

Variation 2 to the Proposed Canterbury Land & Water Regional Plan

Officer's Reply For Council Reply Hearing

Matthew McCallum-Clark
Philip Maw
Don Vattala

21 August 2015





24 Edward Street, Lincoln
PO Box 345
Christchurch 8140
Phone (03) 365 3828
Fax (03) 365 3194

75 Church Street
PO Box 550
Timaru 7940
Phone (03) 687 7800
Fax (03) 687 7808

Website: www.ecan.govt.nz
Customer Services Phone 0800 324 636

Contents

1. Introduction	4
2. Major Issues Identified Through the Hearing	6
3. Commentary on Submissions and Evidence	8
4. Outstanding Legal Issues	19
5. Final Recommendations	35
Outcomes, Limits and Targets	35
Quality	37
Quantity	43
Miscellaneous	46
6. Tracked-changes Version of Variation	50
7. Tracked-changes Version of s32	51

Appendix A – Technical Memoranda

Appendix B – Tracked Changes Version of Variation

1. Introduction

- 1.1. This report has been written to sit alongside and explain the “marked up” version of the final recommendations on Variation 2 to the proposed Land and Water Regional Plan, contained in Part 3 of the Officer’s Reply. It responds to many of the issues raised in submissions and evidence. Many of the issues are addressed in the Section 42A Report that was prepared ahead of the hearing, and that report remains valid and continues to be relied on to a large extent. Essentially, this report addresses the further changes from the earlier Section 42A Report recommendations. In that sense, it is very much a “reply” document, and does not set out to restate the Regional Council’s earlier report.
- 1.2. Attached to this report are a number of technical memoranda which provide the Council's response to various technical issues which arose during the hearing of submissions on Variation 2, and on which the Hearing Panel sought further advice. The table below provides a summary of those technical memoranda.

No.	Topics	Author(s)
1	DairyNZ/Fonterra (1), Low leaching flexibility, and Zone Boundary changes	Scott, L., Meredith, A., Bower, B.
2	DairyNZ/Fonterra (2)	Bower, B., Scott, L.
3	Water Quality - Limits and Upper Hinds phosphorus	Scott, L., Meredith, A., Bower, B.
4	Groundwater limits	Bower, B., Durney, P.
5	Windermere Drain	Meredith, A., Bower, B., Ritson, J.
6	Valetta irrigation groundwater recharge	Bower, B., Durney, P.
7	Monitoring of limits	Scott, L., Meredith, A., Bower, B.

- 1.3. The full name of submitters referenced in this report are:

Abbreviated Name	Full submitter Name
BCI	Barrhill Chertsey Irrigation Limited
Beef + Lamb NZ	Beef+Lamb New Zealand
Federated Farmers	North Canterbury Province of Federated Farmers NZ Inc
Fish and Game	Fish and Game Council North Canterbury
Fonterra	Fonterra Co-operative Group Limited
Horticulture NZ	Horticulture New Zealand
MHIL	Mayfield Hinds Irrigation Limited
Ngāi Tahu	Te Rūnanga o Arowhenua, and Te Rūnanga o Ngāi Tahu

Ravensdown	Ravensdown Fertiliser Co-operative Limited
RDR	Rangitata Diversion Race Management Limited

2. Major Issues Identified Through the Hearing

2.1. While the evidence of the submitters was comprehensive, a number of issues consistently arose. A high-level summary of these, to provide context to this report are:

- The Zone Committee's ecological and community outcomes set out in Table 13(a) and water quality limits, such as 6.9 mg N/litre for groundwater, were not extensively challenged. However the target date to achieve these outcomes was requested to be extended until at least 2050 by several submitters.
- The catchment load of 3400 tonnes/N/year was challenged by many of the submitters, some of whom sought a different value, or a percentage reduction of the current load.
- The required percentage reductions beyond GMP were discussed by many submitters. A number of parties sought a consistent requirement for all farming types.
- In concert with the above three points, the enabling of intensification, and to what extent this is appropriate in an over-allocated catchment, was discussed. There was debate, and underlying implications, on whether economic interests or ecological interests should prevail. It was notable that many evidence statements failed to address environmental and cultural costs associated with the decisions being sought.
- Some submitters sought what they termed a "Flexibility Cap", enabling farming at up to 15kg N ha/pa as a permitted activity and 15-20kg N ha/pa as a discretionary activity.
- The prohibited activity status for transfers was consistently challenged, primarily on its merits, but also whether it is legally possible.
- The flows in the Lower Hinds/Hekeao Plains waterways, their ecological values, and use by the Eifflerton Irrigation Scheme was the focus for several submitters
- The appropriateness of reliance on "Managed Aquifer Recharge" as a catchment scale mitigation was challenged, primarily due to its uncertainty and untested nature in this catchment. Several submitters sought some form of stream augmentation as an alternative.

- There had often been a refinement of positions since the submissions were lodged and many submitters had difficulty identifying the precise relief they were seeking in evidence in the primary submissions.

3. Commentary on Submissions and Evidence

- 3.1 The following comments are a high level analysis and brief commentary on the evidence filed and questions put to submitters during the course of the hearing. The comments represent the officer's analysis and highlight items that were useful, in terms of framing the final position reached by officers. The order of the following comments follows the chronological order of the appearances by submitters.

Upper Hinds Plains Land User Group

- 3.2 Evidence was filed on behalf of the Upper Hinds Plains Land User Group by Mr Salvesen and Ms Torgerson. Mr Salvesen's evidence described the Upper Hinds/Hekeao Plains Area, as generally dryland and extensively farmed. The submitter highlighted the lack of consultation with the submitters group, along with criticism of the lack of data, particularly data relevant to the Upper Hinds Plains Area. The primary concerns of the submitter appeared to be the low Upper Hinds/Hekeao Plains nitrogen limit, which was considered to limit the flexibility to respond to market conditions and climatic variation.
- 3.3 Ms Torgerson, an experienced environmental engineer, provided a more formalised analysis of the relevant policies and rules with a number of specific changes requested. Ms Torgerson was not available for the hearing. However, a number of questions were posed by the Hearing Commissioners, which have not been answered in time for consideration in this report.

Director-General of Conservation

- 3.4 The Director-General of Conservation filed three briefs of evidence, and presented these, along with legal submissions, at the hearing. Mr Briden's evidence focused on pest management, and particularly focused on Rule 13.5.7, which requires signage when spraying in or adjacent to waterbodies. Mr Briden's evidence essentially detailed why this rule was impractical and how the signage requirements are adequately covered by Hazardous Substances and New Organisms (HSNO) regulations.
- 3.5 Mr Dunn presented evidence on fresh water ecology and restoration of the Hinds drains. Mr Dunn explained that he is a member of the Hinds Drains Working Party, and explained some of the activities of that working party.

- 3.6 Ms Guest, a planning consultant, covered a range of issues in her evidence, including the introduction to the chapter, augmentation of flows and sediment removal.
- 3.7 There were a range of outstanding issues from the presentation on behalf of the Director-General of Conservation, and these were responded to in writing. Those responses were considered helpful by the Officers in terms of clarifying a range of issues.

Horticulture New Zealand

- 3.8 Six briefs of evidence were lodged by Horticulture NZ, covering a range of issues, particularly relating to flexibility for low nitrogen emitting properties, transfers, crop survival water and greater ability to accommodate horticultural activities and crop rotation. These matters were covered in legal submissions presented Ms Atkins for the submitter, along with coverage, at a more general level, by Ms Halliday.
- 3.9 Mr Ford presented economic evidence and commented on the need for flexibility for horticulture activities and identified the significant per-hectare productivity of horticulture activities. The evidence identified the benefits of the concept of a “flexicap”.
- 3.10 Mr Conland identified a range of issues relating to the modelling used by the Canterbury Regional Council, and the benefits that could be achieved through the use of more comprehensive modelling, such as that produced by the Primary Industries Group for Variation 1 to the Land and Water Plan.
- 3.11 Ms Wharfe, an experienced planning consultant, covered a range of matters in a greater degree of detail, and spent some time answering the Hearing Commissioners’ questions. There were a small range of matters outstanding, which were replied to in writing.
- 3.12 Mr McFarlane, a director shareholder of two agricultural businesses, emphasised the importance of supporting a multi-faceted agricultural industry, which would be possible by providing for flexibility of farming systems by allowing for equal allocation of nutrient discharge irrespective of the catchment.
- 3.13 Mr Read, a farmer in the Lower Hinds District, described how the versatility of soils has allowed for conversion of arable land into growing blackcurrants which have extremely low N losses. Mr Read stated that it would be unfair to set the average N

losses on the results from 2009-2013 as this would punish farmers who had reduced N losses over the past 5 years.

Longbeach Estate

- 3.14 Evidence was filed by Mr Thomas, who appeared and primarily discussed the flows in the Lower Hinds drains. He discussed a number of examples of the benefits of the Eiffelton Irrigation Scheme and its addition of water to a number of otherwise dry waterbodies. He also identified how the drains had changed over time with drain clearing operations and deepening.
- 3.15 Overall, he impressed on the panel the preference to keep the flow regime as it currently exists, rather than reverting to the LWRP default flow regime in 2020. There was a potential confusion over what this change would mean for existing consent holders whose consents do not expire until after 2020.

Eiffelton Community Group Irrigation Scheme

- 3.16 Evidence was filed by Mr Mackenzie for the Eiffelton Irrigation Scheme, and he appeared and answered questions from the Hearing Commissioners. The core element of Mr Mackenzie's evidence related to an explanation of how the Eiffelton Irrigation Scheme operated, explaining that it was different to other irrigation schemes, in that it focused on sharing of water, rather than managing the wider water supply and nutrient issues. He identified that the majority of the scheme area was in relatively low leaching parts of the Lower Hinds/Hekeao Plains area, particularly that part east of State Highway 1. The submitter explained how, as a whole, the Variation would put considerable constraints on the operation and expansion of the scheme. In his view there were other methods to achieve the water quality outcomes in the lowland streams.

Canterbury District Health Board

- 3.17 Evidence was filed by Dr Alistair Humphrey. Dr Humphrey was unavailable for the hearing, and three other Canterbury District Health Board staff attended to answer questions. Dr Humphrey's evidence was well-aligned with the Canterbury District Health Board submission, and focused on the potential human health impacts of the Variation, especially in terms of recreation and contact with water, drinking water safety, nutrient management and risks of managed aquifer recharge.

Federated Farmers of New Zealand

- 3.18 Federated Farmers lodged a number of briefs of evidence, ranging from traditional expert evidence through to evidence from individual farmers (Messrs Mackenzie, Read and Salvesen). The individual farmers explained, in a practical manner, the implications of Variation 2 for their farming practices.
- 3.19 The overall Federated Farmers position was explained by Ms Mackenzie. The evidence explained the potential problems of operating under the proposed Variation 2 regime in relation to the rigidity and uncertainties associated with Overseer being used to set catchment N loads and load limits and that farming complexity needed to be taken into account to avoid landowners being unfairly disadvantaged, in particular, low N emitters.
- 3.20 Dr Hume explained the relatively “leaky” nature of Canterbury soils through much of the Hinds Plains area. He identified that nutrient discharges from individual properties fluctuate year by year, and concluded that there was a need for additional flexibility to enable farmers to respond to market and climatic conditions, particularly for those leaching relatively lesser amounts of nitrogen.
- 3.21 Mr Lumsden, of RaboBank New Zealand, explained the impact of the Variation 2 provisions on both farmers and the financial institutions.
- 3.22 Mr Brawley from Grow Mid Canterbury Limited, supported by a number of letters from South Canterbury businesses, explained the need for flexibility and continued development and adaptation on South Canterbury farms. Overall, Mr Brawley was supportive of the DairyNZ/Fonterra alternative position.
- 3.23 Mr Dennis, who gave evidence for Federated Farmers and Beef + Lamb NZ, undertook a case study to analyse the practicality of Overseer on three real farms in the Hinds Catchment. Mr Dennis emphasised the difficulty farmers would face operating under the proposed Variation 2 regime and associated consequences that would come from the use of Overseer and the need to respond to farming complexity.

Te Rūnanga o Ngāi Tahu and Te Rūnanga o Arowhenua (Ngāi Tahu)

- 3.24 Ngāi Tahu filed a number of briefs of evidence. Legal submissions were presented by Mr Smith.

- 3.25 Ngāi Tahu had wide ranging submission points, and these were addressed in the evidence of Dr Burrell, in terms of the ecology of both the Upper and Lower Hinds Plains, Mr Thorley and Mr Goff, particularly in terms of groundwater and managed aquifer recharge, Mr Dudley, in terms of nutrient management in aquatic ecosystems, and Mr Scott, in terms of Overseer and its limitations.
- 3.26 The policy, rule regime and limits and targets were addressed comprehensively in the evidence of Ms Murchison, an experienced consultant planner.
- 3.27 Overall, there were a number of useful components of the Ngāi Tahu evidence. However, the nutrient regime, further discussed in other parts of this report, appeared to suffer from a lack of integration between the Ngāi Tahu witnesses, particularly the evidence of Mr Scott.

Fonterra Co-operative Group Limited and DairyNZ Limited

- 3.28 DairyNZ and Fonterra lodged individual submissions, but presented a joint case to the Hearing Commissioners.
- 3.29 Legal submissions summarising the legal issues and the DairyNZ/Fonterra solution were presented by Mr Matheson.
- 3.30 The evidence of Ms Hayward covered a wide range of matters, including the overall alternative position developed by DairyNZ/Fonterra which was presented as a less costly way to reach the Zone Committee outcomes. Like Ms Hayward, Mr Marshall considered two alternative positions to ECan's model and concluded that a model that delayed the implementation of imposing these nitrogen percentage losses, but had the same timeframe to reach the end target, was better in terms of effects on economic activity.
- 3.31 The evidence of Mr Neal and Mr Bell identified the significant cost savings of the DairyNZ/Fonterra proposal, essentially identifying that, over time, there were equal benefits, but at a lower cost to individual farmers.
- 3.32 Mr Brown focused more specifically on the water quality issues in the lower Hinds/Hekeao Plains Area and reviews the impact that different calculation methods, the DairyNZ/Fonterra analysis and the ECan analysis, have on catchment nitrogen loads and calculations.

- 3.33 Mr Ryan, DairyNZ's Regional Policy Manager, emphasised the important interest that it has with Variation 2, its support for good management practise and explained that there needs to be flexibility and versatility when imposing nutrient loss reductions in the Hinds/Hekeao Plains Area. Ms Ruston, DairyNZ's environmental policy manager, also explains the high interest that it has with Variation 2 and also describes how Fonterra is working in the area to ensure community environmental expectations are achieved.
- 3.34 Mr Willis, an experienced consultant planner, provided a "tracked changes" set of Variation 2 provisions, along with substantial explanation in his evidence.
- 3.35 Based on the evidence presented, the DairyNZ/Fonterra proposal appeared to be the only proposal put forward that would achieve the Zone Committee outcomes. As it later transpired, this proposal was supported by number of other submitters.

Fertiliser Association of New Zealand

- 3.36 Evidence was filed on behalf of the Fertiliser Association by Mr Sneath, the Executive Manager of the organisation. Mr Sneath's evidence identified the need for additional flexibility for farming operations, including the use of fertiliser. He identified that the use of fertilisers and some nitrogen leaching was inherent with New Zealand farming activities.
- 3.37 During questioning by the hearing commissioners, Mr Sneath identified that the general positioning of DairyNZ/Fonterra was supported by the Fertiliser Association.

Ravensdown Fertiliser Co-operative Ltd

- 3.38 Evidence was filed by Mr Hansen, an experienced planning consultant for Ravensdown. The Ravensdown submission is comprehensive, and Mr Hanson's evidence provided additional detail and a useful critique of the Section 42A report, as it related to Ravensdown's submission. Overall, the Ravensdown submission and Mr Hansen's evidence confirmed the need for additional flexibility to enable farming practices to change and adapt to market conditions.

Ashburton District Council

- 3.39 Evidence was filed on behalf of Ashburton District Council Ms Hall, an experienced planning consultant.
- 3.40 Speaking to the submission, Mr Guthrie, of Ashburton District Council, focused on the appropriateness and practicality of Rule 13.5.7, which relates to the need for signage when spraying into or adjacent to waterbodies. Mr Guthrie explained that the Council manages a significant stock water network, some of which is in road reserve and other public spaces. Overall, the need for signage was opposed.
- 3.41 Ms Hall's evidence addressed the signage requirements to a limited extent, but focused on the ability to transfer water from the existing Ashburton District Council stock water system to the Rangitata Diversion Race (RDR) scheme. She confirmed that a relatively small proportion (less than 20%) of the stock water takes are from the Hinds River. However, this take, in proportion to all the other takes from the Hinds River, is large. It would appear that the water, once transferred to RDR, would be used, in part, for stock water and also for irrigation.

Central South Island Fish and Game Council

- 3.42 Legal submissions were presented on behalf of Fish and Game by Ms St-John. Ms St-John clarified that a range of the Fish and Game decisions requested were no longer being pursued. Written confirmation was received on 16 July, confirming that no submission points were being formally withdrawn.
- 3.43 A number of witnesses filed evidence on behalf of Fish and Game.
- 3.44 Mr Webb presented ecological evidence in relation to salmonid fishery values and the impacts of degraded ecosystem health on the Hinds River and Hinds/Hekeao Plains Drains fisheries. It was concluded that the processes proposed in Variation 2 are not rigorous enough in that they do not address the cause of degradation, only slow down the degradation.
- 3.45 Mr Scarf's evidence outlined water resource management in the Ashburton Hinds Drains, based on the hydrological records provided by the Canterbury Regional Council.
- 3.46 Mr Canning, presented ecological evidence. Mr Canning identified a range of alternative limits and other measures of ecological health that could be incorporated into the Variation with a focus on maintaining healthy ecosystems.

- 3.47 Ms Dewes covered a wide range of matters, and gave particularly helpful examples of the reduction of nutrient leaching from her experience in other areas of New Zealand.
- 3.48 Mr Wilson, a resource management planner, provided an expansive analysis of the Fish and Game submission points and the details of the relief now sought. He provided a “tracked changes” set of Variation 2 provisions, along with explanation of the changes sought in his evidence.
- 3.49 Overall, the Fish and Game presentation sought to highlight that the catchment is significantly over allocated, and that insufficient work is being done through Variation 2 to remedy this position and that further intensification should not be enabled.

Synlait

- 3.50 Synlait sought to present evidence that had not previously been filed. After discussion, it was agreed that the witnesses would respond to questions put by the panel. A small number of clarifications to the original submission were provided.

Rangitata Diversion Race Management Limited (RDR)

- 3.51 Legal submissions were presented by Mr Williams, which summarised the RDR relief sought, explained the RDR existing resource consents and introduced the RDR witnesses.
- 3.52 This witnesses, particularly Mr Ford, Ms Cumberworth, Mr Callender, Mr Ryder and Mr Bryce, provided comprehensive evidence relating to the RDR scheme, and addressed the changes to the Variation sought by RDR.
- 3.53 Mr Greer, a senior agribusiness and economic research officer, provided a report which compared the economic effects of two nitrogen loss policies, the proposed Variation 2 and the limits proposed by RDR. Mr Greer concluded that the adverse impacts on the economic contribution of the Ashburton District and the negative impacts on the GDP of the Region, would be less using the proposed RDR nitrogen loss limits.
- 3.54 Mr Curry, the Chief Executive Officer of RDR, explained the important role that the company hold in terms of water management and RDR’s future aspirations and their involvement in nutrient management issues within the Ashburton District. Mr Curry highlighted RDR’s concerns about the practicality and uncertainties associated with

the achievement of the nitrogen reduction figures and timeframes and also that the effectiveness of nitrogen loss mitigation tools need to be further investigated before they are totally relied on.

- 3.55 Overall, RDR sought a load in tonnes, rather than an area of additional intensification, and sought, understandably, to protect the positions that had been reached under its existing resource consents.
- 3.56 There did appear to be some difficulties with the RDR requests, in that it was not clear whether or how the outcomes for zone would be reached with the changes sought by RDR. This potential disjoint was acknowledged by RDR witnesses.

Mayfield Hinds Irrigation Limited

- 3.57 Legal submissions were presented by Ms Limmer. In addition, evidence was presented by Mr Tait which helpfully explained the area currently irrigated by Mayfield Hinds Irrigation Limited (MHIL), and under questioning, the witnesses identified additional area likely through growth of the scheme. That said, the witnesses and legal responses continued to seek an overall load for the scheme.
- 3.58 Mr Everest, the Director of (MHIL) and an experienced farmer within the Ashburton District, explained practical and economic difficulties with the Variation. This was in part based on Mr Everest's knowledge of the good management practices on his own farm, but also wider knowledge of farming in the District.
- 3.59 Messrs Jones, Slee and Early, are all farmers within the Ashburton District and explained how the rigid provisions relating to nutrient loss reductions do not provide scope for improvement, discourages farmers from adapting to change, that the model does not take into account complex farming systems and is simply not financially viable.

Valetta Irrigation Limited

- 3.60 Legal submissions were presented by Ms Hamilton. In addition, evidence was filed by Mr McIndoe and Mr Dewhirst.
- 3.61 The legal submissions and evidence outlined the Valetta Irrigation Scheme, and the need for additional flexibility for managing nutrient discharges within the scheme area. The scheme sought a load, rather than an area for intensification.

- 3.62 Mr McIndoe explained the preference for the enabling of transfers to the scheme so that additional alpine water, which is presently unreliable, could be utilised in conjunction with groundwater for an overall gain, in terms of groundwater recharge.

Dairy Holdings Limited

- 3.63 Legal submissions were presented by Mr Williams. Mr Glass, the Chief Executive of Dairy Holdings Limited, filed evidence which explained the Dairy Holdings operations and focused, to a significant extent, on the farming enterprise provisions.
- 3.64 The legal submissions and evidence supported the Section 42A report position of adopting Policy 13.4.13A and amending Rules 13.5.10 and 13.5.18, to accord with the outcomes of the Selwyn Te Waihora Variation 1 decision, as they relate to farming enterprises. Further adjustment was requested to give greater flexibility to the Dairy Holdings operation.

Edward Winchester

- 3.65 Mr Taylor, an experienced environmental consultant, provided a wide-ranging brief of evidence, but did not appear at the hearing.

Irrigation New Zealand

- 3.66 Evidence was filed by Mr Curtis. Irrigation New Zealand sought additional flexibility for farming operations, and explained the significant gains from irrigation, particularly in this catchment. The evidence identified the positive work Irrigation New Zealand had been undertaking with respect to irrigation efficiency, and self-management practices by farmers.

Barrhill Chertsey Irrigation Limited

- 3.67 Legal submissions were presented by Mr Williams. In addition, evidence had been filed by Mr Thomas.
- 3.68 The evidence explained the preference of Barrhill Chertsey Irrigation Limited (BCIL) for a load in tonnes, rather than an area for additional intensification. The large command

area and relatively flexible, but short term, consent that enabled the BCIL scheme nutrient discharges was explained. Overall, the DairyNZ/Fonterra positioning was supported.

- 3.69 The officers remain concerned with the Barhill Chertsey Irrigation scheme request for a load of several hundred tonnes, as it appears somewhat higher than what otherwise would be able to be justified.

Hinds Plains Land and Water Partnership

- 3.70 Mr McDowell filed evidence and made a presentation, supported by a number of farmers, including Messrs Keely, Early and Clarke.
- 3.71 The evidence covered a range of matters, including the need for improved drinking water quality, flexibility for farming operations and the limits of the Overseer model in a regulatory environment.
- 3.72 Officers considered that the presentations, particularly from the farmers about the difficulties of operating under the proposed Variation 2 regime and associated difficulty with Overseer and that farming complexity would be helpful.

4. Outstanding Legal Issues

Introduction

- 4.1 During the course of the hearing of submissions on Variation 2, a number of legal issues have arisen. This part of the Section 42A Report in reply addresses those legal issues. It has been prepared by Philip Maw, Counsel for the Council.
- 4.2 The following key legal issues during the course of the hearings on Variation 2 and are addressed in turn below:
- a. Rules conditional on another consent;
 - b. Scope;
 - c. Transfers;
 - d. Appeals on Variation 1;
 - e. Appeals on Proposed Land and Water Plan;
 - f. Effect of partially operative Land and Water Regional Plan;
 - g. Ad medium filum aquae – consultation obligations;
 - h. Existing Environment.
- 4.3 Each of these matters is addressed in turn below.

Rules conditional on holding another consent

- 4.4 Central South Island Fish and Game Council ("Fish and Game") sought that Rules 13.5.21 to 15.5.24 (Irrigation Scheme rules and Incidental Nutrient Discharge rules) be deleted in their original submission on Variation 2.¹ Rules 13.5.21 to 13.5.23 relate to the use of land for farming activities and the discharge of nutrients for properties provided with water by an irrigation scheme. Rule 13.5.24 applies to the discharge of nutrients where the land use associated with that discharge is authorised under other rules in Variation 2 (Rules 13.5.8 to 13.5.20).
- 4.5 Counsel for Fish and Game submitted that the reason for deleting Rules 13.5.21 and 13.5.22 is because:²

¹ Central South Island Fish and Game Council original submission, 24 October 2014. Fish and Game raised the following point in their original submission:

"For rules 13.5.21 and 13.5.24 holding a consent is the only condition of the rule, as the rule doesn't have any other conditions, and the rule cannot require that the consent be complied with. This means that essentially rules 13.5.21 and 13.5.24 have no conditions controlling the environmental effects. Discharge rules structured like this as shown by rule 13.5.24 have no conditions which would prevent s107 effects from occurring. These rules should be deleted in their entirety."

² Legal submissions of Counsel for Fish and Game, 2 July 2015, paragraph 52

"a rule should not grant permitted activity status that is determined by whether or not another consent is held, nor deem that by virtue of holding a consent that it is being complied with or the impacts on freshwater from the activity are not breaching the requirements of section 15 of the Act."

4.6 Counsel for Fish and Game also submitted that:³

*"For these rules, the holding of a consent is the only condition. There are no other conditions. The rule cannot require that the existing consent achieve certain outcomes or be in accordance with this revised statutory plan's requirements. Essentially this means rules 13.5.21 and 13.5.24 have no conditions controlling environmental effects in a manner consistent with Variation 2. The discharge rule in 13.5.24 has no conditions to prevent section 107 effects from occurring."*⁴

4.7 Counsel for Fish and Game referred to the Environment Court's decision in *Queenstown Airport Corporation Limited v Queenstown Lakes District Council*⁵ and submitted that the Court found that rules that determined an activity's status on the presence and compliance with another resource consent were ultra vires the RMA. Counsel went on to submit that that this decision followed in respect determining the vires of Rules 13.5.21 and 13.5.22 (farming activities and the discharge of nutrients for properties provided with water by an irrigation scheme).

4.8 It is submitted that the Court's decision in *Queenstown Airport Corporation Limited v Queenstown Lakes District Council* can be distinguished in the present circumstances. At the outset, it is submitted that the *Queenstown Airport* case related to a section 9 land use activity being contingent on compliance with resource consent granted for a section 9 land use activity. In contrast with that situation, the rules in Variation 2 which relate to land use activities are section 15 discharge rules.

4.9 Rule 13.5.21 permits the use of land for a farming activity in a specific area if certain requirements are met, including that a discharge consent is held in respect of the nutrient discharge rules (under either region-wide or area-specific nutrient management rules). This is a section 9 activity which links to a section 15 activity.

4.10 Similarly, Rule 13.5.24 permits the discharge of nutrients provided the land use associated with the discharge is authorised under the land use rules for the area (Rules 13.5.8 – 13.5.21). This is a section 15 activity which links to a section 9 activity.

³ Legal submissions of Counsel for Fish and Game, 2 July 2015, paragraph 52b

⁴ We assume for the purposes of these submissions that Counsel means that Rule 13.5.24 has no conditions to prevent section 70 effects from occurring, rather than section 107 effects. Section 107 relates to the restrictions on granting certain discharge permits whereas section 70 states the effects that the Council must refer to when the Council proposes a permitted discharge rule.

⁵ *Queenstown Airport Corporation Limited v Queenstown Lakes District Council* [2014] NZEnvC 93

- 4.11 Section 68 of the RMA enables a regional council to include rules in a regional plan to carry out its functions under the RMA (other than those described under section 30(1)(a) and (b)) and to achieve the objectives and policies of the plan.
- 4.12 In making a rule, the Council must have regard to the actual or potential effects of activities on the environment, including any adverse effect.⁶ In particular, a rule may require a resource consent to be obtained for an activity causing, or likely to cause, adverse effects not covered by the plan.⁷
- 4.13 The general power under section 68 is qualified by section 69 (rules relating to water quality) and section 70 (rules about discharges). Section 69 enables a regional council to manage water quality through rules in a plan, including the ability to set standards that are more stringent or specific than those specified in Schedule 3, as well as the ability to not set standards that may result in a reduction of the quality of water unless it is consistent with the purpose of the RMA. Section 70 specifies certain standards relating to permitted activity rules for discharges as well as the ability to include rules in a regional plan that require the adoption of the best practicable option to prevent or minimise any actual or likely adverse effect on the environment.

Queenstown Airport Corporation Limited v Queenstown Lakes District Council

- 4.14 The case of *Queenstown Airport Corporation Limited* related to a plan change ("PC19") that provided for the comprehensive re-zoning of rural land known as the Frankton Flats near Queenstown Airport. PC19 included rules that proposed to classify activities (including permitted activity status) depending on whether the activity for which consent was sought was in compliance with an approved Outline Development Plan ("ODP"). An ODP⁸ was "approved" by way of a land use resource consent. Without this ODP consent, activities within certain areas were classified as prohibited. If land was proposed to be developed, but not in accordance with an ODP consent, the activity was classified as non-complying.
- 4.15 The Court identified two difficulties with this approach: the first was that all activities within specific zones must comply with a prior grant of resource consent; the second was that the classification of the activity proceeded from the exercise of the consent authority's discretion whether to grant a resource consent for ODP activities which were not conveyed in clear and unambiguous terms. It was not clear from the rule, the use to which the land may be put in accordance with section 9.

⁶ Section 68(3) of the Resource Management Act 1991

⁷ Section 68(5)(e) of the Resource Management Act 1991

⁸ ODP was defined as meaning "a plan within a zone or over an area of land which delineates the performance standards and/or activities in the identified area of the zone, or on the site or an area of land."

- 4.16 The Court agreed with the submissions of an Amicus Curiae that the status of an activity derives from the Act and from its subsidiary planning instruments, not from a resource consent.⁹ The Court ultimately found that the rules were ultra vires insofar as they required compliance with a resource consent which was not a standard, term or condition that was specified in the plan change.
- 4.17 As PC19 was publicly notified in 2007, the applicable statute was the Resource Management Amendment Act 2005. The relevant provision was Section 77B which set out the six types of activity classifications (now the equivalent of section 87A).
- 4.18 Any activity that is classified a permitted, controlled, restricted discretionary or discretionary activity must "*comply with the **standards, terms, or conditions**, if any, specified in the plan or proposed plan*".¹⁰ Section 87A (the current equivalent provision) now states that any activity that is classified a permitted, controlled, restricted discretionary or discretionary activity must "*comply with the **requirements, conditions, and permissions**, if any, specified in the plan or proposed plan*".¹¹
- 4.19 In *Queenstown Airport Corporation Limited* the Council adopted the position that the obtaining of an ODP consent was a "standard" within the meaning of section 77B. The Court held that compliance with a grant of resource consent for ODP activities, including the conditions of that consent is not a "standard" specified in the plan change.¹²
- 4.20 In regard to Rules 13.5.21 and 13.5.24, the question is whether the holding of a discharge consent and land use consent respectively, is a "requirement" in terms of section 87A(1). It is submitted that it cannot be considered a "condition" or "permission".
- 4.21 In *Sustain Our Sounds Inc v New Zealand King Salmon Company Ltd*¹³ the Supreme Court discussed section 87A in the context of dealing with water quality in a discretionary activity consent application. The Court stated:

"...if a consent for a particular activity would only be granted on certain conditions, then it would certainly be good practice (and may in some circumstances be a requirement) that this be made clear in the plan, either as standards or as assessment criteria."

⁹ *Queenstown Airport Corporation Limited v Queenstown Lakes District Council* [2014] NZEnvC 93 [183]

¹⁰ Section 77B Resource Management Act as it applied between 10 August 2005 to 30 September 2009.

¹¹ Section 87A Resource Management Act 1991

¹² *Queenstown Airport Corporation Limited v Queenstown Lakes District Council* [2014] NZEnvC 93 [177]

¹³ *Sustain Our Sounds Inc v New Zealand King Salmon Company Ltd* [2014] NZSC 40

- 4.22 It is submitted that requiring separate authorisation under other rules, is a "requirement" for the purposes of section 87A and a mechanism for managing actual or potential effects of activities on the environment in accordance with section 68.
- 4.23 It is further submitted that Rules 13.5.21 and 13.5.24 are not inconsistent with the Court's decision in *Queenstown Airport Corporation Limited*. The Court found that an activity's status cannot be linked to **compliance** with another resource consent. It is submitted that the status of the activities regulated by Rules 13.5.21 and 13.5.24 (the use of land for farming and discharges associated with farming activities) is not linked to compliance with another resource consent; the status is linked to the existence of other rules that are of relevance to that particular activity.
- 4.24 It is submitted that *Queenstown Airport Corporation Limited* does not preclude the ability to link an activity's status to the existence of other rules that are relevant to that activity which may or may not require resource consent.
- 4.25 The Court in *Queenstown Airport Corporation Limited* was only dealing with land use activities within a district planning context. PC19 was not concerned with other types of activities (such as discharges), nor did it contain (or need to contain) rules or standards to address the cross over effects that land use has on other types of activities. For these reasons it is submitted that *Queenstown Airport Corporation Limited* has only limited relevance to the types of rules included in Variation 2 which were challenged by counsel for Fish and Game as being ultra vires the Act.
- 4.26 The present structure of Variation 2 clearly distinguishes between land use rules and discharge rules. The rules recognise that the use of land has "cross-over effects" in terms of discharges especially, and in the interest of integrated management, is seeking to ensure that all effects are appropriately managed.
- 4.27 Rule 13.5.24 does not require compliance with a prior grant of resource consent, it simply permits the discharge if the land use associated with that discharge is authorised separately under the land use rules. As many of the land use rules permit farming activities, the discharge rule does not necessarily require that a resource consent be held in all cases. Where a resource consent is required under the land use rules, compliance with that resource consent does not determine the activity status of the discharge. The discharge rule simply provides for the discharge where it is associated with a land use authorised under the land use rules as the two activities are inextricably linked.
- 4.28 Any discharge rule must also meet the requirements of Section 70. It is submitted that the rule is not ultra vires the RMA if the Council is satisfied that after reasonable mixing, none of the effects listed in section 70(1)(c)-(e) are likely to arise in the receiving waters. This is a matter for others to assess.

Scope

- 4.29 DairyNZ and Fonterra proposed an alternative planning regime for nutrient discharges which includes:
- a. a re-modelled existing load based on updated data of existing nitrogen losses, drainage values and adjusting for known deficiencies in the model;
 - b. a target load expressed as a percentage reduction of the existing load;
 - c. a more realistic irrigation expansion scenario of 15,000ha;
 - d. a "flexibility cap" for farms with lower nitrogen discharges; and
 - e. a three-stage reduction of nitrogen discharges by 36% by 2035 with an interim target of 25% reduction by 2030.
- 4.30 DairyNZ and Fonterra's proposed regime applies across the board to all land uses and does not distinguish between different types of activities. Counsel for DairyNZ and Fonterra submitted that this proposal is the most equitable and appropriate way to meet the objectives of the proposed Land and Water Regional Plan.
- 4.31 Counsel set out detailed submissions as to how the issue of scope should be addressed in the opening section 42A report. Those submissions are not repeated here. However, in addition to the cases outlined in those earlier submissions, it is submitted that the recent Environment Court decision in *Environmental Defence Society Incorporated v Otorohanga District Council*¹⁴ contains a helpful summary of the legal position with respect to whether or not amendments are ones raised by the submissions:

"[11] A careful reading of the text of the relevant clauses in Schedule 1 shows how the submission and appeal process in relation to a proposed plan is confined in scope. Submissions must be on the proposed plan and cannot raise matters unrelated to what is proposed. If a submitter seeks changes to the proposed plan, then the submission should set out the specific amendments sought. The publicly notified summary of submissions is an important document, as it enables others who may be affected by the amendments sought in submissions to participate either by opposing or supporting those amendments, but such further submissions cannot introduce additional matters. The Council's decisions must be in relation to the provisions and matters raised in submissions, and any appeal from a decision of a council must be in respect of identified provisions or matters. The Environment Court's role then is to hold a hearing into the provision or matter referred to it and make its own decision on that.

¹⁴ *Environmental Defence Society Incorporated v Otorohanga District Council* [2014] NZEnvC 070.

[12] The rigour of these constraints is tempered appropriately by considerations of fairness and reasonableness. In the leading case of Countdown Properties (Northlands) Ltd v Dunedin City Council a full court of the High Court considered a number of issues arising out of the plan change process under the Act, including the decision-making process in relation to submissions. The High Court confirmed that the paramount test is whether or not the amendments are ones which are raised by and within the ambit of what is reasonably and fairly raised in submissions on the plan change. It acknowledged that this will usually be a question of degree to be judged by the terms of the proposed change and the content of the submissions.

[13] In analysing such amendments, the High Court approved of the Planning Tribunal's categorisation of them into five groups, the first four of which are permissible:

- a. Those sought in written submissions;*
- b. Those that corresponded to grounds stated in submissions;*
- c. Those that addressed cases presented at the hearing of submissions;*
- d. Amendments to wording not altering meaning or fact;*
- e. Other amendments not in groups (a) to (d).*

[14] The High Court rejected the submission that the scope of the local authority's decision-making under clause 10 is limited to no more than accepting or rejecting a submission, holding that the word "regarding" in clause 10 conveys no restriction on the kind of decision that could be given. The Court observed that councils need scope to deal with the realities of the situation where there may be multiple and often conflicting submissions prepared by persons without professional help. In such circumstances, to take a legalistic view that a council could only accept or reject the relief sought would be unreal....

[17] In summary, as Panckhurst J observed in an oft-repeated dictum in Royal Forest & Bird Protection Society Inc v Southland District Council:

... it is important that the assessment of whether any amendment was reasonably and fairly raised in the course of submissions, should be approached in a realistic workable fashion rather than from the perspective of legal nicety."

(Footnotes omitted.)

- 4.32 Of particular relevance to the position adopted by the Council Officers in reply, is the question of whether the relief sought by Dairy NZ and Fonterra was within the scope of the submitters' primary submissions. A detailed analysis of the source of the scope for the changes sought by those submitters was set out in a Memorandum of Counsel for Dairy NZ Limited and Fonterra Co-Operative Group Limited in Relation to Matters

Raised by the Commissioners at the Hearing, dated 25 June 2015. Counsel for the Council respectfully adopts those submissions in relation to scope for the changes sought by those submitters.

Transfers

- 4.33 Several legal issues have arisen with respect to the proposed transfer rules:
- a. Whether transfers can legally be classified as prohibited activities; and
 - b. Whether a blanket prohibited activity status on the transfer of a water permit can be imposed for the take and use of groundwater and surface water?
- 4.34 The Section 42A Report addresses the transfer of water provisions and the issues raised by submitters regarding the notified transfer provisions.¹⁵ The following section of these submissions addresses the legal matters raised at the hearing regarding each of these issues and the revised transfer provisions now proposed by the Officers.

Activity status for transfers

- 4.35 Many submitters opposed the blanket prohibited activity status for the transfer of water permits. Rules 13.5.33 and 13.5.34 (as notified) provided that the transfer (in whole or in part) of a water permit (other than same-site transfers), is a prohibited activity.
- 4.36 Counsel for Dairy NZ and Fonterra submitted that there is no jurisdiction under the RMA for transfers to be classified as prohibited activities.¹⁶
- 4.37 Counsel for Dairy NZ and Fonterra referred to Policy B5 of the NPSFM as supporting the argument that transfers should not be classified as prohibited.
- 4.38 The Officer's Reply version of Rule 11.5.34 now provides that any transfer (in whole or in part) that does not meet the conditions of Rule 13.5.33 or 13.5.33A is to be treated as if it were a prohibited activity. Rule 13.5.33 now provides that the transfer of a water permit may be considered as if it were a restricted discretionary activity in certain circumstances, including if 50% of the volume of transferred water is to be surrendered. The Officer's Reply also recommends a new rule to provide for the transfer of a water permit for gravel extraction (and ancillary activities) and is to be considered as if it were a discretionary activity.
- 4.39 The ability to classify the transfer of water permits a certain type of activity status is discussed in the Section 42A Report.¹⁷ Under section 136, applications to transfer

¹⁵ Section 42A Report paragraphs 5.263 – 5.279.

¹⁶ Legal submissions of Counsel for Dairy NZ and Fonterra, 19 June 2015, paragraph 2.2.

¹⁷ Section 42A Report paragraphs 5.263 – 5.279.

water permits are to be treated "as if" they were applications for resource consent and the consent holder is to be treated as if they were the applicant.¹⁸

- 4.40 The Section 42A Report referred to the Court of Appeal's decision in *Carter Holt Harvey v Waikato Regional Council*¹⁹ as authority for the ability to assign an activity status to a transfer (in that case a restricted discretionary activity).
- 4.41 Counsel for Horticulture New Zealand submitted that the question about the vires of prohibited activity status for rules that restrict the allocation of resources remains live because the Court of Appeal did not specifically rule on that point.²⁰
- 4.42 As recommended in the Officer's Reply, prohibited activity Rule 13.5.34 does not apply to any transfer, it only applies in those situations where the transfer does not meet one of the conditions in Rules 13.5.33 or 13.5.33A.
- 4.43 The mechanism proposed by the Council is one in which it is designed to address over-allocation in the catchment. It is also considered to be consistent with Policy B3 of the NPSFM, as the requirement to surrender 50% of water (and failure to do so triggering prohibited activity status) is one of the criteria which the Council has developed by which applications for approval of transfers of water take permits are to be decided.
- 4.44 The matters addressed in *Coromandel Watchdog of Hauraki Inc v Chief Executive of the Ministry of Economic Development*²¹ regarding the appropriateness of prohibited activity status are outlined in the Section 42A Report²² and are not repeated in full here. It is submitted that rule clearly falls within the category where it is intended to restrict the allocation of resources:²³

"[34]...(e) Where it is intended to restrict the allocation of resources, for example where a regional council wishes to restrict aquaculture to a designated area. It was suggested that, if prohibited activity status could not be used in this situation, regional councils would face pressure to allow marine farms outside the allocated area through non-complying activity consent applications. He referred to the Environment Court decision in Golden Bay Marine Farmers v Tasman District Council EC W42/2001 27 April 2001. In that case, (at [1216] – [1219]), the Court accepted that prohibited activity status for the areas adjacent to the area designated for marine farming was appropriate; and..."

¹⁸ Section 136, Resource Management Act 1991

¹⁹ *Carter Holt Harvey v Waikato Regional Council* [2011] NZEnvC380.

²⁰ Legal submissions of Counsel for Horticulture NZ, 17 June 2015, paragraph 23.

²¹ *Coromandel Watchdog of Hauraki Inc v Chief Executive of the Ministry of Economic Development* (2007) 13 ELRNZ 279; [2008] 1 NZLR 562; [2008] NZRMA 77.

²² Section 42A Report, paragraph 7.233.

²³ *Coromandel Watchdog of Hauraki Inc v Chief Executive of the Ministry of Economic Development* (2007) 13 ELRNZ 279; [2008] 1 NZLR 562; [2008] NZRMA 77 at [34](e).

Requirement to surrender 50%

- 4.45 Condition 2(b) and condition 3(d) of Rule 13.5.33 require transfers within the Hinds/Hekeao Plains Area to surrender 50% of the volume of the transferred water.
- 4.46 The legality of a condition requiring a partial surrender on the transfer of water permits in over-allocated catchments was a live issue during the hearings on the pLWRP and Variation 1.
- 4.47 In respect of the submissions made on the vires of such a condition, the pLWRP hearing panel concluded at [361]:
- 4.48 "Having considered the several points made in support of Hydrotrader's second submission on whether Condition 5 is ultra vires [a condition requiring a 50% surrender], we find that it is not supported, and we do not accept it."
- 4.49 The Variation 1 hearings panel concluded at [361]:
- "We find that the Council does not lack power at law to make a rule managing transfers of water permits that effectively precludes approval in certain stated classes of circumstance."*
- 4.50 It is respectfully submitted that the same legal position applies in relation to the position supported by the council officers in reply, and an assessment on the merits of condition 2(b) and condition 3(d) of Rule 13.5.33 is required.
- 4.51 The merits of the transfer provisions are considered further at paragraphs 5.54 to 5.57 of this report.

Appeals on Variation 1

- 4.52 As at 15 June 2015, three appeals had been lodged against the Council's decisions on Variation 1. Those appeals were lodged by:
- a. Ellesmere Irrigation Society Incorporated;
 - b. North Canterbury Province of Federated Farmers of New Zealand Incorporated; and
 - c. Royal Forest and Bird Protection Society of New Zealand Incorporated ("Forest & Bird").
- 4.53 The appeals lodged by Ellesmere Irrigation Society Incorporated and the North Canterbury Province of Federated Farmers of New Zealand Incorporated raise similar issues regarding the farming rules, primarily in relation to the inclusion of a Phosphorus Sediment Risk Area, and changes to the requirements for farms within the Cultural Landscape/Values Management Area.

- 4.54 It is submitted that the issues raised in those two appeals are specific to Variation 1 such that the outcome of those appeals should have little effect on the hearing of submissions on Variation 2.
- 4.55 The appeal lodged by Forest and Bird raises a number of broader issues, including:
- a. the basis upon which the Commissioners approached the question of scope;
 - b. the assessment of the existing environment as it applies to unimplemented consents granted to Central Plains Water Limited;
 - c. whether Variation 1 gives effect to the National Policy Statement for Freshwater Management 2014;
 - d. whether the setting of limits and targets in section 11.7.3 should have been determined with reference to the maximum amount of resource use available, which allows a freshwater objective to be met;
 - e. whether the Commissioners failed to satisfy themselves that none of the effects in section 70(1)(c)-(g) of the Act were likely to arise;
 - f. whether it was lawful to use section 15(1) of the Act to require irrigation schemes to obtain resource consents for discharges of nitrogen and phosphorus; and
 - g. whether Variation 1 gives effect to the New Zealand Coastal Policy Statement and National Water Conservation (Te Waihora/Lake Ellesmere) Order 1990.
- 4.56 As is apparent from the broad nature of the Forest & Bird appeal, some of the issues raised in it may be of relevance to the decisions on submissions on Variation 2. For example, the question relating to the treatment of an existing consent held by Central Plains Water Limited as forming part of the existing environment will be relevant to Variation 2 as Rangitata Diversion Race Management Limited and Barhill Chertsey Irrigation Scheme holds a resource consent to enable future intensification of land within its command area.
- 4.57 These appeals have been set down for a hearing, commencing 7 December 2015.

Appeals on Proposed Land and Water Regional Plan

- 4.58 Nine parties appealed the Council's decision on the pLWRP to the High Court under the Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010. Six of these nine appeals have now been fully resolved, either as a result of the appeals being withdrawn, or as a result of the High Court making orders to amend the pLWRP:
- a. Nga Runanga of Canterbury and Te Runanga O Ngai Tahu v Canterbury Regional Council CIV-2014-409-75 (orders made);
 - b. Nelson Marlborough North Canterbury and Central South Island Fish and Game Councils v Canterbury Regional Council CIV-2012-409-72 (orders made);

- c. Federated Farmers of New Zealand (Incorporated) (Combined Canterbury Provinces) v Canterbury Regional Council CIV-2014-409-71 (orders made);
 - d. Ngai Tahu Property Limited v Canterbury Regional Council CIV-2014-409-73 (appeal withdrawn);
 - e. *R Little v Canterbury Regional Council* CIV-2014-409-74 (appeal withdrawn); and
 - f. Bowden Environmental v Canterbury Regional Council CIV-2014-409-77 (appeal withdrawn).
- 4.59 Orders have also been made by the High Court in respect of parts of the following appeals:
- a. Trustpower Limited v Canterbury Regional Council CIV-2014-409-61; and
 - b. Rangitata Diversion Race Management Limited v Canterbury Regional Council CIV-2014-409-62.
- 4.60 Copies of the Orders made by the High Court have been provided to the hearing panel during the course of the hearing.
- 4.61 The three appeals that have not been resolved in full (being appeals lodged by Genesis Energy Limited, (CIV-2014-409-76) Trustpower Limited (CIV-2014-409-61) and Rangitata Diversion Race Management Limited (CIV-2014-409-62;)) concern only a limited range of matters being:
- a. The Council's decision not to classify certain lawfully established activities associated with a hydro-electricity power scheme as controlled activities; and
 - b. Certain rules in Section 13 (Ashburton) of the pLWRP.
- 4.62 The parts of the appeals relating to the classification of lawfully established activities associated with a hydro-electricity power scheme as controlled activities were heard by the High Court on 24 June 2015. A decision has not yet been issued. Should a decision be issued before this panel issues its recommendations, Counsel will provide a copy of the decision to the panel for its consideration.

Effect of partially operative Land and Water Regional Plan

- 4.63 Clause 16A of Schedule 1 of the RMA provides for variations to a proposed plan to be initiated at any time before the approval of the plan. Because the pLWRP was not operative, the changes sought to be made to the pLWRP as a result of the Zone Committee's recommendations had to be made as a variation to the pLWRP (rather than a plan change).
- 4.64 On 13 August 2015, the Council approved the following parts of the proposed Canterbury Land and Water Regional Plan to become operative on 1 September 2015:

- a. All of Section 1 – Introduction, Issues and Major Responses;
 - b. All of Section 2 – How the Plan Works, Definitions;
 - c. All of Section 3 – Objectives;
 - d. All of Section 4 – Policies;
 - e. Section 5 – Region-wide rules – all rules relating to all topics other than:
 - f. Take and use of surface water (Rules 5.123 - 5.127);
 - g. Dams and damming (Rules 5.154 - 5.158);
 - h. All of Sections 6, 7, 8, 9, 10, 11, 12, 14 and 15;
 - i. Section 13 except for policies and rules relating to the Ashburton River - Policies 13.4.1, 13.4.2, 13.4.3, 13.4.7 and 13.4.8 and Rules 13.5.1, 13.5.5 and 13.5.6 (including the Hakatere/Ashburton River catchment environmental flow and allocation limit table);
 - j. All of Section 16 (Schedules 1 to 23); and
 - k. All of Volume 2 – Map Volume.
- 4.65 Variation 2 does not propose any amendments to the policies and rules of Section 13 that are not becoming operative on 1 September 2015 (e.g. Policies 13.4.1, 13.4.2, 13.4.3, 13.4.7, and 13.4.8; and Rules 13.5.1, 13.5.5, and 13.5.6). Variation 2 does propose one amendment to Table 12, being to renumber the Table as Table 13(b).
- 4.66 Pursuant to clause 17(1B) of the First Schedule of the RMA, a variation to a proposed plan approved under clause 17(1A) must be treated as if it were a change to the plan unless the variation has merged in and become part of the plan under clause 16B(1). The Variation has not reached the same stage as the pLWRP and therefore has not merged and become part of the pLWRP. Accordingly, as at 1 September 2015, Variation 2 must be treated as if it were a change to the pLWRP.
- 4.67 Because Variation 2 was initiated and notified as a variation to the pLWRP (rather than a plan change), the provisions of clause 16B of Schedule 1 are relevant.
- 4.68 In the Section 42A Report, it was considered that applying clause 16B of the First Schedule to the RMA, to Variation 2, to the extent that any provision of the pLWRP is substituted by a provision of the Variation, then any submission on that provision must be treated as being a submission on the Variation. All submitters on the pLWRP were notified in writing that submissions on provisions of the pLWRP being substituted by Variation 2 could be deemed to be submissions on Variation 2. Submitters were asked to advise the Council if they did not wish their submission on the pLWRP to be treated as a submission on Variation 2.
- 4.69 Although the LWRP has subsequently been made partially operative, at the time Variation 2 was initiated and notified, clause 16B applied and deemed relevant submissions to be submissions on the Variation. It is submitted that those

submissions, in accordance with clause 16B, and in the interests of natural justice, continue to be deemed to be submissions on Variation 2. To the extent that submissions on the pLWRP are deemed to be submissions on Variation under clause 16B, the Council will be obliged under clause 10 of Schedule 1 of the RMA to make a decision on the provisions and matters raised in submission.

- 4.70 It is anticipated that in making a recommendation to the Council on Variation 2, that to the extent any pLWRP submissions are deemed to be submissions on Variation 2, the Hearing Panel will be able to address the pLWRP submissions by grouping them under clause 10(2).
- 4.71 The Section 42A Report also concluded that clause 16B(2), as it relates to the effect of variations, did not mean that provisions of the pLWRP are not relevant to determining whether the Variation 2 provisions meet the tests in section 32. On and from 1 September 2015 Variation 2 is to be treated as if it were a plan change. Therefore, it is considered that the appropriateness of the relevant existing provisions of the LWRP (both the region-wide provisions in Section 5 and the catchment specific provisions in Section 13) are relevant to determining whether the Variation 2 provisions meet the tests in section 32.

Ad medium filum aquae – consultation obligations

- 4.72 During the hearing Commissioner Solomon raised a question regarding the obligation to consult tāngata whenua during the process of establishing ad medium filum aquae ("AMF") rights.
- 4.73 Land Information New Zealand ("LINZ") has produced a guideline for accretion claims (LINZG20711). This guideline clearly directs that prior to notifying interested parties of an application to establish an accretion claim, an assessment must be made as to whether the adjoining land or the bed of the adjoining lake, river, or stream is the subject of Treaty of Waitangi settlement negotiations.
- 4.74 Treaty settlement claimants i.e., any relevant iwi group as advised by the Office of Treaty Settlements, and the Maori Land Court (if the accretion affects, adjoins, or is opposite Maori land) must be notified.
- 4.75 It is submitted that this guideline provide a useful insight into the administrative decision-making processes undertaken by LINZ and as such, compliance is advisable.

Existing Environment

- 4.76 Counsel for Rangitata Diversion Race Management Limited ("RDR") submitted that the Hearing Commissioners should have regard to the RDR and the activities undertaken by RDR as part of the "existing environment".²⁴
- 4.77 Counsel for RDR submitted that the "environment" relevant to the consideration of Variation 2 includes the environment as it will be modified by RDRML's consents (as well as Barhill Chertsey Irrigation Scheme's consents). Counsel submitted that the Hearing Commissioners Report and Recommendations on Variation 1 rejecting Forest & Bird and Fish & Game's submission that the Central Plains Water irrigation scheme did not form part of the existing environment²⁵ supports this submission.
- 4.78 Counsel for the Barhill Chertsey Irrigation Scheme ("BCI Scheme") submitted that the Hearing Panel is obliged to regard the BCI Scheme as forming part of the existing environment for the purposes of Variation 2.
- 4.79 Counsel for BCI Scheme rely on the decisions in *Shotover Park v Queenstown Lakes District Council*²⁶ and *Milford Centre Limited v Auckland Council*²⁷ as authority for the principle that the existing environment (as determined in *Queenstown Lakes DC v Hawthorn*²⁸) applies in the context of a plan change. Counsel submitted that the "environment" relevant for the consideration of Variation 2 therefore includes the environment as has been and will be modified by the BCI Scheme. Counsel submitted that in other words, an implemented BCI Scheme is the appropriate starting point for considering the Variation 2 regime.
- 4.80 Counsel for BCI Scheme submitted that the real question for the Hearings Panel to consider is the extent to which further development under BCI Scheme's resource consent is contemplated within the Hinds/Hekeao Plains area as that resource consent does not specify a limit for irrigation within that area. Counsel for the BCI Scheme submitted that a load of 490 tonnes (including both new and existing) is proposed based on a third of the total BCI Scheme area and the larger command area.
- 4.81 The High Court considered the application of the "existing environment" concept in a planning context in *Shotover Park v Queenstown Lakes DC*²⁹. In that case, Justice Fogarty confirmed that where some of the land the subject of a plan change is already the subject of resource consents likely to be implemented, the planning authority has to write a plan which accommodates the presence of that activity.³⁰ The Judge also

²⁴ Legal submissions of Counsel for RDR, 3 July 2015, paragraph 47.

²⁵ Commissioners Report and Recommendations on Variation 1 at paragraph [415]

²⁶ [2013] NZHC 1712

²⁷ [2014] NZEnvC 23

²⁸ [2006] NZRMA 424

²⁹ *Shotover Park v Queenstown Lakes DC*, [2013] NZHC 1712 (HC)

³⁰ *Ibid* [112].

remarked that in deciding a plan for the future, there is nothing in the RMA intended to constrain forward-thinking,³¹ and the likely-to-be-implemented test is intended to be a real-world analysis.³²

- 4.82 While hesitant to adopt the term 'existing environment' in a regional planning context, in my submission the RDR and the BCI Scheme does form part of the background environment against which Variation 2 has been prepared and against which the appropriateness of the provisions must be assessed under section 32. The environment with both the RDR and the BCI Scheme is the starting point, but the very point of a planning process such as Variation 2 is to put in place provisions bearing in mind the various statutory directions in sections 30, 32, 66 and 67 (amongst others).
- 4.83 Considering the background environment as incorporating the RDR and the BCI Scheme does not negate the need for Variation 2 to give effect to higher order directions and for the provisions to be assessed through the lens of Part 2 and section 32. Variation 2 should be forward-looking and accommodate both of the schemes.
- 4.84 Although it is submitted that the RDR and BCI Scheme form part of the background environment against which Variation 2 should be assessed, when adopting a forward-thinking approach, it is relevant that the resource consents currently held by RDR and BCI which authorise the discharge of nutrients expire in 2018. This is of particular relevance when determining the scale of the activities which are authorised by those consents, and which form a part of the background environment. There is no guarantee that those consents will be renewed once they expire. In those circumstances, it is submitted that when applying a real-world analysis to the consents that have been issued, it is only the additional land that is likely to irrigated between now and 2018 that should be taken into account when determining the extent of the background environment that should be provided for by Variation 2.
- 4.85 Further consideration of the merits of the submissions made by RDR and the BCI Scheme are set out in paragraph 5.25 of this report.

³¹ Ibid [116]

³² Ibid [117]

5. Final Recommendations

- 5.1. For the reply report the answers to various questions put to the officers by the Hearing Commissioners either immediately before the hearing or during the hearing process have been incorporated into the 'tracked changes' version of the Variation. Unless indicated in those earlier written responses, there is no additional analysis or discussion in this report.
- 5.2. A large number of the outstanding issues are of a technical nature. On this basis, a number of questions have been put to the Canterbury Regional Council's Hinds Plains Technical team, and the responses are recorded in the technical memoranda attached to this report. These technical memoranda address a range of outcome, quality and quantity matters, as well as provide specific responses to a number of issues that arose during the hearing process.
- 5.3. In large part, these technical memoranda concisely answer a number of the outstanding issues. While there is some further discussion in this reply report, generally the answers in the technical memoranda are self-contained and do not require additional planning analysis.
- 5.4. There were a number of matters that were subject to evidence from various parties, generally opposing positions reached in the Variation, and subsequent Section 42A analysis. Not all of these matters are responded to in this reply report, particularly where the officers are maintaining their existing recommendation and no further change is recommended. Officers consider, after reviewing the evidence, that these matters have been addressed adequately within the Section 32 and Section 42A reports.

Outcomes, Limits and Targets

Catchment Nitrogen Target

- 5.5. The outcomes for the Hinds/Hekeao Plains Area, as established by the Zone Committee, were largely unchallenged by submitters. The challenges that did arise were about what the most appropriate methods and timeframes were to achieve those outcomes. One of the key matters was the total nitrogen load for the Lower Hinds/Hekeao Plains Area. This was notified in Variation 2 at 3,400 tonnes. The

derivation of this is set out within the Hinds/Hekeao Plains Technical Overview Report³³ and, in particular, the work of Dr Scott.

- 5.6. It is acknowledged that this is a modelled number, based on Overseer 6.0.3. Evidence was led by a number of parties who suggested that the number is wrong, and should be revised upwards. Suggested alternatives include:
- Mr Conland for Horticulture NZ suggested that the 3400 tonnes has an error band of +/- 1500 tonnes
 - DairyNZ, using Overseer 6.2, gave an estimate of 4579 tonnes
 - Mr Callander for RDR, suggested that with a different modelling system, which allowed for higher value soil drainage, a nitrogen leaching loss of around 4,200 tonnes N/year would be possible to achieve the water quality limits
- 5.7. The situation is somewhat complicated by baseline comparisons between the parties. In some cases, submitters identified existing loads, 2009-2012 loads or other estimates using different versions of Overseer. It is accepted that there is an error band, which could be considerable, around this target.
- 5.8. In the DairyNZ/Fonterra submission, there was a request to move to a percentage of the 2014 estimate. It was argued that this would avoid any issue with respect to Overseer versions. However, under questioning, it was noted that Ms Hayward acknowledged that the 30% reduction value may need a correction for Overseer 6.2.
- 5.9. These matters are addressed fully in the attached technical memoranda, reviewing the DairyNZ/Fonterra proposals. Further, it is noted that there is a risk of oversimplification in just using a '30% reduction' figure. This reduction quantum is dependent on the balance of any reductions being required to reach 6.9 mg/L N through the successful implementation of potentially more managed aquifer recharge
- 5.10. In line with the technical memoranda, it is the officers' preference to retain the 3,400 tonne target, but with greater explanation of the basis for this tonne limit within the Variation, so that it can be recalculated under other frameworks in the future.
- 5.11. Officers maintain the view that it is of relatively low importance in the overall scheme of the nutrient provisions when the firm and measureable targets for groundwater and lowland surface water quality are both more capable of actual measurement and indicative of environmental outcomes.

³³ R Bower, CRC Technical Report R14/79

Other Limits and Targets

- 5.12. In evidence, particularly that of Mr Canning, Fish and Game sought various additional limits, including those relating to DRP and DIN.
- 5.13. These are addressed within the memoranda of Dr Meredith and Mr Bower,³⁴ and it is agreed that with respect to the Upper Hinds/Hekeao River, a DRP limit is appropriate. For the reasons outlined in the memoranda, a DIN limit is not recommended.
- 5.14. While the answers to questions from the Hearing Commissioners of the witnesses indicated that the monitoring point could be any location on the Upper Hinds/Hekeao River, for the purposes of regional plan monitoring and compliance with this limit, it is recommended that the monitoring points be consistent with existing water quality monitoring locations, being the Rangitata Diversion Race syphons on both the north and south branches of the Hinds/Hekeao River. This monitoring location has certainty and, for the reasons outlined in the attached memo, is suggested as the monitoring point. However, it is noted that the monitoring point for the north branch is outside of the Upper Hinds/Hekeao Plains Area.
- 5.15. Fish and Game suggested, in evidence, a range of additional limits including for IBI (the New Zealand Freshwater Fish Index of Biotic Integrity), ammonia, temperature and EPT (Ephemeroptera, Plecoptera and Tricoptera). The practical limitations of using these measures is explained in the memoranda of Dr Meredith.³⁵ In reviewing other Regional Plans, and after conversing with a number of different planning officers at other Regional Councils, the measures suggested by Fish and Game appear to be either not used elsewhere, or used in a narrower context. For example, limits for ammonia and temperature tend to be used more in relation to limits for point source discharges, rather than overall water quality.

Quality

Flexibility for Low Emitting Farms

- 5.16. A number of submitters sought greater flexibility for low emitting farms. This was followed up in evidence by a number of witnesses, who appeared to have reached something of a consensus in terms of a preferred solution.

³⁴ Memorandum 3, Water Quality - Limits and Upper Hinds phosphorus

³⁵ Memorandum 3, Water Quality - Limits and Upper Hinds phosphorus

- 5.17. The term commonly used by these witnesses was “flexibility cap”. This appears to be a term used elsewhere in the region. In essence, the proposal from the submitters was for all farming activities in the Lower Hinds Plains Area to be a permitted activity up to 15 kg/ha/pa N. Several submitters sought an additional allowance, as a discretionary activity, for increases to between 15 and 20 kg/ha/pa N.
- 5.18. Dairy NZ/Fonterra included this regime in their modelling, and Canterbury Regional Council’s Hinds Plains Technical team have also analysed the implications of these changes. This memoranda³⁶ is attached, and shows that enabling increases to 15 kg/ha/pa N would lead to a relatively minor increase in the catchment N load. A potential increase from 15 to 20 kg/ha/pa N would lead to a more significant increase. That said, in the context of the catchment load, it is not a large proportion.
- 5.19. Various economic and lay evidence was presented that showed the significant benefits of enabling flexibility for low discharging farm systems. While it is for the Hearing Commissioners to determine the appropriate mix of activities, it is the officers’ recommendation that additional flexibility be enabled, and this is shown through a revised rule regime enabling up to 15 kg/ha/pa N as a permitted activity and 20 kg/ha/pa N as a discretionary activity.

Intensification

- 5.20. The Variation enables 30,000 hectares of intensification, at up to 27 kg/ha/pa N. Evidence was presented, with a range of estimates of what development is likely to occur in the foreseeable future. All of these estimates were significantly below 30,000 hectares. There is a considerable degree of uncertainty, particularly as some of the existing consent holders, such as the irrigation schemes, have the ability to intensify both within the Hinds/Hekeao Plains area, or outside of this area.
- 5.21. It also became evident throughout the hearing that the enabling of further intensification in the short term, in an already over-allocated catchment, is challenging with respect to the NPS-FM and RPS requirements.
- 5.22. After considering the submissions and evidence, it is the officers’ opinion that the development that is likely to occur under the existing irrigation scheme consents, which expire in 2018, will be reasonably limited in terms of area. Officers are of the view that it is not appropriate to include a rule regime in the Variation that will enable intensification beyond the expiry of these resource consents, in the absence of the catchment scale mitigations, particularly managed aquifer recharge, being

³⁶ Memorandum 1, DairyNZ/Fonterra (1), Low leaching flexibility, and Zone Boundary changes

successfully undertaken. On this basis, no specific rule regime is recommended with respect to intensification.

- 5.23. A policy change is recommended that signals that when the nutrient levels in groundwater have reduced, and are showing continuing decline, further intensification may be enabled at that point. The Section 32 report and the attached technical memoranda³⁷ indicate that at approximately 2025 and with managed aquifer recharge fully developed, the groundwater concentrations are predicted to be approximately 9.1 mg N per litre. This is a significant reduction below the current levels, and may be an indicative level for enabling further intensification. As that date is likely to be consistent with a further review of the LWRP, a specific rule regime enabling this intensification has not been included, but easily could be.

Irrigation Scheme loads

- 5.24. The irrigation companies and RDR generally sought, in either submissions or evidence, a load in tonnes for the scheme areas within the Hinds/Hekeao Plains area. In some cases this was able to be analysed against the various resource consents held by the schemes and the potential expansion areas. However, given the uncertainties in expansion areas, the calculation of loads was, at times, not completely clear.
- 5.25. It was recognised by all parties that produced comprehensive evidence that the 30,000 hectares of new intensification provided for in Variation 2 was larger than that envisaged. Briefly, these are summarised below:
- For BCIL, the evidence of Mr Thomas identified a potential irrigation area within Hinds Plains of approximately one third of their 40,000 ha command area, being 13,333 ha, and with 4,629 ha already developed, leaves 8,704 ha for development.
 - For RDR, the resource consent specified a nitrogen allocation for new irrigation of 211 tonnes/year. Conversion of this load to an area based on 27 kg/ha is 7,815 ha.
 - The evidence of Ms Hayward for DairyNZ/Fonterra suggested 15,000ha in total.
- 5.26. Adding the figures from the first two bullet points, gives an area of approximately 16,500 ha, which is reasonably similar to the DairyNZ/Fonterra quantum.
- 5.27. Overall, the identification of specific loads for each of the schemes or principal water supplier is not recommended, as Table 13(i) has a formula, based on the growth of

³⁷ Memorandum 7, Monitoring of limits.

scheme areas and the requirements for reduction across existing farming activities. This will ensure, in the officers' opinion, that all farming activities are subject to similar reduction regimes.

Alternative Nutrient Management Proposals

5.28. As is noted in the discussion of the various briefs of evidence lodged, DairyNZ/Fonterra appeared to gain the support of a number of other parties with respect to their proposed nutrient management framework. No other proposal had similar support. The Canterbury Regional Council's Hinds Plains Technical team have prepared technical memoranda analysing the DairyNZ/Fonterra proposal.³⁸ This is attached, and raises some questions as to the appropriateness and achievability of the Zone Committee's outcomes. That said, the DairyNZ/Fonterra three-step proposal appeared to show a significant reduction in economic costs for achieving of similar long term outcomes.

Table 4 Summary of changes in N load and modelled root zone nitrate concentrations resulting from different staging of the reduction regime proposed by DairyNZ/Fonterra. The DNZ/Overseer 6.2 model version was used for this analysis.

Timeline DairyNZ/Fonterra 4 stage	2013	2017 GMP	2020	2025	2030	2035
Existing land uses (tonnes N)	6,500	6,500	5,938	5,373	4,823	4,375
Reduction regime		GMP	9% for those above 20 kgN/ha/yr	18% for those above 20 kgN/ha/yr	27% for those above 20 kgN/ha/yr	36% for those above 20 kgN/ha/yr
Irrigation development (tonnes N)* ¹		61	100	122	122	122
Flexibility caps (tonnes N)* ²		none (PA rule from 2017)	25	50	70	82
Total N load (tonnes N/yr)	6,500	6,561	6,063	5,545	5,015	4,579
% change in load		1%	-7%	-15%	-23%	-30%
Modelled root zone nitrate nitrogen concentration	13.9	14.0	12.9	11.7	10.6	9.7
Timeline DairyNZ/Fonterra 3 stage	2013	2017 GMP		2025	2030	2035
Existing land uses (tonnes N)	6,500	6,500		5,552	4,940	4,375
Reduction regime		GMP		15% for those above 20 kgN/ha/yr	25% for those above 20 kgN/ha/yr	36% for those above 20 kgN/ha/yr
Irrigation development (tonnes N)* ¹		61		122	122	122
Flexibility caps (tonnes N)* ²		none (PA rule from 2017)		50	70	82
Total N load (tonnes N/yr)	6,500	6,561		5,724	5,132	4,579
% change in load		1%		-12%	-21%	-30%
Modelled root zone nitrate nitrogen concentration	13.9	14.0		12.1	10.9	9.7

5.29. There were questions raised as to the scope in submissions to settle on the DairyNZ/Fonterra proposed 36% reductions beyond GMP for all farming activities. In analysing these submissions, the following observations are made:

³⁸ Memorandum 1, DairyNZ/Fonterra (1), Low leaching flexibility, and Zone Boundary changes. Memorandum 2, DairyNZ/Fonterra (2).

- There are a number of submissions that seek a 30% reduction for all activities³⁹, but none that seek a 36% reduction for all activities
- There are a number of submissions, including several from lay submitters, that seek that all farming activities be treated equally⁴⁰
- There are several submitters that seek the 45% reduction required by dairy to be reduced⁴¹
- No submissions or evidence advance useful definitions of “dairy” or “dairy support”.⁴²

5.30. Overall, it is clear that the DairyNZ/Fonterra proposal is an alternative, workable proposal. So are a number of permutations between the notified Variation 2 and the DairyNZ/Fonterra proposal. All proposals are subject to a range of assumptions and errors in the modelling, such that their efficacy will only be able to be determined over time. All of the options rely, to a significant extent, on managed aquifer recharge to achieve the Zone Committees outcome of 6.9mg/L N. As the table above and technical memoranda identifies, the DairyNZ/Fonterra proposal goes some way toward meeting the Zone Committee outcomes, in that it aims for a reduction in root zone concentration to 9.7mg/L N. It is likely that rather more managed aquifer recharge will be required, and if the three-step programme is preferred, the risk of delaying implementation is outlined in the technical memoranda⁴³. Essentially, some options may have more risk than others.

5.31. As was described in the Section 42A report, Ngai Tahu sought a banding approach to different nutrient emission levels. The evidence presented modelled four different scenarios. Overall, the planning framework could be summarised as entailing more significant limitations on high emitters with greater flexibility for low emitting farming activities.

5.32. It was also noted that the Fish and Game proposal to use a land use capability-based rule regime was not further advanced in evidence. That said, the memoranda of legal counsel produced subsequent to the hearing identifies that this proposal has not been withdrawn.

³⁹ See submissions from Fonterra Co-operative Group Limited and DairyNZ Limited, Synlait Milk Ltd and Upper Hinds Plains Land User Group.

⁴⁰ See submissions from Ortongreen Farm Limited, Fonterra Co-operative Group Limited and DairyNZ Limited, Synlait Milk Ltd, Upper Hinds Plains Land User Group, Mayfield Hinds Irrigation Limited, Valetta Irrigation Limited and Irrigation New Zealand.

⁴¹ See submissions Federated Farmers of New Zealand, Fonterra Co-operative Group Limited and DairyNZ Limited, and Horticulture New Zealand.

⁴² See submissions of Rangitata Diversion Race Management Limited and evidence of Mr Clarke on behalf of the Hinds Plains Water Partnership, verbal submission dated 17 July 2015.

⁴³ Memorandum 1, DairyNZ/Fonterra (1), Low leaching flexibility, and Zone Boundary changes.

- 5.33. Overall, for the reasons outlined in the Section 42A report, the officers do not support either the Ngai Tahu nutrient management proposal or the Fish and Game proposal based on land use capability.

Timing of Reductions

- 5.34. While the exact magnitude of the percentage reductions beyond GMP are under debate, similarly the timeframes and stepped nature of the reductions is also subject to some debate.
- 5.35. Some parties requested an extension from 2035 to 2050 to achieve the Zone Committees outcomes. The technical memoranda from Dr Meredith addresses the potential ecological impacts of this extending the timeframe.⁴⁴ The Zone Committee considered these matters, and settled on a 2035 deadline, as being appropriate and achievable, and noting that it is in line with the CWMS expectations.
- 5.36. The DairyNZ/Fonterra proposal suggested pushing the majority of the nitrogen leaching reductions beyond GMP further out in the timeline. This would essentially mean that smaller reductions would be required in the next 10-15 years. Understandably, deferral of potential costs has lower private economic impacts, as detailed in the technical memoranda.⁴⁵ However, there are risks with this approach, in that it pushes expectations of greater reductions further into the future, potentially creating unachievable reductions required at that stage. After consideration, officers would prefer to see something of a linear set of stepped reductions between the 2017 GMP and 2035 final level of reductions, in line with the DairyNZ/Fonterra four-steps outlined in the table above.
- 5.37. The concept of all farming activities being subject to the same percentage reductions has some attraction. Evidence was presented from a number of parties highlighting the difficulty of separating farming activities into clear cut “dairy”, “dairy support”, or “other”.⁴⁶ Similarly, evidence was led highlighting that the economic analysis that had identified that dairy and dairy support could undertake such reductions in an economically viable manner was potentially now out of date.
- 5.38. It is clear that dairy and, to a lesser extent, dairy support are some of the highest emitting and wide-ranging activities in the Lower Hinds/Hekeao Plains Area. However, with an allowance for low-leaching activities to increase, which inherently produces something of a lower level below which further reductions are not required, and the

⁴⁴ Memorandum 3, Water Quality - Limits and Upper Hinds phosphorus

⁴⁵ Memorandum 2, DairyNZ/Fonterra (2)

⁴⁶ David Clarke on behalf of the Hinds Plains Water Partnership, verbal submission

GMP start position, a framework requiring equal reductions below GMP appears easier to implement and had the support of the majority of submitters and witnesses.

- 5.39. Overall, Officers have recommended a staged series of reductions below GMP, based on the DairyNZ/Fonterra four stage process set out above.

Quantity

Low-land Waterbody Flow Regimes

- 5.40. The issue of how the flows in the lowland waterbodies should be managed was subject to a significant number of submissions and evidence from at least two parties.⁴⁷
- 5.41. Variation 2 includes an interim flow regime, which recognises the existing resource consents granted on the various waterbodies. There is a time limit, until 2020, within which it is anticipated that a collaborative process will arrive at a revised flow regime. If the collaborative and plan change processes are not completed by 2020, the flow regime will automatically revert to the LWRP “default” flow regime, which would be significantly more constraining than the interim position.
- 5.42. Evidence was provided that indicated that the Hinds Drains Working Party is making good progress towards a collaborative solution, with recommendations likely to be made to the Zone Committee in the near future. It was also noted that the outcomes of the managed aquifer recharge trial and implementation would have a significant bearing on the flow regime.
- 5.43. Officers have investigated the existing resource consents to take surface water from these waterbodies. It would appear that none expire between 2020 and 2030. This would mean, should the flow regime change in 2020, there would need to be a review of the existing consents to achieve any environmental benefit. Given the preference of many submitters for the community led process to be given a greater timeframe to achieve workable results, and the relatively low additional risk of extending this timeframe, it is now recommended that the date in Policy 13.4.13 and in the header of Tables 13(g) and 13(h) is changed from 2020 to 2025. This will still allow adequate time for planning and adaptation before replacement consents need to be applied for.

⁴⁷ Eiffelton Community Group Irrigation Scheme and Longbeach Estate

Windermere Drain Measuring Point

- 5.44. The evidence of Mr Mackenzie for Eiffelton Community Irrigation Scheme, and a number of submitters questioned the flow regime measurement point for Windermere Drain.
- 5.45. The Canterbury Regional Councils Hinds Plains technical team has investigated this matter, and a technical memoranda is attached.⁴⁸ The technical memoranda identifies that there was an error in the notified Variation, and on this basis a recommendation is made in the tracked changes version of the report to shift the monitoring site to Poplar Road.

Substituting Deep Groundwater

- 5.46. Variation 2 enables the replacement of a surrendered take for surface water from lowland surface waterbodies, or stream-depleting groundwater for deeper groundwater that is not hydraulically connected to surface waterbodies. Rule 13.5.31 clarifies that this is a restricted discretionary activity, provided a number of conditions are met. A similar framework exists in the wider Ashburton Zone, in relation to the Ashburton River.
- 5.47. A significant difference between the regime proposed under Variation 2 and the Ashburton River regime is the inclusion of a specific allocation block for these replacement consents. Technical advice has been sought as to the likely volume of water available under surface water consents that would qualify under this rule.⁴⁹ Additional information is provided with respect to those consents that are presently “active” in that they have water metering installed. If consent holders wish to be excused from the requirement to install water metering equipment on the basis that they are not utilising the water take, then the water take is recorded as “inactive” in the Canterbury Regional Council’s database.
- 5.48. The information shows that there is a considerable number of consents, and consequent volume of water, not presently being utilised.
- 5.49. The rule framework potentially enables further over-allocation of the fully allocated or over-allocated groundwater zones in the Hinds/Hekeao Plains area. This can be resolved by the establishing of a specific allocation, in a similar manner to the

⁴⁸ Memorandum 5, Windermere Drain

⁴⁹ Memorandum 4, Groundwater limits

Ashburton River, which is shown in the attached tracked changes version of Variation 2.

- 5.50. The technical advice has identified that the additional allocation can be supported, particularly in terms of recharge volumes likely to be available through managed aquifer recharge. There are also direct and immediate benefits to the surface waterbodies.
- 5.51. A second, and subsidiary issue arose in evidence in relation to hydraulic connection with surface waterbodies. In particular, the evidence of Mr Thorley for Ngai Tahu identified that a minimum abstraction depth, such as 50 metres, should be an additional condition of the restricted discretionary activity rule, in order to ensure that hydraulic connectivity was minimised.
- 5.52. Technical advice has been received that prefers a case by case analysis based on assessment against the standard LWRP criteria.⁵⁰
- 5.53. While it is for the Hearing Commissioners to determine what technical evidence they prefer on this matter, based on the Canterbury Regional Council technical advice, the additional criteria is not recommended to be included in the tracked-changes version of the Variation.

Transfers

- 5.54. A significant number of submitters have opposed the prohibited activity status with respect to transfers. Challenges have been made through submissions in respect of potential legal issues with a prohibited activity status.
- 5.55. A number of these issues were discussed at length during the hearings on the LWRP and again in Variation 1. The region-wide rules in Section 5 now do not have a prohibited activity status, and nor do they have a set percentage for the requirement to surrender. This is identified now on a case by case basis. In the Selwyn-Te Waihora Sub-region, a 50% surrender requirement is in place.
- 5.56. A number of submitters advanced particular circumstances and activities for which transfers may be appropriate, such as transfers to a scheme. These applications would currently fall to a prohibited activity status under Variation 2.

⁵⁰ Memorandum 4, Groundwater limits

- 5.57. Officers are now of the view that a 50% surrender framework, as arrived at for Variation 1, is most appropriate, with prohibited activity status beyond that. This framework continues to recognise that the catchment is substantially over-allocated. It also allows some flexibility for higher value uses of transferred water, such as improving reliability of surface water, or addressing Horticulture New Zealand's 'crop survival water' concerns which relate to the need to prevent the death of permanent root stock or crops by allowing the taking of water even in times of water shortages.

Valetta Transfer Proposal

- 5.58. The Valetta Irrigation Ltd submission sought to enable the use of some additional surface water, supplemented by groundwater transferred to the scheme and thereby making the additional water adequately reliable and resulting in additional recharge to groundwater.
- 5.59. The evidence of Mr McIndoe in this regard has been analysed by the Canterbury Regional Council's Hinds Plains technical team, and a memoranda is attached.⁵¹ In line with the technical advice, a specific "B block" allocation for the irrigation scheme is not recommended. However, as noted above, some additional flexibility for transfers is enabled, which may still mean that the irrigation scheme can proceed with the additional surface water use.

Mayfield-Hinds Groundwater Limit

- 5.60. Through additional work undertaken on the database of consents and annual volumes, it has been identified by the Canterbury Regional Councils consents team that there was an error in the notified limit for the Mayfield-Hinds groundwater zone.⁵² This error is comparatively small, but given the submissions seeking that the limit be increased, the opportunity exists to correct this error.

Miscellaneous

Introduction

- 5.61. The introduction section to Variation 2 is largely unchanged from the recommendations made in the original Section 42A report. However, in response to a number of changes to the provisions, particularly relating to nutrient management,

⁵¹ Memorandum 6, Valetta irrigation groundwater recharge

⁵² Memorandum 4, Groundwater limits

and future intensification, a range of consequential amendments are required to reflect the updated provisions.

- 5.62. A small number of submitters presented evidence suggesting one or more objectives be added, specifically relating to this sub-regional section. Overall, the Officers maintain the view that the objectives and strategic policies of the LWRP are adequate and that Policy 4.10 indicates these should be left as the only objectives and strategic policies.

Herbicide Signage

- 5.63. Rule 13.5.7 was drafted based on the ZIP Addendum recommendations 8.5 (Spray) into water. Essentially, Rule 13.5.7 ensures that people who gather food from waterbodies are informed about any agrochemical sprays on their gathering sites. The majority of lowland waterbodies, including the lower catchment of the Hinds/Hekeao River, flows within private properties.
- 5.64. ZIP Addendum recommendation 8.6 (Access) seeks to facilitate access to mahinga kai sites within private lands. While recommendation 8.5 was translated into a statutory provision, recommendation 8.6 remains a non-statutory provision to work through in the future. When recommendation 8.6 is implemented between farmers and Arowhenua Rūnanga, it is expected that the public will have access to more mahinga kai sites, including areas under private ownership. Together these two recommendations are expected to provide access to more mahinga kai sites and enable the public to gather food (e.g. watercress, eel (tuna)) that is safe for human consumption. Hence the rule requirement for signage at public access points to waterbodies.
- 5.65. Evidence was presented on behalf of the Director-General of Conservation on the signage requirements of the Hazardous Substances and New Organisms (HSNO) regulations. Conversely, Ashburton District Council did not consider there were any HSNO signage requirements.
- 5.66. Officers have established that the evaluation of risks due to spraying on mahinga kai sites was not considered at a national level during the formation of the HSNO regulations (personal communication with Dr Richard Mohan Senior HS Advisor, Applications and Assessment, Environmental Protection Authority. Given that the HSNO does not provide adequate protection to mitigate risks from some agrochemicals (e.g. glyphosate (Roundup)), it is recommended that the Variation 2 provisions continue to address this issue.

- 5.67. That said, refinement to avoid any potential conflict with HSNO requirements, and to simplify requirements for private land are recommended.

Zone Boundary Changes

- 5.68. Variation 2 incorporates a change to the boundaries of the Ashburton sub-region and the Alpine Rivers sub-region. A further small change is in the northern corner of the Hinds/Hekeao Plains area. The major implication of the change to the zone boundary along the Rangitata River is to change the Nutrient Allocation Zone status from green to red. While this has implications for the LWRP provisions, with respect to Variation 2, the significant implication is that this area of land now falls within the area and subject to Variation 2.
- 5.69. The reasons for this change were set out within the Hinds/Hekeao Plains Technical Overview Report⁵³ at pages 79-82. The change was opposed in a number of submissions, and was subject to evidence from affected farmers.
- 5.70. At the outset, it is recognised that the LWRP Nutrient Allocation Zone mapping was undertaken at a region-wide, relatively coarse scale and further information has led to some refinements of the allocation zone mapping, and these are likely to continue.
- 5.71. With respect to the boundary change proposed in Variation 2, the information indicating that a change was necessary is based on an improved understanding of groundwater dynamics and the monitoring from the Carew bore.
- 5.72. An updated technical memoranda is attached,⁵⁴ which clarifies the reasoning behind this boundary change, and includes the latest monitoring information for this bore. Essentially, the 2014 groundwater nitrate levels have continued to increase, such that they continue above the 6.9mg/litre target and are trending upwards.
- 5.73. While the reliance on a single monitoring site is not ideal, the officers' continue to recommend that the boundary change continue, and that farming activities in these areas are treated consistently with the remainder of the Variation 2 area.

Specificity of targets

- 5.74. Through the submissions and hearing process, there have been some questions about how it will be determined that limits or targets will be met. A technical memoranda is

⁵³ R Bower, CRC Technical Report R14/79

⁵⁴ Memorandum 1, DairyNZ/Fonterra (1), Low leaching flexibility, and Zone Boundary changes

attached, identifying the methodology followed for plan monitoring purposes.⁵⁵ This memoranda identifies that the various monitoring bores of the Canterbury Regional Council and surface water monitoring sites are utilised, and sampling methods are being aligned with the requirements of the NPS-FM.

- 5.75. If the Hearing Commissioners were minded to do so, the relevant targets could have greater specificity as to the monitoring methodology noted.

Targeted stream augmentation

- 5.76. A number of submitters sought increased recognition of “targeted stream augmentation”. While there are a range of groundwater and surface water enhancement techniques available, and these appear to develop over time, the ability to enable a greater range of ecological enhancements of lowland waterbodies is acknowledged. On this basis, a small range of adjustments are recommended to give greater recognition to targeted stream augmentation, alongside managed aquifer recharge, and aligned with the provisions in Variation 1.

⁵⁵ Memorandum 7, Monitoring of limits

6. Tracked-changes Version of Variation

- 6.1 The recommended changes discussed in the report are set out in a final version of the Variation, showing changes from the notified version. The red underlined elements are suggested additions, while ~~red-strikeout~~ shows deletions. This document is attached as Appendix B.
- 6.2 Many are similar to changes recommended in the Section 42A Report. However, the reply recommendations here are a complete and standalone version, and the existing Section 42A Report versions should be treated as a product of their time.
- 6.3 Some tracked changes are not discussed in any detail in this report – some are clear and obvious in nature, and usually result from matters discussed in detail at the hearing.
- 6.4 Footnotes are also included with submission references for most recommended changes. Many footnotes explain the reasoning behind the wording recommended, where this differs from the precise wording sought in primary submissions.
- 6.5 For those recommended changes that do not have a specific submission reference, they are noted as either a consequence of changes due to another submission (per clause 10(2)(b) of the 1st Schedule to the RMA) or a recommended change under clause 16 of the 1st Schedule.
- 6.6 These “clause 16” changes often relate to changes in the use of abbreviations, grammatical changes and wording changes that do not affect the meaning of the rule or policy. The references to submitters is usually by way of some acronym of the submitter’s name, particularly in the case of companies and organisations. A complete list of the submission acronyms is included below.
- 6.7 There are a small number of additional policies and rules, and a small number are recommended to be deleted. In order to keep the numbering of the policies and rules within the Variation consistent between the notified Variation 2 and the reply recommendations, there are some numbering gaps and the occasional use of “A” following the previous policy or rule number when a policy or rule is inserted.
- 6.8 There are a large number of grammatical and typographical corrections. These are often of a minor nature such as of typographical errors, and changes to the text so that it reads with more certainty or with a better sentence structure.

- 6.9 The majority of these recommended changes, in particular the grammatical corrections and improved wording, do not have any particular submission or further submission to reference the changes that have been recommended. Very minor recommended changes often have no reference.

7. Tracked-changes Version of s32 Report

- 7.1. This document will be supplied at the reconvened hearing.