, they are not suitable for use at the farm scale (e.g. in a consent process) as these values are simple long term annual estimates that do not take into account the many management practices that can minimise or add to the actual leaching.

12 This is of particular concern to Central Plains as the accuracy of the load allocated to the Scheme (however it might be assessed) under Table 11(j) is critical to the Scheme’s overall success. Although it is accepted that the Lilburne look-up tables might be useful for the “exploration” of catchment loads it is submitted that the use of Lilburne to set specific loads against which consent applications will be made is beyond its proper purpose.

13 Central Plains accordingly commissioned the Agribusiness Group (Mr Ford) to undertake an assessment of the Scheme load using the best available information. This was information that did not exist at the time the Council did its assessment and included:

13.1 information that was sourced from a significant baseline data collection exercise (using OVERSEER) on 40 sample farms across the Scheme area; and

13.2 a further land use survey of actual landuses across the wider Scheme undertaken in consultation with Central Plains shareholders and directors, as well as the Agribusiness Group.

14 This was supported/further complemented by work by Jacobs SKM (the SOURCE model) which is discussed in the evidence of Conland & Ors and also work undertaken by MacFarlane Rural Business (discussed in the evidence of Mr Andy Macfarlane).

15 As a result of that work (against which is submitted significantly more weight can be placed than the more “theoretical” assessment undertaken by the Council)6 Central Plains considers that the allocation required for new irrigation (still including existing dryland baseline landuse) within the Scheme area is 979 tonnes (or an average of 36.21 kg N/ha/yr)7 based on a more likely smaller new irrigation area of 27,000 hectares.

16 Against the above, the load assessed for existing irrigation based on a large land area of 33,000 hectares is 1353 tonnes.

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6 Emphasising that is not a criticism of the Council but rather a reflection of the information available to each.

7 Of which, 621 tonnes already forms part of the existing dryland baseline.
In terms of the limit currently set out in Table 11(j) it is also noted that Conland & Ors has assessed the adjusted existing N-loss (at 2014) load for 'existing irrigation' in the Scheme area (using Lilburne) as 1884 tonnes per year. This is significantly higher than the 2011 assessment relied on by the Council and provides very little opportunity for further Scheme expansion (with basically no ability to make provision for 'new irrigation').

**Relief sought**

On the basis of the above, the load that would be required within the existing framework of Table 11(j) (from 1 January 2017) would be 2,332 tonnes (i.e. 979 + 1353), however Central Plains considers that at least until 1 January 2022, 'existing' and 'new' irrigation should be managed separately, on the basis that:

18.1 there are still significant uncertainties around both what a formal good management regime (under Policy 11.4.13(b)) might entail and what might also be possible in terms of a reduction regime for existing irrigated land uses (currently reflected in Policy 11.4.14(b) for individual land users and Table 11(j) for the Scheme);[^6]

18.2 Central Plains has a significant and very important role to play in terms of collecting information and facilitating landuse improvement through its farm management plan and Scheme nutrient management requirements. Ultimately however, it is not the regulatory authority and considers that the implementation of any individual reduction regime should properly rest with the entity that has a direct statutory role in terms of compliance and enforcement (rather than Central Plains which is solely reliant on 'contract' as between the Scheme and its shareholders);

18.3 the development of Stages 2+ of the Scheme is dependent on a further prospectus process(es) and bank finance being obtained. Central Plains’ bankers are likely to be particularly concerned to ensure that there is certainty around an adequate N load being available to accommodate the full development of the Scheme – something that will not be certain (were new and existing combined) if the exact extent of existing irrigation is unknown along with its ability to achieve any required reduction regime;[^9] and

18.4 the need to ensure existing irrigators are not dis-incentivised to join the Scheme through the risk that the existing N load might found to be larger than that modelled/assessed as a part of the limit setting process (in which case further

[^6]: See for example the Statement of evidence of Stuart Ford.
[^9]: Statement of evidence of Derek Crombie and Susan Goodfellow, para [94.3].
reductions could conceivably be required for those existing irrigators in the Scheme). An 'equal playing field' under which existing irrigation is subject to the same regime both in and outside of the Scheme is likely to favour most farmers joining the Scheme (and on a similar basis Central Plains seeks that a requirement for 'better than good management reductions' for new irrigation from the outset under Policy 11.4.17(b) is deleted). This in turn will ensure that alpine water is brought into the zone and the wider benefits anticipated under Variation 1 are achieved.

19 In terms of further important context to the relief sought, it is again noted that the Scheme is obviously still in the development phase and it does not know exactly where actual final irrigation areas will occur. Although the 'best information' at the present point in time suggests a 27,000 hectare ('new irrigation') versus 33,000 hectare ('existing irrigation') split the final area supplied water by the Scheme may vary slightly in terms of the split set out. Some adjustment may need to occur in the future to ensure that the Scheme does not have too much or too little in terms of its allocation under Table 11(j).

20 In addition, in the long-term (once the Scheme is developed and the location of both existing and new irrigation is known), it would be possible to calculate a very accurate Scheme N loss load on the basis of actual N loss data (using OVERSEER rather than the Lilburne tables). Central Plains predicts that the full Scheme will be developed by 2020\textsuperscript{10} - a date that is likely to work well against the 1 January 2022 date provided for various matters in Variation 1.

21 Central Plains accordingly seeks that Table 11(j) be amended to provide either:

21.1 a load of \textbf{979 tonnes} for 'new irrigation' within the Scheme area (including baseline landuses on any area of new Irrigation) with 'existing irrigation' continuing to be managed on an individual basis; or

21.2 if the Hearing Panel still wishes to combine 'existing' and 'new' irrigation, Central Plains respectfully asks that a combined load does not apply until such time as existing irrigation is fully compliant with any formal good management regime and any further reduction regime has been implemented (with 1 January 2022 being perhaps the most sensible date for that to occur).

22 In both cases, Central Plains further seeks that the plan expressly provide for the re-calculation of the N-load for the Scheme from 1

\textsuperscript{10} Statement of Evidence of Susan Goodfellow and Derek Crombie, at [28].
January 2022 for the purposes of ensuring it reflects the actual final area of 'new irrigation' (as well as the split between 'existing' and 'new' irrigation areas in event that both loads are combined). This will also ensure that the allocations in the plan are based on actual OVERSEER output data (rather than Lilburne numbers and current information on landuse mixes etc).

23 Whether separated out or kept together it is also noted (for clarification) that in either scenario Central Plains will remain responsible for reporting and monitoring as per its existing consent conditions.

24 Some suggested relief in respect of the both options is set out below.

**Table 11(j): Irrigation Scheme Nitrogen Limits**

<table>
<thead>
<tr>
<th>Irrigation Scheme</th>
<th>Tonnes of nitrogen per year</th>
<th>From 1 January 2017</th>
<th>From 1 January 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Plains Water³</td>
<td>New Irrigation (being areas that had not been previously irrigated at 30 June 2013 – including baseline land use)</td>
<td>979</td>
<td>A x B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Where:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A = the N-loss from New Irrigation as at 1 January 2022²</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>B = Nil.³</td>
</tr>
</tbody>
</table>

¹ Existing irrigation (being areas that had been previously irrigated at 30 June 2013) may be supplied water from the Central Plains Water Scheme but any nutrient and reduction regime will be managed at an individual property level under Policies 11.4.13(b) and Policies 11.4.14(b).

² In the event that the Central Plains Water Scheme has not been fully developed a 1 January 2022, A will be pro-rata adjusted to provide a total of 60,000 hectares of irrigation.

³ Prior to 1 January 2022 the Council will notify a plan change to specify:

a) the share of farming activity nitrogen loss reduction that each farming type is responsible for achieving in accordance with Policy 11.4.14 (b); and

b) any further requirement for a reduction in nitrogen loss for New Irrigation calculated in a manner that is consistent with the reductions required for individual farming activities under Policy 11.4.14(b) (to replace 'Nil' in Table 11(j)).
OR

Table 11(j): Irrigation Scheme Nitrogen Limits

<table>
<thead>
<tr>
<th>Irrigation Scheme</th>
<th>Tonnes of nitrogen per year</th>
<th>From 1 January 2017</th>
<th>From 1 January 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central Plains Water</strong></td>
<td></td>
<td>n/a&lt;sup&gt;1&lt;/sup&gt;</td>
<td>A + (B x C)</td>
</tr>
<tr>
<td><strong>Existing Irrigation</strong></td>
<td></td>
<td></td>
<td>Where:&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>(being areas that had</td>
<td></td>
<td></td>
<td>A = the actual N-loss from Existing</td>
</tr>
<tr>
<td>been previously irrigated</td>
<td></td>
<td></td>
<td>Irrigation as at 1 January 2022</td>
</tr>
<tr>
<td>at 30 June 2013)</td>
<td></td>
<td></td>
<td>B = the N-loss from New Irrigation as</td>
</tr>
<tr>
<td><strong>New Irrigation</strong></td>
<td></td>
<td>979</td>
<td>at 1 January 2022</td>
</tr>
<tr>
<td>(being areas that had</td>
<td></td>
<td></td>
<td>C = Nil.&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>not been previously</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>irrigated at 30 June</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013 – Including</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>baseline land use)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup> Prior to 1 January 2022, Existing Irrigation areas may be supplied water from the Central Plains Water Scheme but any nutrient and reduction regime will be managed at an individual property level under Policies 11.4.13(b) and Policies 11.4.14(b).

<sup>2</sup> In the event that the Central Plains Water Scheme has not been fully developed a 1 January 2022, A and B will be pro-rata adjusted to provide a total of 60,000 hectares of irrigation.

<sup>3</sup> Prior to 1 January 2022 the Council will notify a plan change to specify:

c) the share of farming activity nitrogen loss reduction that each farming type is responsible for achieving in accordance with Policy 11.4.14 (b); and

d) any further requirement for a reduction in nitrogen loss for New Irrigation calculated in a manner that is consistent with the reductions required for individual farming activities under Policy 11.4.14(b) (to replace "Nil" in Table 11(j)).

The combining of ‘existing’ and ‘new’ loads is obviously a more complicated regime compared to simply providing for a limit for ‘new irrigation’ within the Central Plains’ Scheme area (even with provision being made for that load to be re-assessed at 1 January 2022) – however given the size and significance of the Scheme, as well as the importance of ‘getting it right’, it is submitted it would be an appropriate alternative approach were the Hearing Panel minded to combine the respect N-loss allocations.

As set out in paragraph 22, it is envisaged that this would be calculated using actual landuse/farm input data and OVERSEER.
As a further related matter, it is noted that Central Plains also seeks that Rule 11.5.15 be amended to controlled. The reasons for this are set out in more detail in Annexure 1 – but are consistent with the need to ensure the Scheme has certainty (as well as being reflective of the fact all necessary information should be available at the time any such resource consent is required.

2) Protecting storage opportunities

As set out in the evidence of Mr Derek Crombie and Ms Susan Goodfellow (and as further supported by the evidence of Mr Ian McIndoe) the Scheme will need to be able to access further reliable water if it is to proceed to Stages 2+.

In this respect, the continuation of Stage 1 is also similarly dependent on:

29.1 the existing arrangements with TrustPower around the provision of stored water\(^{11}\) being renewed post 2031 (which is when the current arrangements expire, noting there is no right of renewal); or

29.2 further Scheme storage being identified.

Accordingly, both Stage 1 and Stages 2+ are likely to require further provision being made for storage (if alternative arrangements cannot be reached with TrustPower) for the provision of further stored water.

Within this, two key points arise:

31.1 the volume of required storage is considerably less than that sought as a part of the original hearing process (which included a proposal for a 280 million m\(^3\) storage dam in the Waianiwaniwa Valley\(^{12}\)) - the actual amount of storage now required is likely to be around 150 million m\(^3\);\(^{13}\) and

31.2 there are very limited opportunities for viable Scheme-based storage within the Selwyn Valhora area. This is supported by considerable alternatives assessments that were done as a part of the original consenting of the Scheme that suggested the Waianiwaniwa Valley (followed by the Selwyn River) were the only sites with realistic storage potential.

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\(^{11}\) As that term is defined in the National Water Conservation (Rakaia River) Order 1988.

\(^{12}\) Noting that these applications were withdrawn (i.e. not declined).

\(^{13}\) Statement of evidence of Derek Crombie and Susan Goodfellow, para [124] – [134].
Against the above, Central Plains was a participant throughout the Selwyn Waihora Zone stakeholder engagement process (that has informed the Solutions package underpinning Variation 1). At all times throughout that process it understood that provision would be made for storage and at no time, during Central Plains' involvement, was there any suggestion that certain sites might be "prohibited" from a storage perspective.

It was therefore very concerned to learn through the Council's September/October consultation on proposed Variation 1 that prohibited activity status was being proposed for damming in the mainstem of the Waianiwaniwa Valley and upper Selwyn River through what are now Policy 11.4.31 and Rule 11.5.42.

This appears to have been a 'last minute' response to a submission provided by the Malvern Hills Protection Society to the Zone Committee. As the section 42A Report records:

Water storage

4.68 The Malvern Hills Protection Society (MHPS) wrote to the Zone Committee in late July 2013 concerned about the "red-flag" approach taken in the ZIP Addendum to the location of major water storage in the catchment. In particular, MHPS was concerned about any construction of a dam in the Waianiwaniwa valley.

4.69 Five members of the MHPS, supported by about 20 others, spoke at the August 2013 meeting of the Zone Committee raising concerns about potential water storage.

4.70 The Committee told MHPS that there was no intention to encourage storage in Waianiwaniwa valley. The Committee chair noted that while water storage was necessary to achieve the goals set by the Zone Committee there were a considerable number of "red flag" issues identified in the Waianiwaniwa valley that would be a major challenge for water storage there. He said the Committee had recommended that these issues be taken into account in the development of Variation 1.

4.71 In September-October 2013 CRC undertook First Schedule consultation on the draft proposed Variation 1. This draft included two policies on water storage that further clarified that, in reflecting the "red flags", in-stream damming of the full flow on the Selwyn River and the Waianiwaniwa River above the confluence with the Selwyn River was proposed to be prohibited. The Committee agreed however that there was no intent to totally prohibit storage in the foothills of the catchment.

With respect, Central Plains agrees with the general position set out up to the end of paragraph 4.70 - i.e. it is accepted that the consenting of any storage proposal could potentially be challenging with a large number of issues that need to be addressed. It is however submitted that the Council (and possibly the Zone Committee) would not have appreciated the absolute essential need for the Scheme to at very least have the option of considering storage and the fact that sites that are now proposed to be prohibited are the only sites that provide realistic opportunities for the type of storage required by the Scheme.
36 On that basis, Central Plains seeks to have Policy 11.4.31 and Rule 11.5.42 amended so that damming is a discretionary (rather than prohibited) activity.

37 It is submitted that this approach is consistent with the general approach to prohibited activity status set out in cases such as Coromandel Watchdog of Hauraki Inc v Chief Executive of the Ministry of Economic Development.\(^\text{14}\) Appreciating that the Coromandel case and the use of prohibited activity status has been covered by others in detail,\(^\text{15}\) it is simply submitted that this is not a case where:

37.1 with reference to para [45] of the decision\(^\text{16}\) there is an absence of information (as with the Wainiwhaniwa Valley in particular there is a significant amount of information available - including that provided to one of the most significant resource consent hearings ever); and

37.2 there is no other reason (as referred to in paragraph [34] of the decision) as to why prohibited activity status should be preferred - especially in the context of only a much small storage proposal (or potentially series of even smaller proposals) being required.

38 It is further submitted (on the basis that, for example, storage of some form is reasonably contemplated) that full discretionary as opposed to non-complying is to be preferred.

39 As a final matter it is also emphasised that Central Plains has no large storage proposal currently 'on the table' (not surprising given the efforts currently being placed in respect of developing Stage 1 of the Scheme). Central Plains nevertheless considers it critical to the success of the Scheme that all potential options are 'kept open' going forward.

3) Enabling of limited transfers (as required to support Scheme)

40 As set out in the evidence of Mr Crombie and Ms Goodfellow, Central Plains is not seeking a "total relaxation" of the proposed

\(^{14}\) (2007) 13 ELRNZ 279.

\(^{15}\) For example, Legal Submissions of Counsel for North Canterbury Province of Federated Farmers, 15 September 2014, para [89] – [123].

\(^{16}\) Which provides:

[45] We agree with the Courts below that, if a local authority has sufficient information to undertake the evaluation of an activity which is to be dealt with in its district plan at the time the plan is being formulated, it is not an appropriate use of the prohibited activity classification to defer the undertaking of the evaluation required by the Act until a particular application to undertake the activity occurs. That can be contrasted with the precautionary approach, where the local authority forms the view that it has insufficient information about an aspect of an activity, but further information may become available during the term of the plan.
transfer regime, but it does seek some very limited exceptions to allow a Central Plains’ shareholder:

40.1 to transfer water between their individual properties. In practice there are likely to be two circumstances where this occurs:

(a) where a groundwater consent is transferred to new dryland owned by the same person (or a related entity). This would allow the existing irrigated land to be irrigated via Scheme water, in which case the overall zone will be better off from water quantity perspective on the basis that a considerable volume is now coming into the Zone;¹⁷ and

(b) where a groundwater consent is transferred to a property already irrigated by the Scheme for the purposes of covering water shortage events. Central Plains considers this is also important on the basis that, in a small way, it goes towards mitigating some of the concerns around storage discussed in paragraphs 28 to 38 above

or

40.2 to transfer groundwater consents to the Scheme (on the basis that this would, in a similar manner to that noted in paragraph 40.1(b) above, provide a potential source of alternative supply to make up any water shortfall during a restriction event).

41 In both cases (and as expanded on in the evidence of Mr Ian McIndoe) these would be offset, at least in the large part, by the fact that the Scheme is introducing a very large volume of alpine water into the catchment.

4) Version control in OVERSEER

42 The limits set out in Table 11(j) (as amended in Central Plains sought relief) have been calculated with reference to version 6.1.2 of OVERSEER.¹⁸ Against that, it is understood that the Council used Lilburne and version 6.1.0 of OVERSEER (which in itself is a reason for some of the discrepancies discussed in paragraphs 8 to 26).

¹⁷ It is also noted that such a move will most often occur where a farmer can rationalise the use of water to be more cost effective – most likely by moving existing groundwater consents to shallower (cheaper to pump) lower plains aquifers – an area where water is likely to be much more abundant following the development of the Scheme.

¹⁸ Statement of evidence of Stuart Ford, para [60]. Noting that Mr Ford also used The Overseer Best Practice Data Input Standards (August 2013).
As noted by Mr Hamish Lowe, care needs to be taken to avoid limiting the operation of a farm based on the results of an analysis in one version when that version will be superseded.\textsuperscript{19} This is also expanded on by Mr Ford who notes that OVERSEER is not yet in a steady state with further refinements and improvements continuing to be made.\textsuperscript{20}

In this regard it appears that the only proper weight that can be placed OVERSEER in a regulatory context is its use as a 'relative tool' rather than an 'absolute tool' – or to put that another way OVERSEER outputs are:

44.1 not necessarily reflective of actual real life N losses but if the same version of OVERSEER is used it is a useful tool in terms of assessing land use change; but

44.2 if different versions of OVERSEER are used the N-losses from an individual farm might vary considerably under each version of the model with no actual change to the real-life activities on farm.

The most immediate issue that this presents for Central Plains is the fact that its proposed limit in Table 11(j) is based on a particular version of OVERSEER. Central Plains therefore submits it is necessary to allow for the re-calculation of the figure in a similar manner to that provided for the definition of nitrogen baseline under the pLWRP.

This would require a further advisory note/footnote to Table 11(j) to the effect that (based on the words from the definition of nitrogen baseline in the pLWRP):

\[x\] If OVERSEER is updated, the most recent version is to be used to recalculate the nitrogen baseline using the same input data used for the establishment of the allocations described in Table 11(j).

It is however noted (separate to the immediate interest of Central Plains in Table 11(j)) that this is wider issue that is likely to affect other provisions throughout Variation 1 – and in this regard, even the basic use of, for example, a permitted activity rule referencing a load of 15kg N/ha/year or a maxima of 80 kg N/ha/year should really include an updating mechanism (to be used when the relevant load changes solely by virtue of a change in the version of the model). A wider approach such as an advice note applying to all provisions in Variation 1 (that ensures all OVERSEER outputs can be assessed against updated/corrected load limits) might therefore be preferred.

\textsuperscript{19} Statement of evidence of Hamish Lowe, para [40].

\textsuperscript{20} Statement of evidence of Stuart Ford, para [34].
As set out in evidence, Central Plains considers the alternative approach of fixing the version of OVERSEER more problematic as earlier versions cannot be readily accessed and obviously there is sense in using the latest version of the model as it (hopefully) becomes more representative of actual N-losses.

EXISTING ENVIRONMENT

Central Plains hold all the primary consents necessary for the development and operations of the Scheme. As set out in the evidence of Mr Derek Crombie and Ms Susan Goodfellow, construction of ‘Stage 1’ is very advanced and the company is also now fully committed to seeing ‘Stages 2+’ through to completion.

Against that factual background, some submitters\(^{21}\) have suggested that no regard can be had to the ‘existence’ of the Scheme (and that it does not form part of the existing environment for the purposes of assessing Variation 1).

With respect, it is submitted the Hearing Panel is \textit{obliged} to regard the Scheme as forming part of the existing environment for the purposes of Variation 1. This is supported by the now long line of authority that begins with the Court of Appeal decision in \textit{Queenstown Lakes DC v Hawthorn}.\(^{22}\) This case concerned an application for resource consent (as opposed to a plan change), however the principles around determining the meaning of the ‘existing environment’ are, it is submitted, equally applicable here.

At para [84] of the decision, the Court of Appeal stated:

\begin{quote}
[84] ... In our view, the word "environment" embraces the future state of the environment as it might be modified by the utilisation of rights to carry out permitted activity under a district plan. It also includes the environment as it might be modified by the implementation of resource consents which have been granted at the time a particular application is considered, where it appears likely that those resource consents will be implemented.
\end{quote}

As noted, the \textit{Hawthorn} decision has been cited with approval and applied in numerous decisions on resource consent applications since 2006.\(^{23}\) It has also more recently been directly accepted by a number of decisions in the plan change context. The Environment

\(^{21}\) For example Fish & Game and Forest & Bird.

\(^{22}\) [2006] NZRMA 424(CA).

\(^{23}\) See for example \textit{Royal Forest and Bird Protection Society of New Zealand Inc v Buller District Council} [2013] NZHC 1346; \textit{Save Kapiti Inc v New Zealand Transport Agency} [2013] NZHC 2104, at [17]-[19].
Court in *Milford Centre Ltd v Auckland Council*, for example, considered an appeal on a plan change application and stated:

[119] We see the environment against which this will be judged as not only the environment as it exists today, but as it will be modified by the further intensification around the Town Centre...

[120] For practical purposes, we can see no proper basis to draw a distinction between the environment for the purpose of resource consent and a Plan Change, and accordingly, adopt the approach of *Queenstown Lakes District Council v Hawthorn* in the Court of Appeal.

54 In light of the authority squarely applying the *Hawthorn* case to the plan change context (and the existence of the resource consents held by Central Plains for the Scheme), it is submitted that there is no doubt as to the existence of the Scheme for Variation 1.

55 There is also no doubt that the consents will be given effect to and in this regard construction for Stage 1 of the Scheme has been ongoing since March 2014 and actual water delivery will commence in September 2015. Stage 1 includes the primary intake/distribution structure for Stage 2+ (which will be developed between 2015 and 2020) and it is important to recognise that Central Plains is fully committed to developing the whole Scheme.

56 The ‘environment’ relevant for the consideration of Variation 1 therefore includes the environment as it will be modified by the Scheme – or to put that another way, the full implementation of the Scheme is the appropriate starting point for considering the regime that will be introduced by Variation 1 (including compliance with relevant statutory documents such as the pLWRP, the Regional Policy Statement and the National Policy Statement on Freshwater Management 2014).

**SOURCE MODELLING**

57 The SOURCE model has been discussed in detail in evidence provided by *Conland & Ors*. Its context in terms of the Central Plains case has also been touched on by *Mr Derek Crombie* and *Ms Susan Goodfellow*.

58 As noted in evidence, the purpose of the SOURCE modelling exercise was not intended to ‘undermine’ the earlier Council modelling. The

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24 *Milford Centre Ltd v Auckland Council* [2014] NZEnvC 23, at [119]-[120]. See also *Queenstown Airport Corporation v Queenstown-Lakes District Council* [2013] NZEnvC 14, at [122].

25 Statement of Evidence of Susan Goodfellow and Derek Crombie, at [20]. Noting further that the Scheme consents are likely to have already been given effect to in accordance with *Biodiversity Defence Soc Inc v Solid Energy New Zealand Limited* [2013] NZHC 3283, (2013) 17 ELRNZ 337.

26 Statement of Evidence of Susan Goodfellow and Derek Crombie, at [28].
SOURCE model work is instead intended to provide further support to the Hearing Panel in terms of:

58.1 ensuring it has a better understanding of the interaction between the various factors affecting nutrient losses, nutrient loadings and water flows in catchment; and

58.2 can place greater confidence on the achievement of the wider objectives envisaged by Variation 1.

59 These submissions do not go into detail in terms of the outputs from the SOURCE model, other than briefly noting that:

59.1 the SOURCE modelling exercise has been based on using the best data inputs available using scenarios that in some cases are similar to those used by the Council; and

59.2 under the model the lake load will increase marginally following the implementation of the Scheme but this will then reduce as good management and could be reduced further were a clawback mechanism imposed.

60 At this point it is simply submitted that considerable effort using the best information available has gone into the SOURCE modelling exercise. Central Plains considers an integrated catchment model (such as that provided by SOURCE) is conceptually a much better approach with more confidence being able to be placed on its outputs in terms of modelling 'whole of catchment' effects (as compared to the Council approach of using multiple models with various assumptions between them).

61 To conclude further than that is likely to require discussions (or caucusing) between the relevant experts (including those for other submitters and the Council who may have expertise in modelling) to determine the appropriateness of the input parameters and framework used.

EVIDENCE TO BE CALLED

62 Central Plains is calling evidence from:

62.1 Mr Derek Crombie and Ms Susan Goodfellow;

62.2 Dr Caroline Saunders (signed statement provided – to be taken as read);

62.3 Mr Ian McIndoe;

62.4 Dr Greg Ryder;
62.5 Mr Andy Macfarlane;

62.6 Mr Stuart Ford;

62.7 Mr Hamish Lowe; and

62.8 Mr Hamish Peacock

In addition, Central Plains is calling evidence from Mr Nic Conland and Dr Richard Cresswell (as authors to the joint Conland & Ors statement). This is on the basis that the evidence and questioning of the Hearing Panel will have relevance to the wider submitter group that is listed in Annexure 1 to the Conland & Ors joint statement of rebuttal.

Dated: 13 October 2014

Jo Appleyard and Ben Williams
Counsel for Central Plains Water Limited
### Table of core relief with reference to original submission and further submissions

OS = original submission  (# in brackets is a reference in the OS to the relevant page from proposed Variation 1)  
FS = further submission  (# in brackets is a reference to the page of the FS)

<table>
<thead>
<tr>
<th>Provision</th>
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<tbody>
<tr>
<td>Introductory sections</td>
<td>Amend Section 11 - Selwyn Waihora (introductory sections) to better recognise irrigation and agriculture/horticulture</td>
<td>Detailed relief suggested in OS (4-1) reflecting the importance of irrigation and the Scheme.</td>
</tr>
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</table>
| 11.1A (definition of 'Central Plains Water') | Several Central Plains’ resource consent numbers have recently changed. The definition of “Central Plains Water” needs to be updated.  
It is noted with reference to the OS, that the Glenroy Scheme load is additional to those suggested for the Central Plains Scheme in evidence. | Detailed relief suggested in OS (4-4). |
| Policy 11.4.12 | Clarification to make it clear that policy does not apply to land that is irrigated with water from an Irrigation Scheme. | Detailed relief suggested in OS (4-6). |
| Policies 11.4.13(b) and 11.4.14 | Delete policies 11.4.13(b), 11.4.14 and 11.4.15 (which seek to preempt the outcomes of the Good Management Practice Nitrogen and Phosphorus Loss Rates programme and provide for further reductions) and replace with a requirement for the Canterbury Regional Council to prepare and implement plan changes:  
- no earlier than 1 January 2017 to incorporate good | Consistent with relief suggested in OS (4-6 – 4-7) which sought a method requiring the Council to commit to future plan changes. |
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<td>management practices; and</td>
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<td></td>
<td>• no earlier than 1 January 2022 (following the confirmation of the good practice management nitrogen loss rates and a review of catchment loads and the need for a nitrogen reduction strategy)</td>
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<td>Policy 11.4.17(b)</td>
<td>Central Plains is very concerned about Policy 11.4.17(b) (which requires better than good management practice from the outset for people joining the Scheme at a time when the starting point and achievability of any reduction regime is not known). Central Plains seeks that it be deleted.</td>
<td>Detailed relief suggested in OS (4-7).</td>
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<tr>
<td>Policy 11.4.22</td>
<td>Remove some of the restrictions relating to groundwater transfers to (in the case of CPW Scheme members) enable transfers from land also irrigated by CPW to:</td>
<td>Detailed relief suggested in OS (4-8).</td>
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<td>• the Irrigation Scheme; or</td>
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<td>• to another Property owned by the same person (or a related entity).</td>
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<td>Policy 11.4.23 (and also Policy 11.4.26)</td>
<td>Central Plains submitted on that basis that demonstrated use was not appropriate for an Irrigation Scheme. On reviewing the Officer's Report it has clarified that the Policy does not apply to the take of Surface Water by the Scheme (see para 13.94):</td>
<td>Detailed relief suggested in OS (4-8) but may only have limited relevance now given position set out.</td>
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<td>&quot;13.94 This amendment is not considered necessary since the geographic scope of the Variation does not include surface water.</td>
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<td>takes from the alping (Rakaila and Waimakariri) rivers which are the sources of Central Plains Water.</td>
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<td>Central Plains’ submission would still have relevance were the Hearing Panel to accept Central Plains’ separate submission around the transfer of groundwater to the Scheme. Submission is otherwise not pursued.</td>
<td></td>
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<tr>
<td>Policy 11.4.30</td>
<td>Enable existing resource consent holders to take groundwater where an equivalent volume of surface water is transferred to Central Plains.</td>
<td>Detailed relief suggested in OS (4-8).</td>
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<tr>
<td>Policy 11.4.31</td>
<td>Damming to be discretionary (not prohibited).</td>
<td>Central Plains suggested in OS (4-8) that the Policy be deleted. Damming would still be supported by Policy 11.4.32.</td>
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<td>Policy 11.4.32</td>
<td>Minor amendments to Policy to remove reference to mixing (given that mixing has already been authorised under the Central Plains Scheme consents) and to refer to “avoided, remedied or mitigated” in the place of “avoid”</td>
<td>Detailed relief suggested in OS (4-8).</td>
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<tr>
<td>Rules 11.5.11 and 11.5.12</td>
<td>Supportive of farming enterprises.</td>
<td>Detailed relief suggested (for nutrient management group) in OS (4-13). Also discussed numerous times FS.</td>
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<td>farm enterprise regime achieves largely the same thing. The submissions made in respect of nutrient management group are still relevant to farm enterprise regime.</td>
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<td>Key concern for Central Plains is that if a member of a farm enterprise receives water from the Central Plains scheme, then compliance for Central Plains with the total scheme nitrogen limit in Table 11(j) needs to be based on the individual nitrogen baseline of the relevant member and not its share of the total combined nitrogen baseline available by virtue of any farm enterprise.</td>
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<td>Rule 11.5.14</td>
<td>Rule 11.5.14 appropriately permits farming land use, however the conditions require a “discharge consent” where a property is irrigated with water from an Irrigation Scheme listed in Table 11(j). Central Plains is the only scheme listed in this table and while Central Plains hold consents which require a nutrient management regime, these conditions apply to a water use permit rather than a discharge permit. Central Plains seeks to have the Rule reworded to accord with Rule 5.61 in the pLWRP.</td>
<td>Detailed relief suggested in OS (4-13).</td>
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<td>Rule 11.5.15</td>
<td>Central Plains considers the use of a discretionary activity status for Rule 11.5.15 unjustified and it potentially results in investment uncertainty for the Scheme. Controlled activity status would be appropriate where the two conditions in the rule are met. In addition, the relationship of Rules 11.5.13 to 11.5.17 is unclear. Both rules have the same wording, but a different activity status.</td>
<td>Detailed relief suggested in OS (4-13).</td>
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<td>Rule 11.5.33A</td>
<td>A new rule to provide for the substitution of surface water for groundwater (on the basis that the surface water take is transferred to Central Plains where the groundwater is intended to be used to improve reliability at times when the surface water is on restriction)</td>
<td>Detailed relief suggested in OS (4-17).</td>
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<td>(new)</td>
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| Rules 11.5.37 and 11.5.38 | Remove some of the restrictions relating to groundwater transfers to (in the case of CPW Scheme members) enable transfers from land also irrigated by CPW to:  
  • the Irrigation Scheme; or  
  • to another Property owned by the same person (or a related entity).                                                                 | Detailed relief suggested in OS (4-19).   |
<p>| Rule 11.5.42      | Damming to be discretionary (not prohibited)                                                                                                                                                          | Detailed relief suggested in OS (4-20).   |
| Tables            | Amend Table 11(j) to correct ‘errors’ in calculation to ensure CPW Scheme is accommodated.                                                                                                            | In its OS (4-35), Central Plains discussed the importance of ensuring Variation 1 provided for the development of the Scheme and advised that it “does not have confidence that the modelled nutrient loads correctly reflect the actual load from existing users or the likely nutrient load that will arise through |</p>
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<td>OVERSEER</td>
<td>Accommodate further versions of OVERSEER</td>
<td><em>the development of the Scheme</em>. Various concerns were raised around the tables (including the need to correct any errors) which were expanded on considerably with reference to the technical work being undertaken in the FS (noting that initial technical reports were included with the FS). The split between existing and new is also consistent with the concerns around allocation set out at the end of Annexure 2 in the OS.</td>
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