Before Hearing Commissioners at Canterbury Regional Council

under: the Resource Management Act 1991

in the matter of: proposed Plan Change 7 to the Canterbury Land and

Water Regional Plan

and: Waimakariri Irrigation Limited

Submitter 349, Further Submitter 349

Legal submissions on behalf of Waimakariri Irrigation Limited

Dated: 11 November 2020

Reference: B G Williams (ben.williams@chapmantripp.com)



OPENING LEGAL SUBMISSIONS ON BEHALF OF WAIMAKARIRI IRRIGATION LIMITED

INTRODUCTION

- These legal submissions are provided on behalf of Waimakariri Irrigation Limited (*WIL*), who is a submitter and further submitter on proposed Plan Change 7 to the Canterbury Land and Water Regional Plan (*PC7*).
- WIL's particular interest in PC7 is largely confined to Part C, relating to the Waimakariri sub-region.

WIL's approach to PC7

- The background to WIL and its general approach to PC7 has already been set out in evidence, but in terms of a brief summary:
 - 3.1 WIL's core business is to provide a reliable and sustainable delivery of water, but in recent years it has also played an increasingly active and direct role in working with shareholders on careful water and nutrient management. WIL embraces this leadership role and appreciates that it has a critical role in achieving the environmental outcomes envisaged under PC7;
 - 3.2 to date, WIL has been pro-active and an 'early mover' in adopting advances in farm environmental management, including through seeking a discharge consent to manage shareholder nitrogen losses on an aggregated basis, preparing an Environmental Management Strategy and Nutrient Management Policy, undertaking audits and requiring shareholders to prepare Farm Environment Plans, limit intensification and meet Good Management Practice (GMP) by 2020;
 - 3.3 the outcomes of PC7 are critical for the future of the WIL Scheme. In particular, construction of recently consented water storage infrastructure will depend on farm viability and confidence. The storage ponds could play a key role in achieving the environmental outcomes PC7 seeks to achieve, but only if there is sufficient shareholder support and buy-in, which is closely tied to the outcomes of PC7;
 - 3.4 WIL seeks amendments to PC7 that will:
 - (a) deliver community water quality outcomes sooner and with a greater level of certainty; and
 - (b) have less impact on farm viability, therefore lessening the social and economic cost of PC7.

- 3.5 These amendments are collectively referred to as the 'WIL Solutions Package', and comprise the following five key components:
 - (a) achievable reductions in nitrogen leaching from landuse activities (although it is emphasised that achieving, especially the 2040, reductions will still be challenging);
 - (b) increased use of managed aquifer recharge and targeted stream augmentation;
 - (c) localised indigenous habitat improvement initiatives;
 - (d) a much improved monitoring programme to better inform future planning decisions; and
 - (e) all WIL shareholders being treated on an equal basis with reductions contemplated (only) out to 2040. WIL considers 'equal treatment' critical to the achievement of all matters set out above (and without it there is every chance that desired outcomes will not be achieved or will take much longer).
- As set out in these legal submissions a key aspect of the WIL Solutions Package is the achievement of *inter alia* the National Policy Statement for Freshwater Management over time and ensuring the WIL solutions package does not preclude revisiting (and if required, bolstering) the proposed approach in the future.

LEGAL ISSUES ARISING

- These legal submissions focus on the WIL Solutions Package and appropriateness of this compared to the notified PC7. The Hearing Panel will be well aware that the starting point for considering PC7 is section 66 of the RMA. That section requires ECan to prepare the plan change in accordance with:
 - 5.1 its functions under section 30;
 - 5.2 the provisions of Part 2;
 - 5.3 its duty under s 32; and
 - 5.4 any relevant national policy statements and national planning standards; and
 - 5.5 any regulations.
- 6 Section 30 prescribes the Council's functions in relation to giving effect to the RMA in a regional plan. Three key functions relevant to this plan change are in subsection (a), (b) and (c)(ii) as follows:

- (a) the establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the natural and physical resources of the region:
- (b) the preparation of objectives and policies in relation to any actual or potential effects of the use, development, or protection of land which are of regional significance:

...

- (c) the control of the use of land for the purpose of-
 - (i) ..
 - (ii) the maintenance and enhancement of the quality of water in water bodies and coastal water:
- Accordingly PC7 must "give effect to" the National Policy Statement for Freshwater Management 2017 (NPSFM-17), and the New Zealand Coastal Policy Statement (NZCPS) insofar as the NZCPS recognises that activities on land can have impacts on coastal water quality.¹
- 8 In respect of the National Policy Statement for Freshwater Management 2020 (*NPSFM-20*), WIL agrees with counsel for ECan that the extent to which it is reasonably practicable for the provisions of PC7 to give effect to the NPSFM-20 is confined by the scope of submissions on PC7.²
- A brief consideration of the WIL Solutions Package against the provisions of the NPSFM-20 is provided in **Schedule 1**. In summary, the NPSFM-20 places greater emphasis on Te Mana o te Wai, which requires a substantive change in how freshwater is viewed, and a procedural change in how the NPSFM-20 is implemented, with greater emphasis on engagement and discussion between regional councils, communities and tangata whenua.
- 10 In our submission, the wider LWRP planning process including the Canterbury Water Management Strategy (*CWMS*) has made a material 'head start' on much of what is expected to occur under the NPSFM-20.

Part 2 RMA

- 11 All Council decisions must be directed to achieving the purpose of the RMA.
- While the Hearing Panel will be familiar with that purpose, it bears repeating that the purpose of the Act is to promote sustainable management of natural and physical resources, where sustainable

Section 42A Report, Appendix B Statutory Framework - Paragraphs 9.3 and 9.4.

Opening legal submissions for ECan, at [18], [25].

management means managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic and cultural wellbeing and for their health and safety.

A particular focus for WIL in this context is economic efficiency, which has been recognised as forming a component of sustainable management,³ with the NPS-FM framework being unlikely to 'cover the field' on these issues.

Section 32 RMA

- 14 Section 32 of the RMA requires ECan to:
 - 14.1 examine the extent to which the purpose of PC7 is the most appropriate way to achieve the purpose of the RMA;⁴
 - 14.2 examine whether the provisions (policies, methods, rules) are the most appropriate way of achieving the objectives;⁵ and
 - 14.3 identify and assess the benefits and costs of the effects that are anticipated from implementing the provisions (including economic growth and employment), including assessment of the risk of not acting if there is uncertain or insufficient information about the subject matter of the provisions.⁶
- In the context of a plan change, the decision-maker is required to adopt "the better of the choices before it on the evidence" in achieving the purposes of the RMA and the objectives of the plan. Where these can be met by a less restrictive regime, that regime should be adopted. In 2017 the Environment Court confirmed that this remains the correct approach following amendments to section 32 of the Act. This approach: 10

reflects the requirement in s 32(1)(b)(ii) to examine the efficiency of the provision by identifying, assessing and, if practicable, quantifying all of the benefits and costs anticipated from its implementation. It also

³ Carter Holt Harvey Forests Ltd v Tasman District Council (1998) 4 ELRNZ 93 at page 142.

⁴ RMA, s 32(1)(a).

⁵ RMA, s 32(1)(b).

⁶ RMA, s 32(2).

Wakatipu Environmental Society Inc v Queenstown Lakes District Council C153/2004 at [56].

Wakatipu Environmental Society Inc v Queenstown Lakes District Council C153/2004 at [56].

⁹ Royal Forest and Bird Protection Society of New Zealand Inc v Whakatane District Council [2017] NZEnvC 51 at [59].

Royal Forest and Bird Protection Society of New Zealand Inc v Whakatane District Council [2017] NZEnvC 51 at [59].

promotes the purpose of the Act by enabling people to provide for their well-being while addressing the effects of their activities.

- In this context, there is no legal presumption that the PC7 proposal being advanced by ECan is to be preferred to alternatives being promoted by other participants, in this case WIL, in the process.¹¹
- 17 If other means of achieving the purpose of the RMA and the objectives of the plan change are raised by reasonably cogent evidence, the Council should consider the further possibilities.¹²
- 18 It is WIL's overall case that the WIL Solutions Package will better enable people in the Waimakariri sub-region to provide for their well-being while addressing the effects of their activities. This has been supported by the evidence provided for WIL.
- 19 Two very relevant points for PC7 and the WIL Solutions Package have been noted by the Environment Court in *Federated Farmers of New Zealand Inc v Bay of Plenty Regional Council*, ¹³ where the Court commented:

[358] We are not starting from a clean sheet of paper. The starting point must be what exists today, where to the best of our knowledge, existing discharges are legally authorised and land owners acted in good faith to develop their land in accordance with their discharge rights.

Against this, it can never be assumed that historical practices will remain appropriate in perpetuity; there will always be the need to move away from less sustainable activities towards those that are more sustainable. Higher level statutory planning instruments in this case require no less. This will almost certainly be an iterative process, as the science gets better understood and social, economic, cultural and environmental considerations are better appreciated with

[emphasis added]

- The Waimakariri sub-region is similarly not a 'clean sheet of paper'. As many Waimakariri farmers have demonstrated in their submissions and evidence, there is a long history of farming in this area. While there has been development of this land over time, there has also been increasing environmental regulation within the WIL scheme area for some time leading up to PC7.
- 21 PC7 must been seen as a single piece of this 'iterative process'. WIL is very keen to ensure that there is not an unnecessary 'leap ahead' seeking to predict the distant future, such as by requiring

experience.

Federated Farmers of New Zealand Inc v Bay of Plenty Regional Council [2019]
NZEnvC 136 at [41].

Colonial Vineyard Limited v Marlborough District Council [2014] NZEnvC 55 at [64].

¹³ [2019] NZEnvC 136.

percentage nitrate reductions for farming in certain areas out to 2080. Consistent with the approach of the Environment Court in *Federated Farmers'* matter, between now and 2080 we would expect significant advances in knowledge around the scientific, environmental, economic, social and cultural considerations that underpin PC7.

In this respect it is also worth noting the findings of the Environment Court in *Federated Farmers* that:¹⁴

... key considerations in the choice between alternative methods are the extent to which their uncertainties are understood, the potential for unforeseen consequences to arise and the robustness of mechanisms in place to manage those in order to ensure, to the greatest extent possible, that the desired lake water quality objectives will be met.

- The evidence of **Mr Sanson** and **Mr Thomas** notes concerns (that were also identified in the Joint Witness Statement) regarding the reliability and robustness of the ECan modelling, which is being relied upon to inform regulatory changes that will have a significant economic impact, as **Mr Ford** and **Mr Copeland** have identified.
- The WIL Solutions Package seeks to place less reliance on this modelling. It instead seeks to accept that reductions in nitrate leaching from farming activities can, and should, take place, but it also seeks to enable other actions that can be undertaken now that have much greater certainty for achieving water quality outcomes.

Precautionary principle

- There has been some discussion in the PC7 process, and particularly in the context of the involvement of the CCC in PC7, of the relevance of the precautionary principle.
- The precautionary principle, or precautionary approach, is an international law environmental principle. There is no universal 'definition' of the precautionary principle. It is most commonly understood to mean (to paraphrase) "uncertainty does not justify inaction". In some other New Zealand legislation such as the Fisheries Act 1996 the concept is expressed as requiring that where there is uncertainty as to adverse effects a decision-maker should favour caution and the absence of information, or uncertainty in that information, should not be used as a reason for postponing or failing to take measures.¹⁵
- 27 The precautionary principle is necessarily broad and generalised as a concept it requires further definition and precision when being applied to specific sets of circumstances and is one of several

Federated Farmers of New Zealand Inc v Bay of Plenty Regional Council [2019]
NZEnvC 136 at [360].

¹⁵ Fisheries Act 1996, s 10.

potential options for approaching risk management and risk assessment in environmental decision making.

- The treatment and application of the precautionary principle under the RMA has been considered by the Environment Court in both the plan change and consenting contexts. Although the RMA does not expressly mention the precautionary principle, the Courts have consistently recognised that a precautionary approach is inherent in the Act's provisions. Provisions.
- In Fore World Developments Ltd v Napier City Council (for example), the Court noted that the RMA has an "inbuilt" precautionary approach by requiring consideration of "effects", which includes "any potential effect of low probability which has a high potential impact" (section 3(f)). Additionally, the purpose of the RMA (section 5) is inherently precautionary as it requires the reasonably foreseeable needs of future generations and safeguarding the life-supporting capacity of air, water, soil, and ecosystems to be provided for.
- One of the more comprehensive analyses of the application of the precautionary principle in the context of a plan review under the RMA was set out by Judge Kenderdine in *Golden Bay Marine Farmers v Tasman District Council*.²⁰ The Court held:²¹

We emphasise that this case involves references on a plan review. We note that in Shirlev Primary School the Court was doubtful whether a "wider precautionary principle" is useful. The precautionary approach is inherent in the RMA - (s.3(f)). If the Court applies the precautionary principle to a decision under s.105(1) or as another matter to be considered under s.104(1)(i), the need for caution will have been considered twice. Accordingly, reference to a precautionary

Many cases considering the relevance and applicability of the precautionary principle were also made in the context of the New Zealand Coastal Policy Statement, Policy 3 of which explicitly introduces the precautionary principle. In the context of PC7 there is no higher level planning document which requires the precautionary principle be applied.

See, for example, Shirley Primary School v Christchurch City Council (1999) NZRMA 66 at [221]; Rotorua Bore Users Association Inc v Bay of Plenty Regional Council NZEnvC Auckland A138/98, 27 November 1998 at p49; Fore World Developments Ltd v Napier City Council W29/06 13 April 2006 at [29]; and Taranaki-Whanganui Conservation Board v Environmental Protection Authority [2018] NZH 2217 at [334].

¹⁸ Fore World Developments Ltd v Napier City Council W29/06 13 April 2006 at [29]-[32].

¹⁹ Fore World Developments Ltd v Napier City Council W29/06 13 April 2006 at [30]

²⁰ Golden Bay Marine Farmers v Tasman District Council NZEnvC Christchurch W42/2001, 27 April 2001.

Golden Bay Marine Farmers v Tasman District Council NZEnvC Christchurch W42/2001, 27 April 2001 at [419] to [423].

principle should be avoided or if used, recognised as a restatement of s.3(f) and the precautionary approach.

...

A precautionary approach in reference proceedings on a proposed plan or plan change may be applied in various ways:

- a) through the application of and analysis of the factual evidence under s.3 RMA, particularly s.3(f) - that regard be had "to potential effects of low probability but high potential impact";
- after findings of fact are made, a precautionary approach may be inbuilt into the various relative provisions of the plan – objectives, policies, rules, methods, etc;
- such a precautionary approach may define the classification of the activity – prohibited, discretionary, controlled – depending on the nature of the activity;
- d) such an approach may be supported by statutory management plans or other methods;
- e) such an approach may be promoted through the application of review conditions under s.128, and decisions on enforcement orders where the Environment Court has a discretion to make orders in certain circumstances (s.319(2)).

In other words application of the precautionary principle/approach is not extraneous to the legislation. It does not sit outside in a way which provides additional weight to the decision-maker in its application.

...

We detect in this case that several parties are attempting to turn the principle into a standard, whereas it is an approach fully recognised in the provisions of the RMA.

[emphasis added]

In Sustain Our Sounds v New Zealand King Salmon²² the Supreme Court, in the context of a plan change to introduce spot zoning for salmon farming (and associated consent conditions), avoided making any findings as to the application of the precautionary principle under the RMA generally.²³ The core issue for the Court in that case was whether an adaptive management regime proposed was in accordance with the precautionary approach required by

²² Sustain Our Sounds v New Zealand King Salmon [2014] 1 NZLR 673.

Sustain Our Sounds v New Zealand King Salmon [2014] 1 NZLR 673 at [102], footnote 196.

Policy 3 NZCPS. It is important to note that the Supreme Court considered application of a precautionary approach under NZCPS Policy 3, rather than under the RMA generally.

- The Supreme Court in *Sustain Our Sounds* did, however, provide useful guidance as to how to approach uncertainties about the future when setting rules in plans or consent conditions, particularly with regard to adaptive management regimes. The approach is to "sufficiently" reduce uncertainty and "adequately" manage any remaining risk.²⁴ The Environment Court has since noted that (applying *Sustain Our Sounds*) the RMA's proportionate approach to risk involves identifying both the probability of an adverse effect and the cost of its consequences, but does not require that adaptive management conditions be completely certain.²⁵
- Again; in the context of PC7, the starting point is not a 'clean sheet of paper' but rather a long history of farming in the area. The discussion of the precautionary principle is not being undertaken in the circumstances of a 'new' and potentially 'unproven' proposal rather the WIL Solutions Package is supportive of the notified reductions out to 2040 and it is submitted that nothing in the package precludes things being done differently either before that date at the next plan review or in the more distant future should future monitoring show it necessary.
- For completeness it is noted that the Canterbury Regional Council provided a response to the Hearing Commissioners on 13 October 2020 that comments on the application of the precautionary principle. The case cited in that response, Friends of Nelson Haven & Tasman Bay Incorporated v Marlborough District Council (Friends of Nelson Haven), was decided in the context of the New Zealand Coastal Policy Statement Policy 3 of which expressly requires a precautionary approach be taken where activities are proposed whose effects are uncertain, but potentially significantly adverse. It was also decided in a consenting, rather than a plan change, context.
- 35 Regardless, paragraph [22] from the *Friends of Nelson Haven* decision (which the Council directly quotes) is a generalised statement regarding the precautionary principle and does not provide specific guidance as to its application in the plan change context. Applying "commensurate caution" where there is "uncertainty about the likelihood, or possibility, of adverse effects arising from a given activity" is effectively another way of

²⁴ Sustain Our Sounds v New Zealand King Salmon [2014] 1 NZLR 673 at [125].

²⁵ Aubade NZ Ltd v Marlborough District Council [2015] NZEnvC 154 at [35].

Canterbury Regional Council 'Second set of Responses to Questions of Hearing Commissioners from the First Hearing Day (29 September 2020)' dated 13 October 2020.

²⁷ [2016] NZEnvC 151.

²⁸ New Zealand Coastal Policy Statement, Policy 3.

conceptualising the approach to managing the type of effects described in s3(f) RMA – what is clear is that the RMA requires a proportionate approach to risk.

Accordingly, it is WIL's position that it would not be legally correct or appropriate for the Hearings Panel to apply the precautionary principle as an additional standard or consideration in this plan change process beyond what is inherent in the RMA. There are already various ways for the Hearings Panel (and for that matter WIL) to be cautious when making decisions on the proposed PC7. Accepting reductions as notified over the likely life of this plan is a good example of this.

Water quality outcomes

37 The nitrate-nitrogen limits proposed in PC7 were notified on the basis of appropriately accounting for the limits prescribed in the NPSFM-17 (and for environmental effects of a low probability but high potential impact, as described in s3(f) RMA).

Groundwater nitrate limits

- In respect to groundwater, the Canterbury Land and Water Regional Plan currently sets a maximum nitrate-nitrogen concentration of 11.3 mg/L in groundwater.²⁹ This is consistent with the Maximum Acceptable Value (*MAV*) set in the 'Drinking Water Standards for New Zealand 2005 (Revised 2018)' (*DWSNZ*).
- As the Hearing Panel will be well aware, PC7 proposes to set a limit which is half of the MAV for aquifers in the Waimakariri district (and one third of the MAV for Christchurch aquifers). As noted in its submission, WIL is supportive of the water quality outcomes sought in PC7.
- 40 **Dr Black** explains in his rebuttal evidence that the MAV set for nitrates in drinking water New Zealand is consistent with the evidence based position recommended by the World Health Organisation (*WHO*).³⁰ This limit is based on the short term risk of infantile methemoglobinemia.³¹ In 2019 the Ministry of Health released 'Guidelines for Drinking-water Quality Management' which state that:³²

The epidemiological evidence for an association between dietary nitrate and cancer is insufficient, and the MAV for nitrate in drinking-water is established solely to prevent methaemoglobinaemia.

²⁹ Canterbury Land and Water Regional Plan, Schedule 8, page 443.

Rebuttal Evidence of Dr David Black, paragraph 9(d).

Ministry of Health *Guidelines for Drinking-water Quality Management in New Zealand* Last updated June 2019 at p 20.

Ministry of Health. Guidelines for Drinking-water Quality Management for New Zealand: Volume 3 Datasheets – Chemical and physical determinands: Part 2.1 Inorganic chemicals. Released 2019. P 268.

- This accords with **Dr Black's** explanation that the evidence based position adopted by WHO and New Zealand does not regard nitrates and nitrates as posing a risk of cancer.³³ Furthermore, **Dr Black** explains that the hypothesis posed by **Dr Chambers** for the CCC that nitrates in drinking water is carcinogenic is no more than speculative and has not influenced the WHO in setting drinking water standards.³⁴ **Dr Black** concludes that the target set in the proposed PC7 is an appropriate "action level" endorsing good practice by setting a level below the widely recognised standard of 11.3 mg/L nitrate-nitrogen (as NO₃N) in groundwater.³⁵
- 42 Accordingly, it is WIL's position that the water quality outcomes sought through PC7 appropriately take into account any uncertainty surrounding potential health effects of nitrates in drinking water by setting a cautious limit which is half of the widely recognised standard for drinking water.
- 43 As the Section 42A Report records, ECan follows current Ministry of Health guidance on maximum acceptable levels in drinking water, but supports calls for further research into potential health risks associated with elevated nitrate concentrations to properly determine national drinking water limits.³⁶ Based on the best information currently available, ECan has set an appropriate water quality target for nitrate-nitrogen.

Limits proposed by CCC

- CCC seeks that an upper limit of 1 mg/L for nitrate-nitrogen (as NO_3N) should be imposed on the basis of a potential link between nitrate concentrations in drinking water and colorectal cancer.³⁷ CCC suggests that adoption of that limit is justified because it would represent a 'precautionary approach' to protect public health.³⁸
- It is WIL's position that the nitrate-nitrogen limit sought by the CCC and the approach for which it advocates is not justified on the evidence. Nor would it achieve the Act's purpose of sustainable management.
- 46 **Dr Black** in his rebuttal evidence sets out that application of the precautionary principle has largely been abandoned in the context of epidemiology as it is fraught with unexpected consequences.³⁹

 Instead, current best practice in the application of epidemiological

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See the Rebuttal Evidence of Dr David Black at paragraph 9(d).

³⁴ See the Rebuttal Evidence of Dr David Black at paragraph 14(b).

³⁵ See the Rebuttal Evidence of Dr David Black at paragraph 21.

³⁶ Section 42A Report, paragraph 8.26 on page 473-474.

³⁷ See Evidence in Chief of Dr Timothy Chambers dated 17 July 2020 at paragraph 44

Submission of Christchurch City Council at p 1-2; Evidence in Chief of Dr Timothy Chambers dated 17 July 2020 at paragraph 44.

³⁹ See the Rebuttal Evidence of Dr David Black at paragraph 19.

information to the setting of health standards is to rigorously base standards on established science – with proven and replicable effects used as a starting point and then with a safety margin applied to take into account biological variation and potential errors in estimation. There are well established approaches to dealing with statistical associations and epidemiological information in setting health standards, which is an extremely specialist and technical matter. The CCC seeks to abandon these established and globally recognised approaches to standard setting in favour of an arbitrary "pseudo-standard".

- The true causal relationship between nitrates in drinking water and public health outcomes associated with colorectal cancer has not been established and the Hearing Panel does not have before it comprehensive expertise on this issue (with **Dr Chambers** seemingly reliant on the hypotheses or possible connections drawn by others rather than having his own specific expertise in this area).
- As **Dr Black** discusses, epidemiology generally does no more than provide evidence of a statistical association which does not necessarily determine a causal relationship.⁴¹ To this extent he notes the evidence discussed by CCC does not meet the 'Bradford Hill tests', which is the appropriate framework for undertaking epidemiological assessments and determining the likelihood of true causation between a variable such as nitrates in drinking water and public health outcomes.⁴²
- 49 The Council's proposed nitrates threshold relies on a *potential* statistical association between nitrates in drinking water and colorectal cancer which has not been well established and which has poor scientific integrity. As **Dr Black** discusses, adopting the Council's threshold could create a false sense of public reassurance, waste significant resources for no purpose, and undermine public health studies which rely on properly set standards.⁴³
- 50 More generally, applying any regulation, particularly a standard as stringent as that suggested by the CCC, involves opportunity cost and imposes a burden on those who are regulated. In this case, the burden of the CCC's proposed standard on WIL and its shareholders is significant, and in the context of the heavy weight of regulation already affecting the farming community could well force many shareholders out of business, as discussed in the Rebuttal Evidence of **Mr Ford**. This is not a scenario in which additional restriction has no real downside poorly targeted and overly restrictive standards can be actively detrimental in social and economic terms,

 $^{^{\}rm 40}$ $\,$ See the Rebuttal Evidence of Dr David Black at paragraph 20.

⁴¹ See the Rebuttal Evidence of Dr David Black at paragraphs 16 and 17.

See the Rebuttal Evidence of Dr David Black at paragraphs 16 and 17.

⁴³ See the Rebuttal Evidence of Dr David Black at paragraph 23.

⁴⁴ Rebuttal Evidence of Stuart Ford at paragraph 12.

for potentially no corresponding environmental or public health benefit. In other words, needless excessive protection would place WIL shareholders at a significant disadvantage with no purpose served.

- There is nothing in the PC7 context that means the Waimakariri area should be treated differently to all other aquifer systems in New Zealand (all, or almost all, of which these submissions assume have the potential to impact on drinking water supplies). Again, standards should be set at a national level.
- To the extent that CCC will presumably maintain the position that the national standard is 'wrong' then it is clear from **Dr Black's** rebuttal evidence that that the CCC's evidence before the Hearing Panel does not establish a causal relationship between nitrates in drinking water and colorectal cancer. As Sheppard J held in *McIntyre v Christchurch City Council*, it would be inappropriate for the decision-makers to impose the limit proposed by CCC purely on the possibility that further research may show something that previous research has not.⁴⁵ If in the future more conclusive research does become available then that can and should be addressed through a change in the standard and a future plan change, as discussed in the rebuttal evidence of **Ms Sullivan**.⁴⁶
- Further, despite the CCC's assertion that its limit reflects a precautionary approach, what the CCC is proposing is in fact effectively a "no-risk" approach. Such an approach is incompatible with the definition of sustainable management in section 5(2) of the RMA.⁴⁷ To impose an upper limit of 1 mg/L for nitrate-nitrogen (as NO₃N) on the basis of a potential link between nitrate concentrations in drinking water and colorectal cancer which has not in fact been established would, on the evidence, be a disproportionate and unnecessary response. To adopt a 1 mg/L limit would be contrary to the Act's purpose and goes well beyond a precautionary approach.
- Accordingly, and in summary, WIL's response to the CCC's proposed approach is that:
 - 54.1 the RMA is already inherently precautionary and significant care needs to be taken when applying a "precautionary principle" as a separate and additional standard or consideration;
 - 54.2 the limit proposed by CCC is not justified and would not achieve the purpose of the RMA;

⁴⁵ McIntyre v Christchurch City Council [1996] NZRMA 289 at p 116 - 117.

⁴⁶ Rebuttal Evidence of Ms Bianca Sullivan at paragraph 8.

⁴⁷ Aquamarine Limited v Southland Regional Council NZEnvC Christchurch C126/97, 15 December 1997 at 145.

- 54.3 the upper limit for nitrate-nitrogen proposed in PC7 already adopts an appropriately cautious approach; and
- 54.4 the above also all needs to be seen in the context of the WIL solutions package most likely achieving these water quality outcomes with a greater level of certainty than what is currently proposed in Section 8 of the proposed PC7.
- Again, WIL's preferred approach is to focus on the known issues in the Waimakariri sub-region, and spend the 'life' of PC7, i.e. the next 10 years, working towards both addressing and better understanding those issues.

WIL SOLUTIONS PACKAGE IN MORE DETAIL

- WIL has proposed its WIL Solutions Package as an alternative to ECan's proposed PC7. This has been evaluated in the evidence provided for WIL as a comparison with PC7.
- 57 The WIL Solutions Package is anticipated to achieve the same (or better) water quality outcomes as PC7 but in a much shorter time-frame and in a more reliable manner, as discussed in the evidence of **Mr Jeremy Sanson**.⁴⁸
- Similarly, in her evidence, **Ms Sullivan** explains that the proposed alternative provisions are likely to achieve the desired water quality outcomes sooner and with less economic impact on the community. ⁴⁹ **Mr Copeland** and **Mr Ford** have also both assessed the costs of PC7 and compared these to the economic cost of the WIL Solutions Package, and concluded that the WIL Solutions Package is more effective and efficient. ⁵⁰
- In essence, it is submitted that WIL's alternative solutions package will be far more effective and practical at achieving the environmental outcomes sought. The WIL solutions package is therefore the most appropriate way to achieve the purpose of the RMA and the objectives of PC7, and to give effect to the relevant national policy statements, and the Canterbury Regional Policy Statement.
- Relevant considerations for each of the first four elements of the WIL Solutions Package are set out below.

 $^{^{\}rm 48}$ $\,$ See the evidence of Mr Jeremy Sanson at paragraphs 9, 10, and 47.

⁴⁹ See the evidence of Ms Bianca Sullivan at paragraphs 14 and 66.

See the evidence of Mr Mike Copeland at paragraph 6.2, and the evidence of Mr Stuart Ford at paragraph 57.

⁵¹ Evidence of Mr Jeremy Sanson at paragraphs 45 – 49.

Achievable reductions

- The starting point for the WIL Solutions Package is ensuring on farm nitrate loss reductions which are a 'stretch' but achievable. In saying this, the assessments carried out by **Mr Ford** and the anecdotal evidence of **Mr Reese** shows that, for example, the requirement to meet GMP by 2020 has already had an impact on farm profitability.
- WIL however agrees that some reductions are appropriate, and therefore supports the inclusion of reduction requirements to 2030 and further reductions of up to the same levels in 2040 only if monitoring suggests that such reductions are required. WIL strongly disagrees that it is appropriate to direct long-term reductions now, based on a model that is inherently uncertain. The evidence of **Mr Copeland** and **Mr Ford** has identified that there are particularly significant economic impacts of this in terms of business uncertainty. The social cost of this uncertainty is demonstrated through **Mr Reese's** case studies and the other presentations by the WIL shareholders.
- This approach is also consistent with the 2019 Federated Farmers case, where the Court noted an 'unavoidable conclusion' from the evidence before it that many aspects of nutrient management are uncertain, and the outcome of measures put in place now will take time to become apparent. In these circumstances, the Court reflected that it was necessary to accept that the particular plan change was part of a long-term process and future plan changes would be required to take account of experience and further scientific data. ⁵²
- 64 In addition, the submission by WIL on PC7 explained that the starting point for WIL's reductions can only feasibly use the Matrix Method. The Matrix Method is an equivalent to Overseer and an alternative means of determining the Baseline GMP Loss Rate.
- 65 **Mr Sanson** has explained this in some detail in his evidence, noting that the Matrix Method is an appropriate and workable model for irrigation schemes, and is used extensively across Canterbury, with the approval of ECan, for consent compliance and determining nitrogen loads.⁵³
- 66 WIL only has sufficient information to calculate a baseline nitrogen load and a baseline nitrogen load at GMP using the MRB methodology. Therefore, any requirement in PC7, express or implied, for the Scheme to use Overseer as the tool for these calculations will not be implementable from 'day 1'. WIL therefore seeks that PC7 allows for WIL to continue using the MRB

⁵² At [37].

⁵³ Evidence of Mr Jeremy Sanson at paragraphs 60 – 62.

- methodology (as now updated and reflected in the approved 'Matrix Method') to calculate their 'starting point'.
- The Section 42A Report does not recommend amending the provisions to allow for the use of MRB files, citing concerns about this methodology being "too coarse" to show reductions effectively and whether the methodology developed for the Hinds area will be "entirely appropriate" for use in Waimakariri. The Section 42A Report therefore recommends that the WIL submission is rejected, but does not offer any alternative course of action to address the fact that it is not possible to determine an Overseer derived Baseline GMP Loss Rate for the scheme.
- It submitted that any concerns around the MRB methodology being "too coarse" are the same concerns that can be raised in relation to Overseer and Farm Portal assessments. 55
- In the Canterbury context the Matrix Method has been identified as appropriate in the context of an irrigation scheme. It is already being successfully applied elsewhere in Canterbury, and **Mr Sanson**, who has worked on the application of this method elsewhere, does not appear to share the concerns expressed in the Section 42A Report regarding the suitability of the Method for Waimakariri. ⁵⁶

Monitoring

- 70 WIL sees ongoing monitoring as an important part of informing future plan reviews and ultimately delivering desired water quality outcomes. As well as strongly supporting (in particular) Policy 8.4.35, WIL is committed to undertaking its own monitoring (and also seeks to work collaboratively with other interested parties and ECan) to ensure that come the next plan review the community is in a position to make much more informed decisions about future nutrient management.
- 71 Implementing PC7 in a way which ensures change (and reductions) occur in a sustainable manner is critical. The suite of interventions (including managed aquifer recharge, targeted stream augmentation and even wider improvements in future farm practice) will only occur if shareholders (and WIL) are in a position to invest in such environmental initiatives. WIL accordingly seeks that long-term reductions be deferred until such time as existing water quality is better understood (through a monitoring programme).
- 72 This is particularly important in the context of uncertainty regarding groundwater modelling. As touched on earlier in these submissions, and consistent with **Mr Thomas's** opinion, the ECan model should

Paragraph 8.303.

⁵⁵ See the evidence of Mr Jeremy Sanson at paragraph 62.

See the evidence of Mr Jeremy Sanson at paragraph 60.

not be considered as an accurate indicator of what might happen or be required in the future.⁵⁷ **Mr Sanson** similarly considers that the existing monitoring and modelling undertaken by ECan does not provide sufficient certainty to justify the sub-area delineation and associated long-term percentage reduction requirements from farming land uses.⁵⁸

- 73 WIL supports the position of **Mr Thomas** that it would be more appropriate to base decisions relating to PC7 on current trends in monitoring data, which appear to have a background of relatively stable groundwater quality, with limited instances of 'nutrient hotspots'.⁵⁹
- 74 Improved monitoring will provide essential information for future plan reviews, and will shine the spotlight on the effectiveness of the reductions and other mitigating measures.

MAR and TSA

- As has been noted elsewhere in these submissions, WIL sees MAR and TSA as essential components of achieving compliance with the NPSFM-17 (and, even more so, NPSFM-20) in a reasonable time period. MAR and TSA particularly make sense in the context of the WIL Scheme, where surplus water can be planned for and coordinated in a manner that would not otherwise occur on an individual farm-by-farm basis.
- 76 **Mr Sanson** has prepared a number of calculations in his evidence to demonstrate the effectiveness of these interventions, including for maintaining relatively low concentrations of nitrates in the shallow aquifer system and achieving long-term compliance with PC7 limits in surface water bodies.⁶⁰
- Mr Sanson also addresses in his evidence the concerns expressed by ECan in an earlier report, noting that MAR and TSA were recommended by Environment Canterbury and adopted by them and the hearing panel as part of the PC2 solutions (Hinds / Hekeao Plains) package. WIL sees no good reason why the same approach should not be taken for PC7.

Biodiversity projects

78 The fourth element of the WIL Solutions Package is a commitment to projects that seek to protect and restore native biodiversity across the sub-region. As **Ms Drummond** notes, biodiversity

100292332/1576530.4

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⁵⁷ See the evidence of Mr Neil Thomas at paragraph 14.

 $^{^{58}}$ See the evidence of Mr Jeremy Sanson at paragraphs 16-18.

⁵⁹ Evidence of Mr Neil Thomas at paragraph 37.

⁶⁰ Evidence of Mr Jeremy Sanson at paragraphs 34 – 43.

- projects are currently widespread but fragmented across the Waimakariri sub-region.⁶¹
- 79 A coordinated and consistent approach to these projects forms part of the WIL Solutions Package, as a meaningful and very tangible effort that landowners can take to improve the water quality and ecological condition of the spring-fed streams that run through their farms. **Ms Drummond** has recommended in her evidence a number of improvements that can be made by the WIL Scheme, including fencing of all permanent and temporary water courses, improving and maintaining riparian planting and improving instream habitat creation within target waterways.⁶²

EVIDENCE

- 80 WIL has provided the following evidence on PC7:
 - 80.1 **Brent Walton**, Chief Executive for Waimakariri Irrigation Limited;
 - 80.2 **Michael Copeland**, Managing Director of Brown, Copeland and Company Limited, analysing the economic implications;
 - 80.3 **Dr David Black**, a medically qualified and registered specialist in occupational and environmental medicine
 - 80.4 **Jeremy Sanson**, Water Resources Engineer with Pattle Delamore Partners, describing water management issues in the area of the Waimakariri Plains over which the Waimakariri Irrigation Scheme operates;
 - 80.5 **Neil Thomas**, hydrogeologist at Pattle Delamore Partners, relating to groundwater aspects of the Part C provisions;
 - 80.6 **Laura Drummond**, Senior Ecologist at Pattle Delamore Partners, considering the current and future health of the main spring-fed streams;
 - 80.7 **Stuart Ford**, Director of The AgriBusiness Group, providing an overview of the potential on-farm economic implications;
 - 80.8 **Paul Reese**, Director of Water Strategies Limited, explaining WIL's day-to-day environmental management; and
 - 80.9 **Bianca Sullivan**, Environment Planner and Director at Enviser Limited, addressing the provisions affecting WIL, including proposed amendments.
- For completeness it noted that **Mr Sanson** and **Mr Thomas** also participated in the Groundwater Science Expert Caucusing on 19

⁶¹ Evidence of Ms Laura Drummond at paragraph 60.

⁶² Evidence of Ms Laura Drummond at paragraph 60.1, 60.2, and 60.3.

and 31 August 2020 and are signatories to the Joint Witness Statement. WIL's understanding of the outcomes of that Expert Caucusing is that there are several key points of disagreement between the experts, which is exacerbated by a lack of data, transparency and detailed peer review of the Canterbury Regional Council (*ECan*) modelling. **Mr Sanson** and **Mr Thomas** have addressed this in their evidence, and are able to speak to these issues in their presentation.

Many WIL shareholding farmers have also submitted on PC7 and provided evidence to the Commissioners. This has been a significant investment and in many cases a heavy burden for these individuals and families whose way of life, sense of community and income stands to be directly impacted by PC7. WIL therefore strongly supports and encourages their involvement in PC7.

CONCLUSION

- 83 In conclusion, WIL seeks amendments to PC7 consistent with its proposed Solutions Package, which it considers is the most appropriate in the context of the legislative framework outlined at the start of these submissions.
- 84 As the Environment Court in Federated Farmers noted, "plan provisions that will work reliably and consistently on the farm are what will determine success or otherwise in terms of the relevant plan objectives and policies to achieve sustainable management of natural and physical resources in this catchment". 63
- WIL has noted a number of concerns with both the basis for and methodology proposed by PC7. The WIL Solutions Package is proposed as an alternative to the notified Plan Change that will deliver the same environmental outcomes; if anything, faster, with more certainty, and more reliability and consistency, particularly in the context of the on-farm measures.
- WIL therefore seeks that PC7 is amended as outlined in its submission and evidence.

Ben Williams

11 November 2020

Federated Farmers of New Zealand Inc v Bay of Plenty Regional Council [2019] NZEnvC 136 at [323].

Schedule 1 – Brief assessment of WIL Solutions Package against NPSFM-20

- In understanding the implications of the NPSFM-20, it is useful to start with the overall context of the changes and the purpose of the Essential Freshwater programme, to:⁶⁴
 - 1.1 prevent further degradation of freshwater;
 - 1.2 start to make immediate improvements so water quality improves within five years; and
 - 1.3 reverse past damage to bring waterways and ecosystems to a healthy state within a generation.
- In achieving the above, the NPSFM-20 places a greater emphasis on 'Te Mana o te Wai'. Te Mana o te Wai has been part of the NPSFM framework since 2014 - although the NPSFM-20 now provides greater detail on how the concept is to be described and how it must be implemented. In particular, it is described in section 1.3 of the NPSFM-20 as:

Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.

- In understanding the concept it is important to emphasise that it includes **both**:
 - 3.1 a substantive change in how we view freshwater, with a need to ensure the health and well-being of the water is protected and human health needs are provided for before enabling other uses of water; and
 - 3.2 a procedural change in how it is implemented, with greater emphasis on engagement and discussion between regional councils, communities and tangata whenua as the means by which it is determined how Te Mana o te Wai is applied locally in freshwater management. The direct obligation is on Regional Councils (and not individual consent applicants) as set out in Section 3.2(1) that advises:

Every regional council must engage with communities and tangata whenua to determine how Te Mana o te Wai applies to water bodies and freshwater ecosystems in the region.

⁶⁴ https://www.mfe.govt.nz/publications/fresh-water/essential-freshwater-overview-factsheet

- Absent that community engagement having occurred in the express context of the NPSFM-20, it is not possible to definitively reach a view on how Te Mana o te Wai is to be applied. Inherently there will also be some aspects that can only be introduced and considered by way of future plan change and plan review where there is sufficient scope to consider wider changes and care also needs to be taken to pre-empting what Te Mana o te Wai *might* look like at a local level.
- What is clear is that the degree to which Te Mana o te Wai introduces substantive and procedural change will vary considerably in context.
- In the situation of Canterbury (and PC7), where a robust NPSFM-17 compliant planning framework is already in place region-wide following the wider Land & Water Regional Plan process and more recently plan change 5 (which in most cases prevents intensification and has good management practice requirements) (together the *LWRP*), many aspects are already consistent with the Essential Freshwater purposes.
- The reference to the procedural and substantive outcomes envisaged by Te Mana o te Wai can also be referenced to the CWMS (and the Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010. Much of what is expected to occur under the NPSFM-20 has already been occurring in Canterbury for some time.

NPSFM-20 Objectives and policies

- When considering the implementation of the NPSFM-20 it is important to recognise that Te Mana o te Wai is relevant to **all** values and interests that attach to freshwater.
- 9 This includes prioritising the water itself in accordance with the priorities set out in the Objective:

2.1 Objective

- (1) The objective of this National Policy Statement is to ensure that natural and physical resources are managed in a way that prioritises:
 - (a) first, the health and well-being of water bodies and freshwater ecosystems
 - (b) second, the health needs of people (such as drinking water)
 - (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

10 This single objective is supported by a number of relevant policies that are set out below. Where relevant we have referred to the relevant parts of *Part 3: Implementation* of the NPSFM-20 within the discussion of the policies.

Policy 1: Freshwater is managed in a way that gives effect to Te Mana o te Wai.

- As noted above, Te Mana o te Wai includes both substantive outcomes and procedural obligations. ECan is ultimately responsible for its implementation although both tangata whenua and the community have recognised roles in both defining what Te Mana o te Wai is on a local scale and its wider implementation.
- As noted above it is not possible to form a definitive view on the full extent to which Te Mana o Te Wai may require changes over both the existing LWRP regime in the wider region and the specific provisions proposed in PC7. Those will all presumably be considered as a part of a future plan change.
- However, given the need to focus on the current PC7 process, it is submitted that:
 - 13.1 PC7 and most notably the WIL Solutions Package, will go a material way to ensuring water quality and quantity outcomes are met over time (consistent with the first priority of Te Mana o te Wai);
 - 13.2 the above, along with the other provisions and measures specifically relating to drinking water protection, will similarly ensure drinking water is protected (consistent with the second priority of Te Mana o te Wai); and
 - 13.3 the WIL Solutions Package is also consistent with enabling people and communities to provide for their wider social, economic and cultural wellbeing (consistent with the third priority of Te Mana o te Wai).
- 14 The exact achievement of these and, ultimately, the timeframes for achieving them, can only be determined through a future plan change in line with the NPSFM-20 (or the Regional Council formally determining that the LWRP inclusive of the PC7 provisions are already consistent with it).

Policy 2: Tangata whenua are actively involved in freshwater management (including decision-making processes), and Māori freshwater values are identified and provided for.

Rūnanga representatives have been involved in the Zone Committee and PC7 processes. While tangata whenua have not been directly involved in the process of formulating the WIL Solutions Package, the evidence of **Mr Walton** notes that WIL did meet with Te Ngāi

 $T\bar{u}\bar{a}huriri$ $R\bar{u}$ nanga to discuss PC7, 65 and the overall approach is intended to achieve the ultimate outcomes of the Zone Committee process.

Policy 3: Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.

- The LWRP already enables the management of farming activities on a whole-of-catchment basis with land-use activities all ultimately working towards the achievement of various outcomes generally consistent with the priorities set out by Te Mana o te Wai.
- 17 Regional planning that has taken place to date in Canterbury has placed emphasis on integrated management of 'sub-regions' and the existing planning framework already gives effect to large aspects of the "integrated approach" envisaged by the NPSFM-20, section 3.5.
 - Policy 5: Freshwater is managed through a National Objectives Framework to ensure that the health and wellbeing of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.
- Although the LWRP (and the WIL Solutions Package) will share some similarities with the outcomes envisaged through the National Objectives Framework (with the existing planning framework also being consistent with the NPSFM-17), the full extent of the National Objectives Framework can only be properly considered as a part of the Te Mana o te Wai procedural process (which is yet to occur).
 - Policy 7: The loss of river extent and values is avoided to the extent practicable.
 - Policy 8: The significant values of outstanding water bodies are protected.
 - Policy 9: The habitats of indigenous freshwater species are protected.
 - Policy 10: The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.
- 19 Given the cross-over between these policies, Policies 7 to 10 are discussed together.
- 20 Much of the control and improvements in water quality are intended to be achieved through reductions in nitrogen loss from farming operations. This is supported by the WIL Environmental Management Strategy and Farm Environment Plan framework that are intended to manage effects on *inter alia* sensitive environments and receptors, including water bodies.

⁶⁵ Evidence of Mr Brent Walton at paragraph 16.

The proposed environmental monitoring programme will similarly assist in allowing such effects to be better understood and inform future decision making (and is generally consistent with sections 3.18 to 3.20 of the NPSFM-20).

Policy 11: Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.

- The main take of water from the Waimakariri River is subject to an allocation regime managed through a consenting process that is intended to protect the river's values, in combination with all other takes.
- Within the Scheme area there has been a significant effort in recent years to improve water use efficiency and this will continue to be driven by the proposed nutrient/good management practice controls and the Farm Environment Plan framework.
- Directly relevant to this Policy is the recently consented storage facility for the Scheme, which would increase reliability of supply and encourage an even more sustainable approach to water use. The storage is expected to be significant in achieving the aims expressed by this policy, but, as noted elsewhere, the ability to proceed with the construction of the storage ponds is dependent on shareholder support and access to funds, which will be heavily influenced by the overall outcome of PC7.

Policy 12: The national target (as set out in Appendix 3) for water quality improvement is achieved.

- The LWRP already envisages improvements in water quality to facilitate safe contact recreation.
- The WIL Solutions Package will better facilitate contact recreation occurring and is more consistent with Policy 12 as it is likely to achieve more reliable and faster improvements in water quality that proposed PC7.
 - Policy 13: The condition of water bodies and freshwater ecosystems is systematically monitored over time, and action is taken where freshwater is degraded, and to reverse deteriorating trends.
 - Policy 14: Information (including monitoring data) about the state of water bodies and freshwater ecosystems, and the challenges to their health and well-being, is regularly reported on and published.
- 27 Much of policies 13 and 14 appear to be directed at the role of the Regional Council in ultimately monitoring and managing waterbodies in accordance with the NPSFM-20 and the freshwater management unit process.
- WIL Solutions Package is more consistent with the direction provided by the policies and as set out elsewhere in this response

include environmental monitoring and a requirement for reductions over time.

Policy 15: Communities are enabled to provide for their social, economic, and cultural well-being in a way that is consistent with this National Policy Statement.

- 29 The WIL Solutions Package will enable the continued management of nutrient losses (and in part wider farming activities) as part of a wider integrated scheme-based programme with a significant focus on improved environmental outcomes.
- 30 The WIL Scheme forms a significant part of the District and Regional economy. The WIL Solutions Package will continue to, and better, enable the community to provide for their social, economic and cultural well-being.