

BEFORE THE ENVIRONMENT COURT
AT WELLINGTON

I TE KŌTI TAIAO O AOTEAROA
TE WHANGANUI-A-TARA ROHE

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of appeals under Clause 14 of Schedule 1 of the
Resource Management Act 1991 against the decision
of the Manawatū-Whanganui Regional Council on
Proposed Plan Change 2 (“PC2”) to the Manawatū-
Whanganui Regional One Plan (“One Plan”)

BETWEEN

TE RŪNANGA O RAUKAWA
(ENV-2021-WLG-00020)

NGĀTI TURANGA
(ENV-2021-WLG-00021)

ANDREW DAY
(ENV-2021-WLG-00022)

WELLINGTON FISH AND GAME COUNCIL
(ENV-2021-WLG-00023)

Appellants

AND

MANAWATŪ-WHANGANUI REGIONAL COUNCIL

Respondent

EVIDENCE IN CHIEF OF MICHAEL SCOTT

FOR ANDREW DAY

(Planning)

Dated: 6 November 2023

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1. QUALIFICATIONS AND EXPERIENCE

- 1.1 My full name is Michael Scott. I am a Senior Planner at the Catalyst Group.
- 1.2 I hold a Masters of Resource and Environmental Planning. Prior to this role I was in a similar role at Waka Kotahi and prior to that I was with Nelson City Council, working on their 2nd generation unitary plan.
- 1.3 I am a member of the RMLA and an intermediate member of the NZ Planning Institute.
- 1.4 I was engaged by Andrew Day to provide independent, expert planning evidence on PC2 to the Manawatu-Whanganui Regional One Plan ("One Plan") at the start of October 2023. Consequently, I have not been involved in mediation on expert conferencing. However, on being engaged I have had conversations with Greg Carlyon and Christine Foster on the planning matters concerning this plan change.
- 1.5 I am also familiar with the content of the One Plan through my involvement in the preparation of consent applications to the Regional Council.

2. CODE OF CONDUCT FOR EXPERT WITNESSES

- 2.1 I confirm that I have read the Environment Court's Code of Conduct for Expert Witnesses as contained in the Environment Court's Practice Note 2023. I have complied with the Code when preparing this written statement and will do so when I give oral evidence before the Court. The data, information, facts and assumptions I have considered in forming my opinions are set out in this statement to follow. The reasons for the opinions expressed are also set out in the statement to follow. Unless I state otherwise, this evidence is within my sphere of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.
- 2.2 I have no conflicts of interest to declare in relation to the case before the court.

3. PURPOSE AND SCOPE OF EVIDENCE

- 3.1 I have been asked by Mr Day to give evidence on PC2.
- 3.2 My evidence addresses the following matters:
 - Section 5: Purpose of PC2

- Section 6: Overview of the One Plan
 - Section 7: Decisions version and the Council's preferred provisions circulated on 25 September 2023 ("Council Preferred Provisions").
 - Section 8: Analysis of seven key planning issues
 - Section 9: Planning documents PC2 must give effect to
 - Section 10: Recommended amendments
 - Section 11: Section 32AA assessment
 - Section 12: Conclusion
- 3.3 A summary of my evidence is provided in Section 4. I have adapted the Council's Preferred Provisions, provided in **Attachment A**. These show:
- a. the decisions version changes in black underline & strikethrough;
 - b. Council's Preferred Provisions in red, also with underline and strikethrough;
 - c. my recommended amendments in blue, also with underline and strikethrough.
- 3.4 In preparing this evidence I have reviewed the following documents:
- a. Draft versions of Dr Parlato, Dr Dewes, Mr Mackay and Mr Day's evidence statements
 - b. Statements of evidence from Christine Foster: s42A, primary evidence 7th October, supplementary evidence 8th October
 - c. Prof David Horne – On farm Management Practices
 - d. Ton Snelder – State of the Environment & Water quality modelling
 - e. Elizabeth Daly – Strategic Overview
 - f. James Hanly – Overseer version changes and Table 14-2
 - g. Paul le Miere – Pastoral Farm Systems
 - h. Anne Maree Jolly – Commercial Vegetable Growing
 - i. Fish & Game and Manawatu-Wanganui Regional Council Decision [2017] NZEnvC 37 ENV-2016-WLG-000038

- j. Proposed One Plan Appeals, Environment Court decision: Part 5 – Surface Water Quality – Non-Point Source Discharges
- k. The decision on the Council hearing for PC2
- l. <https://environment.govt.nz/assets/publications/Freshwater/overseer-model-redevelopment-review-guide.pdf>
- m. Overseer Redevelopment Programme Report (mpi.govt.nz), [Technical Paper No: 2023/12](#)

4. EXECUTIVE SUMMARY

- 4.1 PC2 was intended to correct issues with the workability of the provisions in Chapter 14 of the One Plan. The decisions version amended the provisions to do that, but also introduced two alternative controlled activity pathways, one for commercial vegetable growing and one for all other existing intensive farming activities.
- 4.2 Those pathways, along with a new suggested pathway (a Risk Assessment Tool) now favoured by the Council, are problematic for a number of reasons. They do not use or reflect the natural capital approach adopted by the One Plan as the basis for the management of nitrogen leaching, except crudely in the case of the Risk Assessment Tool.
- 4.3 They also involve an element of grandparenting, in that they would oblige applicants to lower their discharge, either based on a percentage of their current rate, performance against a benchmark for the catchment, or a score focused solely on inputs. This grandparenting approach has been rejected previously and could compromise future efforts to improve water quality.
- 4.4 Providing alternative controlled activity pathways would also allow applicants to choose the easiest path, an outcome that would be inequitable to farmers who are living within their means on the Land Use Capability (“LUC”) class that they farm on.
- 4.5 Compared with Overseer, these alternatives have had very little peer-review, are untested, unverified, not ground-truthed and rely on farmers themselves to regulate, with no trained professionals to ensure consistency and provide a valuable dataset to inform future understanding.

- 4.6 Introducing these new tools provides more uncertainty in delivery against Objective 14-1.
- 4.7 In relation to other changes in the Council Preferred Provisions, the frequent use of 'practicable', or versions of it, also creates uncertainty and diversity of outcome, which would be inequitable.
- 4.8 The policy framework has been much improved by the decisions version. However, it still needs some additional signals that consent could be declined if nitrogen leaching rates remain high even after good management practices.
- 4.9 The duration of consent is also a key consideration. The less certain the practice will lower the nitrogen leaching rates to the limits set out in Table 14.2, the shorter the consent duration should be.

5. PURPOSE OF PC2

- 5.1 PC2 has been introduced to address two key issues with the One Plan relating to applications for and assessment of resource consent applications for existing intensive farming activities in the target catchments.
- 5.2 The first issue is caused by updates to the nutrient management tool Overseer since the One Plan was made operative. These updates mean that the leaching estimates provided by the updated version of Overseer are higher than under the old version of Overseer for a piece of land even if the same inputs are used. This is an issue for the One Plan because the cumulative nitrogen leaching maxims ("CNLM") that existing intensive farms must meet to be a controlled activity were determined using the older version of Overseer, and the understanding was that nitrogen leaching of individual farms would be determined in the same way. Thus, there would be alignment between the leaching estimates underpinning the CNLMs and the leaching estimates generated for an individual farm. The CNLM are set out in Table 14.2.
- 5.3 However, the update to Overseer has meant this is not the case. This is because, as stated above, the internal changes to the model have resulted in it generating higher leaching estimates for a piece of land than would have been generated under the older version with exactly the same inputs. The planning consequence is:

- a. A large number of existing intensive farms that could meet the CNLM using the old version of Overseer cannot meet the CNLM under the new version of Overseer and therefore no longer qualify to apply for a controlled activity resource consent.
 - b. As a result of a. above the policy direction that “most farms” can achieve the CNLM using good management practices, is not being implemented by the One Plan’s rules.
- 5.4 The second issue is addressed in detail in the independent report prepared jointly by Beca and Ellis Gould that is attached to the primary evidence of Ms Daly for the Council. In summary, there is a disconnect between the policy direction about how applications for existing intensive farming activities that do not meet the CNLM are to be managed, and the rules framework applying to them which provides opportunity to apply for restricted discretionary resource consent:¹

“the rules in the Plan appear to provide a consenting pathway for an existing intensive farm use where modelled nitrogen leachate maximums will exceed those specified in the Plan. However, the policies of the Plan significantly limit the circumstances in which Horizons is able to consider such an application...there is insufficient policy scope for consideration to be given to the listed matters of discretion set out in the relevant rule.”

6. OVERVIEW OF THE ONE PLAN

- 6.1 The One Plan is a combined regional policy statement (“RPS”) and regional plan. The RPS provisions are in Part 1 and the chapter relevant to water and discharges is Chapter 5. The regional plan provisions are in Part 2 and Chapter 14 relates to discharges to land and water.
- 6.2 It is a limits-based plan. By this I mean that its provisions are focused on working towards meeting water quality limits or targets identified in the plan. These are set out in Schedule E to the One Plan. The underlying purpose of these limits/targets is to achieve the water quality values in Schedule B.

¹ Beca and Ellis Gould joint report pg 2 provided at Attachment A to Daly primary evidence.

RPS Chapter 5

- 6.3 Chapter 5 sets out a comprehensive water management framework to identify and protect freshwater values. To properly appreciate the comprehensive framework that this represents, it is important to look at Chapter 5 in its entirety and then how it is implemented in Chapter 14, in its entirety (I will comment on Chapter 14 shortly).
- 6.4 The significant resource management issue identified in relation to water quality is:²
- “The quality of many rivers and lakes in the Region has declined to the point that ecological values are compromised and contact recreation such as swimming is considered unsafe.”
- 6.5 Nutrient enrichment caused by run-off and leaching from agricultural land, and pathogens from agricultural run-off are identified as a “principal cause” (but not the only cause) of this degradation.
- 6.6 In essence, the goal (objective) of the RPS in relation to water quality is to maintain it where existing water quality achieves the values in Schedule B and improve it where it does not so that it will.³
- 6.7 The underlying course of action for achieving these goals is to establish measurable water quality limits/targets which align with the values in Schedule B, and then maintain water quality where these are met and enhance water quality it where they are not.⁴ These limits/targets are set in Schedule E as noted.
- 6.8 The courses of action to achieve the objectives described above specifically related to discharges and land uses that affect water quality are in section 5.4.2.3. The approach provided for is specific and directive.
- 6.9 Policy 5-7 states that the management of land use activities affecting groundwater and surface water “must give effect to” the strategy set out in the RPS described above. It then says how that is to be done. Specifically, this is to be done by (relevantly):

² Issue 5-1.

³ Objectives 5-1, 5-2.

⁴ Section 5.4.2.1.

- a. identifying targeted management zones where collectively, land use activities are significant contributors to elevated contaminant levels;
 - b. identifying the land use activities, specifically including intensive farming activities, making a significant contribution to contaminant levels either individually or cumulatively; and
 - c. managing those intensive farming activities in the way Policy 5-8 says.
- 6.10 Policy 5-8a is particularly relevant to PC2 so I have reproduced it below to avoid missing detail through paraphrasing:
- “i. Nitrogen leaching maximums must be established in the regional plan which:
- A. take into account all the non-point sources of nitrogen in the catchment will achieve the strategies for surface water[^] quality set out in Policies 5-2, 5-3, 5-4 and 5-5, and the strategy for groundwater quality in Policy 5-6
 - B. recognise the productive capability of land[^] in the Water Management Sub-zone*
 - C. are achievable on most farms using good management practices
 - D. provide for appropriate timeframes for achievement where large changes to management practices or high levels of investment are required to achieve the nitrogen leaching maximums.
- ii. Existing intensive farming land[^] use activities must be regulated in targeted Water Management Sub-zones* to achieve the nitrogen leaching maximums specified in (i).
- iii. New intensive farming land[^] use activities must be regulated throughout the Region to achieve the nitrogen leaching maximums specified in (i).”
- 6.11 Before moving on to the regional plan, I want to comment on my understanding of the meaning of the term “most” in this policy. This is important to assessment of PC2 and whether Table 14.2 is achieving what it needs to give effect to the RPS. I read this policy as using the term in its regular sense as in: ⁵
- a. “in the greatest quantity, amount, measure, degree, or number
 - b. in the majority of instances
 - c. greatest, as in size or extent.”

⁵ [MOST Definition & Usage Examples | Dictionary.com](https://www.dictionary.com/browse/most) :

<https://www.dictionary.com/browse/most>

- 6.12 I interpret the direction of Policy 5-8a. to be the identification of all nitrogen discharge in each catchment, and the determination of the limits to impose on all sources of nitrogen discharge in order to return the waterways to a healthy state. Assignment of those limits should take into account natural capital (the “productive capacity of the land”) and should be achievable by at least the majority of farms using good management practices.

Regional plan

- 6.13 The regional plan has a single objective for discharges to land and water (Objective 14-1). That objective directs that discharges and land uses affecting water quality are managed in a way that:
- a. safeguards the life-supporting capacity of water and recognising the values;
 - b. provides for the objectives and policies of Chapter 5 [of the RPS] as they relate to surface water and groundwater quality; and
 - c. ...avoids, remedies or mitigates adverse effects on surface water or groundwater.
- 6.14 The management of intensive farming land uses and the consenting of these is addressed in Policies 14-5 and 14-6. These are the policies that are the primary focus of PC2 and of the policy issue underpinning PC2 as set out above.

Controlled activity consent opportunity

- 6.15 The regional plan categorises land into different LUC classes, recognising the different potential of land of different soil compositions to retain nitrogen without leaching it into groundwater. Table 14.2 then sets the CNLM based on those different LUC categorisations.
- 6.16 The approach recognises the different inherent properties of different parcels of land and sets different levels of nitrogen leaching based on those inherent properties, this constitutes a ‘natural capital’ approach.
- 6.17 If an existing intensive farm can meet the CNLMs in Table 14.2 then it can apply for a resource consent as a controlled activity⁶. From a planning perspective,

⁶ Rule 14.1.

this activity status represents an incentive to meet the CNLMs because it means consent is guaranteed.

- 6.18 Having had the benefit of seeing the draft evidence of Dr Dewes, I understand that the CNLM in Table 14.2 were developing using the Overseer version applicable at the time as a starting point, and then adjusted to reflect a level of nitrogen leaching for each LUC class that was achievable by most farms using good management practices, a direction set out in RPS Policy 5-8(a)(i)(E), while also achieving the strategies for water quality set out in Policies 5-2 to 5-6.
- 6.19 It is this outcome that the updates to Overseer have undermined, as described above.
- 6.20 In my opinion, after looking at the background documentation, the creation of the One Plan represented a step change in management of water quality in the region, recognising that water quality in many catchments was poor and setting limits on nitrogen loss to ensure the improvement of water quality in those degraded catchments.

Restricted discretionary consent opportunity

- 6.21 After setting a level of discharge for the sub-zones that aligns with water quality limits, the plan also provided a restricted discretionary pathway⁷, to provide a framework for assessing farms that exceed those limits, allowing some flexibility to look at options for mitigation, an allowance for discharges to be lowered over time and for an appropriate term of the consent. The goal of the policy framework was very much focused on achieving the water quality limits in the degraded catchments identified and for maintaining water quality in the better catchments.
- 6.22 The matters of discretion target management of the additional nitrogen loss, above the figures set out in Table 14.2, covering (relevantly) preparation of a nutrient management plan, extent of non-compliance with the CNLM, and measures to avoid, remedy or mitigate leaching.
- 6.23 However, the current policy framework relevant to that assessment is narrow. It requires that the CNLMs are met except if the circumstances in Policy 14-6 apply, which are limited:

⁷ Rule 14.2.

“b. An exception may be made to (a) for existing intensive farming land[^] uses in the following circumstances:

i. where the existing intensive farming land[^] use occurs on land that has 50% or higher of LUC Classes IV to VIII and has an average annual rainfall of 1500 mm or greater; or

ii. where the existing intensive farming land[^] use cannot meet year 1 cumulative nitrogen leaching maximums* in year 1, they shall be managed through conditions on their resource consent to ensure year 1 cumulative nitrogen leaching maximums* are met within 4 years.”

6.24 In addition, the policy framework led back to the need to comply with Table 14.2. Because of that circular reference back to the CNLMs, and following the *R/ Davidson* case, it was found that the Council would not be able to grant consents for the restricted discretionary activities except in the circumstances listed above.

6.25 This narrow policy framework is the other issue prompting PC2. As explained above, there is arguably a disconnect between the matters of discretion and the limited instances in which the policy framework says consent can be granted. The issues with this rule/policy disconnect came to the fore when the misalignment between Table 14.2 and the recalibrated Overseer values occurred. This was because the misalignment meant that the majority of existing intensive farms were falling to be assessed as restricted discretionary activities, and the policy framework precluded an assessment of nitrogen leaching in terms other than the Overseer number.

6.26 Though I was not involved at the time, I understand from reading the evidence available that an issue arose with updates to Overseer producing higher estimates for nitrogen leaching even where the activity was unchanged. This meant that that it became progressively more difficult for farmers to reconsent the discharge associated with their farms as a controlled activity.

Comment on context behind some of the One Plan’s provisions

6.27 Below I set out my understanding of the context behind some of the One Plan’s provisions. I have included this because this has informed my understanding of some of the PC2 provisions.

6.28 Regulation of nitrogen leaching in the One Plan goes back to the Environment Court decision on the notified One Plan in 2012. It is notable that, at that time the Environment Court heard arguments from Fonterra that farmers should

have to reduce their nitrogen leaching rates to the 75th percentile. This proposal, and the grandparenting approach in general, were rejected by the Court. These are two concepts that have found their way back into the proposed amendments for PC 2, as addressed in section 7, below.

- 6.29 In the years following the One Plan becoming operative, a Council resolution was passed stating how consents should be processed, but that didn't align with the operative One Plan. This approach was challenged by Fish & Game and the Environmental Defence Society who sought declarations in the Environment Court in 2017.
- 6.30 The Court heard from the applicants that Council was not undertaking an assessment of effects under the policy framework set out in the One Plan. The applicants said that long-term consents were being granted "whatever the effects and adequacy of mitigation measures", with no progressive reduction in nitrogen leaching beyond year 1⁸. Consents were being granted with conditions requiring Nutrient Management Plans, but the parameters set differed from the explicit requirements in the One Plan.
- 6.31 The applicants also argued that processing consents in this way was inequitable for holders of controlled activity consents, who were held to a more stringent standard in terms of nitrogen leaching – one aligned with delivery of the targets set out in Schedules B & E of the plan⁹, and with Objective 14-1. The Environment Court found that the Council had abandoned the natural capital approach to resource consent allocation "in favour of an ad-hoc preferential grandparenting of long-term resource entitlements"¹⁰.
- 6.32 It also heard that, in doing so, either the lawful interests of existing landowners were being curtailed or the environmental limits set out in the One Plan were being abandoned.

⁸ Fish & Game and Manawatu-Wanganui Regional Council Decision [2017] NZEnvC 37 ENV-2016-WLG-000038, p31, para 89

⁹ Fish & Game and Manawatu-Wanganui Regional Council Decision [2017] NZEnvC 37 ENV-2016-WLG-000038, p31, para 90

¹⁰ Fish & Game and Manawatu-Wanganui Regional Council Decision [2017] NZEnvC 37 ENV-2016-WLG-000038, p11, para 28

- 6.33 The Court declared that processing consents in such a manner was not lawful. It also found that, if there were issues with the policy and rule frameworks of the plan, the appropriate response was to propose a plan change.
- 6.34 I understand that after that decision was released, the Minister for the Environment, in response to the Council's position that the One Plan was 'unworkable' and 'broken', commissioned an independent report by Beca and Ellis Gould jointly. This review recommended two things only: updating Table 14.2 and amendments to Policies 14-5 and 14-6 to provide a broader policy framework for considering applications that could not meet the controlled activity standards.
- 6.35 It is also my understanding that since that time, Horizons has been pursuing a plan change to the One Plan to make those corrections, as suggested, and that PC2 is that plan change. I also understand that they have been suggesting that farmers not apply to renew their expired discharge consents while the work on the plan change is in progress. This has led to a backlog of some 166 farms that were operating without consent as of the PC2 hearing in 2021.

7. DECISIONS VERSION AND THE COUNCIL'S PREFERRED PROVISIONS

- 7.1 Key elements of the decisions version of PC2 ("PC2-DV") are:
- a. An update to Table 14.2 to align with the recalibration of Overseer.
 - b. Amendments to Policy 14-5 to provide for two additional controlled activity consenting opportunities that could be chosen instead of the Table 14.2 opportunity, one for commercial vegetable growing and one for other intensive farming that were available until 31 December 2022, with PC2-DV being released March 2021. The pathways were:
 - "ii. the lesser of 80% of the land's nitrogen leaching baseline* or the 75th percentile nitrogen leaching loss for the relevant water management zone*; or
 - iii. for commercial vegetable growing*, the growing area does not exceed the area of commercial vegetable growing* of the baseline growing period* and the activity implements good management practice* and best management practice* to achieve, within 3 years of lodgement of the application, a minimum reduction in cumulative nitrogen leaching loss from the land^ of 35% relative to the baseline growing period*"

- c. Amendments to Policy 14-6 to provide a policy framework that enabled a broader consideration of intensive farming land uses that cannot meet the controlled activity opportunities. The amendments removed the specific situations when an “exception” to Table 14.2 was available and replaced that with policy direction focusing on requiring good management practices, and additional measures where necessary to manage nutrient leaching, “to the maximum reasonably practicable extent as soon as reasonably feasible”. The amended Policy 14-6 also introduced a consideration of the “feasibility, practicality and financial implications of implementing alternative measures” as one of the matters to have **particular** regard to when deciding a resource consent application for existing intensive farming land uses that were not controlled activities. Other considerations include (but are not limited to) the extent of exceedance of the controlled activity parameters, proportionality in leaching reductions required, the surface water values and targets, potential environment effects, benefits, consent duration.
 - d. Amendments to the controlled activity rule (Rule 14-1) to incorporate the new controlled activity options and to introduce “good management practice” as a matter of control.
 - e. Amendments to the restricted discretionary rule (Rule 14-2) to apply to non-compliance with all three controlled activity opportunities, instead of requiring compliance with just Table 14.2.
 - f. Amendments to the discretionary rule (Rule 14-2A) covering any intensive farming activity other than those complying with Rules 14-1 or 14-2.
 - g. Amendments to the methods tables to include detailed requirements in relation to Overseer, including registering and maintaining Overseer files and making these publicly available.
- 7.2 The Council Preferred Provisions propose the following key amendments to that decision:
- a. Amendment of Policy 14-3 to require implementation of good management practices, instead of having regard to them.
 - b. In Policy 14-5(d):

- Retained Table 14.2 as a controlled activity pathway and the updates to the Table to align with the new version of Overseer.
 - Replaced the 80%/75th percentile controlled activity pathway with a new controlled activity pathway based on risk scores generated by apply a new risk assessment tool proposed to be included in the One Plan.
 - Amended the commercial vegetable growing specific controlled activity pathway with a new controlled activity pathway based on a vegetable growing risk assessment tool score and a requirement that the growing area does not exceed the area at the baseline year.
- c. In Policy 14-5(d)(iv), amending the date that the alternative pathways are available from 31 December 2022 to 12 months after the plan change becomes operative.
- d. Various changes to the matters to have particular regard to in Policy 14-6(e), including inclusion of consideration of effects on values of mana whenua, inclusion of rainfall records and soil profile assessments.
- e. Various changes to the matters to have regard to in Policy 14-6(e)(iii) including addition of (xiii) to also apply to intensive farming land use that is in transition to non-intensive farming, and changes to the matter relating to consent duration:
- (v) Consent duration, ensuring that ~~no consent is granted for a duration the duration is limited to a period not exceeding ten years, and a shorter limiting duration to less than ten years duration~~ where continued high risk of ~~cumulative~~ nitrogen leaching from the land[^] ~~remains is planned~~ without progressive reduction through the use of best management practice*;
- f. Deletion of the direction relating to Overseer in the methods.
- 7.3 My evidence, and my recommended changes to the Council Preferred Provisions, focus on **seven** issues:
1. Retention of the “natural capital” approach in the One Plan.
 2. The utility and use of Overseer in the One Plan.
 3. The DV-PC2 controlled activity pathways.

4. The proposed use of a newly-developed risk assessment tool as an alternative pathway for a controlled activity.
5. The focus in the amended policy framework on achieving reductions to the “maximum reasonably practicable” and associated references to feasibility and financial implications, and the effect on delivery on Objective 14-1 and the associated water quality targets and limits of this policy approach.
6. The timeframes for applying for and the term of any resource consents granted under the PC2 updated provisions.
7. The Beca Ellis Gould Report

8. ANALYSIS OF SEVEN KEY PLANNING ISSUES

Retention of the “natural capital” approach in the One Plan

- 8.1 Since notification, the One Plan has used a “natural capital” approach to resource allocation, allowing for higher nutrient leaching levels on land that is naturally better equipped to hold on to nutrients and lower levels where soils are less capable, based on its LUC class.
- 8.2 Practically speaking, the “natural capital” approach was provided for through Table 14.2 and its CNLMs.
- 8.3 As I interpret the One Plan, its management approach was premised on the fact that different types of intensive farming should ideally be taking place on the land most suitable for that type of farming, in terms of capability to absorb and manage the impacts of the activity. In short, based on the land’s natural capital. The Table 14.2 CNLM’s were set in a way to support this, and at a level that would also support meeting the One Plan’s values and targets in Schedule B and E. The expectation was that if they employed good management practices most farms would be able to meet the CNLMs. Exceptions would only be provided in limited circumstances, the idea being that even if a farm wasn’t meeting Table 14.2 it was working hard to do so.
- 8.4 This approach is, in my view, sound from the point of view of achieving sustainable management. It is also equitable in that it aims to allocate all farmers with the same class of land the same leaching allowances. It is not ‘locking in’ a specified leaching level based on a particular historical leaching

amount but requiring a trajectory of reductions consistent with bringing leaching to a level aligning with the land's natural capital (based on LUC).

8.5 This approach has also been upheld in the Environment Court. In its 2012 decision on the One Plan appeals, the Court concluded that “the evidence strongly supports the use of the LUC approach as a tool for allocating N limits for all the land uses contemplated by the Council for N loss management”¹¹.

8.6 The retention of the “natural capital” approach is also the stated intention of the Council. In her evidence of 7 October, Ms Foster states:

“Applying the ‘natural capital’ approach, the highest nitrogen losses occur from the most productive LUC classes (and these are the LUC classes typically farmed more intensively). For present purposes, PC2 does not change this fundamental approach of the One Plan and the ‘natural capital’ approach is not challenged in appeals.”

8.7 I agree that the update and recalibration of Overseer caused an imbalance between the numbers in Table 14.2 and what it was meant to achieve, and that this imbalance needed to be corrected.

8.8 However, the fact Table 14.2 needed updating does not change that the premise of the “natural capital” approach is still sound and should be retained.

8.9 Neither alternative pathway follows a “natural capital” approach, except in a very crude sense. The PC2-DV version applies a blanket reduction across each Water Management Sub-zone, ignoring the natural potential of the different soils in the sub-zone. The risk assessment tool classifies all land into just three categories for soil type and four categories for average rainfall. There is no reference to LUC classes in either proposed amendment.

The value and use of Overseer in the One Plan

8.10 The Overseer nutrient management system allows farmers to estimate the likely nitrogen leaching from their farm.

8.11 In 2021, a number of concerns were raised from the Science and Advisory Panel (“SAP”), following their review of the data, model outputs and comparison with observed nutrient levels. Concerns included:

¹¹ Proposed One Plan Appeals, Environment Court decision: Part 5 – Surface Water Quality – Non-Point Source Discharges, p5-113 [One-Plan-decision-Part-Five-surface-water-quality-non-point-source-discharges.pdf](https://www.horizons.govt.nz/one-plan/decisions/one-plan-decision-part-five-surface-water-quality-non-point-source-discharges.pdf) ([horizons.govt.nz](https://www.horizons.govt.nz))

- a. Overseer does not model episodic events or climate variation
 - b. It does not account for variation in water and nutrient distribution in the soil profile
 - c. It does not adequately account for deeper rooting plants
 - d. It does not account for surface water and overland nutrient transport
 - e. It focuses on nitrate and doesn't model dynamics for ammoniacal nitrogen and organic matter
 - f. The model is a steady state model
 - g. It uses monthly time steps
 - h. It does not balance mass.
- 8.12 This, unsurprisingly, raised the question about the extent to which Overseer could and should be used as a tool in resource management and resource management plans. In response to that report, the government stated that it considered Overseer estimates should not be used as a "hard number" in regulatory processes.¹²
- 8.13 The above raises two issues from a planning perspective given Table 14.2 and its CNLMs were generated using and alignment with them is assessed using, Overseer. These are:
- a. Whether Overseer is sufficiently robust to be used in resource management plans as a tool for managing nutrient discharges; and
 - b. Whether it is being used in an appropriate way in the One Plan.
- Whether Overseer is sufficiently robust to be used in resource management plans as a tool for managing nutrient discharges*
- 8.14 The Overseer Ltd technical team has reviewed each of the concerns set out above and released a report responding to them. This validation work was completed recently, and is subsequent to *Responding to the Overseer model redevelopment review: A guide for councils*¹³.

¹² Overseer whole-model review: Assessment of the model approach MPI Technical paper no: 2021/12,

¹³ <https://environment.govt.nz/assets/publications/Freshwater/overseer-model-redevelopment-review-guide.pdf>

- 8.15 In that report¹⁴, the technical team found that four of the eight concerns were not material to the model or did not undermine the model's validity. It found that three of the concerns had now been addressed and six of the eight issues were incorporated into the latest Overseer version. They reported that overland runoff was modelled as part of the hydrology model and that only one of the valid concerns was yet to be incorporated into Overseer – nitrogen-mineralisation rates are due to be incorporated in 2024.
- 8.16 That same report found that the Overseer model produces “very good” results in estimating nitrogen leaching from grazed pastures and “satisfactory” and “good” results for the limited cropping data available.
- 8.17 Whatever faults remain in Overseer, it has been subject to a high degree of scientific rigour and critique. While improvements will continue to be made, the Overseer software is, to my understanding, the most scientifically rigorous tool available for predicting nitrogen leaching to waterways.
- 8.18 As the “natural capital” approach is not in question, and Overseer (though still being refined) remains the best tool available for determining likely nitrogen leaching within those degraded catchments, I believe that Overseer should be retained as the key determinant of the clear, simple controlled activity pathway that Table 14.2 provides for.
- 8.19 As pointed out in the evidence of Dr Alison Dewes, Overseer is the only system that is validated, and involves consistent and accurate data collection by trained professionals. Because of that, it is a vital tool to understanding the connection between nitrogen levels on farms within a catchment and the resulting quality of the waterways.

Whether it is being used in an appropriate way in the One Plan

- 8.20 As stated above, the One Plan is a regime that is predicated on understanding nitrogen concentrations in degraded catchments and then setting limits in nitrogen leaching in order to restore each of those waterways to good health.
- 8.21 The advice from the MPI technical paper on the use of Overseer was that it should not be relied on for ‘absolute numbers’. In my view, the use of the figures

¹⁴ [Overseer Redevelopment Programme Report \(mpi.govt.nz\)](https://www.mpi.govt.nz/overseer-redevelopment-programme-report/), Technical Paper No: 2023/12

in Table 14.2 represents a level of confidence that the activity has a low risk of excessive leaching.

- 8.22 If existing intensive farming is to be given a simple pathway to a guaranteed consent, it is my opinion that this should be based on the most scientifically robust model, that is constantly being refined and improved. Having read the evidence of Mr James Hanly and Dr Alison Dewes, it is my view that Overseer is the only model that provides anything like that level of confidence.
- 8.23 While it is true that Overseer is still being refined and improved, it is the best model available. Other models have not been through the same scientific rigour, only coarsely account for differences in soil composition and rainfall and do not even attempt to model outputs. These alternative models may be the beginning of a new way of understanding and modelling nitrogen leaching, but in my view they are still in their infancy in comparison with Overseer.
- 8.24 In addition, I understand the thresholds at the controlled activity level to represent a level of confidence that the Overseer figures are sufficiently low to guarantee consent as a controlled activity, subject to matters on control. Any activity that cannot meet Table 14.2 would then move to a discretionary pathway, where a case can be made that there are factors, including discussion of the Overseer predictions, that should be brought to bear on consideration of the application.
- 8.25 It is my opinion that a full discretionary activity status is the appropriate setting for those discussions.
- 8.26 With the appropriate revisions to the policy framework and the introduction of the full discretionary pathway, I believe that this is the most appropriate way to use Overseer, and the most appropriate way to deliver on the water quality outcomes set out in the plan.
- 8.27 Furthermore, if there is to be a departure from Overseer as the primary tool for determining and tracking nitrogen leaching in the region, I believe the appropriate place for that to be considered is via the freshwater planning process, rather than in a plan change aimed at making corrections to the technical table and policy framework.

The PC2-DV alternative pathway

8.28 In the PC2-DV, along with the revised Overseer-based Table 14.2, there are alternative controlled activity pathways. The first would allow discharges to land from existing intensive farming land use activities if nitrogen leaching is reduced to 80% of the baseline or if it meets the 75th percentile leaching rates of the relevant Water Management Sub-zone (as set out in Table 14.2A), whichever is the lesser. The second relates to commercial vegetable growing and is reproduced below:

iii. for commercial vegetable growing*, the growing area does not exceed the area of commercial vegetable growing* of the baseline growing period* and the activity implements good management practice* and best management practice* to achieve, within 3 years of lodgement of the application, a minimum reduction in cumulative nitrogen leaching loss from the land^ of 35% relative to the baseline growing period*;

8.29 There are a number of issues, both philosophical and practical, with this approach.

8.30 First, the figures are themselves derived from Overseer. So if Overseer is the 'issue' (which I don't think it is) they don't get around it.

8.31 Second, a controlled activity pathway based not on the physical attributes of the land and climate but on leaching rates across the sub-zone or leaching reductions based on a baseline year, is a departure from the "natural capital" approach that the Council has accepted as fundamental to the regulation of these activities and is not, I understand, under appeal. In departing from the "natural capital" approach, these pathways could mean that farms on more versatile soils would need to operate below their natural capacity to assimilate pollution and farms on poorer soils would be allowed to operate above their natural capacity to assimilate pollution.

8.32 Third, this approach introduces an element of grandparenting into the consenting regime. Controlled activities meeting Table 14.2 need to progressively reduce their nitrogen leaching rates over the following 20 years. Under the alternative method, consents could be issued that do not oblige consent holders to reduce the nutrient load any further than the 75th percentile of all farms in the sub-zone, to 80%, or by 30% depending which applied. This approach is, in my view, inequitable for other consent holders in the sub-zone, since they are being held to a higher standard. Any further plans to deliver on water quality targets could therefore further impact those who are already following the more stringent rules.

- 8.33 Fourth, a further problem with this approach is that the alternatives allow prospective applicants to choose their pathway. In having two options for a controlled activity consent, it should be anticipated that applicants will look at both options and choose whichever is the most lenient – “gaming the system”. It is my opinion that the controlled activity pathway should be limited to the more scientifically rigorous and robust tool and that further analyses be reserved for consideration under the discretionary consent pathway.
- 8.34 Fifth, the nitrogen leaching levels set out in Table 14.2 were predicated on all activities in each relevant sub-zone reducing their nitrogen leaching to levels set out in the Table. If some are able to exceed those levels (albeit they may have reduced their leaching to a lower level of exceedance), others in the sub-zone may be asked to do more in terms of their leaching, or the water quality targets risk being effectively abandoned.
- 8.35 Finally, it is important to emphasise the aim of the reductions in nitrogen leaching, that being the improvement of the water quality in degraded catchments and the achievement of Objective 14-1. The joint witness statement by water quality experts said that this approach would lead to a “modest water quality improvement” when compared to a pre-regulated condition.
- 8.36 It would be more appropriate, in my opinion, to compare the anticipated “modest improvement” in water quality with the improvement that would be delivered by the recalibrated Table 14.2 alone. The preferred approach should then be based on the approach that most efficiently and effectively achieves Objective 14-1. I am unconvinced that the alternative pathways do this.

The risk assessment tool alternative

- 8.37 Much of the same criticism can be made of the alternative ‘risk assessment tool’ introduced in the Council’s Preferred Provisions.
- 8.38 It is my understanding that in light of the first report released raising concerns about the use of Overseer in resource management plans discussed above, and through mediation, the use of an alternative risk assessment tool developed by Prof Horne and Dr le Miere has been explored.
- 8.39 Whatever the positives of a risk management tool in theory, in terms of its use in a regulatory context, there are a number of fundamental issues with it.

- 8.40 In her evidence in response to Dr Le Miere's position, Dr Dewes points out a number of critical limitations of the risk assessment tool¹⁵, in summary:
- a. It does not represent the best science, having only had one peer-review and no ground-truthing.
 - b. It relies on self-reporting from farmers, and so the data will be not be as robust or reliable.
 - c. It focusses on efficiencies and can be misleading, leading farmers to believe their farm is at low risk of leaching, rather than presenting a more accurate assessment of risk to the receiving environment.
 - d. It ignores total farm mitigations that would improve water quality, such as the retirement of land for riparian planting or wetlands, and therefore the farmer is not rewarded for putting these beneficial mitigations in place.
 - e. It creates a risk of complacency for the farmers and a resulting shock when it comes to sell property, since a buyer will likely require an Overseer assessment for transparency.
- 8.41 While the risk assessment tool could relieve uncertainty around consenting for existing intensive farmers now, it would also create a great deal of uncertainty about the potential environmental impacts.
- 8.42 Given the level of uncertainty in the risk assessment tool due to the lack of independent peer review and validation, I do not consider this to be appropriate for use as an alternative pathway for a controlled activity status.
- 8.43 I would also add that providing for an alternative controlled activity pathway of this nature (and indeed of the nature of the alternative pathways in the DV-PC2) risks creating an equity issue. Those operators that have worked hard to meet and be consented under Table 14.2, committing to leaching reductions aligning with LUC class, would be faced with the situation that farmers who have not done this are able to be consented with higher leaching levels, potentially no reductions required, and with less onerous obligations in terms of mitigation,

¹⁵ Based on draft evidence of Dr Alison Dewes

monitoring, and reporting. This is essentially punishing those farmers that were proactive and who are efficient operators.

8.44 In terms of scientific robustness, it is worth revisiting the technical issues with Overseer raised by the Science and Advisory Panel and testing whether the risk assessment tool is able to resolve them. They were:

1. The model does not model episodic events or climate variation
2. It does not account for variation in water and nutrient distribution in the soil profile
3. It does not adequately account for deeper rooting plants
4. It does not account for surface water and overland nutrient transport
5. It focuses on nitrate and doesn't model dynamics for ammoniacal nitrogen and organic matter
6. The model is a steady state model
7. It uses monthly time steps
8. It does not balance mass.

8.45 Neither of the proposed alternative controlled activity pathways involve a model that can even begin to address these issues, though many of the points would apply equally to those alternative pathways. These are the basis of the criticism of Overseer and the reason why its use in a regulatory context has been challenged.

8.46 With that in mind, it seems to be that although a lot of critical attention has been levelled at Overseer, the alternative controlled activity pathways do not seem to be being held to the same standard as Overseer and are a significantly backward step. They also raise significant equity issues as between different farmers.

8.47 Although somewhat more nuanced than the flat 75th percentile approach/% reduction approach, the risk assessment tool still raises the same issues with respect to sufficiency to deliver on Objective 14-1 and to grandparenting.

8.48 In addition to the matters above, although I understand this is a legal matter, I struggle to understand how the inclusion of the risk assessment tool at this stage in the proceedings is within scope of the appeals. In trying to establish its

genesis I looked at the appeals the Council Preferred Provisions identify as providing scope but to me those appeals do not raise the possibility of a new controlled activity pathway based on a new tool.

8.49 In conclusion, and thinking back to the purpose of PC2, the goal, in terms of the controlled activity pathway for existing intensive farming, was to correct the workability issue with Table 14.2 to enable the Council to resume consideration of applications for existing intensive farming land uses and clear the backlog of unconsented farms. To me:

- a. It is vital that in doing so, decision-makers do not allow to let slip the standard to which farms are held, do not lose the “natural capital” approach, and do not amended provisions such that they no longer deliver on the water quality targets and limits set out in Objective 14-1.
- b. The new proposed controlled activity pathways, both the DV-PC2 ones and the risk assessment tool pathway that the Council now prefers do all of these things, in my view.
- c. When the purpose of PC2 is considered the new proposed controlled activity pathways are not necessary. Prof Horne estimates that “most” farms (approximately 65% to 70%) can achieve the Table 14.2 CNLM now they are updated¹⁶. This means there is no policy gap needing to be filled such that other controlled activity pathways are needed. Providing for these pathways just provides for unnecessary complexity, with little gain, and high potential negative consequences for water quality and fairness between farmers.

“Maximum reasonably practicable” and associated references to feasibility and financial implications

8.50 In both the DV-PC2 and these Council’s preferred version, there are a number of places where the idea of “practicability” is used.

8.51 In my experience, the phrase “practicable” is generally avoided by planners, because it introduces an element of uncertainty into the considerations, and it is difficult to determine exactly what is acceptable and what isn’t, since practicability is a very subjective judgement. Applicants are able to argue

¹⁶ Prof D Horne evidence, 6 Oct 2023, para 42, p9.

practicability on a myriad of grounds, financial and labour resources, time constraints, etc.

- 8.52 For each place that wording is used, there is additional grounds for an applicant to claim impracticability. That then means that the decision-maker is less sure of the appropriateness of accepting or declining the application, or of the imposition of conditions. The effect of using ‘practicable’ is often that the uncertainty is externalised as being more permissive of adverse environmental effects, rather than being internalised to the application as being less permissive.
- 8.53 The Environment Court hearing on the One Plan in 2012 also found that the phrase “reasonably practicable farm management” or variations of it were not consistent with the principle of internalising adverse effects to a reasonable level¹⁷ and should not appear in the objectives, policies or rules of the One Plan¹⁸.
- 8.54 To me the frequent use of the different variations of ‘practicability’ are at odds with one of the key of the goals of this plan change, to reduce uncertainty in the process of consenting intensive farming land uses, in particular the uncertainty in the outcome of an application under the revised rules, since the arguments about practicability will likely be related to the circumstances faced by each individual applicant.
- 8.55 Following on from that, the uncertainty (and likely diversity) of outcome also raises equity issues. Some applicants will be able to argue that certain practices are not practicable given their individual circumstances (and therefore effectively be allowed to discharge at higher rates), whereas others will not.
- 8.56 The dominance of the concept in the Council Preferred Provisions is evident when the places that ‘practicability’ or variations of it are used are listed:

¹⁷ Proposed One Plan Appeals, Environment Court decision: Part 5 – Surface Water Quality – Non-Point Source Discharges, p5-180 [One-Plan-decision-Part-Five-surface-water-quality-non-point-source-discharges.pdf \(horizons.govt.nz\)](https://www.horizons.govt.nz/one-plan/one-plan-decision-part-five-surface-water-quality-non-point-source-discharges.pdf).

¹⁸ Proposed One Plan Appeals, Environment Court decision: Part 5 – Surface Water Quality – Non-Point Source Discharges, p5-181 [One-Plan-decision-Part-Five-surface-water-quality-non-point-source-discharges.pdf \(horizons.govt.nz\)](https://www.horizons.govt.nz/one-plan/one-plan-decision-part-five-surface-water-quality-non-point-source-discharges.pdf).

- a. **Policy 5-8(a)(iia):** Existing intensive farming land use activities... must be regulated to reduce the risk of nitrogen leaching from the land to the maximum extent reasonably practicable...
 - b. **Policy 5-8(a)(iia)(D):** ...the feasibility, practicality, and cost of implementing measures...
 - c. **Policy 14-6(c):** ...except where landscape or geographical constraints make stock exclusion impractical.
 - d. **Policy 14-6(d)(i):** ...are reduced to the maximum reasonably practicable extent as soon as reasonably practicable.
 - e. **Policy 14-6(e)(v):** ...to determine the range of leaching reductions practicable for the farm system.
 - f. **Policy 14-6(f)(i):** ...the feasibility, practicality and financial implications of implementing...
 - g. Definition: **Good management practices** refers to practicable measures and methods, including those established in industry-based standards and guidance documents, which are tailored for use used at a farm sector or community level to minimise the effects of discharges to land^ and water^.
 - h. Definition: **Best Management Practices** means measures, additional to good management practices* that are tailored for a farming or growing system to minimise nitrogen leaching loss from the land^ to the maximum practicable extent.
- 8.57 In effect, a decision-maker looking at applying Policy 14-6, for example, would need to decide:
- a. Which sort of landscape or geographical features make stock exclusion 'impractical', under Policy 14-6(c)?
 - b. In Policy 14-6(d) and applying the definition of 'good management practices', which measures and methods are practicable and which are not?
 - c. Could the conditions directing methods to reduce contaminant discharge reduction be challenged as not practicable, under Policy 14-6(d)(i)?

- d. Could the timeline be challenged as impracticable, also under Policy 14-6(d)(i)?
 - e. Then when looking at the possibility of further reduction, have particular regard to, *inter alia*, which of the range of further leaching reductions might be challenged as impracticable, under Policy 14-6(e)(v)?
 - f. Will the applicant challenge any of the alternative measures on the grounds of feasibility, practicality and financial implications, under Policy 14-6(f)(i)?
- 8.58 The sum effect of the multiple uses of 'practicability' concepts, along with a lack of guidance around how far over the threshold is too much, in my opinion introduces a great deal of uncertainty into the decision-making process. In my experience, this would mean consent is very unlikely to be declined, even at high levels of leaching, as long as the applicant can make the case that they are doing what they can based on adjustments to the status quo that do not impose financial or logistical difficulty, in their opinion.
- 8.59 If my interpretation is correct, it would lead to a situation where the discretionary pathway was effectively an easier route for applicants, potentially involving less mitigation and less restrictive conditions. Farmers with a discretionary consent would not have to conduct compliance monitoring (to show that they are meeting Table 14.2 and are effectively just being asked to do their best.
- 8.60 The fairness and equity issues this potentially raises as between different operators are self-evident. Farmers who work hard to ensure their operation can qualify as a controlled activity (under Table 14.2) should not have a less restrictive regime than those who cannot or choose not to meet it.
- 8.61 The plan needs to give sufficient direction to both applicants and processing planners to know how much leaching is too much, what the likelihood is of consent being declined, what conditions to expect and what the grounds for those decisions would be.

Durations

Term of consent

- 8.62 Given the interim nature of this plan change, and the recognition that the freshwater planning process will soon revise all freshwater-related content, it is important that the settings in the plan relating to consent duration avoid locking in leaching allowances for extended periods so that these can be revisited in light of the new freshwater management regime that is put in place.
- 8.63 On this matter, I agree with Ms Foster's recommendation that the One Plan needs to be explicit regarding shorter durations for consents that do not meet Table 14.2, whether they are issued through a different controlled activity pathway if these are retained (although I consider they should not be) or as part of a discretionary consent process.
- 8.64 I also agree that durations should be significantly shorter where the anticipated leaching is well above the limits set out in Table 14.2. In my opinion, it would be appropriate that the greater the leaching above the controlled activity level, the shorter the consent should be, both in terms of a predicted per hectare nitrogen loss exceedance and a total amount for the consented area. I would therefore recommend that an additional amendment be made to Policy 14-6(f)(v) to that effect.
- 8.65 I also believe that this clause should be elevated to a matter for which particular regard is had (i.e. added to the list of matters under Policy 14-6(e)).
- 8.66 Along with that, should the Court be of a mind to accept the alternative controlled activity pathways, any consents using those pathways should have very short terms on them, appropriate to the level of uncertainty that the new models bring to the issue of nitrogen leaching in these degraded catchments and the legacy effect of longer consent terms on the freshwater planning process.

Time-frame for using different pathways

- 8.67 As stated above, it is my opinion that the alternative pathways are not an appropriate amendment to this plan. However, should the Court choose to adopt one of the alternative pathways, I agree with Ms Foster that applicants

should have the ability to apply for consent under that pathway for no more than 12 months and then the opportunity is gone.

Beca/Ellis Gould report

8.68 Finally, to return to the issues raised in the review by Beca and Ellis Gould¹⁹ highlighting the technical issues that PC2 aims to resolve:

1. Insufficient policy scope

The issue with policy scope was resolved in PC2-DV by removing explicit reference back to Table 14.2 and adding the matters for consideration under Policy 14-6(e) and (f). This now provides sufficient scope.

2. Provide guidance on specific land use management practices

The matters set out in Policy 14-6(e) and (f) now provide more guidance on applications over the controlled activity threshold. Noting that I agree with some of the refinements in the Council Preferred Provisions and have added my own, I believe my version now provides the appropriate guidance.

3. Guidance on what is appropriate in circumstances in which an activity does not achieve the rules

As discussed in the following section, I believe that the Council Preferred Provisions do provide enough guidance on how to deal with leaching rates but that these are targeted only at improving farm practice.

4. The process for changing farm management practices and systems to achieve an appropriate trajectory of improvements in nitrogen leaching maximums over time

While the Council Preferred Provisions do target farm management practices, I believe it is insufficient in delivering a trajectory of improvements over time by producing only a 'modest improvement' in water quality. The policy settings, in my opinion, do not go far enough to signal that sometimes GMPs/BMPs will not be enough and applicants should be looking at a transition to a less intensive use of that land.

¹⁹ Beca and Ellis Gould joint report pg 3 provided at Attachment A to Daly primary evidence.

5. *The scope for the consideration of other options, such as offsetting expected nitrogen leaching with works or protection of other areas in the catchment*

Though it does not address it in the policy direction, I believe there would be scope for an applicant to make this case under a discretionary consent, with a necessarily short consent term. Further elaboration on offsetting at this point would likely lead to a discussion on nitrogen trading. While I support the exploration of any environmental and economic benefits that the innovation would bring, I believe that more technical work is necessary to bring such a system to fruition, and this should happen after the successful resolution of the technical issue in this plan change.

9. PLANNING DOCUMENTS PC2 MUST GIVE EFFECT TO

- 9.1 In considering the plan change, it is important to consider the higher-level documents that the One Plan must give effect to. These are:

- a. The National Policy Statement 2020 – as amended in 2023 (“NPSFM”)
- b. The New Zealand Coastal Policy Statement (“NZCPS”)
- c. The RPS

- 9.2 I also comment on the Resource Management (National Environmental Standard for Freshwater) Regulations 2020 (“NES-F”).

The NPSFM

- 9.3 In the s32 assessment for PC2, Ms Foster points out that the plan change is making a technical correction and given its scope, would not fully implement the NPSFM 2017 (now NPSFM 2020). It would seem that the scope of the plan change has increased, and new amendments should be looked at as to whether they ‘run counter to’ the NPSFM, as she rightly points out on p10 of the assessment.

- 9.4 I agree with Ms Foster’s assessment that PC2 is a freshwater planning process intended to deliver the freshwater management framework as required by the NPSFM, and the One Plan has not been through the freshwater planning process, therefore neither can give effect to parts of the NPSFM.

- 9.5 However, in my opinion, there are aspects of the NPSFM that can be implemented by PC2 and at a minimum, it would be inappropriate to introduce

amendments to an operative plan like the One Plan that mean it gives less effect to the NPSFM than it does unamended, or that will create legacy effects that will frustrate meeting the NPSFM's objectives and policies when the time comes to implement them in the One Plan.

- 9.6 The fundamental concept of Te Mana o te Wai, recognised in the NPSFM cl 1.3(5) is the hierarchy of obligations, the first of which being the health and well-being of water bodies and freshwater ecosystems and the third of which being the ability of people and communities to provide for their social, economic and cultural well-being.
- 9.7 That is, to my mind, a clear direction that it would be inappropriate for any new plan change to introduce new material with a differing order of priorities.
- 9.8 It is my opinion that the effect of the Council's Preferred Provisions would be to provide all farms with a pathway to an approved consent, whereas the priority of the operative One Plan is to contain nitrogen leaching levels to within limits of the receiving environment, in a manner that most farms are able to achieve. To my mind, this constitutes an elevation of the third priority of the NPSFM over the first and would not be appropriate.
- 9.9 While the work set out in Appendix 2A of the NPSFM has yet to be done, it is also worth noting that the target catchments that are subject to this plan change have levels of contaminants that exceed the national bottom lines set out in that document. There will therefore need to substantial improvements in water quality in these catchments, much more ambitious than the "modest improvement" that the alternative pathways are purported (but not ground-truthed) to be able to deliver. In my opinion, it is therefore appropriate to take a precautionary approach to these activities, make the technical changes to Table 14.2 and the policy framework and leave any larger-scale changes to be introduced in the freshwater planning process.
- 9.10 Rather than go over each of the policies in turn (given that they require a proper process to give effect to), there are two that are worthy of attention with respect to this plan change.
- 9.11 NPSFM Policy 5: Freshwater is managed (including through a National Objectives Framework) to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-

being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.

- 9.12 In the target catchments, it is recognised that water quality is degraded, and from conception it was always the clear intention of the One Plan to set limits/targets that would restore those degraded catchments. It has been stated in the joint witness statement for water quality experts that the interim plan change would provide only a 'modest improvement' in water quality.
- 9.13 The management regime in the One Plan is one of allocation of nitrogen contaminant volumes below an identified limit. Technical work has identified (and continues to refine) how much nitrogen discharge each catchment can absorb before it becomes degraded. The discharge of nutrients in target catchments has been greater than the capacity of those catchments to assimilate the pollution, and so are over-allocated.
- 9.14 There is a high degree of uncertainty that the alternative pathways introduced in PC2-DV and in the Council Preferred Provisions will improve the quality of freshwater to the level that would be produced under a recalibrated Table 14.2 alone. I therefore do not consider those elements of this plan change to align with Policy 5 of the NPSFM.
- 9.15 NPSFM Policy 15: Communities are enabled to provide for their social, economic, and cultural well-being in a way that is consistent with this National Policy Statement.
- 9.16 For reasons explored above, it is my opinion that the inclusion of the alternative pathways in this plan change is enabling the community to provide for their social and economic well-being in a way that is not consistent with the NPSFM.

NZCPS

- 9.17 Unsurprisingly given the connection of all waterways to the coast, it has been agreed in expert conferencing that the NZCPS is relevant to this plan change. Of particular note in that piece of national direction is Policy 3(1), which directs that councils 'adopt a precautionary approach towards proposed activities whose effects on the coastal environment are uncertain, unknown, or little understood, but potentially significantly adverse'.

- 9.18 As covered elsewhere in this evidence, the use of untested, unvalidated tools for controlling nutrient pollution to already degraded catchments is very uncertain. To the extent that those uncertainties may affect the coastal environment, the proposed provisions do not in my opinion align with this policy of the NZCPS.

RPS

- 9.19 I have set out the relevant RPS provisions that the regional plan must give effect to. At the RPS level, I prefer the wording set out in the original s32 report for the plan change as amended by PC2-DV, with the exception that Policy 5-8(a)(iia) should be more explicit about the need to look at the suitability of the land for those activities if farms continue to leach high amounts of nitrogen, even after GMPs.
- 9.20 That clause provides a clear signal that if nitrogen discharge cannot be controlled, then the activity is fundamentally unsuitable for the land it is on. Without that signal, there is no indication that consent should ever be declined, and no incentive for farmers to investigate other more appropriate land uses.
- 9.21 I believe that PC2-DV with my recommended amendment would better align with both national policy statements for freshwater.
- 9.22 Council has proposed changing the language at RPS level to the risk of nitrogen leaching and focuses on sources and pathways of nitrogen leaching. In my opinion, that change to an inputs approach is not appropriate. It would mean a de-emphasis on the use of nitrogen accounting (by any means, not just Overseer) and the loss of data which would be very valuable to future understanding of nitrogen transport. That future understanding can then contribute to better regulation of nitrogen discharges in future.
- 9.23 The One Plan Objective 14-1, which is not proposed to be amended, would also align better with PC2-DV with my recommended amendments.

NES-F

- 9.24 I address this here because it is a national planning instrument but it is not a document that PC2 or the One Plan must give effect to. Rather the rules in the NES-F apply alongside the One Plan's rules and they can only be more stringent or more lenient to the extent the NES-F allows. The NES-F, as amended in 2022

includes a range of standards for intensive farming operations, including stockholding areas, feedlots, irrigation of dairy farm land and the use of dairy support land.

- 9.25 The last of these standards (regulations 26 and 27) came into force in November 2022. As pointed out by Ms Foster, the NES-F has already been incorporated into the operative One Plan. The NES-F does not appear to have any direct impact on PC2.

10. RECOMMENDED AMENDMENTS

- 10.1 My recommended amendments to the Council Preferred Provisions are provided in **Attachment A** to this statement. They essentially make changes to the provisions to address the issues I have discussed in this statement. They are summarised below. This summary should be read alongside **Attachment A**.

Policy 5-8

- 10.2 I do not support the amendments introduced since the decisions version. That direction moves the focus away from establishing nitrogen leaching maxima to looking at the issue only in terms of risk, a focus which is much less capable of delivering on outcomes, in particular the outcomes set out in Objectives 5-1 and 5-2.
- 10.3 I therefore support a return to PC2-DV in relation to Policy 5-8, with the exception of an additional amendment, below.
- 10.4 As discussed in above, I also favour the addition of another matter to have regard to under Policy 5-8(ia)(E): *“the suitability of intensive farming on that land, if there is continued high nitrogen leaching loss.”*
- 10.5 In my opinion, it is appropriate that, given the importance placed in the plan on reducing nutrient loads in degraded catchments, there should be a signal at RPS level that some activities may be fundamentally ill-suited to the physical attributes of that land, and that good management practice is simply inadequate there.

Method 5-13

- 10.6 I disagree with the removal of explicit reference to Overseer and keeping Overseer information in the description. Overseer is the most scientifically robust model available. Even if the non-Overseer controlled activity pathways

are retained (which I do not support), it is vital that Overseer data collection be as widespread as possible, so that there are no holes in the long-term dataset to provide better understanding of nitrogen leaching around the region.

- 10.7 As pointed out by Alec Mackay, the use of Overseer reference files (as suggested by Ms Foster and Prof Horne) are an excellent improvement to the functionality of Overseer in relation to the regular updates.
- 10.8 I accept that it may be beneficial in collecting and publishing information relating to other nutrient management models, which may assist their development. In future, these alternative models may be tested and robust enough to use in a regulatory setting.
- 10.9 I therefore propose returning to the decisions version of this provisions, as shown in my marked up amendments in **Attachment A**.

Policy 14-3

- 10.10 I mostly agree with the Council's preferred amendments to this policy, as they make the policy more directive and use clearer language. However, it is my preference that the end of the policy refer to *"...contribute to decreasing contaminant loads in order to achieve cumulative nitrogen leaching maximum values for the relevant water management sub-zone"*.

Policy 14-5

- 10.11 I favour the decisions version of this policy but with the additional controlled activity pathways deleted. As discussed in detail above, the inclusion of alternative pathways (both the DV-PC2 ones and the risk assessment tool) is not necessary, introduces more uncertainty of the ability to deliver on the objectives at both RPS and plan level and potential inequity between land uses, does not align well with a "natural capital" approach and creates grandparenting issues that may frustrate the intent of a future freshwater plan change, and results in less robust scientific data to improve knowledge and management of nutrient leaching in the future.

Policy 14-6

- 10.12 As a starting point, I prefer DV-PC2 in regard to this policy (unless discussed further below).

- 10.13 In (d)(i), the Council prefers "...and achieved as soon as practicable" over the decisions version "...as soon as reasonably feasible progressively over time." It is my opinion that neither is necessary. The clause is talking about the implementation of practices alongside a nutrient management plan. It is implicit in this approach that the changes will not be immediate and that changes will happen progressively over time.
- 10.14 The use of the language of practicability in this clause provides a justification for moving more slowly than a decision-maker would reasonably expect. I therefore don't believe that "as soon as practicable" adds anything but uncertainty in this policy. It should be deleted.
- 10.15 I agree with the proposed addition of the new clause (e)(i) regarding the contribution to values held by mana whenua. In the absence of the technical work on the freshwater plan change, this addition does align with the direction set in the NPSFM, and with Objective 2-1 of the RPS section of the One Plan.
- 10.16 In relation to the new (e)(iv), although I prefer Overseer as the only controlled activity pathway and as a tool to assist assessment under discretionary activity applications, I support the addition of the matter to the extent that it may give a more nuanced picture than Overseer would provide by itself.
- 10.17 Under (e)(v), again I disagree with the use of practicable in this context. In reading the rest of the provision, in particular the reference to "analysis of marginal costs and benefits", I believe there is sufficient direction that decision-makers will not require outlandish or unreasonable mitigation measures.
- 10.18 I agree with Council preferred addition of (f), listing matters to also have regard to, and signalling a greater weighting of matters in (e).
- 10.19 In place of the Council's preferred (f)(i), I prefer the following wording: "*The appropriate length of time to spread the costs of actions and mitigations required to reduce diffuse discharges of nitrogen to water relative to the scale of the farming business*". This signals firstly that reduction of nitrogen leaching rates need to happen and farm businesses cannot argue against them on the grounds suggested, and secondly that smaller businesses might be given more time based on their smaller scale, lower level of total nitrogen leaching and potentially more limited revenue.

- 10.20 In regard to (f)(iv), I don't believe there is enough clarity around what could be used to describe the current state. In any case, the current state is implicit in the reference to the Schedule E targets, since they describe the target state of those waterways.
- 10.21 In regard to (f)(v), as discussed in section 8, I agree in part with the Council Preferred Provisions, except that I believe the clause should be explicit that the greater the leaching above the controlled activity level, the shorter the duration of consent should be.
- 10.22 My recommended amendment is therefore: *"Consent duration, ensuring that no consent is granted for a duration of more than 10 years, and consent duration is shorter proportionate to the anticipated nutrient leaching from the land, on both a per hectare basis and total N loss for the farm, above values that contribute to meeting the cumulative nitrogen leaching maximum"*.
- 10.23 My recommended wording does not refer directly to Table 14.2, so that it avoids an issue similar to that which PC2 seeks to resolve.
- 10.24 In relation to (f)(xi), I am comfortable with the amendment agreed to by other parties in expert conferencing.
- 10.25 In relation to the tables in Chapter 14, I agree with the amendments to Table 14.2. As discussed at length above, I propose the removal of Tables 14-2A (of both the decisions version and the council preferred version) and 14-2B.
- 10.26 In summary, and in relying on the evidence from Drs Parlato and Dewes, I believe that these alternative pathways are less scientifically robust, create greater uncertainty and issues of inequity, will create gaps in the dataset and limit future understanding of nitrogen leaching, and are less likely to deliver on Objective 14-1.
- 10.27 For those same reasons, in Rule 14-1, I recommend the removal of conditions (d)(ii) and (iii). If it is the panel's preference to keep either the decisions version or the council preferred version of those provisions, I agree that 12 months from the provisions becoming operative is a reasonable period of time for applicants to make their application, and that mitigations will be implemented within two years of consent being granted.

11. SECTION 32AA ASSESSMENT

- 11.1 I have considered my recommendations in terms of s 32AA RMA, with my focus being on the changes I recommend to the Council's preferred version.
- 11.2 Section 32(1)(a) no amendments are recommended to the objectives. The One Plan's objectives are considered the most appropriate way to achieve the purpose of the RMA.
- 11.3 As regards the other provisions of the proposal, my assessment is provided in **Attachment B**.
- 11.4 Overall, I consider that with my proposed amendments the provisions are the most appropriate way to achieve the One Plan's objectives for the reasons set out in this statement and in **Attachment B**.

12. CONCLUSION

- 12.1 In summary, Plan Change 2 was brought about in order to correct two key issues identified in the review of the One Plan by Beca and Ellis Gould. Those issues related to the misalignment between Table 14.2 and the Overseer values upon which that table was based and the policy framework, which meant that the scope for consideration of applications above the threshold was much smaller than was intended.
- 12.2 PC2-DV improved the policy framework and provided the update to Table 14.2. Ms Foster has also added some valuable changes since PC2-DV. However, both of those versions include alternative controlled activity pathways that are problematic.
- 12.3 PC2-DV and to a lesser extent, the Council Preferred Provisions, depart from the "natural capital" principle that underlies the management of nitrogen leaching in the One Plan. The PC2-DV applies a reduction based on a percentage current leaching or a reduction relative to rates across the Water Management Sub-zone. The Council Preferred Provisions apply a much cruder matrix than the LUC model promoted in the One Plan.
- 12.4 Both versions also provide a form of grandparenting, allowing farmers to continue leaching at higher rates than is healthy for the waterways. Grandparenting is an approach that has been rejected at Environment Court hearings in 2012 and 2017 and should be rejected again now.

- 12.5 Creating an alternative pathway to Overseer also undermines its continued use and refinement. If consent holders no longer collect data through Overseer, this will create gaps in the dataset that would inform future understanding of nitrogen dynamics.
- 12.6 Though the alternative models suggested in this process may have value in future, they appear to be much less developed than Overseer, are entirely input-based and therefore have shortcomings that do not fit with the limits-based approach of the One Plan.
- 12.7 It is important to remember that the goal of this plan change is not to provide unconsented farms with a pathway to consent (albeit with conditions). The goal is to provide a functioning policy and rule framework that provides direction as to how to control excessive nitrogen in degraded catchments in order to return the waterways to a healthy state.
- 12.8 The decision on the plan change must therefore:
1. Enforce the limits set in the plan, maintaining the “natural capital” approach that underpins them;
 2. Provide an equitable approach, so that farmers who undertake the appropriate activity on the appropriate land are fairly rewarded;
 3. Be more directive that activities with continued high rates of leaching should not be given consent;
 4. Start the Council on a path to achieving Objective 14-1
- 12.9 My recommended amendments, as set out in **Attachment A**, are the most efficient and effective means of doing that.

M Scott

6 November 2023

Attachment A

Recommended amendments to the Council Preferred Provisions

Attachment A:

Key:

Black: One Plan

Black underline and strike out: PC2-DV

Red: Council Preferred Provisions

Blue: M Scott amendments

Policy 5-8: Management and Regulation of intensive farming land[^] use activities affecting groundwater and surface water[^] quality

In order to give effect to Policy Policies 5-3, 5-4, 5-5, 5-6 and 5-7, the effects of intensive farming land[^] use activities on groundwater and surface water[^] quality must be managed in the following manner:

(a) Nutrients

- (i) Nitrogen leaching maximums must be established in the Nitrogen leaching maximums must be established in the The regional plan will specify limits¹ that which which:
 - (A) minimise the risk of nitrogen leaching loss from intensive farming land[^] use activities;
 - (B) take into account all the non-point sources of nitrogen in the catchment;
 - (C) will contribute to contribute to address key sources and pathways of contaminant loss through the implementation of the strategy for surface water[^] quality set out in Policies 5-2, 5-3, 5-4 and 5-5 and the strategy for groundwater quality set out in Policy 5-6; will achieve the strategies for surface water[^] quality set out in Policies 5-2, 5-3, 5-4 and 5-5, and the strategy for groundwater quality in Policy 5-6
 - (D) recognise the productive capability of land[^] in the Water Management Sub-zone*;
 - (E) are achievable achieved achievable achieved on most farms using *good management practices** and *best management practices**;
 - (F) provide for appropriate timeframes for achievement where large changes to management practices or high levels of investment are required to achieve the nitrogen leaching maximums.
- (ii) Existing intensive farming land[^] use activities must be regulated in targeted Water Management Sub-zones* to achieve the limits achieve the nitrogen leaching maximums achieve the nitrogen leaching maximums-specified in (i) except as provided for in (iia) and (iib) below.
- (iia) Existing intensive farming land[^] use activities which do not comply with (ii) must be regulated to reduce the risk of nitrogen leaching loss loss from the land[^] to the maximum extent reasonably practicable in the shortest feasible timeframe which is in excess of the nitrogen leaching maximums established under (a) which is in excess of the nitrogen leaching maximums established under (a) by implementing measures, including *good management practice**, additional measures, to minimise the degree of non-compliance, having regard to:
 - (A) the contribution of the nitrogen leaching loss loss from the land[^] to cumulative nitrogen leaching loss loss within the Water Management Sub- zone*;

¹ The word 'limits', as used in Chapters 5 and 14, has its natural meaning and is not used in the sense used in the National Policy Statement for Freshwater Management 2020.

- (B) the actual and potential effects of the nitrogen leaching loss from the *land*[^] on downstream groundwater and surface *water*[^] quality;
 - (C) the extent of non-compliance with the nitrogen leaching ~~maximums~~ ~~maximums~~ *limits* specified in (a) (i) and the timing of planned reductions in nitrogen leaching ~~loss~~ ~~loss~~ from the *land*[^];
 - (D) the feasibility ~~and~~ practicality ~~and cost~~ of implementing measures to achieve achieving the nitrogen leaching *limits* ~~maximums~~ ~~maximums~~ specified in (a) (i) having regard to the *land use capability class*^{*} of the *land*[^]; ~~and~~
 - (E) *the suitability of intensive farming on that land, if there is continued high nitrogen leaching loss; and*
 - (F) the strategy for surface *water*[^] quality set out in Policies 5-2, 5-3, 5-4 and 5-5, and the strategy for groundwater quality in Policy 5-6.
- (iib) Existing intensive farming *land*[^] use activities which do not comply with (ii) but which demonstrate ~~are intended to~~ ~~the intention to~~ a transition to an alternative non-intensive farming *land*[^] use must be regulated to ensure that they are able to continue for a ~~limited~~ period not exceeding five years ~~of time~~ in order to enable that transition and only where it can be demonstrated that there is no increase in the ~~risk of exceedance of~~ the nitrogen leaching ~~loss~~ ~~loss~~ from the existing intensive farming *land*[^] use activity during that period. ~~maximums established under (a).~~
- (iii) New intensive farming *land*[^] use activities must be regulated throughout the Region to achieve the nitrogen leaching maximums specified in (i).
- (b) **Faecal contamination**
- (i) Those persons carrying out existing intensive farming *land*[^] use activities in the targeted *Water Management Sub-zones*^{*} listed in Table 14.1 or new conversions to intensive farming *land*[^] use activities anywhere in the Region must be required, amongst other things, to:
 - (A) prevent cattle access to some surface *water bodies*[^] and their *beds*[^]
 - (B) mitigate faecal contamination of surface *water*[^] from other entry points (eg., ~~rae~~ run-off from races, feed pads and paddocks)
 - (C) establish programmes for implementing any required changes.
- (c) **Sediment**
- (i) In those *Water Management Sub-zones*^{*} where agricultural *land*[^] use activities are the predominant cause of elevated sediment levels in surface *water*[^], the Regional Council will promote the preparation of voluntary management plans under the Council's Sustainable Land Use Initiative or Whanganui Catchment Strategy for the purpose of reducing the risk of *accelerated erosion*^{*}, as described in Chapter 4.
- (d) **Good management practices^{*}**
- (i) All intensive farming *land*[^] use activities must be regulated to, as a minimum, implement *good management practices*^{*} to ~~manage~~ ~~manage~~ *minimise the risk of* nutrient leaching and run-off, faecal contamination, and sediment losses. ~~in accordance with good management practices~~^{*}.

<u>Method 5-12</u>	<u>Innovative Land Use Research</u>
<u>Description</u>	Support initiatives by local communities, sector groups or tangata whenua which develop options for sustainable land use in the Region. Support for work in <i>Water Management Sub-zones*</i> where nitrogen leaching is an issue, as identified in Table 14.1, will be a priority in order to find viable options (including nitrogen ~~loss~~ ~~leaching~~ mitigation options) for intensive farming land users that will have difficulty in reducing ~~the risk of~~ nitrogen ~~leaching loss loss~~ to the extent necessary to achieve the ~~nitrogen leaching maximums~~ ~~nitrogen leaching maximums limits~~ specified in the One Plan rules. ~~achieving the cumulative nitrogen leaching maximums*~~ (refer Table 14.1). Horizons will provide assistance through providing data and information that will assist in the identification and evaluation of innovative nitrogen ~~loss~~ ~~leaching~~ mitigations or land use options and participating in any evaluative work as appropriate.
<u>Who</u>	Local communities, including tangata whenua, rural and other sector groups, Territorial Authorities, and Regional Council (in consultation with tangata whenua).
<u>Links to Policy</u>	This method implements Policies 5-7 and 5-8.
<u>Target</u>	Advice and assistance is available for landowners and tangata whenua in the Region regarding land use management practices.

Method 5-13	Provision of Information
Description	Horizons will collate and publish information regarding ~~Overseer~~ <u>Overseer version changes</u> and the identification and evaluation of nutrient management models <u>and nitrogen leaching loss risk loss assessment methods other than Overseer that may be more appropriate</u> for calculation of <u>the effects of risk of</u> on-farm nutrient losses when considering applications for consent and in compliance monitoring. ~~Horizons will register and maintain Overseer files for synthetic farm systems simulating the range of intensive farming land uses regulated under the One Plan. Horizons will make publicly available the estimated nitrogen leaching loss values for those synthetic farm systems, including values amended by Overseer version updates. Horizons will have regard to the impact of Overseer version updates, (as demonstrated by changes in the estimated nitrogen leaching loss values of the synthetic farms over time), when considering applications for consent for IFLU activities and in compliance monitoring.~~ <u>Horizons will register and maintain Overseer files for synthetic farm systems simulating the range of intensive farming land uses regulated under the One Plan. Horizons will make publicly available the estimated nitrogen leaching loss values for those synthetic farm systems, including values amended by Overseer version updates. Horizons will have regard to the impact of Overseer version updates, (as demonstrated by changes in the estimated nitrogen leaching loss values of the synthetic farms over time), when considering applications for consent for IFLU activities and in compliance monitoring.</u>
Who	Regional Council, tangata whenua, rural sector groups, and nutrient management model providers.
Links to Policy	This method implements Policy 5-8.
Target	• ~~Horizons will update Table 14.2 consider whether it needs to respond to changes in Overseer through a plan change process (where necessary) and will provide clarification within the One Plan of the methodology used to establish the <i>Cumulative Nitrogen Leaching Maximums*</i> in Table 14.2.~~ • ~~Horizons will maintain representative Overseer farm system reference files and make their base files and nitrogen leaching loss estimates available on its website.~~ • <u>Horizons will maintain representative Overseer farm system reference files and make their base files and nitrogen leaching loss estimates available on its website.</u> • <u>Horizons will recognise the impact of Overseer version upgrades when comparing the outputs from future versions of Overseer with Table 14.2 CNLM values and with nitrogen leaching limits specified in consent conditions, to ensure comparability between Overseer estimates over time.</u> • <u>A list of nutrient management models appropriate for use in intensive farming land is maintained on Horizons' website.</u>

Policy 14-3: ~~Industry-based standards~~ Good management practices*

When making decisions on *resource consent*[^] applications, and setting consent conditions, for activities affecting groundwater and surface *water*[^] quality, ~~the~~ Regional Council must require the implementation of ~~have regard to~~ good management practices*, and additional measures to reduce for decreasing nitrogen leaching, will examine on an on-going basis relevant industry-based standards (including guidelines and codes of practice), recognising that such industry-based standards generally represent current best practice, and may accept compliance with those standards as being adequate to avoid, remedy or mitigate adverse *effects*[^] to the extent that those standards good management practices* and measures address the matters in Policies 14-1, 14-2, 14-4, ~~and~~ 14-5 and 14-6 and contribute to decreasing contaminant loads in order to achieve cumulative nitrogen leaching maximum values in the relevant *water management sub-zone*^{*}.

Policy 14-5: Management of intensive farming *land*[^] uses

In order to give effect to Policy 5-7 and Policy 5-8, intensive farming *land*[^] use activities affecting groundwater and surface *water*[^] quality must be managed in the following manner:

- (a) The following land uses have been identified as intensive farming *land*[^] uses:
 - (i) *Dairy farming**
 - (ii) *Commercial vegetable growing**
 - (iii) *Cropping**
 - (iv) *Intensive sheep and beef**
- (b) The intensive farming *land*[^] uses identified in (a) must be regulated where:
 - (i) They are existing (~~ie, established prior to the Plan having legal effect~~) intensive farming *land*[^] uses (i.e. established prior to the date specified in Table 14.1 on which Rule 14-1 had legal effect²), in the targeted *Water Management Sub-zones*^{*} identified in Table 14.1[±].
 - (ii) They are new (~~ie, established after the Plan has legal effect~~¹) intensive farming *land*[^] uses, in ~~all~~ any *Water Management Sub-zones*^{*} in the Region (that is, established after the date the Plan had legal effect, which is 24 August 2010 for *dairy farming** and 9 May 2013 for *commercial vegetable growing**, *cropping** and *intensive sheep and beef**³).
- (c) Nitrogen leaching maximums have been established in Table 14.2.
- ~~(d)~~ Except as provided for in Policy 14-6(d), Existing intensive farming *land*[^] uses regulated in accordance with (b)(i) must be managed to ensure that the ~~risk of~~ leaching of nitrogen from those *land*[^] uses does not exceed one of the limits parameters parameters specified in (i), (ii) or (iii) below:
 - ~~i.~~ the cumulative nitrogen leaching maximum* values for each year contained in Table 14.2, unless the circumstances in Policy 14-6 apply; or
 - ~~ii.~~ The nitrogen leaching risk* calculated in accordance with Schedule [X]; or
 - ~~iii.~~ the lesser of 80% of the land's nitrogen leaching baseline* or the 75th percentile nitrogen leaching loss for the relevant water management zone*; or

² ~~The Plan has legal effect in the case of existing intensive farming *land*[^] uses in these zones from the dates identified in Table 14.1. The third column of Table 14.1 specifies the date on which the Plan had legal effect in relation to Rule 14-1 in the targeted *Water Management Sub-zones*^{*}.~~

³ As explained in footnote 3 to Table 14.1, the Plan has legal effect in the case of *dairy farming** from 24 August 2010 and for *commercial vegetable growing**, *cropping** and *intensive sheep and beef** it has legal effect from 9 May 2013 for the purpose of regulating new intensive farming *land*[^] use activities under Rules 14-3 and 14-4.

- iii. ~~for commercial vegetable growing*, the nitrogen leaching risk* calculated in accordance with Schedule [Y] and the growing area does not exceed the area of commercial vegetable growing* of the baseline growing period*; and the activity implements good management practice* and best management practice* to achieve, within 3 years of lodgement of the application, a minimum reduction in cumulative nitrogen leaching loss from the land^ of 35% relative to the baseline growing periodNo*;~~
 - iv. ~~provided that, in (ii) and (iii) above, the application for consent is lodged no later than 31 December 2022. [the date that is twelve months from the date on which PC2 becomes operative] and the mitigations proposed in the application to reduce nitrogen leaching risk are implemented within two years of the date of the grant of consent.~~
- (e) New intensive farming land^ uses regulated in accordance with (b) (ii) must be managed to ensure that the leaching of nitrogen from those land^ uses does not exceed the *cumulative nitrogen leaching maximum** values for each year contained in Table 14.2.
 - (f) Intensive farming land^ uses regulated in accordance with (b) must exclude cattle from:
 - (i) A wetland^ or lake^ that is a *rare habitat**, *threatened habitat** or *at-risk habitat**.
 - (ii) Any river^ that is permanently flowing or has an *active bed** width greater than 1 metre.
 - (g) All places where cattle cross a river that is permanently flowing or has an *active bed** width greater than 1 metre must be culverted or bridged and those culverts or bridges must be used by cattle whenever they cross the river.

Policy 14-6: Resource consent decision-making for intensive farming land^ uses

When making decisions on *resource consent^* applications, and setting consent *conditions^*, for intensive farming land^ uses the Regional Council must:

- (a) Ensure the nitrogen leaching from the land^ is managed in accordance with Policy 14-5.
 - (b) ~~Ensure~~ Require implementation of *good management practices**, and additional measures where necessary, to manage ~~the risk of~~ nutrient leaching and run-off, faecal contamination and sediment loss, as part of any intensive farming land^ use.
- An exception may be made to (a) for existing intensive farming land^ uses in the following circumstances:
- (i) ~~where the existing intensive farming land^ use occurs on land that has 50% or higher LUC Classes IV to VIII and has average annual rainfall of 1500mm or greater; or~~
 - (ii) ~~where the existing intensive farming land^ use cannot meet year 1 cumulative nitrogen leaching maximums* in year 1, they shall be managed through conditions on their resource consent to ensure year 1 cumulative nitrogen leaching maximums* are met within 4 years.~~

~~Where an exception is made to the cumulative nitrogen leaching maximum* the existing intensive farming land^ uses must be managed by consent conditions to ensure:~~

- (i) ~~Good management practices to minimise the loss of nitrogen, phosphorus, faecal contamination and sediment are implemented.~~

- (ii) — Any losses of nitrogen, which cannot be minimised, are remedied or mitigated, including by other works or environmental compensation. Mitigation works may include but are not limited to, creation of wetland and riparian planted zones.
- (c) Ensure that cattle are excluded from surface ~~water~~ *water*[^] in accordance with Policy 14-5 (f) and (g) except where landscape or geographical constraints make stock exclusion impractical. ~~and the effects of cattle stock movements are must be avoided, remedied or mitigated.~~ In all cases, the effects of any unavoidable losses of nitrogen, phosphorus, faecal contamination and sediment ~~are must be avoided remedied or mitigated by other works or environmental compensation. Mitigation works may include (but are not limited to) creation of wetland and riparian planted zones.~~
- (d) Provide for exceptions to (a) for existing intensive farming *land*[^] uses that exceed the ~~limits parameters~~ *parameters cumulative nitrogen leaching maximum** specified in Policy 14-5 (d) only where:
- (i) *Good management practices** are implemented in accordance with a *nutrient management plan** specifying timelines and N leaching targets, along with additional ~~innovations and~~ measures to ~~further reduce~~ ensure nutrient leaching and run-off, faecal contamination and sediment losses from the *land*[^] are reduced to the maximum reasonably practicable extent ~~and achieved as soon as practicable reasonably feasible progressively over time~~; or
- (ii) The existing intensive farming *land*[^] use is to continue for no longer than five years in order to enable the transition to an alternative non-intensive farming *land*[^] use without an increase in nutrient leaching and run-off, faecal contamination and sediment losses from the *land*[^] over that period of time.
- (e) When determining whether to enable an existing intensive farming *land*[^] use to continue under (d)(i), have particular regard to:
- (i) ~~The contribution made to the maintenance and enhancement of values held by mana whenua for the relevant catchment.~~
- (ii)(i) The extent of the activity's exceedance of the ~~limits parameters~~ *parameters* specified in Policy 14-5(d) (i), (ii) or (iii) and the calculated ~~potential~~ contribution of the nitrogen leaching ~~loss~~ from the *land*[^] to cumulative nitrogen leaching ~~loss~~ within the relevant *Water Management Sub-Zone**;
- (iii)(ii) Proportionality in ensuring that the existing intensive farming *land*[^] uses that have high risk of nitrogen leaching ~~loss~~ relative to the ~~cumulative nitrogen leaching maximum* values limits specified in Table 14.2~~ *cumulative nitrogen leaching maximum* values limits specified in Table 14.2 relevant limit set out in Policy 14-5 (d) (i) or (ii)* are required to make ~~appropriately~~ proportionate reductions in nitrogen leaching ~~loss~~;
- (iv) ~~For any application to exceed the limits described in Policy 14-5 (d) (i) or (ii), any rainfall record for the property (and the reliability of that record) and any farm scale assessment of the profile available water of the soils on the property.~~
- (v)(iii) Whether further reductions in nitrogen leaching ~~risk~~ are currently possible for the intensive farming *land*[^] use based on available mitigation measures that have been ~~demonstrated tested and proven~~ to be effective at farm scale or through farm system modelling, optimisation and analysis of marginal costs and benefits ~~that to~~ determine the range of leaching reductions ~~practicable for~~

the farm system, including reducing the stocking rate; available existing technologies;

- (vi) Consent duration, ensuring that no consent is granted for a duration exceeding ten years, and shorter proportionate to the anticipated nutrient leaching from the land, on both a per hectare basis and total nitrogen loss for the farm, above values that contribute to meeting the cumulative nitrogen leaching maximum for the relevant catchment.
- (f) When determining whether to enable an existing intensive farming land^ use to continue under (d)(i) or (ii), also have regard to:
 - (i) ~~Whether the proposed good management practices* innovations and mitigation measures proposed to manage the risk of nutrient leaching and run-off, faecal contamination and sediment losses from the land^ represent the best practicable option^ to minimise these contaminants, nutrient leaching and run-off, faecal contamination and sediment losses from the land^, having regard to:~~
 - (i) The appropriate length of time to spread the costs of actions and mitigations required to reduce nitrogen loss relative to the scale of the farming business
The feasibility, practicality and financial implications of implementing alternative measures that could achieve the parameters limits described in Policy 14-5(d);
 - (B) The extent of the exceedance of the cumulative nitrogen leaching maximum* in Table 14.2;
 - (ii) The predicted reduction in risk of nitrogen leaching, rate of reduction of nitrogen loss towards the limits parameters described in Policy 14-5(d); cumulative nitrogen leaching maximum* for any given year in Table 14.2;
~~(D) Whether further reductions are currently possible for the intensive farming land^ use based on available mitigation measures that have been tested and proven to be effective at farm scale or through farm system modelling, optimisation and analysis of marginal costs and benefits that determines the range of leaching reductions available existing technologies;~~
 - (iii) The extent to which the non-compliance with the cumulative nitrogen leaching maximum* specified in Table 14.2 is attributable to updates in versions of OVERSEER;
 - (iii) The nature and characteristics of the land^, including land use capability class* and productive capability, having regard to physical characteristics of the soil including in terms of attenuation capacity, climatic conditions, and topography of the property;
 - (iv) The contribution of the progressive reduction in risk of nutrient leaching and run-off, faecal contamination and sediment losses from the land^, over time, to the improvement of water^ quality within that Water Management Sub-zone* and the need for water quality improvement need for such progressive reduction, by reference to any difference between current state and the relevant Schedule E targets;
 - (v) Consent duration, ensuring that no consent is granted for a duration the duration is limited to a period not exceeding ten years, and a shorter where continued high risk of cumulative nitrogen leaching from the land^ remains is planned without progressive reduction through the use of best management practice*;

- (vi) The potential effects of nutrient leaching and run-off, faecal contamination and sediment losses from the *land*[^] on surface *water*[^] and groundwater receiving environments, recognizing the state, sensitivity and absorptive capacity of the receiving environment and of downstream lakes and wetlands;
 - (vii) The surface *water*[^] management values for the relevant *Water Management Sub-zone*^{*}, including the values described in Schedule B and in any relevant treaty settlement documents;
 - (viii) The strategy for surface *water*[^] quality set out in Policies 5-2, 5-3, 5-4 and 5-5, and the strategy for groundwater quality in Policy 5-6;
 - (ix) The operational crop rotation requirements of *commercial vegetable growing*^{*} necessary to avoid soil-borne diseases and maintain crop health;
 - (x) The importance of maintaining food security for New Zealanders to support community well-being;
 - (xi) The **scale and likelihood of** potential benefits of off-site mitigation measures to address adverse effect of nutrient leaching and run-off, faecal contamination and sediment losses on *water*[^] quality in the *surface water management sub-zone*^{*}.
- (g) When determining whether to enable the existing intensive farming *land*[^] use to continue under (d) (ii), have regard to:
- (i) measures implemented in accordance with a nutrient management plan^{*} to ensure that nutrient leaching and run-off, faecal contamination and sediment loss from the *land*[^] do not increase over the duration of the resource consent[^];
 - (ii) good management practices^{*} and additional measures that are proposed to avoid, remedy or mitigate the risk of nutrient leaching and run-off, faecal contamination and sediment losses from the *land*[^];
 - (iii) the measures or arrangements necessary, including the nature, timing and sequencing, ~~measurability and enforceability~~ of any steps required, to ensure ~~proposed to~~ transition out of the intensive farming use of the *land*[^] ~~use~~ by the date of expiry of the *resource consent*[^] and to prevent resumption of that intensive farming activity on the *land*[^].

14.1 Rules – Agricultural Activities

Table 14.1 sets out the target *Water Management Sub-zones** where management of existing intensive farming *land*⁴ use activities must be specifically controlled.

Table 14.1 Targeted *Water Management Sub-zones**

Catchment	<i>Water Management Sub-zone</i> *	Date the Rules of the Plan have legal effect ⁴ in relation to Rule 14-1
Mangapapa	Mangapapa Mana_9b	1 July 2014
Waikawa	Waikawa West_9a Manakau West_9b	1 July 2014
Other south-west catchments (Papaitonga)	Lake Papaitonga West_8	1 July 2014
Mangatainoka	Upper Mangatainoka Mana_8a Middle Mangatainoka Mana_8b Lower Mangatainoka Mana_8c Makakahi Mana_8d	1 July 2015
Other coastal lakes	Northern Manawatu Lakes West_6 Kaitoke Lakes West_4 Southern Wanganui Lakes West_5	1 July 2015
Coastal Rangitikei	Coastal Rangitikei Rang_4	1 July 2015
Lake Horowhenua	Lake Horowhena Hoki_1a Hokio Hoki_1b	1 July 2015
Upper Manawatu above Hopelands	Upper Manawatu Mana_1a	1 July 2016

⁴ The Plan has legal effect in the case of *dairy farming** from 24 August 2010 and for *commercial vegetable growing**, *cropping** and *intensive sheep and beef** it has legal effect from 9 May 2013.

Catchment	<i>Water Management Sub-zone*</i>	Date the Rules of the Plan have legal effect ⁴ in relation to Rule 14-1
	Mangatewainui Mana_1b Mangatoro Mana_1c Weber-Tamaki Mana_2a Mangatera Mana_2b Upper Tamaki Mana_3 Upper Kumeti Mana_4 Tamaki-Hopelands Mana_5a Lower Tamaki Mana_5b Lower Kumeti Mana_5c Oruakeretaki Mana_5d Raparapawai Mana_5e	
Manawatu above gorge	Hopelands-Tiraumea Mana_6 Upper Gorge Mana_9a Mangaatua Mana_9c	1 July 2016

Table 14.2 sets out the *cumulative nitrogen leaching maximum** for the *land^* used for intensive farming *land^* use activities within each specified *land use capability class**. The *cumulative nitrogen leaching maximum** values in Table 14.2 were derived using Overseer® 6.2.3.

Table 14.2 *Cumulative nitrogen leaching maximum* by Land Use Capability Class**

Period (from the year that the rule has legal effect ⁴)	<i>LUC* I</i>	<i>LUC* II</i>	<i>LUC* III</i>	<i>LUC* IV</i>	<i>LUC* V</i>	<i>LUC* VI</i>	<i>LUC* VII</i>	<i>LUC* VIII</i>
Year 1	<u>51</u> 30	<u>45</u> 27	<u>40</u> 24	<u>29</u> 18	<u>25</u> 16	<u>24</u> 15	<u>11</u> 8	<u>3</u> 2
Year 5	<u>46</u> 27	<u>42</u> 35	<u>35</u> 21	<u>26</u> 16	<u>20</u> 13	<u>16</u> 10	<u>8</u> 6	<u>3</u> 2
Year 10	<u>44</u> 26	<u>37</u> 22	<u>32</u> 19	<u>23</u> 14	<u>20</u> 13	<u>16</u> 10	<u>8</u> 6	<u>3</u> 2
Year 20 (applies to <u>new intensive farming <i>land^</i> use activities only</u>)	<u>43</u> 25	<u>35</u> 21	<u>30</u> 18	<u>21</u> 13	<u>19</u> 12	<u>16</u> 10	<u>8</u> 6	<u>3</u> 2

Table 14.2A-75th Percentile leaching rates by targeted Water Management Sub-zone*

Catchment	Water Management Sub-zone*	Maximum nitrogen leaching loss rate (kg N/ha/year)
Coastal Rangitikei	Rang_4	32

West Coast lakes, Lake Horowhenua, other coastal lakes	Hoki_1a, 1b; West_4; West_5; West_6; West_8; West_9a, 9b	35
Upper Manawatu and Weber-Tamaki (upstream of Tamaki confluence)	Mana_1a, 1b, 1c; Mana_2a, 2b	45
Other Upper Manawatu (Upper Tamaki, Tamaki Hopelands, Upper Kumeti, Hopelands-Tiraumea, Upper Gorge)	Mana_3; Mana_4; Mana_5a, 5b, 5c, 5d, 5e; Mana_6; Mana_9a, 9b, 9c	45
Mangatainoka	Mana_8a, 8b, 8c, 8d	49

Table 14.2A: Nitrogen Leaching Risk Limits*—Pastoral

The following are the *nitrogen leaching risk limits** for pastoral intensive farming *land*^Δ use activities for the purposes of Rule 14.1 and Schedule [Z]:

<u>Profile Available Water</u>			
<u>Rainfall</u>	<u>151-350mm</u>	<u>61-150mm</u>	<u>0-60mm</u>
<u>Rainfall 1</u> <u><1000 mm/year</u>	<u>180</u>	<u>180</u>	<u>130</u>
<u>Rainfall 2</u> <u>1000-1300 mm/year</u>	<u>180</u>	<u>150</u>	<u>120</u>
<u>Rainfall 3</u> <u>1300-1600 mm/year</u>	<u>150</u>	<u>130</u>	<u>110</u>
<u>Rainfall 4</u> <u>>1600 mm/year</u>	<u>150</u>	<u>120</u>	<u>110</u>

Table 14.2B: Nitrogen Leaching Risk Limits*—Commercial Vegetable Growing

The following are the *nitrogen leaching risk limits** for commercial vegetable growing activities for the purposes of Rule 14-1 and Schedule [Z]. The limits prescribed in Table 14.2B apply to both the nitrogen fertiliser practices described in Topic 1 and the soil health practices described in Topic 2 of Schedule [Y]. For the purposes of Rule 14-1, the *nitrogen leaching risk** of the activity must not exceed the largest number of the range specified in Table 14.2B.

<u>Rainfall</u>	<u>Profile Available Water</u>		
	<u>151-350mm</u>	<u>61-150mm</u>	<u>0-60mm</u>
<u>Rainfall 1</u> <u><1000 mm/year</u>	<u>21-40</u>	<u>21-40</u>	=
<u>Rainfall 2</u> <u>1000-1300 mm/year</u>	<u>21-40</u>	<u>21-40</u>	=
<u>Rainfall 3</u> <u>1300-1600 mm/year</u>	=	=	=
<u>Rainfall 4</u> <u>>1600 mm/year</u>	=	=	=

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
14-1 Existing intensive farming land[^] use activities	The use of <i>land[^]</i> pursuant to s9(2) RMA for any of the following types of intensive farming: (i) <i>dairy farming*</i> (ii) <i>commercial vegetable growing*</i> (iii) <i>cropping*</i> (iv) <i>intensive sheep and beef farming*</i> that was existing in the <i>Water Management Sub-zones*</i> listed in and from the dates specified in Table 14.1 and any of the following <i>discharges[^]</i> pursuant to ss15(1) or 15(2A) RMA associated with that intensive farming: (a) the <i>discharge[^]</i> of <i>fertiliser*</i> onto or into <i>land[^]</i> (b) the <i>discharge[^]</i> of <i>contaminants[^]</i> onto or into <i>land[^]</i> from (i) the preparation, storage, use or transportation of	Controlled	a) <u>The existing intensive farming <i>land[^]</i> use was not granted a resource consent under Rule 14-1 or Rule 14-2 of this Plan prior to 22 July 2019.</u> b) <u>A <i>nutrient management plan*</i> must be prepared for the <i>land[^]</i>, and provided annually to the Regional Council with the application for <i>resource consent[^]</i> and thereafter as required by any condition of <i>resource consent[^]</i>.</u> c) <u>The activity must be undertaken in accordance with the <i>nutrient management plan*</i> prepared under (a) (b).</u> d) <u>The <i>nutrient management plan*</i> prepared under (a) (b) must demonstrate that the nitrogen leaching loss from the activity will:</u> <u>(i) the nitrogen leaching loss from the activity will not exceed the cumulative nitrogen leaching maximum* specified in Table 14.2; or</u> <u>(ii) the nitrogen leaching risk for loss from the activity will not exceed the nitrogen leaching risk limit specified in Schedule [X] (for pastoral farming) or</u>	Control is reserved over: (a) <u>the contents, implementation and review of the <i>nutrient management plan*</i> for the <i>land[^]</i></u> <u>(b) compliance with the cumulative nitrogen leaching maximum* specified in Table 14.2 the nitrogen leaching loss from the <i>land[^]</i> and the good management practices* and best management practices* (and additional measures where necessary) to limit nitrogen leaching loss from the <i>land[^]</i> to the rate specified in condition (d) and to avoid, remedy or mitigate nutrient leaching and run-off, faecal contamination and sediment losses from the <i>land[^]</i></u>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	stock feed on <i>production land</i>[^] (ii) the use of a <i>feedpad</i>[*] (c) the <i>discharge</i>[^] of <i>grade Aa biosolids</i>[*] or <i>compost</i>[*] onto or into <i>production land</i>[^] (d) the <i>discharge</i>[^] of <i>poultry farm litter</i>[*] onto or into <i>production land</i>[^] (e) the <i>discharge</i>[^] of <i>farm animal effluent</i>[*] onto or into <i>production land</i>[^] (or upon expiry or surrender of any existing consent for that <i>discharge</i>[^]) including: (i) effluent from dairy sheds and <i>feedpads</i>[*] (ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary <i>discharge</i>[^] of <i>contaminants</i>[^] into air pursuant to ss15(1) or 15(2A) RMA.		<u>Schedule [Y] (for commercial vegetable growing); and</u> ~~a rate that is the lesser of:~~ ~~a. 80% of the nitrogen leaching baseline* of the land^ (which must be achieved by 31 December 2022) and~~ ~~b. the nitrogen leaching loss specified for the relevant Surface Water Management Sub-zone* in Table 14.2A; or~~ (iii) <u>for commercial vegetable growing*, the growing area does not exceed the baseline growing area*; and, within 3 years of lodgment of the application, the activity will achieve a minimum reduction in cumulative nitrogen leaching loss from the land^ of 35% relative to the baseline growing period*;</u> (iv) <u>provided that under for the purpose of (d) (ii) and (iii) above, the application for consent is lodged no later than [the date that is twelve months from the date on</u>	(b) the matters of control in Rule 14-11 (c) avoiding, remedying or mitigating the effects of odour, dust, <i>fertiliser</i>[*] drift or effluent drift (d) provision of information including the <i>nutrient management plan</i>[*] (e) duration of consent (f) review of consent conditions[^] (g) compliance monitoring <u>and reporting</u> (h) the matters in Policyies <u>14-5, 14-6 and 14-9</u>. <i>Resource consent</i>[^] applications under this <i>rule</i>[^] will not be notified and written approval of affected persons will not be required (notice of applications need not be <i>served</i>[^] on affected persons).

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	Where the existing intensive farming <i>land</i>[^] use is located partly on land within one or more of the <i>water management sub-zones</i>[*] listed in Table 14.1 and partly on other land, this rule only applies: (a) if at least 20% of the existing intensive farming <i>land</i>[^] use is located on land within the listed <i>water management sub-zones</i>[*]; and (b) to the portion of the existing intensive farming <i>land</i>[^] use that is located within the listed <i>water management sub-zones</i>[*].		~~<u>which PC2 becomes operative and the mitigations proposed in the application to reduce nitrogen leaching risk will be implemented within two years of the date of the grant of consent. 31 December 2022.</u>~~ e) Cattle must be excluded from: (i) <i>wetlands</i>[^] and <i>lakes</i>[^] that are a <i>rare habitat</i>[*] or <i>threatened habitat</i>[*], and (ii) the <i>beds</i>[^] of <i>rivers</i>[^] that are permanently flowing or have an <i>active bed</i>[*] width greater than 1 m. f) <i>Rivers</i>[^] that are permanently flowing or have an <i>active bed</i>[*] width greater than 1 m, that are crossed by cattle must be bridged or culverted, and the cattle must cross via that bridge or culvert, and run-off originating from the carriageway of the bridge or culvert must be <i>discharged</i>[^] onto or into <i>land</i>[^]. g) The <i>discharge</i>[^] of <i>fertiliser</i>[*] onto or into <i>land</i>[^] and any ancillary <i>discharge</i>[^] of <i>contaminants</i>[^] into air must comply with the <i>conditions</i>[^] of Rule 14-5.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			h) The <i>discharge</i>[^] of <i>contaminants</i>[^] onto or into <i>land</i>[^] from: (i) the preparation, storage, use or transportation of stock feed on <i>production land</i>[^], or (ii) the use of a <i>feedpad</i>[*] and any ancillary <i>discharge</i>[^] of <i>contaminants</i>[^] into air must comply with the <i>conditions</i>[^] of Rule 14-6. i) The <i>discharge</i>[^] of <i>grade Aa biosolids</i>[*] or <i>compost</i>[*] onto or into <i>production land</i>[^] and any ancillary <i>discharge</i>[^] of <i>contaminants</i>[^] into air must comply with the <i>conditions</i>[^] of Rule 14-7. j) The <i>discharge</i>[^] of <i>poultry farm litter</i>[*] onto or into <i>production land</i>[^] and any ancillary <i>discharge</i>[^] of <i>contaminants</i>[^] into air must comply with the <i>conditions</i>[^] of Rule 14-9. k) The <i>discharge</i>[^] of <i>farm animal effluent</i>[*] onto or into <i>production land</i>[^] including: (i) effluent from dairy sheds and <i>feedpads</i>[*] (ii) effluent received from piggeries	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			(iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary <i>discharge</i>[^] of <i>contaminants</i>[^] into air must comply with the <i>conditions</i>[^], standards and terms of Rule 14-11.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
14-2 Existing intensive farming land[^] use activities not complying with <u>any of the conditions, standards and terms (a), (b) and (d) to (i) (e) to (k) of Rule 14-1</u>	The use of <i>land</i>[^] pursuant to s9(2) RMA for any of the following intensive farming: (i) <i>dairy farming</i>[*] (ii) <i>commercial vegetable growing</i>[*] (iii) <i>cropping</i>[*] (iv) <i>intensive sheep and beef farming</i>[*] that was existing in the <i>Water Management Sub-zones</i>[*] listed in and from the dates specified in Table 14.1, and any of the following <i>discharges</i>[^] pursuant to ss15(1) or 15(2A) RMA associated	Restricted Discretionary	(a) ~~A <i>nutrient management plan</i>[*] must be prepared for the <i>land</i>[^], and provided annually to the Regional Council. The activity must comply with the requirements specified in conditions, standards and terms (a) to (d) of Rule 14-1.~~ (b) ~~The activity must be undertaken in accordance with the <i>nutrient management plan</i>[*] prepared under (a). The activity must comply with the requirements specified in conditions, standards and terms (e) to (k) of Rule 14-1, except to the extent that consent is sought under Rule 14-2 to not comply with them.~~ (c) ~~The <i>nutrient management plan</i>[*] prepared under (a) must demonstrate~~	Discretion is restricted to: (a) <u>the contents, implementation and review of the preparation of and compliance with a <i>nutrient management plan</i>[*] for the <i>land</i>[^]</u> (b) <u>the extent of non-compliance with the <i>cumulative nitrogen leaching maximum</i>[*] specified in Table 14.2</u> (b) ~~(c)~~ <u>measures the nitrogen leaching loss from the <i>land</i>[^]</u> (c) <u>the measures including <i>good management</i></u>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	with intensive farming, that do not comply with one or more of the <i>conditions</i>[^], standards and terms of Rule 14-1 (except for (a), ~~(b)~~, ~~or~~ (c) or (d)): (a) the <i>discharge</i>[^] of <i>fertiliser</i>[*] onto or into <i>land</i>[^] (b) the <i>discharge</i>[^] of <i>contaminants</i>[^] onto or into <i>land</i>[^] from (i) the preparation, storage, use or transportation of stock feed on <i>production land</i>[^] (ii) the use of a <i>feedpad</i>[*] (c) the <i>discharge</i>[^] of <i>grade Aa biosolids</i>[*] or <i>compost</i>[*] onto or into <i>production land</i>[^] (d) the <i>discharge</i>[^] of <i>poultry farm litter</i>[*] onto or into <i>production land</i>[^] (e) the <i>discharge</i>[^] of <i>farm animal effluent</i>[*] onto		~~that the nitrogen leaching loss from the activity will not exceed the cumulative nitrogen leaching maximum* for any year specified in Table 14.2.~~	<i>practices</i>[*] and <i>best management practices</i>[*] (and additional measures where necessary) to limit nitrogen leaching loss from the <i>land</i>[^] to the rate specified in condition (d) and to avoid, remedy or mitigate nutrient leaching and run-off, faecal contamination and sediment losses from the <i>land</i>[^] (d) measures to exclude cattle from <i>wetlands</i>[^] and <i>lakes</i>[^] that are a <i>rare habitat</i>[*] or <i>threatened habitat</i>[*], and <i>rivers</i>[^] that are permanently flowing or have an <i>active bed</i>[*] width greater than 1 m (e) the bridging or culverting of <i>rivers</i>[^] that are permanently flowing or have an <i>active bed</i>[*] width greater than 1 m that are crossed by cattle (f) the matters referred to in the <i>conditions</i>[^] of Rules 14-5, 14-6, 14-7, and 14-9

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	or into <i>production land</i>[^] (or upon expiry or surrender of any existing consent for that <i>discharge</i>[^]) including: (i) effluent from dairy sheds and <i>feedpads</i>* (ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent and any ancillary <i>discharge</i>[^] of <i>contaminants</i>[^] into air pursuant to ss15(1) or 15(2A) RMA.			(g) the matters referred to in the <i>conditions</i>[^] of Rule 14-11 and the matters of control in Rule 14-11 (h) avoiding, remedying or mitigating the effects of odour, dust, <i>fertiliser</i>* drift or effluent drift (i) provision of information including the annual <i>nutrient management plan</i>* (j) duration of consent (k) review of consent <i>conditions</i>[^] (l) compliance monitoring (m) the matters in ~~Policy~~ Policies 14-5, 14-6 and 14-9.
<u>Rule 14-2A</u> <u>Existing intensive farming land[^] use activities not complying with conditions,</u>	<u>The use of <i>land</i>[^] pursuant to s9(2) RMA for any of the following intensive farming:</u> (i) <u><i>dairy farming</i>*</u> (ii) <u><i>commercial vegetable growing</i>*</u> (iii) <u><i>cropping</i>*</u>	<u>Discretionary</u>		

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<u>standards, or terms (a) to (d)-(e) of Rule 14-1 or condition (a) of Rule 14-2.</u>	(iv) <u>intensive sheep and beef farming*</u> that was existing in the <u>Water Management Sub-zones*</u> listed in and from the dates specified in Table 14.1, and any of the following <u>discharges^</u> pursuant to ss15(1) or 15(2A) RMA associated with intensive farming, that do not comply with conditions, standards and term (a) to (d)-(e) of Rule 14.1 14-1 or condition (a) of one or more of the <u>conditions^, standards and terms of Rule 14-2.:</u> (f) <u>the discharge^ of fertiliser* onto or into land^</u> (g) <u>the discharge^ of contaminants^ onto or into land^ from</u> (i) <u>the preparation, storage, use or transportation of stock feed on production land^</u>			

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	~~(ii) the use of a feedpad*~~ ~~(h) the discharge^ of grade Aa biosolids* or compost* onto or into production land^~~ ~~(i) the discharge^ of poultry farm litter* onto or into production land^~~ ~~(j) the discharge^ of farm animal effluent* onto or into production land^ (or upon expiry or surrender of any existing consent for that discharge^) including:~~ ~~(i) effluent from dairy sheds and feedpads*~~ ~~(ii) effluent received from piggeries~~ ~~(iii) sludge from farm effluent ponds~~ ~~(iv) poultry farm effluent and any ancillary discharge^ of~~			

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	<u>contaminants^Δ into air pursuant to ss15(1) or 15(2A) RMA.</u>			

...

Rule Guide:

The location of archaeological sites when defined by a single co-ordinate is unlikely to define the true extent of subsurface archaeological evidence. The 50 metre rule should apply from the outer perimeter of the site.

Some activities in *rare habitats**, *threatened habitats** and *at-risk habitats** are regulated by Rules 13-8 and 13-9. Discharges from agricultural activities at other locations are regulated as follows:

- (a) **Discharges not covered by rules** - Agricultural discharges pursuant to ss15(1) RMA that are not covered by the rules above are a **discretionary activity** under Rule 14-30.
- ~~(b) **Activities that do not comply** - Except for Rule 14-3, activities pursuant to ss15(1) or 15(2A) RMA that do not comply with the permitted or controlled activity rules above are a **discretionary activity** under general Rule 14-30.~~

Attachment B s 32AA of provisions

For the purposes of my comments on the s32AA assessment, I agree with Ms Foster regarding the relevant One Plan Objectives:

- a) RPS Objective 2-1
- b) RPS Objective 4-2
- c) RPS Objective 5-1
- d) RPS Objective 5-2
- e) Regional Plan Objective 14-1.

I agree with Ms Foster's assessment, except as outlined below.

Evaluation of the options

(a) The extent to which the objectives of PC2 are the most appropriate way to achieve the purpose of the RMA.

Comment: The concerns about Overseer that were reported by Ms Foster in her s32AA assessment have been considered and largely addressed. Uncertainties around the accuracy and effectiveness of the alternative tools do not align with the direction that the life-supporting capacity of (in this case) water is safeguarded, that the potential of the healthy freshwater resource is sustained and that adverse effects upon it are avoided, remedied or mitigated.

(b) The extent to which the provisions are the most appropriate to achieve the objectives of PC2.

Comment: The purpose of PC2 is to correct two issues: the update to Table 14.2 to align with Overseer updates and the correction of the policy direction to provide a broader pathway for activities that cannot meet that table. I disagree that the alternative pathways are the most appropriate method to achieve the objectives of the plan change, as I believe that they introduce too much uncertainty into the level of leaching loss under both controlled and discretionary consents.

(c) The extent to which the provisions give effect to the RPS and are the most appropriate way to achieve the relevant objectives

Comment: I disagree that the issues with Overseer justify the creation of completely new, untested and unverified tools for assessing nitrogen leaching.

The use of these tools provides a much more basic understanding of nitrogen loss and will result in only a modest improvement in water quality. I consider that an amended One Plan Table 14.2 and improved policy direction would deliver more certainty of achieving water quality outcomes. I believe the Council Preferred Provisions provide more potential scope for farms to be consented at high levels of leaching, compared to PC2-DV. This does not align with the limits-based approach at the foundation of Chapter 14 of the One Plan. PC2-DV does however go too far in providing a controlled activity pathway that departs from the natural capital approach.

(d) Efficiency and effectiveness

Comment: I disagree that the alternative pathways provide efficiency or effectiveness, for the reasons given above.

(e) Environmental, economic, social and cultural benefits

Comment: The Council Preferred Provisions appear to address uncertainties around re consenting, with associated social and economic benefits, as noted by Ms Foster. However, the focus on good management practice and lack of direction regarding high levels of leaching even after good management practices means that this seems to come at the expense of certainty in relation to meeting environmental outcomes, which I believe my preferred version provides.

(f) Opportunities for economic growth and employment

Comment: I largely defer to Ms Foster assessment that the economic impacts of PC2 (whether the notified, DV or Council Preferred Provisions) would be largely neutral, since investment would be diverted into industries other than intensive farming. I agree that all of those cases are an improvement on the status quo (an unamended Table 14.2 and policy framework).

(g) Environmental, economic, social, cultural costs and whether these can be quantified

Comment: Despite the criticism of Overseer, it is still the best tool for quantifying nitrogen leaching to the wider environment. The amended policy framework allows for consideration of nitrogen management outside of the Overseer model under a discretionary consent.

My preferred version provides an appropriate framework to balance the consenting of existing farms with the need to lower nitrogen discharge in degraded catchments. The expected cost, compared to the Council Preferred Provisions, is the extra expense of a discretionary activity consent over a controlled activity one, and the social impact of needing to reconcile land use management with the adverse environmental effects of those land uses.

(h) Risk

Comment: I believe there is risk that the alternative controlled activity pathways provide too much potential for farms to be consented at higher leaching rates, and that those consented rates will be grandparented in, frustrating future efforts to improve water quality.

(i) Giving effect to Council's s30 functions

Comment: I believe that the discretionary pathway for addressing consents with high Overseer values allows the Council to effectively regulate existing intensive farming, a land use that has been targeted due to its known high historic levels of nitrogen leaching. I do not believe that the "modest improvements" in water quality purported to be achieved with the alternative pathways are sufficient in delivering against the Council's role in regulating discharges of contaminants that ultimately enter water (under s15(1)(b)).

(j) Will the provisions give effect to the NPSFM and NZCPS

Comment: In declining to use an untested and unverified nitrogen leaching model, my preferred changes give effect to the precautionary principle of the NZCPS. I also believe that the Council Preferred Provisions goes too far, in that the sum of the changes would provide a pathway to consent more than a consenting pathway. This introduces new material in the plan that would seem to elevate the third priority of the NPSFM over the first and thus is not consistent with the NPSFM.

