

**IN THE ENVIRONMENT COURT
WELLINGTON REGISTRY**

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

UNDER	the Resource Management Act 1991
IN THE MATTER	of appeals under sch 1, cl 14(1) against the decision of Manawatū-Whanganui Regional Council on Plan Change 2 to the One Plan
BETWEEN	TE RUNANGA O RAUKAWA ENV-2021-WLG-20 NGĀTI TURANGA ENV-2021-WLG-21 ANDREW DAY ENV-2021-WLG-22 WELLINGTON FISH AND GAME COUNCIL ENV-2021-WLG-23 Appellants
AND	MANAWATŪ-WHANGANUI REGIONAL COUNCIL Respondent

**FIFTH STATEMENT OF EVIDENCE OF CHRISTINE FOSTER ON BEHALF OF
MANAWATŪ-WHANGANUI REGIONAL COUNCIL**

PLANNING MATTERS

Dated: 18 March 2024


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FIFTH STATEMENT OF EVIDENCE OF CHRISTINE FOSTER**A. INTRODUCTION**

- [1] My full name is Christine Anne Foster.
- [2] My experience and qualifications are set out in my first statement of evidence dated 7 October 2023 (**Evidence**).
- [3] I repeat the confirmation given in my Evidence that I have read and continue to comply with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2023, and that this fifth statement of evidence has been prepared in compliance with that Code.

B. SCOPE

- [4] This further supplementary evidence addresses the planning issues arising from the Overseer version issue which was the topic of discussion at the hearing on 9 February 2024 (**the Overseer Version Issue**).
- [5] I also respond to the request made in the Court's 1 March 2024 Minute to clarify the version(s) of Overseer that informed the Appendix to my 17 January Supplementary Evidence.¹
- [6] As directed, I will address further topics (particularly matters arising out of the course of the resumed hearing week, providing working examples of the nutrient management plans, and my assessment of the appellants' updated provisions) in my reply evidence, which will be filed on 19 April 2024.
- [7] I also note the Court's direction that I am to include in my reply evidence the options considered for dealing with updates in terms of PC2 and the reasons for the preferred approach, with input from Dr Hanly if necessary.² To assist the Court and parties, I have at this time provided some preliminary thoughts as to how the Overseer Version Issue could be managed.

¹ At page 2.

² At paragraph [1](d).

- [8] There is another matter that I wish to draw to the Court's attention. On 27 February 2024, the One Plan was amended to give effect to the National Planning Standards (Plan Amendment 3). Plan Amendment 3 adopts the nationally consistent structure, format, definitions, mapping and electronic functionality and accessibility required by the National Planning Standards. This means that the One Plan provisions have been restructured and renumbered and some defined terms have been added or changed. If the Court were minded to access the One Plan via the Council's website currently, there is a version available in which the numbering of provisions that we have become familiar with (e.g. RPS Policy 5-8, Policy 14-6, Table 14.2, Rules 14-1 to 14-2A) now look quite different. Helpfully, the original One Plan version, unchanged by Plan Amendment 3, is also currently available but has strictly been replaced by the new Plan Amendment 3 version. I do not intend to introduce the Plan Amendment 3 amendments into my discussion in this supplementary statement. I will include in my next supplementary statement some cross referencing to assist with navigation from the old One Plan format to the new Plan Amendment 3 format.

C. OVERSEER VERSION ISSUE

- [9] The Overseer Version Issue came to light during discussion at the resumed hearing about the impact of recent Overseer updates on estimated nitrogen leaching. This was shown in the version of Table 14.2 recalibrated by Dr Hanly using the most recent Overseer version (v6.5.4).³ Dr Hanly's recalibration demonstrated that the Table 14.2 CNLM values estimated using Overseer v6.5.4 are less than the CNLM values specified in the decisions version PC2 (**DV-PC2**) which are based on Overseer v6.3.0. Dr Hanly's recalibrated figures are reproduced in Table 1 in the Appendix to the supplementary statement of Professor Horne dated 18 March 2024.
- [10] As Professor Horne clarifies in his supplementary statement (paragraph 36) it is important to note that the numbers in Table 14.2 are not identical to the Overseer output values for each LUC class. Dr Hanly and Professor Horne provided Overseer outputs in evidence at the PC2 Council hearing for the

³ Exhibit K1.

version of Overseer current at that time (v6.3.0). These were rounded up or down for simplicity in Table 14.2 as follows:

Table 1: DV-PC2 Table 14.2 Revised CNLMs.

	LUC I	LUC II	LUC III	LUC IV	LUC V	LUC VI	LUC VII	LUC VIII
Recalibrated CNLMs using Overseer v.6.3.0	50.7	45.1	40.4	29.4	25	23.8	11.3	3
DV-PC2 Table 14.2 revised CNLMs (rounded)	51	45	40	29	25	24	11	3

[11] In the discussion that follows, I focus on the Overseer outputs as presented in Dr Hanly's and Professor Horne's statements of evidence.

[12] In looking at this issue afresh, I realise there is an error in the explanatory text above Table 14.2. The text there states that DV-PC2 was based on Overseer v6.2.3. That is not correct. DV-PC2 is based on Overseer v6.3.0.

Overseer Output Trends

[13] I summarise in Table 2 below the changes in recalibrated CNLM values since the One Plan became operative, drawing on the calculations supplied in evidence by Dr Hanly.

Table 2: Comparison of Table 14.2 CNLM Values calculated using different Overseer versions.

Overseer Versions:	Land Use Capability Class							
	LUC I	LUC II	LUC III	LUC IV	LUC V	LUC VI	LUC VII	LUC VIII
Original One Plan (v5.2.6) ⁴	30	27	24	18	16	15	8	2
v6.3.0 ⁵ (mid 2018)	50.7	45.1	40.4	29.4	25.0	23.8	11.3	3.0
Increase v6.3.0 c.f. v5.2.6	69%	67%	68%	63%	56%	58.6%	41%	50%
v6.3.3 ⁶ (2020)	51.7	45.9	41.1	29.8	25.5	24.2	11.5	3.0
v6.5.2 ⁷ (June 2023)	50.0	44.2	32.3	23.8	21.0	20.0	10.1	3.0
v6.5.4 ⁸ (Dec. 2023)	44.8	39.6	29.3	21.8	19.3	18.4	9.6	3.0
Increase from v5.2.6 to v6.5.4	+49%	+46%	+22%	+21%	+20%	+22%	+20%	Neutral
Decrease from v6.3.0 to v6.5.4	-11.6%	-12.2%	-27.5%	-25.9%	-22.8%	-22.7%	-15.0%	Neutral

[14] At the time PC2 was prepared, it was evident that Overseer version upgrades were resulting in increased nitrogen leaching estimates compared with the basis for calculating the original Table 14.2 CNLMs. This is demonstrated in Table 2, particularly as between v5.2.6 and v6.3.3. PC2 was intended to be an interim 'fix' of the misalignment between Table 14.2 and updated Overseer estimated leaching rates, until completion of the Oranga Wai freshwater planning process. At the time of preparing PC2, and through the

⁴ Statement of Evidence of James Hanly (6 October 2023) at Table 1, CB [[202.0934]].

⁵ Statement of Evidence of James Hanly (6 October 2023) at Table 2, CB [[202.0934]], also replicated in Table A of Exhibit K1.

⁶ Statement of Evidence of James Hanly (6 October 2023) at Table 3, CB [[202.0935]], also replicated in Table B of Exhibit K1.

⁷ Statement of Evidence of James Hanly (6 October 2023) at Table 6, CB [[202.0939]].

⁸ Table C of Exhibit K1.

period of reporting on and hearing submissions, it was anticipated that the upward trend in Overseer nitrogen leaching estimates would likely continue.

- [15] The hearing of submissions on PC2 was held in October 2020. The decision on PC2 was publicly notified in April 2021. Appeals and s. 274 notices were lodged in June and July 2021. The upward trend in Overseer nitrogen leaching estimates continued through this time. Nitrogen leaching loss estimates were highest with Overseer version v6.3.3 (2020) and remained similarly high until version v6.5.2 (June 2023) when estimates decreased. By December 2023, the CNLMs calculated using the most recent version (v6.5.4) were between 11% and 27.5% less than the recalibrated Table 14.2 v6.3.0 CNLM values. They remain higher than the original v5.2.6 Table 14.2 values by a considerable margin.

DV-PC2 Responded to Increases in Overseer Output Estimates

- [16] The DV-PC2 and AV-PC2 plan provisions account for Overseer estimates increasing over time, by use of a reference file system (Method 5-13). Existing IFLU that fail to meet the Table 14.2 CNLMs, and therefore cannot be assessed as controlled activities under Rule 14-1 have to be considered as discretionary activities under Rule 14-2A. For these applications, Policy 14-6(f)(iii) includes an additional policy consideration, taking into account the extent to which the non-compliance with Table 14.2 is attributable to Overseer version updates. The reference file system described in Method 5-13 assists this assessment by quantifying the impact of Overseer version changes). However, the provisions do not account for Overseer estimates decreasing with Overseer version updates.

Problem Statement

- [17] One of the issues the Council sought to address through PC2 was the problem that, even if nothing had changed in terms of on-farm practice, Overseer version changes were estimating nitrogen leaching at *higher* rates and very few farms could comply with the CNLMs in Table 14.2. In this way, Table 14-2 failed to give effect to the RPS Policy 5-8 direction that the CNLMs must be '*achievable on most farms using good management practices*'. That problem still remains: i.e. on-farm nitrogen leaching loss estimated using the

most recent Overseer versions are still higher than those in the Operative Plan for the same farm system.

- [18] However, over time, the issues arising from Overseer version upgrades have changed. Since version v6.5.2, estimated nitrogen leaching has decreased. As I have noted, this decreasing trend was not the focus of attention at the PC2 Council hearing (the Overseer output trend at the time was increasing). PC2 generally sought to improve the workability of the One Plan provisions for intensive farming land use by updating the nitrogen leaching maximums (as well as by providing a viable consenting pathway for activities that do not comply with them, in order to enable a return to effective regulation of existing intensive farming land uses as soon as practicable).⁹ The stated purpose of updating the Table 4.2 CNLMs was to reflect improvements in the Overseer nutrient modelling tool.¹⁰ While DV-PC2 addresses updates that increase nitrogen leaching estimates, it does not satisfactorily address updates that decrease nitrogen leaching estimates. Helpfully though, the reference file method is useful in providing a basis for monitoring increasing and decreasing trends.
- [19] As was explained by Professor Horne at the hearing (and elaborated on in his supplementary statement): whereas an IFLU would have had to implement GMPs and/or BMPs to reduce nitrogen leaching to meet the DV-PC2 Table 14.2 (v6.3.0) CNLMs, with the current Overseer version v6.5.4, the same IFLU would likely now meet the relevant Table 14.2 CNLMs simply because of changes to Overseer and without adopting any GMPs or BMPs to reduce nitrogen leaching.¹¹ There would no longer be relativity between the Overseer based CNLM within Table 14.2 and the new Overseer versions.
- [20] Rule 14-1 provides for IFLU that meet the Table 14.2 CNLMs as a controlled activity (assuming they also meet the other relevant conditions). As such, the

⁹ Manawatū-Whanganui Regional Council *Proposed Plan Change 2 – Section 32 Report* (July 2019) at section 6, CB [[301.0072]]–[[301.0073]].

¹⁰ Manawatū-Whanganui Regional Council *Proposed Plan Change 2 – Section 32 Report* (July 2019) at section 6, CB [[301.0072]]–[[301.0073]].

¹¹ Notes of Evidence, page 828; and Fifth Statement of Evidence of David Horne (18 March 2024) at 8–23.

Council would have no discretion to decline consent for such an IFLU application.

- [21] The intention of DV-PC2 is that existing IFLU that did not meet the DV-PC2 (v6.2.3) CNLMs would have to implement on-farm GMPs and BMPs to reduce nitrogen leaching to, either meet the CNLMs or qualify for the specified reduction controlled activity consent pathways. Plainly, the Overseer Version Issue would allow IFLU to evade the expectation that they adopt GMPs and BMPs and would not achieve the One Plan (and PC2) objective of reducing nitrogen leaching from IFLU.
- [22] In my opinion, the issue I have described above comes about because the Table 14.2 CNLMs are fixed as absolute limits and the 'tool' relied on for estimating nitrogen leaching (Overseer) cannot be similarly set as an absolute in the One Plan. Council has no control over the Overseer 'tool' it relies on for estimating nitrogen leaching for the purpose of measuring compliance with Table 14.2. The size and timing of version changes are controlled by Overseer.
- [23] The evidence of all parties is that the Overseer modelling tool is the most readily available to individual farmers and growers for demonstrating compliance with Table 14.2.
- [24] A compounding difficulty is that, when new versions of Overseer are released, these supersede previous versions and subscribers no longer have access to the superseded versions. These older versions are simply no longer available. Therefore, the One Plan cannot embed into the Plan a requirement that only v6.3.0 Overseer programme can be used to model nitrogen leaching for the purpose of retaining parity with Table 14.2 (DV-PC2 Table 14.2 is based on 6.3.0). Neither is the Council able to predict with any confidence the timing or impact of future Overseer version updates.
- [25] Even if Table 14.2 is recalibrated based on the latest Overseer v6.5.4 and if the One Plan specified that the v6.5.4 methodology (only) must be used to model nitrogen leaching loss, that requirement would potentially become problematic (redundant) as soon as v6.5.4 is replaced with a new version of Overseer. I understand that Overseer is currently investigating further model

upgrades. Some of these may affect estimates of greenhouse gases rather than nitrogen leaching. However, the key point is that there is no certainty that Overseer will remain unchanged over the foreseeable 'life' of PC2. If the trend of decreasing nitrogen estimation continues, the CNLMs in Table 14.2 become problematic from the moment they are fixed in the One Plan.

D. IMPACT OF THE OVERSEER VERSION ISSUE ON DV-PC2 AND AV-PC2 CONSENT PATHWAYS

[26] **Table 14.2:** Professor Horne's evidence is that the Overseer Version Issue affects the Table 14.2 compliance pathway most acutely.

[27] **20% and 35% Reduction Pathways:** The specified reduction rule (Rule 14-1(d)(ii)) requires that an IFLU's nitrogen leaching not exceed the lesser of:

- (a) 80% of the nitrogen leaching baseline; or
- (b) The 75th percentile nitrogen leaching loss for the relevant surface water management zone specified in table 14.2A.

[28] The definition of 'nitrogen baseline'¹² for this purpose requires that the most recent version of Overseer must be used. That means someone cannot use an old Overseer output that has a high leaching estimate as the baseline and compare that with an output from the most recent overseer version (which would likely have a lower nitrogen leaching output for exactly the same package of farm practices). The 'nitrogen leaching baseline' can only be calculated using the most recent version – therefore the comparison is 'apples with apples'.

[29] Rule 14-1(d)(iii) provides a similar pathway for commercial vegetable growing that achieves a 35% reduction. I note that the baseline for the purpose of this specified reduction does not require that the most recent version of Overseer be used. This will need to be revisited, as part of any

¹² I realise that the expression used in the rule ('nitrogen leaching baseline') differs from the expression used in the definitions ('nitrogen baseline'). The definition should also be refined to better reflect the reference file system Horizons proposes. I will address these issues in my proposed wrap-up amendments due to be filed on 19 April 2024.

proposed planning response to the issue (noting, as I reiterate below, the other challenges with use of Table 14.2 by CVG).

- [30] Professor Horne advises that the 20%/35% reduction pathway is also affected by the Overseer Version Issue in two ways. The first indirectly: where IFLU farmers using the most recent version of Overseer may get closer to the Table 14.2 and may choose to make only the changes necessary to bring their nitrogen leaching down to the CNLM, rather than adopting the full range of measures to achieve a 20% or 35% reduction. This is also a feature of DV-PC2. The reductions necessary to achieve the Table 14.2 CNLMs may, for some farmers, be less than those required for the 20%/35% reduction.
- [31] The second impact is that a change in the estimated nitrogen leaching value would affect the absolute reduction needed to access the percentage reduction pathway. Professor Horne uses the example of a dairy IFLU with a leaching value of 50 kg/N/ha/yr.¹³ A 20% reduction for this IFLU would require a 10 kg/N/ha/yr reduction, but if an Overseer update reduced the estimated leaching to 45 kg/N/ha/yr, less reduction (9 kg/N/ha/yr) would be required. However Professor Horne also notes that the changes in nitrogen leaching practices required to achieve the reduction remain in step with the current version of Overseer. He concludes that IFLU farmers using the specified reductions pathway will need to make most (if not all) of the same practice changes regardless of Overseer version changes.
- [32] **75th Percentile Reduction Pathway:** The 75th percentile nitrogen leaching loss limits specified in Table 14.2A are absolute numbers and are affected by the Overseer Version Issue in the same way the Table 14.2 CNLMs are. The 75th percentiles were derived from a dataset of dairy farms based on a now-superseded version of Overseer.
- [33] **Nitrogen Risk Assessment Tool:** Adopting the nitrogen risk assessment tool consent pathway would eliminate the Overseer Version Issue because the

¹³ Fifth Statement of Evidence of David Horne (18 March 2024) at 17.

assessment methodology would be embedded in the Plan and not subject to adjustment by outside influences (other than by a plan change).

E. UTILITY OF TABLE 14.2

- [34] The issues with Table 14.2 presented by the Overseer Version Issue mean that, when the next Overseer change is made following PC2 becoming operative, Table 14.2 becomes redundant. As I note later, the risk is that in creating further exceptions or 'workarounds' to Table 14.2, the utility and integrity of the regulatory tool becomes questionable. Particularly, when viewed alongside the other challenges and issues identified in evidence that need to be addressed through PC2.
- [35] I also note the modelling undertaken by Dr Snelder and Dr Cox assumed that the Table 14.2 consent pathway would require IFLU to make practice changes to reduce nitrogen leaching to meet the specified CNLM. This was represented as the 'consented' scenario.
- [36] The Overseer Version Issue would potentially undermine the water quality outcome modelled under that scenario to the extent described by Dr Snelder. The Overseer Version Issue means that strict compliance with Table 14.2 can no longer be assumed to achieve the water quality improvements intended by the One Plan objectives. That raises an obvious question about the utility of Table 14.2 and whether it can even (now) be considered to be a reasonably practicable option for achieving the One Plan objectives. My view is that, as the provisions are currently worded, strict enforcement of Table 14.2 is not an option that can be assumed to achieve the One Plan objectives (given the variability arising out of Overseer changes).

F. POTENTIAL RESPONSE

- [37] It is long-established orthodox planning practice that plan provisions cannot impose standards by reference to documents or methodologies that sit outside the Plan, and which periodically change. An applicant needs to be able to understand whether the proposed activity complies with a standard on the face of a plan. For example, an orthodox approach would be to require compliance with a New Zealand Standard as at a specified

publication date. By contrast, it would not be appropriate to require compliance (as a condition or standard) with the latest version of that New Zealand Standard (which may have differing requirements over time).

- [38] Applying the same logic, to the current Overseer Version Issue, it is my opinion that a rule that requires compliance with a CNLM in Table 14.2 that changes every time a new Overseer version is released would not meet the usual requirements for certainty in rules.
- [39] It is my opinion that the Overseer Version Issue could be managed through use of a reference file approach. The use of reference files has been described by Professor Horne in his recent supplementary evidence,¹⁴ as well as in evidence at the Council level hearing.¹⁵ The question is how the reference files are used within a rule framework (including what activity status should apply).
- [40] I have considered how to give effect to the original One Plan intention that Table 14.2 provide a controlled activity consent pathway. It is relevant to note that, when the One Plan was originally proposed, the Council considered that a controlled activity consent was the most appropriate activity status because it gave farmers, the Council and the community a level of certainty about the outcomes. The Council could be sure that its desired approach to regulating IFLU was being applied and implemented effectively, farmers were assured of gaining resource consent, and the community could be confident that that farmers were complying with the provisions.¹⁶
- [41] This could, in my opinion, still potentially be achieved within the current framework of the One Plan and PC2 but it would require some care to ensure any rule was sufficiently certain and objective, and most certainly, would require some retro-fitting.

¹⁴ Fifth Statement of Evidence of David Horne (18 March 2024) at 36–42.

¹⁵ See Section 42A Technical Report of David Horne – On-Farm Management Practices (4 September 2020) at 52–55. This evidence was the basis on which the reference file approach was proposed as Method 5-13 in DV-PC2.

¹⁶ Manawatū-Whanganui Regional Council *Section 32 Report: One Plan* (May 2007) at Appendix A, page 161.

- [42] The Overseer Version Issue can be managed, at least in a technical Overseer modelling sense, by maintaining parity between Table 14.2 and any future changes brought about by Overseer updates. Horizons has the basis for this already – in the Table 14.2 reference files Professor Horne (and Dr Hanly) have described. These exist already. DV-PC2 proposed a new Method 5-13 which states:

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.

- [43] The intention was that these files would sit outside the One Plan and provide a benchmark for applications for consent. Method 5-13 is proposed to be deleted in AV-PC2 due to the shift away from Overseer to the nitrogen risk assessment tool. However, retention of Method 5-13 would support any revised Table 14.2 consent pathway. Originally, it was intended that the synthetic files would be representative of dairy farming, cropping, and commercial vegetable growing and be used as a benchmark for the impact of Overseer upgrades on those farm system types. This was particularly an issue for commercial vegetable growing which is not represented by the current pastoral dairy synthetic farms used to establish the Table 14.2 CNLMs. This purpose still has merit. If the wording is amended slightly, it could more explicitly provide for the reference file methodology Professor Horne has described and better support Table 14.2 – as follows:

Horizons will register and maintain Overseer files for the synthetic farm systems used to establish the CNLMs in Table 14.2 and 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.

- [44] I recognise there may be questions about the scope to amend Method 5-13 in this way. As noted earlier, part of the stated purpose of PC2 was to improve the workability of the One Plan provisions for intensive farming land use by updating the Table 14.2 nitrogen leaching maximums. It may be that this amendment (making more explicit the intention to keep the basis for the Table 14.2 CNLMs up to date) falls within that purpose.
- [45] The reference file Overseer farm system inputs for the Table 14.2 reference files currently sit outside the One Plan. If they were included in a schedule in the One Plan, they could provide the basis for the following amendments to Rule 14-1:
- (a) Rule 14-1(d)(i) (the Table 14.2 controlled activity pathway) could be amended by requiring the application to demonstrate that the applicable Table 14.2 CNLM(s) are all equal to or less than the Overseer nitrogen leaching estimates for the relevant reference file synthetic farm system (specified in the schedule) when modelled using the version of Overseer relied on in the application. This is a clear and objective standard. An applicant would show they have met this standard by including the Overseer output for the identical farm system inputs for the relevant Table 14.2 synthetic farm system (set out in the schedule), as modelled and held on Horizons' website for the latest Overseer version. This would be an automated process with no potential for 'tinkering' or manual adjustment and this would be easily verifiable from the publicly available reference file information held by Horizons. Professor Horne's evidence speaks to its simplicity. In practice:
- (i) If the Table 14.2 CNLMs are demonstrated to be greater than the representative reference file output, this would be

because the (future) Overseer version has generated a lesser number. In that situation, the condition of the Rule would not be met, and the application would fall to be considered as a discretionary activity under Rule 14-2A; or

- (ii) Alternatively, and more likely, an applicant would (subject to the necessary nitrogen or risk reductions being made) avail itself of an alternative consent pathway (the specified reduction or NRAT pathway); and
 - (iii) On either approach, the effectiveness of the Table 14.2 CNLMs and all alternative pathways would be able to be restored as the driver for IFLU to implement the practice changes that Professor Horne and Dr Jolly have described as providing for meaningful reductions in nitrogen leaching. All consent pathways will result in nitrogen leaching reductions and the modest water quality improvements previously described by Dr Snelder.
- (b) The second amendment would be to create and maintain a reference file for the Table 14.2A 75th percentile nitrogen leaching limits.
- (c) The third amendment would be to Condition (d)(iv) of controlled activity Rule 14-1 by requiring that *all* applications for existing IFLU are lodged within twelve months of the date on which PC2 becomes operative. Under DV-PC2, only the alternative specified reduction pathways require applications to be lodged within twelve months. Under AV-PC2, the NRAT pathway also requires lodgement within twelve months. Applicants relying on Table 14.2 are not limited in this way. I note that this was a point of contention in the Hearing Panel's decision, with a majority (two of three Panel Members) favouring applying this restriction only to the alternatives (and the third Panel Member favouring limiting all applications in this way).¹⁷

¹⁷ See the Independent Panel Decision at 3.167.

My reason for proposing this restriction would be for efficiency and effectiveness – to ensure that window of time within which the Overseer Version Issue could manifest is minimised. It also has the benefit of ensuring that the imperative to lodge an application promptly falls equally on all unconsented existing IFLU equally. The decision to not impose this restriction on applications reliant on Table 14.2 was made without the benefit of understanding the risks arising currently from the Overseer Version Issue.

- [46] Whether these amendments would be sufficiently certain for the purposes of a controlled activity pathway will be dependent on incorporating the reference files into the One Plan and the drafting of the specific framework. That work is to come. For now, my focus has been on suggesting options which would reflect the original One Plan intent for farmers, the Council and the community and provide a level of certainty in the relevant outcomes. However, recognising the importance of considering a range of options, I have also turned my mind to other ways of addressing the issue. I discuss their relative merits briefly below:
- [47] **Delete the Table 14.2 Pathway for Existing IFLU:** One response might be to simply delete the Rule 14-1(d)(i) controlled activity pathway for existing IFLU that relies on Table 14.2. However, no party has requested this outcome. Also, Table 14.2 remains relevant for proposed new IFLU. Rule 14-3 provides for new IFLU as a controlled activity where they meet the Table 14.2 CNLMs. Consent is required as a restricted discretionary activity where compliance with Table 14.2 is not achieved. The restrictions introduced in 2020 by the NES-Freshwater Regulations¹⁸ introduced significant restrictions on land conversion to create new dairy farms, irrigation of dairy farmland and the conversion from forestry to pastoral land use. This has restrained the conversion of land for new IFLU in Horizons' region and elsewhere. It remains the case that some new IFLU could be authorised under the Regulations and require consent under Rule 14-3. Table 14.2 remains

¹⁸ Resource Management (National Environmental Standards for Freshwater) Regulations 2020.

relevant for this purpose. Also, as with existing IFLU, no party has requested the deletion of Table 14.2 as it relates to new IFLU.

- [48] **Amend Table 14.2 whenever new Overseer versions are released:** It is not possible to replace the CNLM values in Table 14.2 other than by plan change, in my opinion. I note Professor Horne's recommendation at the Council hearing was that Table 14.2 should be updated only for material changes in nitrogen leaching estimates (he suggested 3 kg N as a threshold). However, my opinion is that, even if undertaken only for material changes in nitrogen leaching estimates, this would be an unwieldy and time-consuming process within the intentionally short 'lifespan' of PC2 and may itself be overtaken by successive future versions of Overseer.
- [49] **Amend the activity status from controlled activity to discretionary activity and assess all applications on their merits:** This is an option that remains available but would, in my opinion, raise issues of the integrity of the One Plan. That is because the original intention of the One Plan was that Table 14.2 would support controlled activity applications for existing IFLU and that this would be achievable on most farms using good management practices.¹⁹ As I note above, after the first Overseer version change Table 14.2 becomes redundant and further 'exceptions' to the table need to be built in to address the Overseer Version Issue, the certainty in outcome sought by the original controlled activity pathway is diminished. This approach would also be inefficient and ineffective because, as currently presented, there is no clear policy direction specifying the extent of nitrogen leaching required by discretionary activity applications. The attraction of the specified reduction and NRAT controlled activity pathways is that they set a minimum standard for nitrogen leaching reduction, applied on a consistent basis.
- [50] **Amend the activity status to restricted discretionary with a requirement for specified minimum nitrogen leaching reductions:** Alternatively, the activity status could be set at restricted discretionary activity, with a policy (and rule standard) requiring a minimum reduction. However, that is exactly what the specified reduction and NRAT controlled activity pathways provide

¹⁹ RPS Policy 5-8(a)(i)(E).

for – and, in my view, do so in a more efficient way in terms of certainty of outcome and administrative efficiency. The issue of plan integrity would similarly be an issue (the clear intention of the One Plan was for Table 14.2 to support controlled activity applications for existing IFLU and that this would be achievable on most farms using good management practices).

[51] The Overseer Version Issue has highlighted flaws associated with the way Table 14.2 is currently used in the One Plan. It is possible that these flaws can be addressed through use of a reference file approach within the existing framework of the One Plan and with some careful drafting, as suggested above. My intention is to further explore this option, in discussion with the appellants' witnesses, before finalising recommendations in my April reply statement.

[52] The exercise of re-examining Table 14.2 and confronting the Overseer Version Issue has highlighted questions about the reliability of Table 14.2 relative to the other controlled activity alternatives presented in DV-PC2 and AV-PC2. I will explore the relative merits of all alternatives in my April supplementary statement.

G. WHICH OVERSEER VERSIONS WERE USED TO CALCULATE THE NITROGEN LEACHING RATES OF THE ALREADY CONSENTED IFLU

[53] The Court has requested that I set out which Overseer version or versions informed the Appendix to my Supplementary Evidence dated 17 January 2024. The Excel spreadsheet presented in Appendix A to my January Supplementary Evidence presents the authorised nitrogen leaching values for all new and existing IFLU granted consent since the One Plan became operative. To answer the question in detail would require individual investigation of each consent file. I have not been able to complete that task in the time available, although (as set out below) I have considered the consented dates, against the Overseer versions I have described earlier.

[54] Appendix A records that the earliest application for an existing IFLU in a targeted water management sub-zone was granted in 2013 (in the Coastal Rangitikei water management sub-zone). The last consented existing IFLUs in targeted water management sub-zones were granted consent in

November and December 2020. During that period, the following versions of Overseer were current:

- (a) 2013–2014: Overseer v6.1.3
- (b) 2015: Overseer v6.2.0
- (c) 2016–2017: Overseer v6.2.1, 6.2.2 and 6.2.3
- (d) 2018: Overseer v6.3.0
- (e) 2019: Overseer v6.3.1, 6.3.2, 6.3.3
- (f) 2020: Overseer v6.3.4

[55] Table 2 earlier in this statement indicates the degree of model change between the version v5 series and the v6 series in 2016/2017 and of the model changes to v6.3.0 and v6.3.3 in 2019. I do not have equivalent outputs for the intervening years.

[56] Table 2 is based on work done by Dr Hanly. Dr Hanly is restricted in the same way as other Overseer subscribers in that he can only use the current Overseer version to estimate nitrogen leaching from his representative reference file farms. Dr Hanly provided the outputs when requested by Horizons during the consent period 2016-2020. There is no running record of the impact of Overseer changes on the representative reference file farms over that period.

[57] If necessary, Council officers have indicated that individual consent files can be scrutinised to confirm the Overseer version used within the application documents.

18 March 2024

Christine Anne Foster