

**BEFORE THE CANTERBURY REGIONAL COUNCIL  
HEARING COMMISSIONERS**

**UNDER** the Resource Management Act 1991

**AND** the Environment Canterbury (Transitional  
Governance Arrangements) Act 2016

**AND**

**IN THE MATTER** of submissions on Proposed Plan Change 7 to  
the Land and Water Regional Plan and  
Proposed Plan Change 2 to the Waimakariri  
River Regional Plan

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**OPENING LEGAL SUBMISSIONS FOR  
CHRISTCHURCH CITY COUNCIL  
11 November 2020**

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## **May it please the Hearing Panel:**

### **Introduction**

1. The Christchurch City Council (City Council) lodged a submission and further submission on Plan Change 7 (PC7) of the Canterbury Land and Water Regional Plan (LWRP).
2. The City Council is adducing evidence from the following expert witnesses on those submissions:  
Bridget O'Brien;  
Mike Thorley;  
Geoff Butcher;  
Greg Birdling;  
Dr Belinda Margetts;  
Dr Tim Chambers;  
Janice Carter.
3. Recently posted CRC Officer answers to Commissioners' questions have not yet been considered by the City Council's experts. The City Council's experts will comment on those at the hearing.
4. These legal submissions first summarise the key points of the City Council's evidence and then address the following legal matters:
  - Regard to National Policy Statement for Freshwater Management 2020 (NPSFM);
  - Scope.

### **Key points of the City Council's submission and evidence**

5. Overall, the City Council supports the direction of the plan change because it will result in less deterioration in groundwater quality than would be the case in the current LWRP.

**High-quality Christchurch groundwater is an important source of drinking water and supports freshwater ecology in spring fed streams and should be protected from nitrate contamination.**

6. PC7 does not go far enough in terms of nitrate limits and targets for nutrient management, and that they will be too slow to take effect.
7. National guidelines and standards are just that – national guidelines - and may not be appropriate to protect the high-quality Christchurch groundwater resource.
8. Lower nitrate-nitrogen targets are a prudent risk management approach which addresses health costs, avoids drinking water treatment costs, and results in better environmental/ecological outcomes.

**Recent epidemiological/health research supports a lower nitrate target than provided for in PC7.**

9. Recent research shows a link between much lower nitrate concentrations and colorectal cancer.
10. Indications of health effects from concentrations of nitrate-nitrogen in drinking water lower than the maximum acceptable value (MAV) in the Drinking-water Standards for New Zealand has been identified by epidemiologists.
11. The intent of the CRC's proposal to introduce a nitrate limit substantially lower than the MAV is supported. However, based on the epidemiological evidence, an upper limit of 1 mg/L for drinking water is justified.
12. Changes to land use practices today will take years to have an impact on nitrate concentrations in some water supplies. Leaving management of risks to future adaptive management when elevations in nitrate concentrations are detected will have health implications for the current generation and increasing health implications for future generations.

**The Waimakariri Sub-region as identified in PC7 contributes to the recharge of the Christchurch aquifers**

13. Mr Thorley's evidence is that part of the area subject to PC7 is part of the recharge area for the Christchurch aquifers. CRC has specifically

acknowledged the role of this area in the recharge of Christchurch's aquifers in its technical documents, its s32 and s42A reports.

**The Waimakariri River contributes significantly to recharge and aquifer quality of the Christchurch aquifers and should be given more consideration in PC7.**

14. The large contribution of Waimakariri River recharge to the Christchurch-West Melton Groundwater System means maintaining a high water quality in the river is critical to maintaining groundwater quality in the Christchurch aquifers (minimising the effects of nitrate-nitrogen from local and surrounding areas).
15. Currently, the importance of the Waimakariri River as a recharge source to Christchurch is not explicitly protected in the Land and Water Regional Plan, PC7. CRC has shown through modelling (Kreleger and Etheridge, 2019) that parts of the Waimakariri River could be affected by land use and discharges in the PC7 area (especially the western areas of the Waimakariri Plains) but has not provided nutrient management of the areas which could affect the river water quality and hence protect a major source of groundwater recharge to the Christchurch-West Melton Groundwater System. Provisions in the Nitrate Priority Area and associated tables should be included in PC7 to protect the Waimakariri River water quality.

**The age of groundwater and the lag time for nitrates from the Waimakariri sub region to reach the Christchurch aquifers as provided by CRC in the research for PC7 may be significantly underestimated.**

16. Some deep aquifer bores in Christchurch already show signatures of anthropogenic nitrate-nitrogen indicating ingress of young water and minimum residence times of approximately 50 years. Therefore, nitrate-nitrogen incursion is occurring over shorter time frames than relied on by CRC and reductions in nitrate-nitrogen should occur over shorter timeframes than proposed by PC7.

**Economic considerations should be wider than the CRC has provided for in its consideration of PC7 and should include a consideration for an alternative scenario of much lower nitrate levels.**

17. Assessments for PC7 should have considered an alternative scenario in which nitrate levels were kept much lower, a scenario that might be justified on the basis of lower health costs or avoided drinking water treatment costs, as well as better environmental outcomes.
18. The economic cost of the relief sought in the City Council submission by changes to Table 8-9 is in the range of \$569 million. Against this cost should be set not only the benefits of not having to treat water to remove nitrates, but also an improvement in other environmental outcomes and protection of Te Mana o te Wai.
19. The benefits of allowing nitrate levels to rise accrue to landowners on whose land the farming takes place, whereas the costs accrue to the freshwater resource itself and to the general public.

**Potential significant adverse impact on City Council if groundwater nitrate levels increased beyond appropriate limits**

20. If the expert advice to the City Council as drinking water supplier is that the expected increases in groundwater nitrate concentrations will have adverse health and environmental effects, then the City Council may be required to mitigate this in some way to meet regulatory requirements and/or to preserve existing environmental values. There would be significant costs and uncertainty associated with this, and this would impact the ratepayers of Christchurch.

**PC7 doesn't provide an appropriate limit/target and timeframe for nitrate reduction in Christchurch aquifers (and Waimakariri aquifers)**

21. The expert evidence is that the Waimakariri Sub-region contributes to the recharge of the Christchurch aquifers; accordingly, the targets and limits in PC7 need to be set at an appropriate level over an appropriate timeframe to protect the existing high quality of groundwater in the Christchurch aquifers.

The City Council's evidence and submission is that:

- (i) the appropriate limit is 1mg/L nitrate-nitrogen (NO<sub>3</sub>-N); and
  - (ii) the timeframe proposed in Table 8-9 of PC7 will take too long to achieve the appropriate reduction.
22. More stringent land use measures are required to achieve this than proposed in PC7 to achieve much faster reductions in nitrate-nitrogen losses from intensive land use. The longer it takes to reduce nitrate losses from intensive land use, the greater the quantity of nitrate that is “in the post”.
23. Regarding the evidence for amending Table 8-9 and whether it is possible to reduce nitrate-nitrogen losses quicker than proposed: Table 4-5 in Kreleger and Etheridge (2019) indicates that in order to meet a nitrate-nitrogen threshold of 1 mg/L, up to 80% reduction is required. Mr Thorley indicates that this would be comprised of a 40% reduction in the first 10 year period followed by further 40% in the following 20 year period for Dairy Farming Activities. This could be achieved through reducing the nitrogen content in urine patches through alternative feed supplements and reducing the number of urine patches through stock management, and feed pads, and potentially barn housing of stock and storage of waste.
24. A supplementary way of achieving lower nitrate-nitrogen concentrations in groundwater could be greater use of targeted stream augmentation (TSA) and managed aquifer recharge (MAR).

**Baseline nitrate-nitrogen concentrations in the Christchurch groundwater system may be already higher than what CRC has provided for as the starting point in PC7.**

25. The baseline nitrate-nitrogen starting point identified by CRC is 0.3 mg/L and is lower than results from monitoring undertaken by the City Council. This is a significant issue because if the local sources and local concentrations are not sufficiently factored into calculations for PC7, the

cumulative effect enabled by PC7 may result in higher nitrate-nitrogen concentrations in groundwater.

26. The factors identified by Mr Thorley support:
- i. A lower threshold of 1 mg/L nitrate-nitrogen for deeper aquifers;
  - ii. Protection of Waimakariri River water quality through a 0.1 mg/L target and an additional Nitrate Priority Area along its northern margin;
  - iii. More rapid nitrate-nitrogen reductions within the Nitrate Priority Area subarea A of 40% in the first 10 years to reduce long-term inter-zone transfer of nitrate nitrogen.

**Objectives, policies and higher order instruments in relation to protecting the quality of the Christchurch aquifers and other spring fed surface water support a better outcome than provided for in PC7.**

27. If it is accepted that the Waimakariri Sub-region is the recharge area for Christchurch aquifers, and that farming is a major source of nitrate contamination, the planning evidence for the City Council is that the provisions it proposes are more appropriate than what is proposed through PC7.

#### **National Policy Statement Freshwater Management 2020 (NPSFM)**

28. The written opening legal submissions of counsel for the CRC accurately summarises the Resource Management Act's provisions regarding relevance of the NPSFM 2020. The City Council's decision to change the LWRP must be made *in accordance with* a National Policy Statement (s66(1)(ea)). A regional plan must give effect to any National Policy Statement (s67(3)(a)).
29. The NPSFM came into force on 3 September 2020. Clause 4.1 of the NPSFM 2020 provides that every local authority must give effect to the National Policy Statement as soon as reasonably practicable. In accordance with section 80A of the Act, the City Council must notify a freshwater planning instrument, where that instrument has the purpose of giving effect to the NPSFM 2020, by 31 December 2024.

30. I agree with the submission of counsel for the CRC that to the extent that there is scope to do so in submissions, this Panel should give effect to the NPSFM 2020 (para 25, 40 and 47 of CRC opening submissions). The CRC's decision must be in accordance with the NPSFM 2020.
31. Counsel for the CRC has identified relevant authority.
32. In *Ngati Kahungunu Iwi Inc v Hawkes Bay Regional Council* (2015) 18 ELRNZ 565 the Court was considering a plan change notified in October 2012 as a step to implementing the NPSFM. The new NPSFM took legal effect on 1 August 2014. The hearing was in December 2014 and the Court's decision was issued in March 2015. That Court stated that the relevant NPSFM was the one that came into force in August 2014 which revoked the 2011 version (p572).
33. In *Hawke's Bay & Eastern Fish & Game Councils v Hawke's Bay RC* (2014) 18 ELRNZ 438 the High Court heard an appeal against part of a Board of Inquiry decision. The Board issued its final report in June 2014, and as noted above the NPSFM 2014 took legal effect from 1 August 2014. The High Court hearing was in November 2014 and decision issued in December 2014. The High Court held that the relevant NPSFM for the Board's reconsideration of the part of its decision referred back to it by the High Court would be the NPSFM (p467).
34. However, it is respectfully submitted that paragraph 29 of the CRC's opening legal submissions underplays the significance of the objective and policies of the NPSFM when it is submitted that "... *it is not possible to fully give effect to the true intent of the document until such time as the local approach to giving effect to Te Mana o te Wai (as required in clause 3.4) has been determined. This necessarily has a bearing on the extent to which PC7 and PC2 can give effect to the NPSFM 2020, acknowledging also the scope constraints for these processes*".
35. Whilst the local approach to giving effect to Te Mana o te Wai will not be determined for some years, the objective and policies of the NPSFM are in legal effect now and the decision on PC7 must give effect to them.
36. The sole objective of the NPSFM provides

*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.*

- 37. Policy 1 is that freshwater is managed in a way that gives effect to Te Mana o te Wai. Part 1.3(5) of the NPSFM provides that the concept of Te Mana o te Wai contains the same hierarchy.
- 38. It is submitted that this hierarchy of obligations is relevant now when the CRC is making a decision on land use and water quality with regard to the effects of nitrates. That warrants renewed consideration when weighing up factors relevant to the quality of groundwater.
- 39. Moreover, the NPSFM introduces new bottom lines for nitrate thresholds.
- 40. Table 8-9 of PC7 is based on a nitrate threshold of 3.8 mg/L in Kreleger and Etheridge's 2019 report in Table 4-5. The rationale for the nitrate threshold is to protect aquatic species and recognises spring-fed stream connectivity. The nitrate threshold of 3.8 mg/L is also included in Schedule 8 of the LWRP for spring-fed plains urban Management Units.
- 41. The City Council's submission seeks a nitrate threshold of 1 mg/L. It seeks changes to Table 8-7 (pp13-14 of the City Council's submission) to set a limit of less than 1mg/L for nitrate-nitrogen in the Christchurch aquifers.
- 42. The NPSFM 2020 "*Appendix 2A Attributes requiring limits on resource use*" in Table 6 – Nitrate (toxicity) sets a new limit for the ecosystem health of rivers. That limit is an annual median of between 1.0 and 2.4 mg NO<sub>3</sub> – N/L (milligrams nitrate-nitrogen per litre).

43. The reasoning in the CRC officers' report of applying the protection of aquatic species threshold for spring-fed urban streams to groundwater – which the City Council evidence supports – still applies. As a result, the CRC's reasoning in support of a limit of 3.8 mg/L when PC7 was notified, now supports the new NPSFM 2020 annual median limit of under 2.4 mg/L.

44. Moreover, the NPSFM 2020 provides the following in Implementation Subpart 2 National Objectives Framework:

*3.12 How to achieve target attribute states and environmental outcomes*

*(1) In order to achieve the target attribute states for the attributes in Appendix 2A, every regional council:*

*(a) must identify limits on resource use that will achieve the target attribute state, and any nitrogen and phosphorus exceedance criteria and instream concentrations set under clause 3.13, and include the limits as rules in its regional plan(s); and*

*(b) may prepare an action plan; and*

*(c) may impose conditions on resource consents to achieve target attribute states.*

45. Part 3.14(2)(a)(i) provides that in setting limits on resource use every regional council must have regard to the long-term vision set under clause 3.3. Developing that long term vision will take some time. The implementation steps required by the NPSFM to manage achieving that outcome in an integrated way cannot of course be undertaken now in this PC7 hearing. However, the Regional Council here has the opportunity to use the guidance in the NPSFM when considering the appropriateness of the relief sought in the City Council's submission.

46. Adopting that standard of between 1-2.4 now as part of PC7 gives effect to policies 3 and 5 of the NPSFM:

*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.*

*Policy 5: Freshwater is managed through a National Objectives Framework to ensure that the health and well-being 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.*

47. Whilst the NPSFM cannot be *fully* given effect to until there is local development of the Te Wana o te Wai concept, it is submitted that this is not a barrier to making changes to PC7 now so as to give effect to its objective, policies and bottom lines when submissions provide scope to do so.
48. The Council's submission on amending Table 8-9 so as to meet a lower nitrate target, sooner, provides that scope.

### **Scope**

49. Issues of scope arise in possibly two ways in relation to the City Council's submission: first, in relation to a change to a definition and consequently to maps showing indigenous freshwater species habitat recommended by Dr Margetts; and secondly, in relation to tables 8-5, 8-7 and 8-8.
50. Dr Margetts' evidence (p8) does not support a change that the City Council sought in its submission regarding indigenous freshwater species mapping on the planning maps. She instead proposes an amendment to the definition of "indigenous freshwater species habitat" to include other "at risk" species, and consequential changes to the maps.
51. It is submitted that whilst that change is not the one that was sought in the City Council's submission, it is one that can be provided for as an incidental or consequential change to the relief that was sought in the City Council's submission if it is "on" the plan change.
52. The s42A report at Part 3 paragraph 5.57 acknowledges that the relief that was sought in the City Council's submission "would improve the protection of these threatened species" but does not recommend that

relief as this “requires additional mapping and an assessment of the cultural, economic, social and environmental implications of the associated restrictions on activities in these areas, which have not been undertaken in PC7”.

53. The second potential scope issue is raised by Part 5 Paragraph 8.20 of the s42A report with regard to the City Council’s submission seeking reduced nitrate-nitrogen limits so as to protect community water supplies. The s42A report states

*We note that setting limits for waterbodies outside the Waimakariri sub-region including Christchurch’s aquifers is outside the scope of the plan change (which is to set limits for FMUs in the Waimakariri sub-region). However, the proposed provisions also specifically manage risks to Christchurch’s aquifers, by establishing a NPA (which includes the majority of the modelled source area for the Christchurch aquifers) and requiring consent holders to reduce nitrogen losses below Baseline GMP over two stages.*

54. The Section 42A report document titled “*Plan Change 7 – Submission Points Potentially Beyond the Scope of Plan Change 7*” is a list of potentially out of scope points identified by the reporting officers and a stated reason for that scope point being raised. The City Council’s submission point is not on that list. That makes the reporting officers’ position on this a little ambiguous.

55. It is submitted that the statement Part 5 Paragraph 8.20 in the officers’ report does not correctly state the law regarding the scope to make changes sought in submissions. That legal framework is properly summarised in Part 1 paras 3.12-3.22 of the s42A report.

56. In *Palmerston North City Council v Motor Machinists Ltd* [2013] NZHC 1290 the High Court endorsed the approach taken by William Young J in the High Court in *Clearwater Resort Ltd v Christchurch City Council* HC Christchurch AP34/02, 14 March 2003. That approach was one which focuses on the extent to which the plan change alters the existing

plan. There is a bipartite test when taking that approach (*Motor Machinists* at [49]-[55]):

- First, the submission is “on” the plan change only if it addresses the extent to which the plan change changes the status quo; and
- Secondly, if the effect of regarding a submission as “on” a plan change would be to permit a planning instrument to be appreciably amended without real opportunity for participation by those potentially affected, that will be a powerful consideration against finding that the submission was truly “on” the plan change. Other ways of framing that test are whether the effect of the submission “*came out of left field*” or is “*proposing something completely novel*”; or is a “*submissional side-wind*” (*Motor Machinists* at [82]).

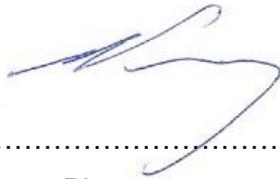
57. The High Court in *Motor Machinists* stated that one way of asking the first question is to ask whether the management regime in the plan for a particular resource (such as a particular allotment) is altered by the plan change. If it is not then a submission seeking a new management regime for that resource is unlikely to be “on” the plan change; however, that is not a complete barrier, as incidental or consequential extensions of zoning changes proposed by a plan change are permissible *provided that no substantial further s 32 analysis is required to inform affected persons of the comparative merits of that change* [81].
58. The Court endorsed the bipartite approach. As a result, a precautionary approach is required to receipt of submissions proposing more than incidental or consequential further changes to a notified plan change, as this could be inconsistent with the principle that people are entitled to see notified robust s32 assessments so that the assessments are done, and so that people are aware of potential changes that may affect them ([91]).
59. Applying that approach to the first of the scope issues – the change to the definition and maps recommended by Dr Margetts, as a more certain and precise alternative to the relief sought in the Council’s submission – it is submitted that neither the submission point nor Dr Margetts’ recommendation “comes out of left field”. The plan change addresses the need to protect, and range for protection, of particular habitat. The

submission and Dr Margetts' evidence addresses precisely the same point, and proposes a preferable way to achieve it.

60. The Hearings Panel may consider that the relief sought in the City Council's submission, as changed in Dr Margetts' recommendation, affects a different resource, being lengths of waterways in different locations than those identified in the plan maps. It is possible that there may be people potentially affected by that change to the plan change who would have submitted had they known that the mapped indigenous habitat might affect them. However, it was always possible that the submission process would identify errors with, or improvements to, the provisions and maps relevant to protected habitat. People were reasonably on notice that the standard for protection could change through submissions on the identification of habitat and that the range of the mapped habitat areas could be refined. Whilst it is arguable as to whether the relief sought in the submission, as amended through Dr Margetts' recommendation, is consistent with the bipartite approach in *Motor Machinists*, if a precautionary approach is taken then the submission point is outside scope.
61. Applying that approach to the second potential scope issue – setting limits that have a benefit for water bodies outside of the Waimakariri subregion - the resource being managed by this plan change is the use of land, and freshwater bodies, in the Waimakariri subregion, insofar as it is relevant to the functions of the Regional Council. That use of land has an effect not only on groundwater in the Waimakariri subregion, but also on groundwater in the Christchurch aquifers. The City Council's submission seeks a change to the provision amended in the Plan Change so as to make the provisions more appropriate for achieving the groundwater outcomes.
62. The City Council's submission is on the change that is proposed in the plan change. One of the reasons for the submission is to better protect the source of Christchurch drinking water. The fact that this was not the CRC officers' intent in drafting the plan change is irrelevant. It is not the drafting officers' intent that defines the scope of the plan change, it is the proposed plan change itself.

63. The administrative manner in which the Regional Council seeks to divide consideration of freshwater management units does not create a new category of constraint on scope. A statement that the CRC's focus of attention when drafting the proposed change was "*to set limits for FMUs in the Waimakariri sub-region*", rather than for the Christchurch sub-region, should not be elevated to the status of an artificial barrier to the scope of submissions. The submission is *on* the provisions themselves and is about the environmental effect of activity that would be enabled by those provisions. It is submitted that it is clearly within scope as it addresses a change to the status quo advanced by the proposed plan change. As is made clear by the range of submissions on this point, reasonable readers of the plan change could expect a plan change decision that may vary those tables so as to achieve improved environmental outcomes from use of land and for fresh water.

Dated at Christchurch this 11<sup>th</sup> day of November 2020



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Brent Pizze

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